行政院所屬各機關因公出國人員出國報告書

（出國類別：會議　　）

參加2019年RSA資訊安全大會暨展覽會

服務機關：行政院環境環保署

姓名職稱：賴祐淞 設計師、詹効儒 設計師

派赴國家：美國

出國期間：108年3月3日至3月10日

報告日期：108年5月16日

摘要

RSA 資訊安全大會暨展覽會（以下簡稱 RSA 會議）於 3 月 4 至 8 日在美國舊金山召開，共舉辦 10 場研討會及 600 多場專題演講，討論主題包括資料分析及事件處理、應用程式安全、區塊鍊及資料加密、雲端及虛擬化、政策與法規、駭客手法與威脅、人工智慧及機器學習、行動設備及 IOT 安全等 19 個領域，會場並有 700 多家公司參與展出。

本次參加 RSA 會議，主要希望能從這些議題中瞭解最新資安趨勢、機器學習及 AI 應用，特別是行動裝置及 IOT 設備之安全議題。並期望除了提升本身對資安議題的認知外，也希望藉由演講中所獲取的新知與技術，增廣資訊安全上見聞，瞭解最新的資安威脅技術，以增進擬定資安政策、規劃防資安防禦策略等業務之能力。

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壹、 會議目的及背景

一、 RSA 資訊安全大會暨展覽會簡介

RSA 資訊安全大會暨展覽會（以下簡稱 RSA 會議）成立於西元 1991 年，係資訊安全產業最重要的會議之一，同時也是受到世界矚目的資安盛會，每年除固定於美國舊金山舉辦外，亦於歐洲及亞太等地區召開，今年舊金山會議吸引世界各地超過 4 萬個資安領域從業人員參加。資訊安全專家可藉此機會交流最新的資安趨勢及看法，或是提出資安防護方面的議題，全球各資安廠商亦可藉此機會，向與會者展示最新資安防禦的解決方案。RSA 會議提供資訊安全專家在攻擊或防禦上不同的思考方向，瞭解目前最新的資安技術，作為攻擊或防禦的重要參考依據。

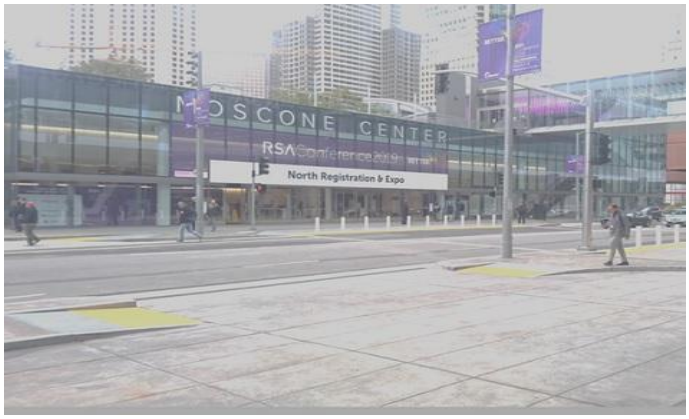


圖 1、RSA 資訊安全大會暨展覽會會場外觀

圖 2、RSA 資訊安全大會暨展覽會演講會場

二、 會議目的

本年度 RSA 會議於 3 月 4 至 8 日假美國舊金山 Moscone Center 及 Marriott Marquis 召開，官方統計超過 4 萬 2,500 位資安專業人員參與，3 月 4 日舉辦 10 場研討會，隨後 4 天除邀請 46 資安專家擔任大會 31 場次專題演講(Keynote)外，還有 740 個講者發表 621 場次之專題演講，討論主題包括資料分析及事件處理、應用程式安全、區塊鍊及資料加密、雲端及虛擬化、政策與法規、駭客手法與威脅、人工智慧及機器學習、行動設備及 IOT 安全等 19 個領域。現場還有資安展覽，會場有 700 多家公司參與展出。

本次參加 RSA 會議，主要希望能從這些議題中瞭解最新資安趨勢、機器學習及 AI 應用，特別是行動裝置及 IOT 設備之安全議題。並期望除了提升本身對資安議題的認知外，也希望藉由演講中所獲取的新知與技術，增廣資訊安全上見聞，瞭解最新的資安威脅技術，以增進擬定資安政策、規劃防資安防禦策略等業務之能力。

圖 3、RSA 資訊安全大會暨展覽會專題演講 1

圖 4、RSA 資訊安全大會暨展覽會專題演講 2

貳、 會議經過

一、 本次出國期間（含會議行程）概況紀要：

活動日期	活動內容	活動地點
3 月 3 日	啟程臺灣臺北時間 11:30 抵達美國舊金山時間 06:30 至會場（美國舊金山 Moscone Center）報到	美國舊金山
3 月 4 日	第 1 天參加研討會(Seminar)，研討會主題為：Security, Privacy and Human Behavior。	美國舊金山
3 月 5 日	第 2 天參加 2 場專題演講(Keynote Speech)及 3 場技術性 Session，內容包含資安威脅與防禦，機器學習及 AI 應用。	美國舊金山
3 月 6 日	第 3 天參加 1 場專題演講(Keynote Speech)及 4 場技術性 Session，內容包含 IOT 資安議題、端點防禦及資安整合平台。	美國舊金山
3 月 7 日	第 4 天參加 2 場專題演講(Keynote Speech)及 3 場技術性 Session，內容包含資安攻擊模式、進階惡意程式研究。	美國舊金山
3 月 8 日	第 5 天參加 1 場專題演講(Keynote Speech)，內容為雲端資料安全。	美國舊金山
3 月 9 日 3 月 10 日	返程美國舊金山時間 3 月 9 日(六)00:20 抵達臺灣臺北時間 3 月 10 日(日)06:10	美國舊金山 臺灣臺北

二、 本次會議討論議題與本署資安管理相關綜整如下：

(一) Security, Privacy and Human Behavior 研討會：

1. 這個研討會主要探討使用者面對資安議題的態度，並討論如何幫助使用者提升資安防禦能力。由研究結果顯示，一般使用者對資訊科技仍以功能面為主要考量，面對資安議題多採被動配合的態度，但仍有方法可提高使用者之資安意識。
   （1） 重複提醒有幫助更理性面對資安威脅。
   （2） 警告時機並非在登入時，應在更改設定之時提出警告。
   （3） 利用群組圈的提醒，讓使用者更容易注意資安威脅。
   （4） 可考慮提供資源，讓使用者更方便完成設定或利誘使用者強化防禦設定。
2. 另針對使用者最切身之資安議題-密碼管理，參與學者也提出見解。
   （1） 密碼長度比複雜性重要。
   （2） 爛密碼要被列為黑名單，提醒使用者不應設定。
   （3） 教育使用者有幫於提升密碼強度。
   （4） 不要在不同網站重複使用相同密碼。
3. 針對 IOT 設備之安全設定，參與學者提出 IOT 設備權限設定只分 Administrator 與 Guest 並不符合實際需求，導致 IOT 設備之資安事件。使用者角色區分須更細緻，不同身分須設定不同時機有不同權限，以符合實際需求。
4. 會議中亦針對監控設備或照片分享對個人隱私侵犯之隱憂，並提出影像過濾處理及相關設備設置之注意事項。

(二) 行動裝置及 BYOD 管制：

1. 展場中有針對現今網路環境中多樣性設備之監管系統展示，系統可識別任何擁有 IP 的設備，無論是透過有線網路、無線網路或是虛擬機連線，同時透過系統的政策設定，偵測到的設備可獲得企業最高標準的安全保護。
2. 監管系統使用網路偵測器可即時監看擁有 IP 的設備，並將這些設備及登入設備的使用者依照組織需求分門別類，同時利用系統智慧可分析這些設備之當前狀態。系統所使用的智慧設備平台(Device Platform Intelligence)，可收集及識別設備下列資訊：
   （1） 設備識別(含製造商、設備名稱、型號)。
   （2） 設備實際照片。
   （3） 設備來源履歷。
   （4） 連線類別(有線/無線)。
   （5） 出廠日期。
   （6） 產品生命週期。
   （7） 產品支援終止日。
   （8） 製造商狀態。
   （9） 製造國家。
   （10） 製造商網頁。
   （11） 設備之資安弱點(CVE)。
   （12） 即時設備暴露之弱點警報。
   （13） 製造商異動導致設備無法維護警告。
3. 監管系統可進行網路連線控制(Network Access Control)，利用多種以人事時地物的環境參數建立的 IT 安全政策，網路隔離未合規的設備，並使用自動的矯正程序使其合規。網路隔離手段包含下列方式：
   （1） ARP Poisoning。
   （2） TCP Reset。
   （3） 網路閘道 enforcer 阻擋。
   （4） 網卡關閉連線。

（5） 內建 RADIUS Server 禁止登入網路。

（6） 內建 DHCP Server 禁止配發 IP。

（7） 控制網路設備關閉實體網路插孔。

圖 5、RSA 資訊安全大會暨展覽會專題演講 3

圖 6、RSA 資訊安全大會暨展覽會專題演講 4

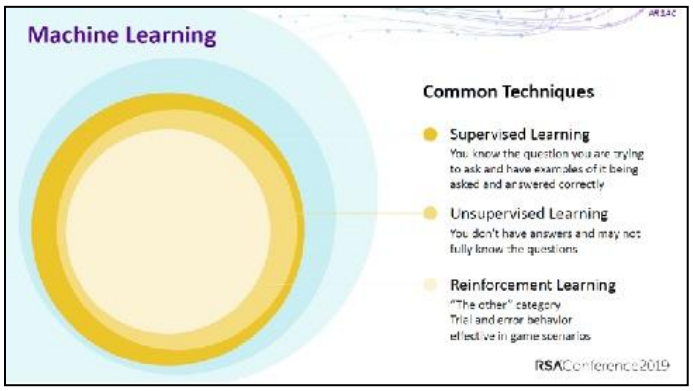


圖 7、機器學習(ML)3 種常見技術

(三) 機器學習(ML)與人工智慧(AI)應用議題：

1. 由於資料大量的累積與機器運算能力的快速提升，面對攻擊型態快速變化的現代資安環境，應用機器學習與人工智慧技術，可處理靜態分析無法處理變異性大的資料，提升對攻擊的偵測及反應能力。例如利用現有大量攻擊事件的真實資料導入威脅與防禦模式進行監督式學習(Supervised Learning)，利用程式邏輯及分類技術讓機器具有預測特定事項的能力，再利用機器已有的分類能力進行無監督式學習(Unsupervised Learning)，並透過錯誤回饋進行強化學習(Reinforcement Learning)，讓機器針對非特定事項一樣具有精確的預測及反應能力。
2. 在資安應用上，機器學習(ML)與人工智慧(AI)可將細微的攻擊特徵放大，在缺乏重大表徵的資料中發現惡意行為；利用觀察到的攻擊行為及惡意程式行為，由機器自行分析行為特徵並製作偵測器，如此可在無需解密 https 的情形下也能偵測 Web 的攻擊。
3. 面對號稱導入機器學習(ML)與人工智慧(AI)的眾多資安產品，專家也為買家提供具有鑑別度的問題，用以了解供應商是否真具有相關技術能力：
   （1） 如何將機器學習應用在產品中，為何有此需求。
   （2） 如何評量機器學習導入成效。
   （3） 如何利用現有資料進行監督式學習(Supervised Learning)。
   （4） 產品非機器學習部分為何?為什麼?
   （5） 機器學習資料分析有沒有學術論文或公開資料發表。
   （6） 關於機器學習產出的結論，有何條件限制?

(四) IOT 設備安全議題：

1. 世界 IOT 連網設備數量呈倍數成長，其中 64%為一般消費性產品，這類 IOT 設備的數量較企業所使用的數量更多，且因為沒有專業人員管理，這類設備之資安問題相當值得重視。
2. 依據調查，消費性產品歐美以媒體 IOT 設備為多，亞洲則以監控 IOT 設備為多，類似 IOT 設備之資安問題大致有下面幾種。
   （1） 內嵌元件安全性差（缺乏密碼，任何人可植入惡意程式）。
   （2） 供應鏈缺乏防護（供應商人員造成資安問題）。
   （3） 共用元件（相同元件具有相同弱點）。
3. 專家提出之 IOT 設備加強安全作法如下：
   （1） 設備盤點分類。
   （2） 網段區隔。
   （3） 網路流量分析。
   （4） 程式韌體更新。
   （5） 落實內部網路安全政策。
4. 另外針對大量 IOT 設備之管理，德國的學者提出前瞻性的管理方案，以建立 IOT 設備之訂閱管理機制及利用特殊認證管理 IOT 群組的規劃，來解決 IOT 設備更新問題，同時可降低 IOT 設備（製造商及使用者）之管理成本。

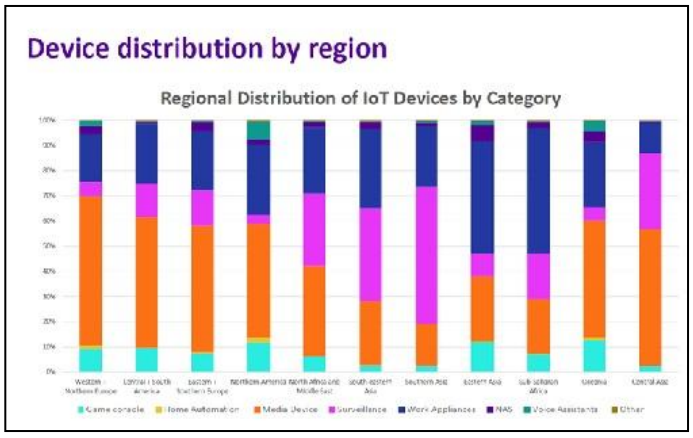


圖 8、IoT 設備類別區域性分布統計圖

(五) 攻擊與防禦策略之探討：

會議中許多專家及業者都有談到各種攻擊手法及防禦策略，其中一個專題演講(Keynote)中提到 5 種最危險的攻擊，並建議相對的防禦策略。

1. DNS Mischief(DNS 欺騙)，駭客透過更改基礎設施 DNS 設定，將 Web 站台、E-Mail Server 指向惡意主機，並註冊正式憑證。此種攻擊的防禦策略如下：
   （1） 對所有基礎設施之管理介面使用雙因素認證。
   （2） DNS 使用 DNSSec 避免快取中毒。
   （3） 盡速撤回遭濫用的憑證。
   （4） 經常性的檢查 DNS 更新公告(Security Trails)及憑證註冊(https://crt.sh & https://www.entrust.com/ct-search)。
2. Domain Fronting(Domain 隱藏)，一般單位均信任往來雲端供應商的流量，但雲端供應商的客戶的資安問題，可能導致來自雲端的流量不值得信任。此種攻擊的防禦策略如下：
   （1） 在企業邊界進行 TLS 攔截防護。
   （2） 不可盲目信任雲端供應商。
   （3） 使用 RITA 工具偵測 Domain Fronting。
3. 利用弱密碼、公共網路的個資、釣魚、應用系統認證從事針對性此種攻擊的防禦策略如下：
   （1） 檢視雲端設定(myactivity.google.com)。
   （2） 遵循雲端供應商的設定指引。
   （3） 思考公共與私人分野，別認為沒人要你的資料。
   （4） 使用雙因素認證。
   （5） 使用可管理的高強度認證。
4. DNS over Https(加密 DNS 查詢)，加密 DNS 查詢連線，無法發現惡意程式活動，也無法對相關行為進行監控。此種攻擊的防禦策略如下：
   （1） 企業內網不要使用 DoH。
   （2） 使用真實 VPN 方案代替 DoH。
5. 入侵 BMC(主機板管理控制系統)，使用者可利用 WIFI/Bluetooth 晶片遠端連

入，利用漏洞操縱 BMC 探索內部網路。此種攻擊的防禦策略如下：

（1） 移除管理工具。

（2） 對網路進行存取控管。

（3） 監控網路存取。

（4） 每個設備設定獨立密碼。

圖 9、RSA 資訊安全大會暨展覽會展場畫面 1

圖 10、RSA 資訊安全大會暨展覽會展場畫面 2

(六) 資安工具及系統整合：

隨著資安威脅增加，企業採用多種資安工具進行防護，平均每個企業使用的資安工具多達 75 種，其中許多工具具有重複的功能，甚至有些工具採購後並未上線使用。依據資安工具使用調查，20%的工具處理了 80%的防禦工作，不論從增進工作處理效率或是成本角度考量，資安工具均應保持簡單，功能不要重複，並做適當整合，才能展現最佳防護效率。建議整合的步驟如下：

1. 普查現有資安工具
   （1） 為何而買？供應商是否合格。
   （2） 確認功能及使用頻率。
   （3） 結果是否與其他設備整合。
2. 對工具進行功能分類
   （1） 類別可以 CIS-20,Essential 8 為基準。
   （2） 檢討各工具在該類別的覆蓋率。
   （3） 找出重複功能的工具。
3. 對資安事件作解譯及分類，盤點程序
   （1） 與 SOC 或 IR 人員合作。
   （2） 建立或使用既有分類(DBIR)，統計個類別數量、百分比、累積百分比。
   （3） 分析前 20%類別是否佔全數的 80%。
4. 定義人員角色
   記錄人員特質: 身分、需求。
5. 定義事件處理流程
   （1） 串聯人員及程序至流程中。
   （2） 將流程視覺化。

參、 心得及建議

一、 行動裝置及 BYOD 管制部分：

(一) 展場中有針對現今網路環境中多樣性設備之監管系統展示，可使用無線的網路偵測設備，偵測網路內 SSID，找出非法的無線 AP，還可偵測連線網路之行動裝置、BYOD 並加以管理。系統也可掃描及評估網路中所有取得 IP 的設備 (包括有線及無線方式連線)，識別其名稱、型號等基本資訊，並使用強大的智慧設備平台(Device Platform Intelligence)，精確進行設備識別及分類，並可結合智慧設備平台收集的設備弱點資訊，以利後續風險管理。另針對網路中的主機及 Notebook，可安裝 Agent 即時偵測硬體及軟體的改變，Agent 還可控制主機之設定及無線連線能力。

(二) 除對設備及主機軟硬體資訊偵測之外，系統可進行網路連線控制(Network Access Control)，使用偵測到的資訊制定政策，違反政策時可透過多種方式(如 TCP Reset、停止配發 IP、停止網卡)阻止主機或行動設備連線網路。

(三) 未來署內針對手機及 BYOD 連線署內網路，市面上已有設備的可進行多種情境的管制，以確保內網安全。

二、 IOT 安全部分：

設備本身設計上防禦能力不足，一直令資安人員相當擔憂，加上更新機制不健全，造成維護成本太高，製造廠商也無法對出售產品進行維護。即便如此，針對署內現有的 IOT 設備，仍可以下列作為進行安全強化，以達到阻擋外部攻擊的目標。

(一) 設備盤點分類。

(二) 網段區隔。

(三) 網路流量分析。

(四) 程式韌體更新。

(五) 落實內部網路安全政策。

三、 機器學習部分：雖有許多產品嘗試應用，但一般仍在實驗摸索階段，尚無法有具體的成果說明，不過透過相關講座介紹，可了解大致上設計原理，對日後鑑別相關產品在機器學習及人工智慧的應用程度，有一定的幫助。

四、　對於資安管理議題，多人提及工具使用越多不代表越安全，如何整合眾多產品在既有流程之中，對日後選擇資安產品會有更好的認識。

肆、 附錄

附錄 1：Genian NAC 設備型錄

附錄 2：RSAC 2019 Program Guide

DATASHEET

Genian NAC

Next-Gen Network Access Control for the IoT era

Actionable Intelligence For Cybersecurity

Genians has reimagined Network Access Control to maximize network security and IT operational effectiveness by leveraging its distinct Device Platform Intelligence (DPI).

DPI provides extremely accurate IT asset identification/classification based on its robust DPI, which allows for the full interrogation and gathering of all device platform information, combining technology-specific with business-contextual and risk-level data. DPI can enrich the way to manage IT security policices at a granular level.

Essential Cybersecurity Solutions

Delivers the major solutions that encompass both IT security and operations management very effectively.

- Network Surveillance
- Network Access Control
- Mobile, BYOD, Guest Management
- IP Address Management (IPAM)
- Switch Port Management
- WLAN Security
- Endpoint Security
- IT Security Automation

Multi-layered Access Control

Delivers the major solutions that encompass both IT security and operations management very effectively.

- Layer 2: ARP Poisoning (using Network Sensor)
- Layer 3: TCP reset (using Mirror Sensor)
- Layer 3: Inline enforcer (Dual-homed Gateway)
- Agent: NIC/Power Control, Alert Popup
- Built-in RADIUS server (802.1x)
- Built-in DHCP server

Interoperability

Integrates a wide range of IT security and business solutions (Firewall, IDS/IPS, VM, MDM, SIEM, APT, DLP, CMDB etc.) into each enterprise's Policy Server to ensure unified policy enforcement. Genian NAC supports custom integration using SNMP, Webhook, REST API, and Syslog.

Personalization

Monitors your network through personalized dashboards (Over 100 custom widgets to meet your network management needs).

Pricing

Simple! Genian NAC license model is based on the number of active devices. Nothing else.

ARCHITECTURE

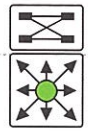
Completely out-of-band, Highly scalable

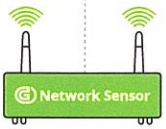
Genian NAC uses Layer 2 based non-disruptive sensing technology powered by its Device Platform Intelligence.

- Validate device platform information via the cloud
- Delivers the most accurate up-to-date device platform information to Policy Servers on a weekly basis

- Establishes security policies based on Node information collected by Network Sensors and Agents
- Distributes established policies to Network Sensors and Agents
- Integrates with user database and third-party security solutions
- Includes Built-in DHCP, RADIUS, Syslog server

** Can be hosted On-Prem or in the Cloud*





- Scans and assesses networks (Wired, Wireless, Virtual)
- Detects all SSIDs by listening wifi signals
- Identifies who is accessing enterprise-owned, neighbor or rogue APs
- Enforces access control policies
- Supports 802.1q Trunk Port

** Optional*

- Manages installed HW/SW information
- Detects state changes in real time
- Performs incremental updates
- Controls all desktop configurations
- Provides Wireless Connection Manager (EAP-GTC)
- Supports Windows/macOS /Linux
- Lightweight Agent

You can install the Policy Server and Network Sensor software in either your Virtual or Physical machines (Intel Xeon or equivalent).

EDITIONS & VERSIONS

You Choose, We Deliver

Choose the edition that best meets your business requirements. Upgrade between editions as your network evolves without losing your original investment.
The editions can be delivered in 3 different ways:

	BASIC Network Surveillance	PROFESSIONAL Network Access Control	ENTERPRISE Automation
On-Premises	Free up to 300 devices*	30 days free trial	Contact a Genians Partner
Cloud-Managed Policy Server in the Cloud	30 days free trial Support up to 3,000 devices*		
MSP-Ready NAC as a service	Contact Genians		

** Only count the number of active devices*

EDITIONS & FEATURES

CATEGORY	FEATURES	BAS	PRO	ENT
Visibilty	Detect/Monitor IP-enabled Device	•	•	•
	Device Platform Intelligence (Name, Type, Picture, EOL, Connection, CVE)	•	•	•
	Switch Port Information	•	•	•
	WLAN Monitoring / Security (Rogue AP)	•	•	•
	Basic Endpoint Information (OS, HW, Software) by Windows/macOS Agent	•	•	•
	Condition based Dynamic Node Group	•	•	•
	Customizable Dashboards (Over 100 Widgets)	•	•	•
	Track Changes / Audit Logs	•	•	•
	Network Anomaly Detection (MAC Spoofing, Rogue Gateway, Ad-hoc)	•	•	•
	Basic Reports (Node, WLAN, Log)	•	•	•
	Custom Reports		•	•
User Authentication	Captive Portal Login		•	•
	Active Directory SSO		•	•
	External User Directory Integration (LDAP/RADIUS/SMTP/POP3/IMAP)		•	•
	Multifactor Authentication (For both Admin and User)	•	•	•
Network Access Control	Role based Access Control		•	•
	ARP based Layer 2 Control		•	•
	802.1x based Control (RADIUS Server)		•	•
	Port Mirroring (SPAN) based Control		•	•
	Switch integration (SNMP) based Control		•	•
	DHCP Server		•	•
Desktop Management	Compliance Check (Antivirus, Required SW,HW, Desktop Settings)		•	•
	OS Configuration (Screenlock, Internet Options, DNS)			•
	OS Updates			•
	External Device Control (USB)			•
	802.1x Connection Manager			•
	WLAN Control (SSID Whitelist, SoftAP block)			•
Integration	User Directory Sync (RDBMS, LDAP)			•
	Webhook / Syslog / SNMP trap (Outbound)			•
	REST API (Inbound)			•
	Syslog Listener (Inbound)			•
Business Process	Consent Pages			•
	Request/Approval Process (IP, Device, User, External Device)			•
	Role based Administrator			•
	Customized Fields (Node, Device, User)			•
	Captive Portal Pages for Purposes			•
	Multilingual Support			•
Scalability and Availability	High Availability (Policy Server / Network Sensor)			•
	Interface Channel Bonding			•
	Disastor Recovery (DB Replication, Policy Server Backup)			•

Genians

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www.genians.com

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PROGRAM GUIDE

BETTER.

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Simplicity to execute.

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MVISION

MVISION delivers consolidated management, back-end automation, and deep context to protect your data, thwart attacks, and mount a more efficient defense. McAfee, the device-to-cloud cybersecurity company. Stop by **Booth N 5745** to see how we can work together with you.

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AGENDA AT-A-GLANCE

SATURDAY, MARCH 2

Registration: 2:00 PM – 6:00 PM

SUNDAY, MARCH 3

Registration: 7:30 AM – 5:00 PM

Housing Desk: 2:00 PM – 6:00 PM

7:00 AM | 8:00 AM | 9:00 AM | 10:00 AM | 11:00 AM | 12:00 PM | 1:00 PM | 2:00 PM | 3:00 PM | 4:00 PM | 5:00 PM | 6:00 PM | 7:00 PM | 8:00 PM

- **SANS Tutorials**† • Moscone West 3003, 3004, 3005, 3006
- **CSA Training**† • Moscone West 3001
- **ISACA Training**† • Moscone West 3002
- **(ISC)² Trainings**† • Moscone West 3007, 3008, 3009

MONDAY, MARCH 4

Registration: 7:00 AM – 7:00 PM

Bookstore: 8:00 AM – 7:00 PM

Housing Desk: 8:00 AM – 6:00 PM

7:00 AM | 8:00 AM | 9:00 AM | 10:00 AM | 11:00 AM | 12:00 PM | 1:00 PM | 2:00 PM | 3:00 PM | 4:00 PM | 5:00 PM | 6:00 PM | 7:00 PM | 8:00 PM

- **SANS Tutorials**† • Moscone West 3003, 3004, 3005, 3006
- **CSA Training**† • Moscone West 3001
- **ISACA Training**† • Moscone West 3002
- **(ISC)² Trainings**† • Moscone West 3007, 3008, 3009
- **Emerging Threats** (1) — Moscone West 2022
- **Security Foundations** (1) — Moscone West 2014
- **Security, Privacy and Human Behavior** (1) — Moscone West 2018
- **CSA Summit: CSA 10** — Moscone South 207
- **IAPP: Understanding the CCPA** — Moscone South 201
- **DevOps Connect: DevSecOps Day @ RSAC** — Moscone South 204
- **CyberSmart Parents Education Seminar—Keeping Your Family Safe Online** — Moscone South 304
- **CyberSmart Parents Education Seminar—Keeping Your Family Safe Online** — Moscone South 304
- **Solving Our Cybersecurity Talent Shortage** — Moscone South 301
- **She Speaks Security: Gaining Confidence Speaking and Submitting to Speak** — Moscone South 301
- **How-To for Innovators and Entrepreneurs** — Marriott Golden Gate A
- **RSAC Innovation Sandbox Contest** — Marriott, Yerba Buena 8
- **Broadcast Alley** • Moscone West Street Level

LEGEND:

- Tutorials & Trainings
- Seminars – Discover & Full Conference Only
- Seminars – All Badge Types
- RSAC Innovation Sandbox
- Broadcast Alley
- RSAC SOC
- Special Events

RSAC Women's Leadership Celebration Reception — Moscone South 303

Welcome Reception — Expo

First-Timers Orientation & Networking Reception — Marriott Golden Gate A

RSAC Security Operations Center — Moscone South Lower Level

7:00 AM | 8:00 AM | 9:00 AM | 10:00 AM | 11:00 AM | 12:00 PM | 1:00 PM | 2:00 PM | 3:00 PM | 4:00 PM | 5:00 PM | 6:00 PM | 7:00 PM | 8:00 PM

For room locations see maps on pages 8–11.

† *SANS Tutorials and CSA, ISACA and (ISC)² Trainings are offered for an additional fee.*

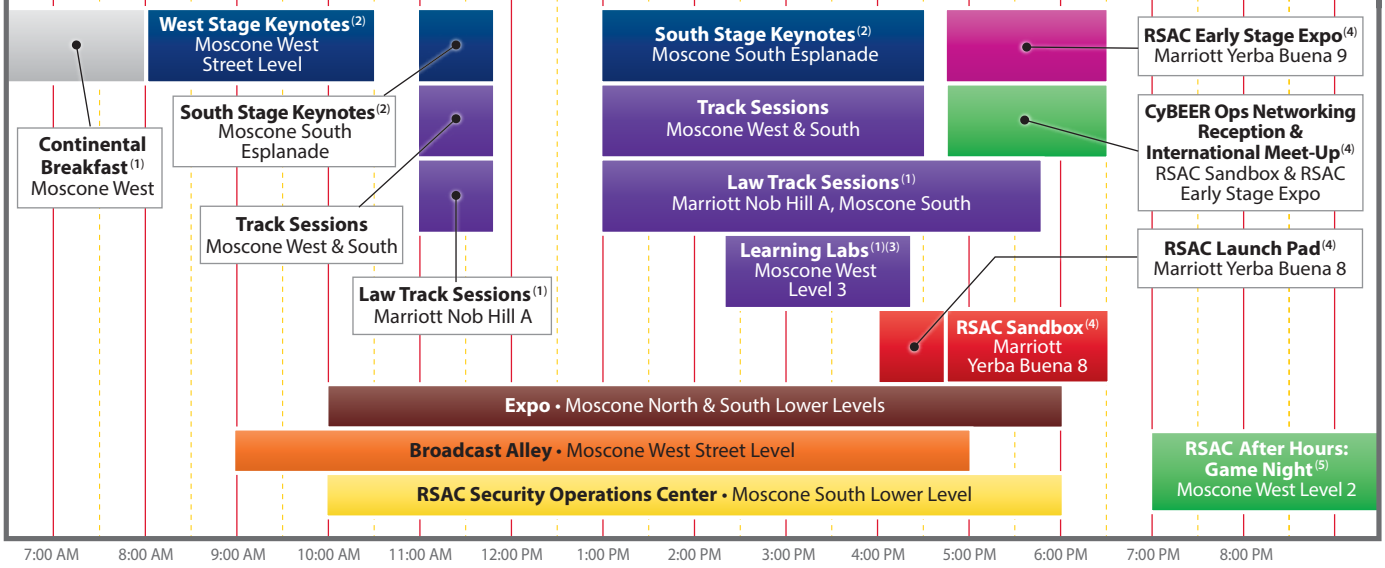
(1) *Open to Full Conference and Discover Pass holders only.*

Sessions and speakers are subject to change; please visit www.rsaconference.com/us2019 for the most up-to-date information.

AGENDA AT-A-GLANCE

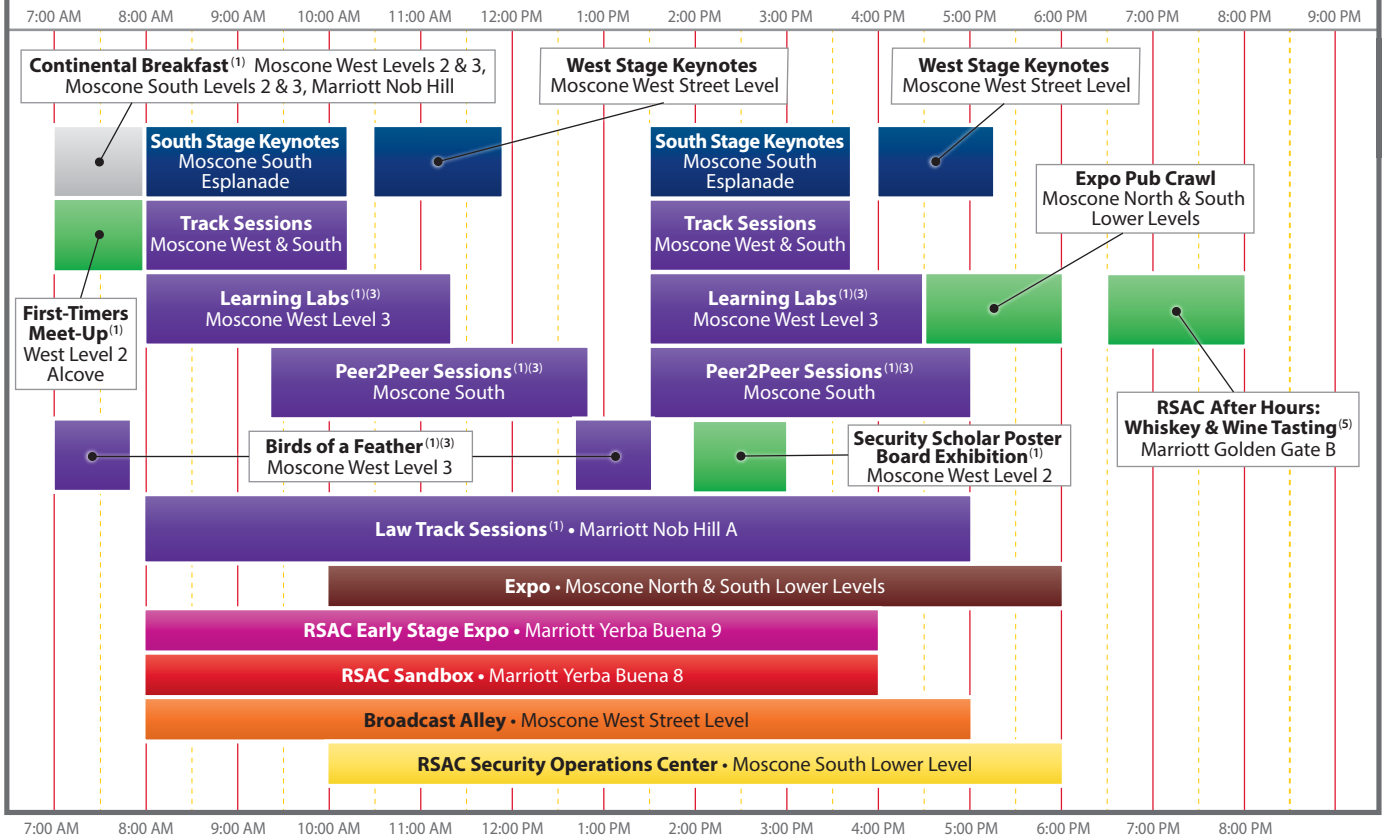
TUESDAY, MARCH 5

Registration: 6:30 AM – 6:00 PM
Bookstore: 9:00 AM – 6:00 PM
Housing Desk: 8:00 AM – 5:00 PM



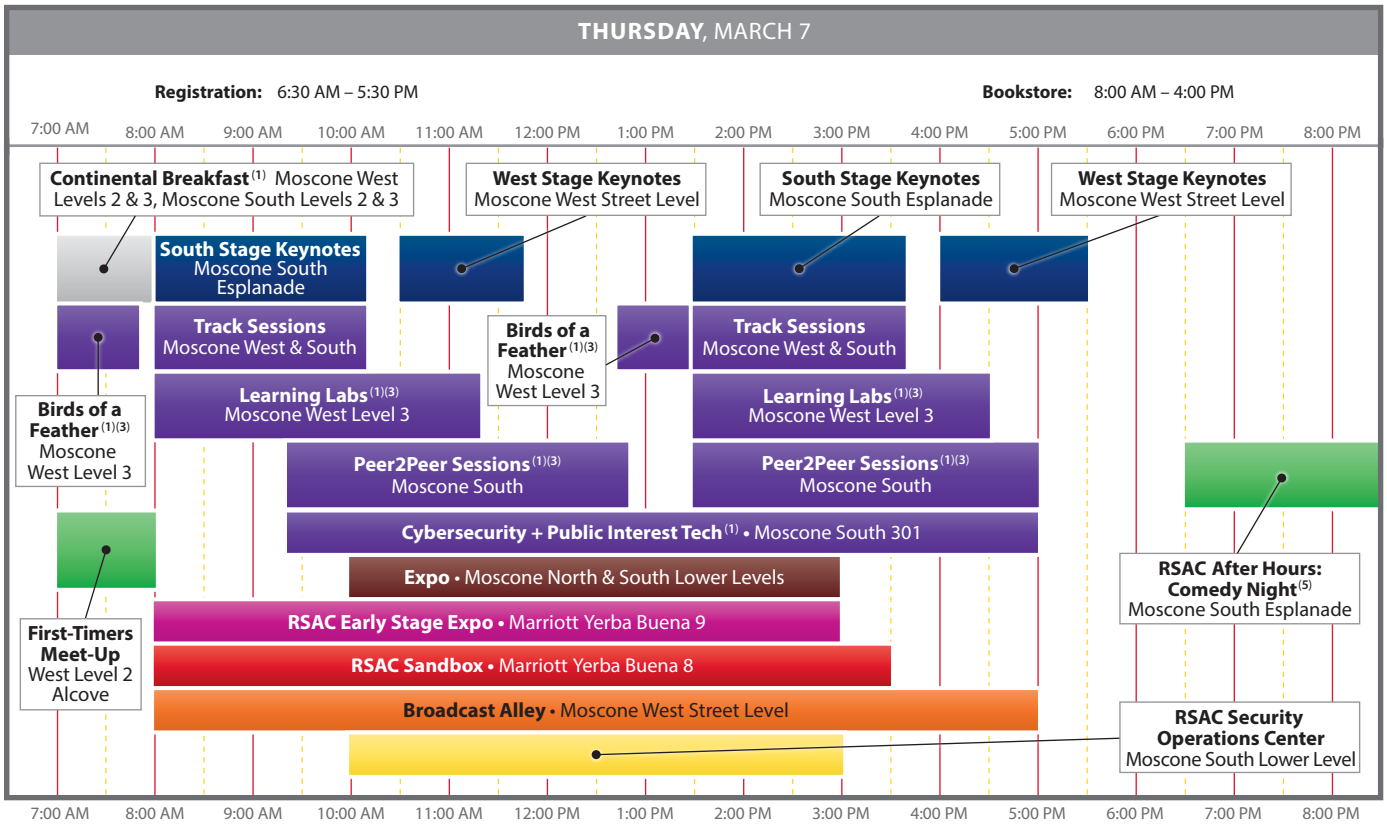
WEDNESDAY, MARCH 6

Registration: 6:30 AM – 6:00 PM
Bookstore: 8:00 AM – 6:00 PM
Housing Desk: 8:00 AM – 4:00 PM

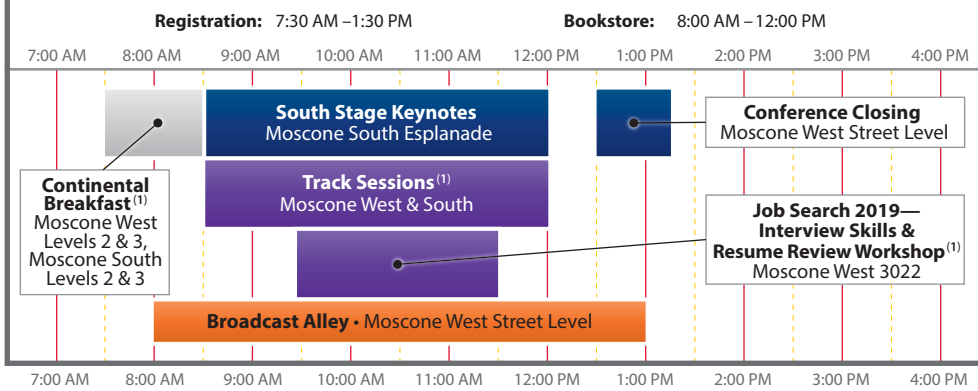


AGENDA AT-A-GLANCE

THURSDAY, MARCH 7



FRIDAY, MARCH 8



INFO DESK HOURS

Sunday	
South Street Level	7:30 AM – 5:00 PM
West Street Level	7:30 AM – 5:00 PM
Monday	
North Lower Level	4:30 PM – 7:00 PM
South Street Level	7:00 AM – 7:00 PM
West Street Level	7:00 AM – 6:00 PM
North Expo, South Expo	5:00 PM – 7:00 PM
Marriott Marquis	7:30 AM – 5:00 PM
Tuesday	
North Lower Level	9:30 AM – 6:00 PM
South Street Level	8:00 AM – 4:15 PM
West Street Level	6:30 AM – 7:00 PM
North Expo, South Expo	10:00 AM – 6:00 PM
Marriott Marquis	10:30 AM – 6:00 PM
Wednesday	
North Lower Level	9:30 AM – 6:00 PM
South Street Level	7:30 AM – 6:00 PM
West Street Level	6:30 AM – 6:00 PM
North Expo, South Expo	10:00 AM – 6:00 PM
Marriott Marquis	7:30 AM – 6:00 PM
Thursday	
North Lower Level	9:30 AM – 3:00 PM
South Street Level	7:30 AM – 4:00 PM
West Street Level	6:30 AM – 6:00 PM
North Expo, South Expo	10:00 AM – 3:00 PM
Marriott Marquis	7:30 AM – 6:00 PM
Friday	
South Street Level	8:30 AM – 12:30 PM
West Street Level	8:00 AM – 2:00 PM

LEGEND:

- Keynotes
- Sessions
- Expo
- RSAC Early Stage Expo
- RSAC Sandbox
- Broadcast Alley
- RSAC SOC
- Special Events

Notes:

(1) Open to Full Conference Pass holders only.

(2) Open to Full Conference and Discover Pass holders only.

(3) Limited seating. No press permitted in Peer2Peer sessions, Birds of a Feather sessions and Learning Labs.

(4) Open to Full Conference Pass holders, Tuesday One-Day Full Conference Pass holders, Press and CyBEER Ops ticket holders only.

(5) Open to Full Conference and Discover Pass holders, and Full Conference One-Day Pass holders for their day of admittance only. Choose one among the three RSAC After Hours events offered.

For room locations see maps on pages 8–11.

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WELCOME TO

RSAConference2019

BETTER.

As always, we thank you for being here and contributing to the critical cybersecurity conversations that take place at RSA Conference each and every year. It is our mission to bring cybersecurity professionals together to forward the industry and empower the collective "we."

This year's theme is, to put it simply, *Better.* Which means working hard to find better solutions. Making better connections with peers from around the world. And keeping the digital world safe so everyone can get on with making the real world a better place.

RSA Conference is the time and the place to remind us to make security a top priority—this week, but also every day. A better, safer world is ahead when we have the drive, the strength and the vision to work together to create it. We hope you find inspiration in the brilliantly led sessions and keynotes, the cutting-edge technology in our Expo, and of course, the innovations showcased in RSAC Innovation Sandbox, RSAC Sandbox, RSAC Early Stage Expo and our brand new program, RSAC Launch Pad, taking place on Tuesday afternoon.

Thank you for being a part of this Conference. Enjoy the week of learning and networking ahead—and don't forget to enjoy social time with your peers at the many special events throughout the week. We're already looking forward to RSA Conference 2019 Asia Pacific & Japan in Singapore on July 16-18 and encourage you, or your colleagues in that part of the world, to join us there for deep, rich, regional and global cybersecurity conversations.

Until next time, let's continue the conversations on *RSAConference.com* and through social media using *#RSAC*.

Sincerely,

Linda Gray Martin
Director and Chief of Operations
RSA Conference

Download our Mobile App

Download the RSA Conference 2019 Mobile App to stay up-to-date with all the Conference activities happening throughout the week. Build your own personalized schedule, participate in polls for select sessions, and find your way around the RSAC Campus—which includes the Moscone Center and Marriott Marquis—with our maps. Visit ***www.rsaconference.com/app1*** or scan this QR code to get started.

PLAN YOUR EXPERIENCE

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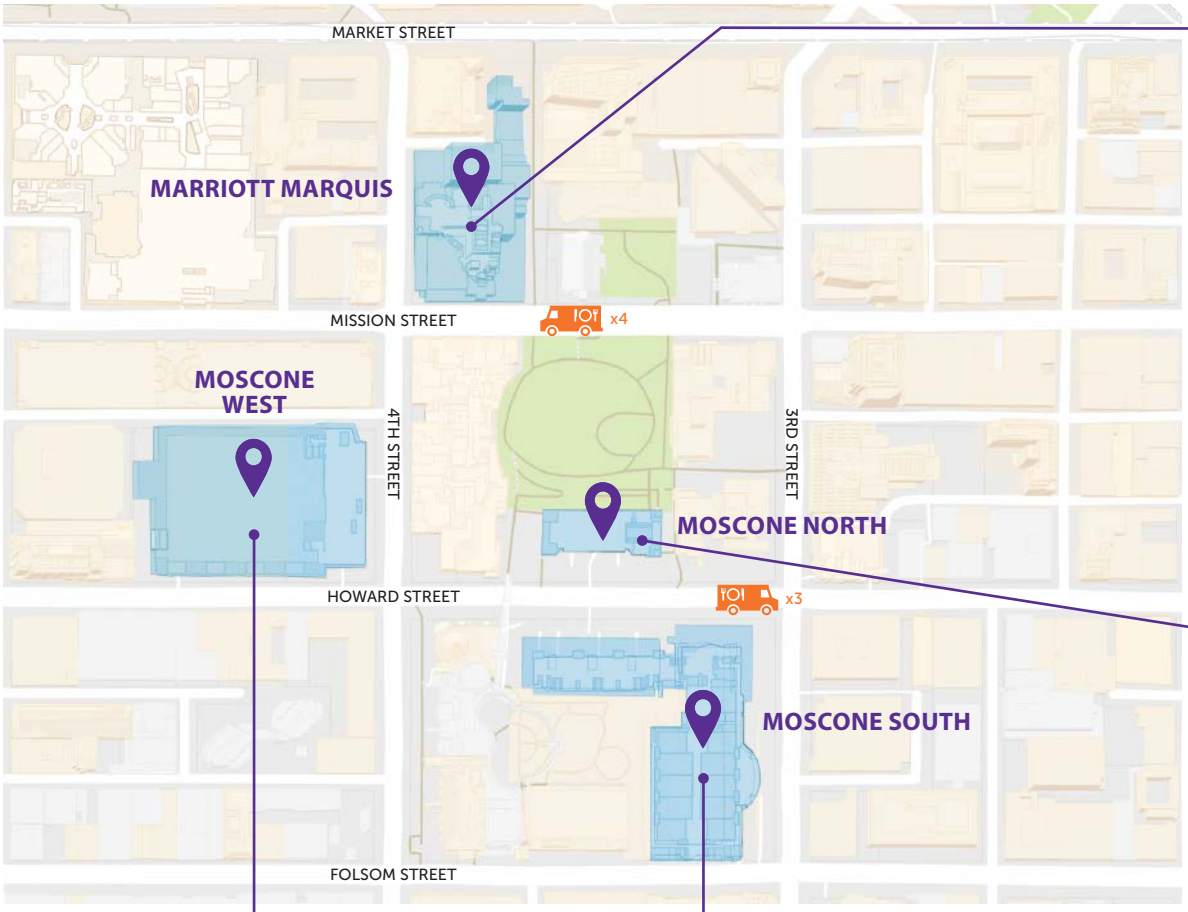
RSA CONFERENCE CAMPUS



MOSCONE WEST

STREET LEVEL:

- ATM
- Broadcast Alley
- Coat & Bag Check
- Concessions
- First Aid
- Housing Desk
- Info Desk
- Mobile App Help Desk
- West Stage Keynotes

LEVEL 2:

- Alternate Keynote Viewing
- Concessions
- First-Timers Meet-Ups (Wednesday & Thursday)
- Full Conference & Discover Pass Seminars (Monday)
- Mindfulness & Movement Yoga (Wednesday & Thursday)
- RSAC After Hours: Game Night (Tuesday)
- RSAC Security Scholar Poster Board Exhibition (Wednesday)
- Speaker Office & Speaker Lounge
- Track Sessions

LEVEL 3:

- Alternate Keynote Viewing
- Birds of a Feather (Wednesday & Thursday)
- Learning Labs (Tuesday – Thursday)
- Track Sessions
- Tutorials & Trainings (Sunday & Monday)

MOSCONE SOUTH

STREET LEVEL:

- Coat & Bag Check
- Info Desk
- Materials Pickup
- Mobile App Help Desk
- Registration
- SF Travel Concierge
- Shuttles

ESPLANADE:

- Bookstore
- Concessions
- South Stage Keynotes
- RSAC After Hours: Comedy Club (Thursday)
- Track Sessions

LEVEL 2:

- All Access Seminars (Monday)
- Press Rooms
- Track Sessions

LEVEL 3:

- All Access Seminars (Monday)
- Women's Leadership Celebration Reception (Monday)
- Track Sessions
- Peer2Peer Sessions (Tuesday – Thursday)

LOWER LEVEL:

- Business Center
- Concessions
- First Aid
- RSAC Security Operations Center
- South Expo
- South Expo Briefing Center

MARRIOTT MARQUIS

STREET LEVEL:

- ATM
- Info Desk

LEVEL 2:

- Meeting Rooms
- Mothers' Room

GOLDEN GATE LEVEL:

- All Access Seminar (Monday)
- First-Timers Orientation & Networking Reception (Monday)
- RSAC After Hours: Whiskey & Wine Tasting (Wednesday)
- RSAC College Day Exploring Infosec Careers Breakfast & Panel (Thursday)

YERBA BUENA LEVEL:

- CyBEER Ops Networking Reception & International Meet-Up (Tuesday)
- Cybrew Café (Tuesday – Thursday)
- Law Track Sessions (Tuesday – Wednesday)
- Meeting Rooms
- RSAC College Day Open House & Sponsor Reception (Thursday)
- RSAC Early Stage Expo (Tuesday – Thursday)
- RSAC Innovation Sandbox Contest (Monday)
- RSAC Launch Pad (Tuesday)
- RSAC Sandbox (Tuesday – Thursday)

MOSCONE NORTH

STREET LEVEL:

- Mothers' Room
- Prayer Room
- Registration

LOWER LEVEL:

- ATM
- Concessions
- First Aid
- Info Desk
- Mobile App Help Desk
- North Expo
- North Expo Briefing Center

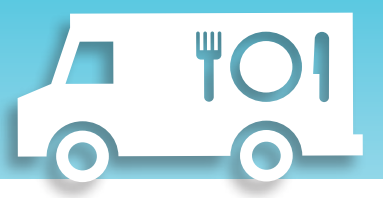
Street Eats

At RSA Conference, we always encounter our fair share of VHIPs—you know, *Very Hungry Infosec Professionals*. With options for all tastes, ***Street Eats*** is the easy way to fuel up between sessions or get energized before your next keynote. Stop by any of our four food trucks on Mission Street or our three food trucks on Howard. Oh, and don't forget to pack your appetite.

Open Tuesday – Thursday, 11 AM – 2 PM

Street Eats is available to all pass types and both cash and credit cards are accepted.

More restaurants and food options are located in the Metreon, between Moscone North and the Marriott Marquis.



7 minutes
is all it took...

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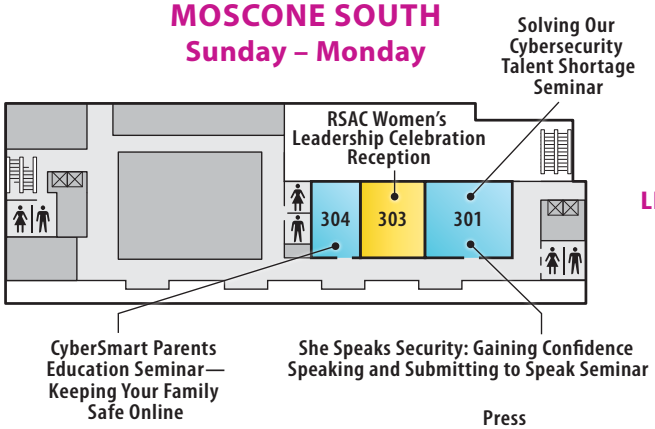
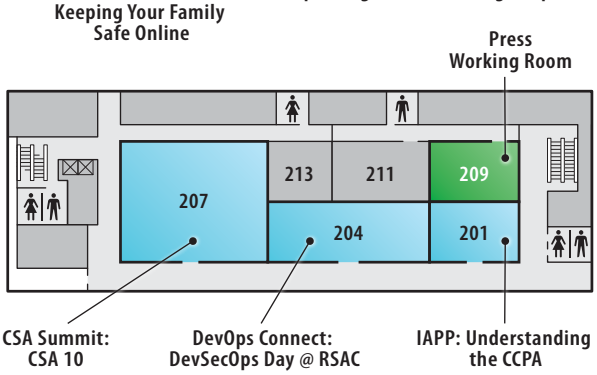
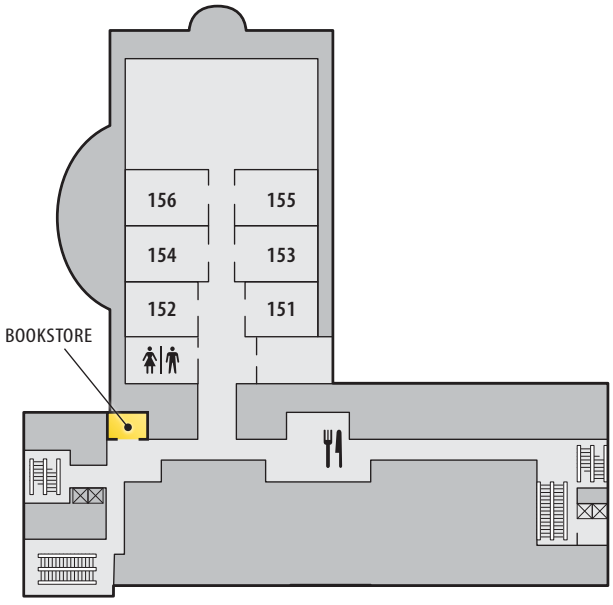
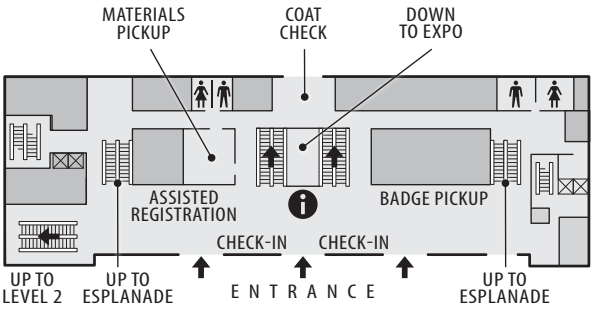
VENUE FLOOR PLANS – MOSCONE SOUTH

MOSCONE SOUTH
Sunday – Monday

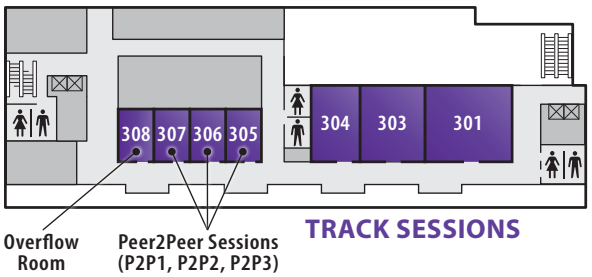


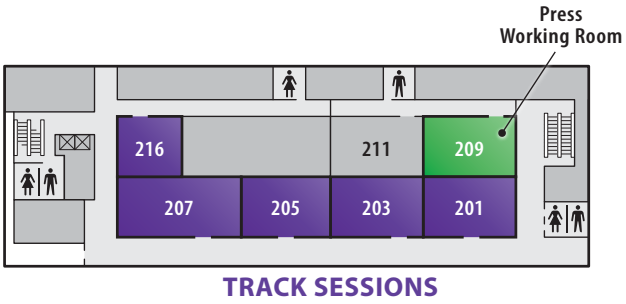


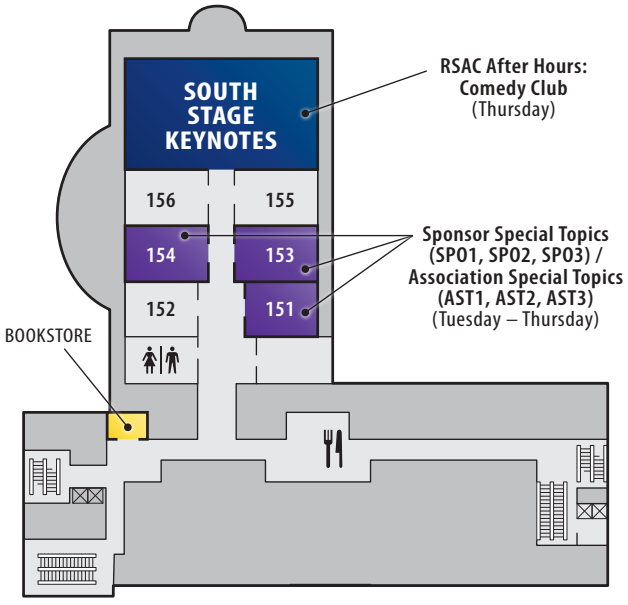


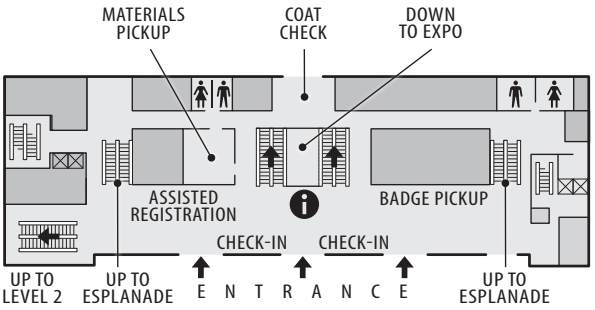


MOSCONE SOUTH
Tuesday – Friday









LEVEL 3

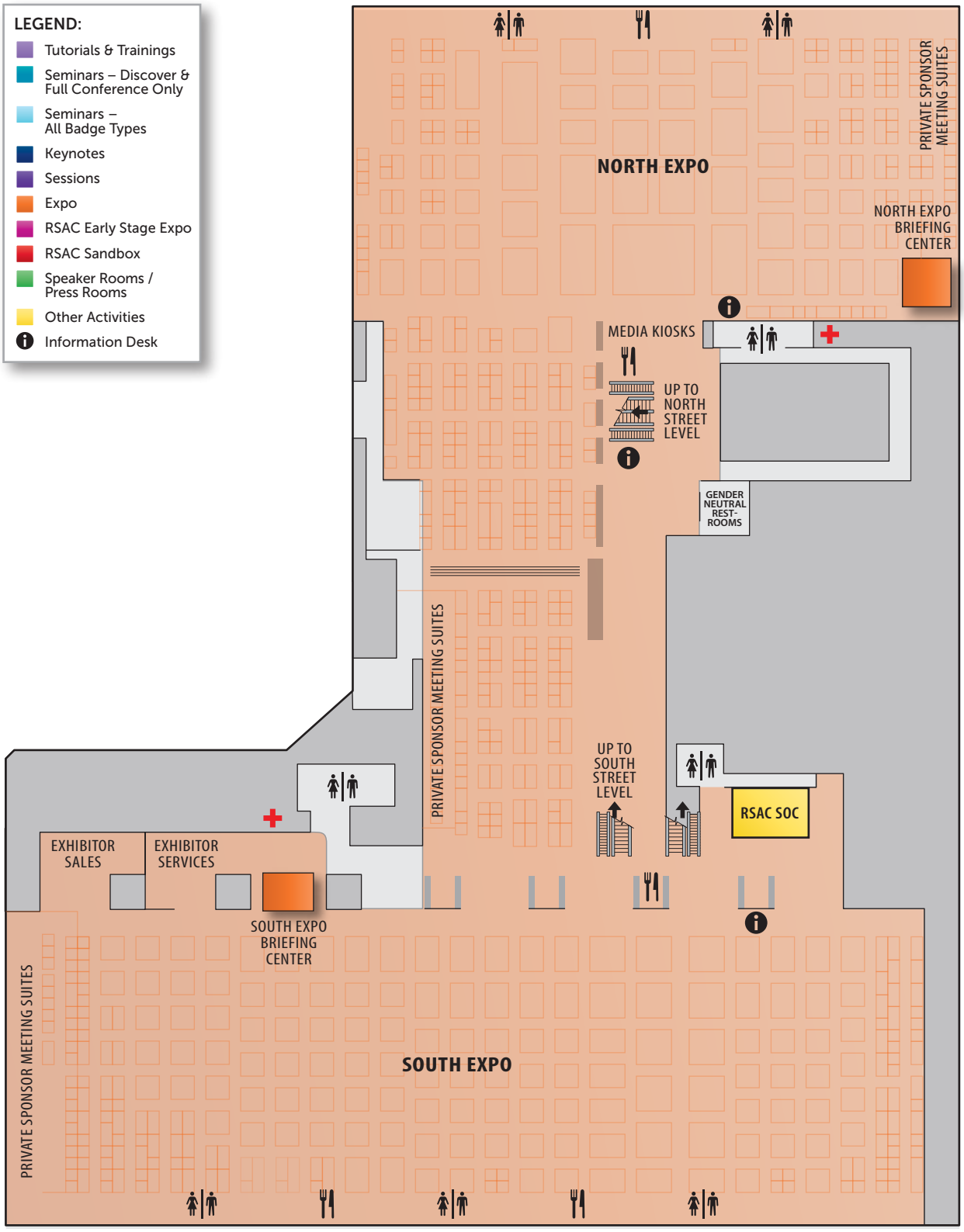
LEVEL 2

ESPLANADE

STREET LEVEL

VENUE FLOOR PLANS – MOSCONE LOWER LEVEL

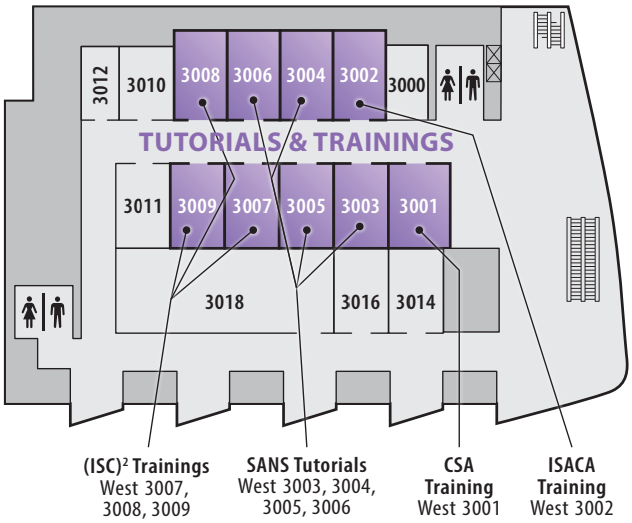
MOSCONE NORTH LOWER LEVEL



MOSCONE SOUTH LOWER LEVEL

VENUE FLOOR PLANS – MOSCONE WEST

MOSCONE WEST
Sunday – Monday



(ISC)² Trainings
West 3007, 3008, 3009

SANS Tutorials
West 3003, 3004, 3005, 3006

CSA Training
West 3001

ISACA Training
West 3002

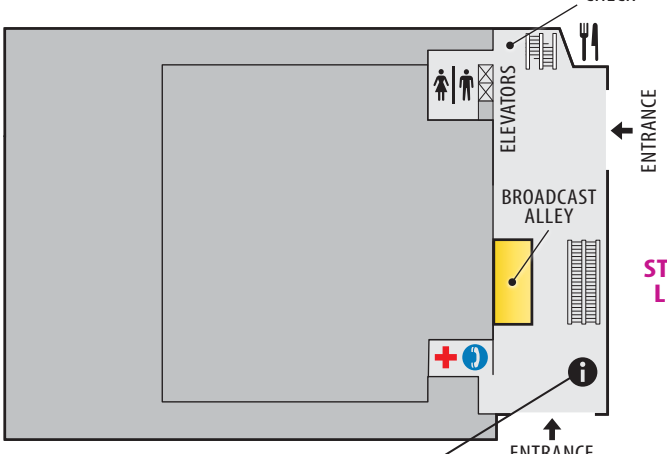
Speaker Lounge
West 2012

Speaker Office
West 2010

Emerging Threats Seminar
West 2022

Security, Privacy and Human Behavior Seminar
West 2018

Security Foundations Seminar
West 2014



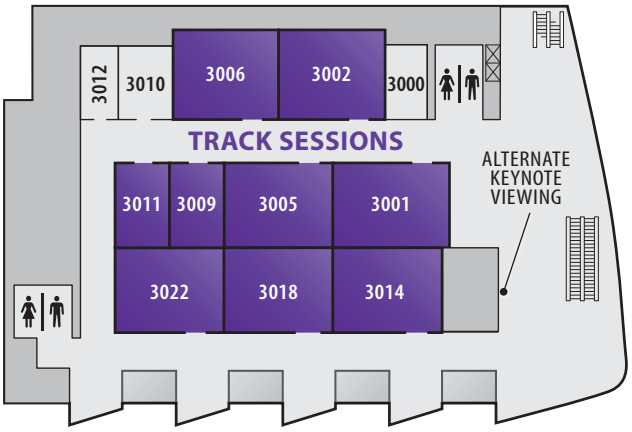
Info Desk
Mobile App Help Desk
Housing Desk

LEVEL 3

LEVEL 2

STREET LEVEL

MOSCONE WEST
Tuesday – Friday

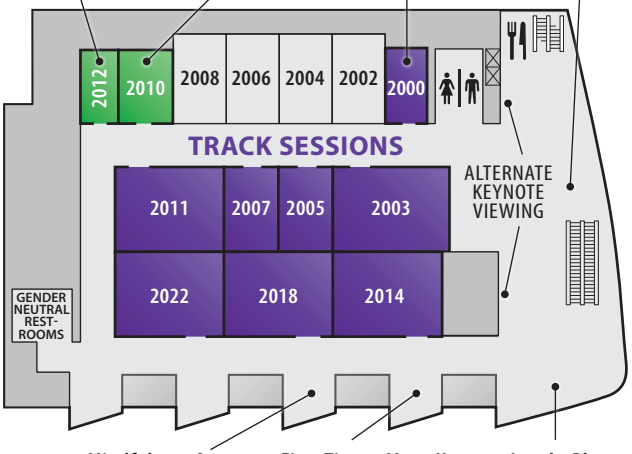


RSAC After Hours: Game Night
(Tuesday)

Speaker Lounge
West 2012

Speaker Office
West 2010

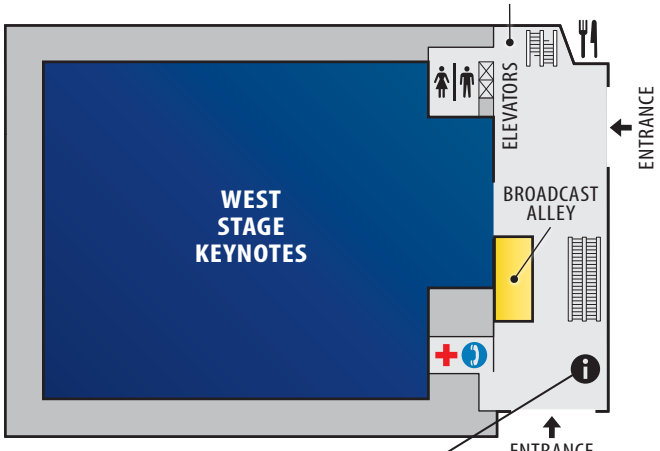
Overflow Room
West 2000



Mindfulness & Movement Yoga
(Wednesday – Thursday)
West Level 2 Alcove

First-Timers Meet-Up
(Wednesday – Thursday)
West Level 2 Alcove

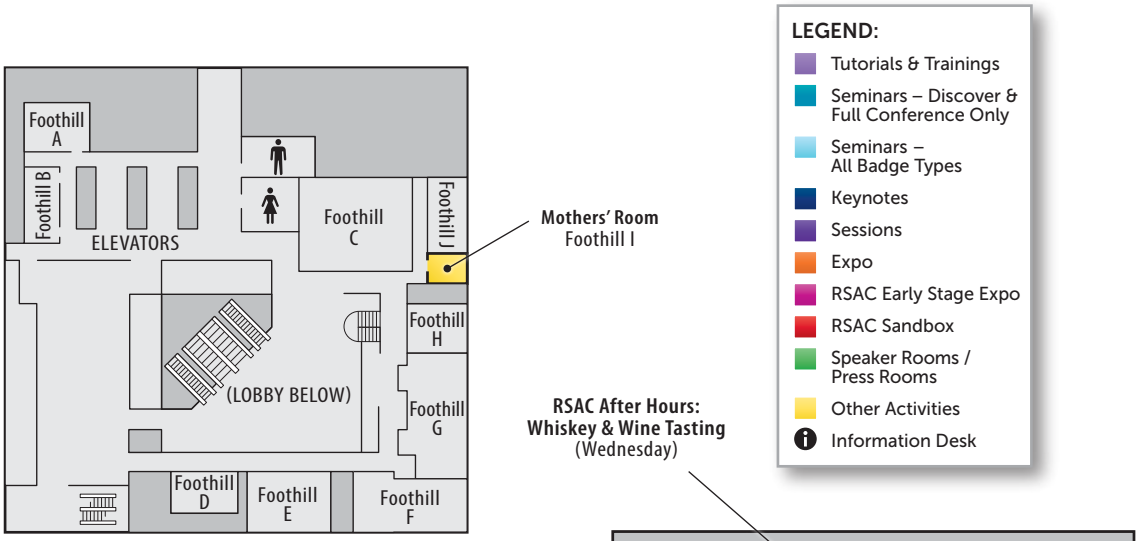
LoyaltyPlus Lounge



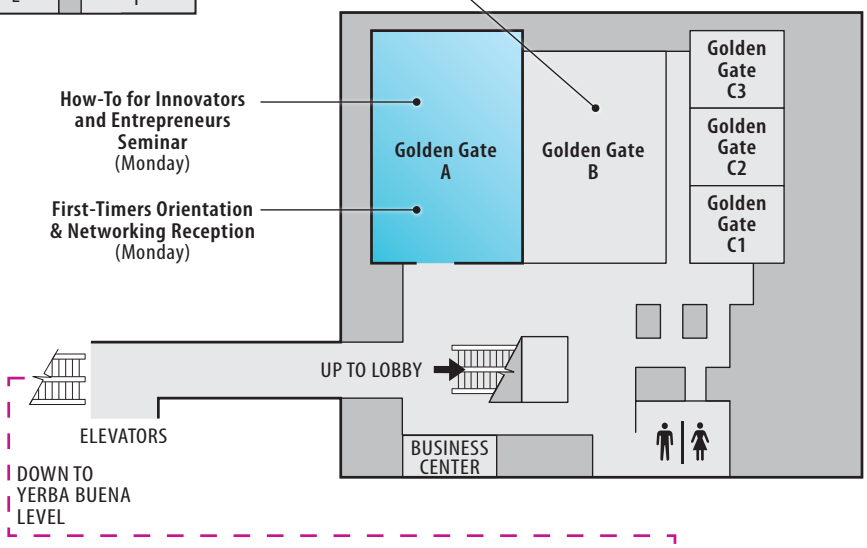
Info Desk
Mobile App Help Desk
Housing Desk

VENUE FLOOR PLANS – MARRIOTT MARQUIS

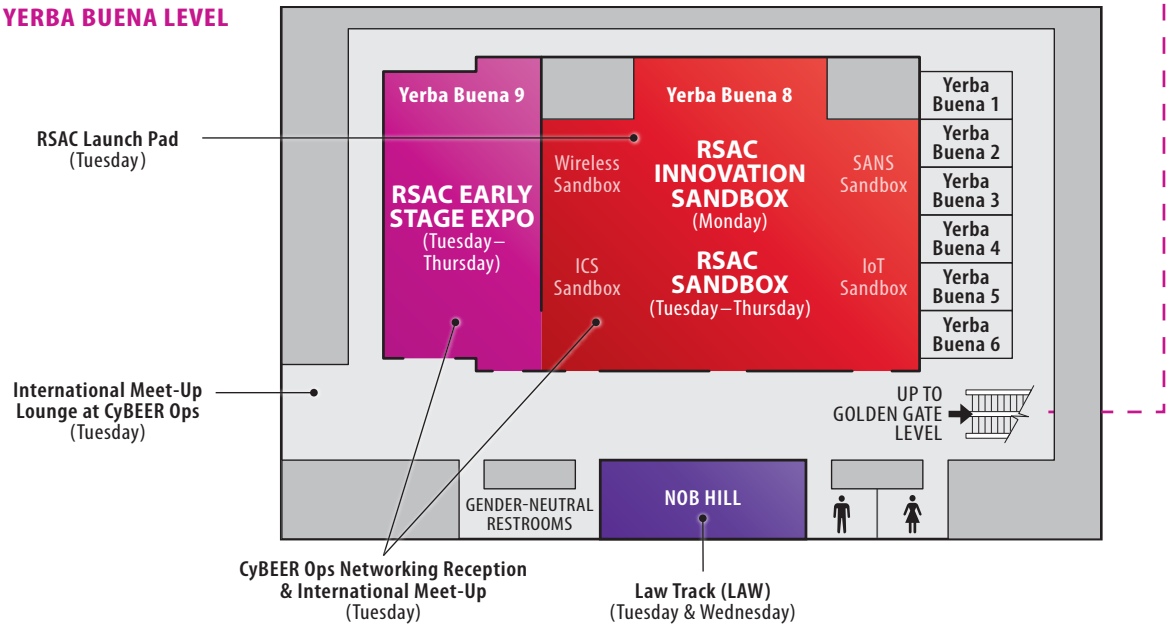
LEVEL 2



GOLDEN GATE LEVEL



YERBA BUENA LEVEL



HOTELS & SHUTTLES

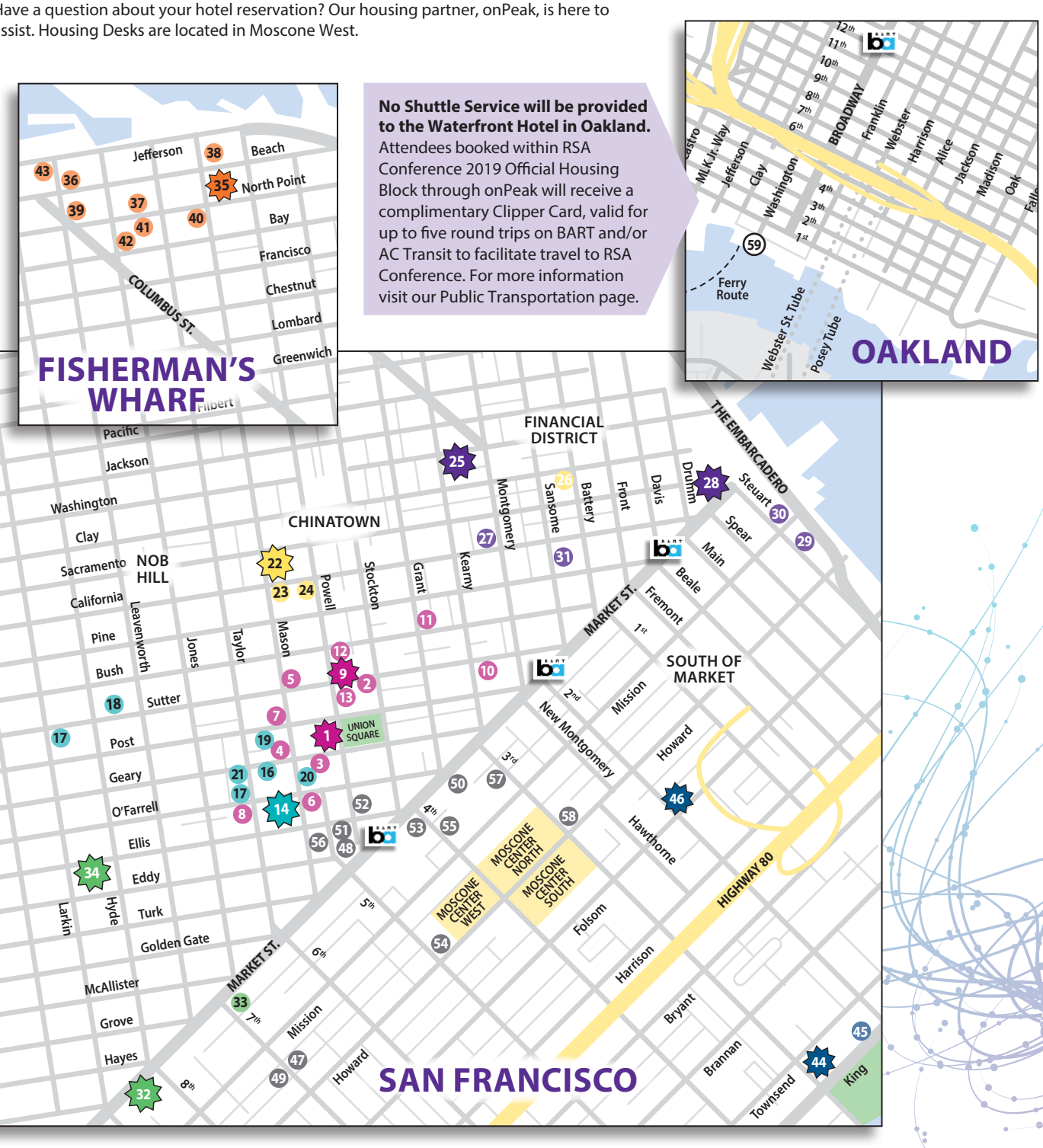
Hotel shuttle pickup and drop off locations are indicated by the large starbursts on the maps below. Guests at nearby hotels should walk to the nearest pickup location for shuttle service to the Moscone Center. Locate the route color and number your hotel is served by, and walk to the pickup location indicated by the starburst listed for that route.

Wheelchair accessible transportation is available during hours of shuttle operation. Please call 415-377-3452 to schedule a pickup. Please allow at least 30 minutes for service.

ON-SITE HOUSING DESK

Have a question about your hotel reservation? Our housing partner, onPeak, is here to assist. Housing Desks are located in Moscone West.

No Shuttle Service will be provided to the Waterfront Hotel in Oakland. Attendees booked within RSA Conference 2019 Official Housing Block through onPeak will receive a complimentary Clipper Card, valid for up to five round trips on BART and/or AC Transit to facilitate travel to RSA Conference. For more information visit our Public Transportation page.



HOTELS & SHUTTLES

SHUTTLE SCHEDULE

Shuttles to and from San Francisco hotels and the Moscone Center run every 15 minutes during peak service hours and every 30 minutes during midday service hours. All shuttle drop offs and pick-ups at Conference are on Howard Street in front of Moscone South.

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
AM Peak Service (Every 15 minutes)	7:00 AM – 10:00 AM	6:30 AM – 10:00 AM	6:30 AM – 10:00 AM	6:30 AM – 10:00 AM	8:00 AM – 10:00 AM
Midday Service (Every 30 minutes)	10:00 AM – 4:30 PM	10:00 AM – 4:30 PM	10:00 AM – 4:30 PM	10:00 AM – 4:30 PM	10:00 AM – 12:30 PM
PM Peak Service (Every 15 minutes)	4:30 PM – 8:00 PM	4:30 PM – 10:00 PM	4:30 PM – 8:30 PM	4:30 PM – 9:00 PM	12:30 PM – 3:00 PM

ROUTE 1

Pickup location:

1. **Westin St. Francis**
335 Powell Street
Boarding on Post Street

Also serves these hotels:

2. **Grand Hyatt**
345 Stockton St.
3. **Handlery Union Square**
351 Geary St.
4. **Hotel Diva**
440 Geary St.
5. **Hotel Emblem**
(formerly Hotel Rex)
562 Sutter St.
6. **Hotel Nikko San Francisco**
222 Mason St
7. **J.W. Marriott San Francisco**
500 Post St.
8. **Tilden Hotel**
345 Taylor St

Pickup location:

9. **Marriott Union Square**
480 Sutter St.
Boarding: Curbside between Powell and Stockton

Also serves these hotels:

10. **Galleria Park Hotel**
191 Sutter St.
11. **Orchard Garden Hotel**
466 Bush St.
12. **Orchard Hotel**
665 Bush St.
13. **Sir Francis Drake**
450 Powell St.

ROUTE 2

Pickup location:

14. **Hilton Union Square**
333 O'Farrell St.
Boarding on Taylor Street

Also serves these hotels:

15. **Clift Royal Sonesta**
495 Geary St.
16. **Hotel Carlton**
1075 Sutter St.
17. **Hotel Spero**
405 Taylor St.
18. **Hotel Vertigo**
940 Sutter St.
19. **Hotel Zeppelin**
545 Post St.
20. **King George Hotel**
334 Mason St.
21. **The Marker**
501 Geary St.

ROUTE 3

Pickup location:

22. **Fairmont San Francisco**
950 Mason St.
Boarding on Mason Street

Also serves these hotels:

23. **InterContinental Mark Hopkins San Francisco**
999 California St.
24. **Stanford Court Hotel**
905 California St.

ROUTE 4

Pickup location:

25. **Hilton San Francisco Financial District**
750 Kearny St.
Boarding on Kearny Street

Also serves these hotels:

26. **Le Meridien**
333 Battery St.
27. **Omni San Francisco**
500 California St.

Pickup location:

28. **Hyatt Regency San Francisco**
5 Embarcadero Center
Boarding on Market Street

Also serves these hotels:

29. **Hotel Griffon**
155 Steuart St.
30. **Hotel Vitale**
8 Mission St.
31. **Loews Regency Hotel**
222 Sansome St.

ROUTE 5

Pickup location:

32. **Hotel Whitcomb**
1231 Market St.
Boarding on Market Street

Also serves this hotel:

33. **Yotel**
1095 Market St.

Pickup location:

34. **COVA Hotel**
655 Ellis St
Boarding curbside at Ellis

ROUTE 6

Pickup location:

35. **Sheraton Fisherman's Wharf**
2500 Mason St.
Boarding on North Point Street

Also serves these hotels:

36. **Courtyard San Francisco Fisherman's Wharf**
580 Beach St.
37. **Holiday Inn Express Fisherman's Wharf**
550 North Point St.
38. **Holiday Inn Fisherman's Wharf**
1300 Columbus Ave.
39. **Hotel Zephyr**
250 Beach St.
40. **Hotel Zoe**
425 North Point St.
41. **Hyatt Centric Fisherman's Wharf**
555 North Point St.
42. **Pier 2620 at Fisherman's Wharf**
2620 Jones St.
43. **The Argonaut**
495 Jefferson St.

ROUTE 7

Pickup location:

44. **Hyatt Place**
701 Third St.
Boarding on Third Street

Also serves this hotel:

45. **Hotel Via**
138 King St.

Pickup location:

46. **Courtyard San Francisco Downtown**
299 Second St.
Boarding on Second Street

The following RSA Conference hotels are within walking distance to the Moscone Center:

47. **Americania**
121 Seventh St.
48. **Axiom Hotel**
28 Cyril Magnin St.
49. **Carriage Inn**
140 Sevent St.
50. **Four Seasons Hotel San Francisco**
757 Market St.
51. **Hotel Abri**
127 Ellis St.
52. **Hotel Union Square**
114 Powell St.
53. **Hotel Zelos**
12 Fourth St.
54. **InterContinental San Francisco**
888 Howard St.
55. **Marriott Marquis**
55 Fourth St.
56. **Parc 55**
55 Cyril Magnin St.
57. **Park Central**
50 Third St.
58. **W San Francisco**
181 Third St.

Oakland hotel *(no shuttle service, see note on facing page):*

59. **Waterfront Hotel**
10 Washington St., Oakland

GENERAL CONFERENCE INFORMATION

EMERGENCIES

If you require emergency medical attention or need other emergency assistance, please dial:

Moscone Center: Extension 511 from any white house telephone

Marriott Marquis: Extension 6666 from any house telephone

SAFETY & SECURITY

For non-emergencies contact the venue's Security Team. **Moscone North/South**: (415) 974-4021, **Moscone West**: (415) 974-4117, **Marriott Marquis**: Extension 6666 or (415) 422-6081

For all other safety and security questions or to report anything suspicious, please contact the on-site RSAC Security team directly at (857) 208-9468.

ADVANCED SESSIONS ⚙

New this year we have included an icon to help you better find the advanced content at the Conference. Look for the ⚙ next to session titles to locate advanced sessions.

BROADCAST ALLEY

Hear that? It's buzz. And it's coming from Broadcast Alley, the unofficial newsroom of RSAC 2019 where top security publications shoot live at the Conference and record exclusive interviews with cybersecurity VIPs.

BUSINESS CENTER

A Business Center is available for your convenience Tuesday, March 5 through Thursday, March 7, from 11 AM – 6 PM in Moscone South, Lower Level near Hall C. Applicable charges apply.

CHARGING CUBES

Look for RSA Conference Charging Cubes in numerous seating areas around Moscone West, Moscone North Lower Level and RSAC Sandbox Marriott Yerba Buena 8. The charging cubes provide outlets to supply power to your devices.

CONTINUING EDUCATION CREDITS*

RSA Conference has partnered with several organizations to offer continuing education credits to attendees at RSA Conference 2019. Below is a list of accrediting organizations.

ABA • The American Bar Association Section of Science & Technology Law sponsors the Law Track at RSA Conference 2019. SciTech has applied for Continuing Legal Education Credits in many mandatory CLE states for all sessions in this track. To sign in for CLE credit, please visit the CLE Information Table during the Law Track Sessions. Contact SciTech at (312) 988-5599 with any questions.

CompTIA • RSA Conference 2019 attendees who are a part of CompTIA's Continuing Education (CE) Program can earn 1 CEU for each hour you attend, with a max earning depending on certification. Attendees will need to submit a detailed description of session content and provide their trip report based on scanned sessions during the Conference for support through CertMetrics to receive CEUs for a Conference session.

GIAC • Global Information Assurance Certification (GIAC) certification holders may earn up to 18 CPEs for attending applicable keynote and track sessions at RSA Conference 2019. Attendees will need to apply for proper credentials, and provide their trip report based on scanned sessions during the Conference for support.

IAPP • IAPP offers 12 CPE credits for RSA Conference 2019 attendees. Members will need to self-report attendance information for credits by completing a CPE application form and providing support documentation. For more information, go to *https://iapp.org/certify/cpe*.

ISACA • ISACA members are entitled to CPE credits for attending RSA Conference 2019. Members can qualify for 1 CPE credit for each applicable track and keynote session subject to ISACA approval. Members will need to self-report attendance information with a copy of the post-conference trip report (detailing sessions attended through badge scanning while onsite) as support of their request.

(ISC)² • (ISC)² members can earn up to 35 CPE credits for attending RSA Conference 2019. After the Conference, RSA Conference will provide (ISC)² with a list of attending (ISC)² member's name, membership number and applicable credits. Please note, we ask for members' (ISC)² membership number during the registration process.

CLASSIFICATIONS

We offer three different session classifications focused on principles and concepts that are aligned with your experience: General Interest (All), Intermediate (5+ years) and Advanced (10+ years).

COAT & BAG CHECK

Coat and bag check will be open in Moscone South and West Street Levels during registration hours and RSAC After Hours.

* *Open to Full Conference Registrants only.*

GENERAL CONFERENCE INFORMATION

CODE OF CONDUCT To view our code of conduct statement please visit *www.rsaconference.com/about/code-of-conduct.*

CONFERENCE BOOKSTORE DigitalGuru brings you the latest information security titles at special discounted rates, plus exclusive speaker Q&A and book signings. Don't miss this opportunity. Just stop by the bookstore located in Moscone South, Esplanade Level, for the latest schedule of signings, and arrive early for the biggest names! Also, all RSAC attendees receive 20 percent off all purchases. **Book signings will be held in the Conference Bookstore, so be sure to look for dates and times on-site or on the Mobile App.**

CYBREW CAFÉ The Cybrew Café, our full-service coffee bar, will be serving your favorite beverages in the RSAC Sandbox in the Marriott Marquis. Be sure to stop by daily for your caffeine fix! Open Tuesday through Thursday.

DATA COLLECTION RSA Conference does not share your information directly with exhibitors or sponsors unless you have opted to do so. By allowing your badge to be scanned when visiting an exhibitor or sponsor booth, you signify your consent to receive communications directly from that exhibitor. You will be subject to their communications and privacy policy, and must opt out with them individually.

DIVERSITY & INCLUSION At RSA Conference, we've always strived to bring people together across the spectrum of genders, ethnicities, backgrounds and experiences. After all, inclusion makes us stronger—both as an industry and as individuals. And now we're deepening our commitment to these values through our diversity and inclusion (D&I) initiative.

DRONES POLICY The use of drones/unmanned aircrafts (UAVs) is strictly prohibited at all times throughout the RSAC campus and adjacent outside areas. UAVs are devices intended to be used for flight with no onboard pilot. RSA Conference reserves the right to remove any such UAVs at its sole discretion.

EVALUATIONS Your input helps us develop valuable, relevant content for future RSA Conferences. Plus, your feedback is provided to speakers after the Conference. Fill out your evaluations within the mobile app or through the email you receive listing your session attendance. All completed evaluations will be entered into a daily drawing for a pair of Apple® Airpods and a weekly grand prize of a GoPro® HERO7.

GENERAL CONFERENCE INFORMATION

FIRST-TIMER PROGRAMS

We've created several programs for First-Timers with Full Conference Passes to help make Conference navigation easier. With events scattered throughout the week, you can take advantage of an orientation, a networking reception, and exclusive meet-ups to help everything go smoothly.

GENDER NEUTRAL RESTROOMS

There are three gender neutral restrooms located in Moscone North & West and the Marriott Marquis which are available to all attendees.

LOST AND FOUND

If you find someone's property, please drop it off at one of the information desks where it will be secured until it is returned to its rightful owner. If you lose property, please go to an information desk and fill out a lost property report.

MEDICS

Medics will be onsite in the following locations during the operating hours of the Conference: Moscone North outside of Hall F, (415) 974-4096; Moscone South outside of Hall C, (415) 974-4090; and Moscone West Street Level, (415) 974-4159.

MOTHERS' ROOM

For nursing mothers, we have provided private spaces in Moscone North 115 and Marriott Foothill I. Mothers' rooms are open during all hours of the Conference. Check at the closest Information Desk for access instructions.

PHOTOGRAPHY AND VIDEO

RSA Conference is held in a public space; therefore we do not prohibit photography of Conference activities. However, videotaping does require advanced approval. Requests to videotape any session must be approved by both RSAC and the speaker. Send requests to videotape to *rsaconf@shiftcomm.com*. Keep in mind that the Moscone Center is a union facility where certain unions have jurisdiction related to video recording and will require you to follow those guidelines. RSA Conference reserves the right to use images or video taken at the Conference with your photograph and/or likeness in future marketing materials.

POLLING

You know what makes RSAC great? You. And by participating in select session polls, you can help make us even better. In select sessions, use the RSAC Mobile App to answer a few quick questions on your experience, and view your and other attendees' responses in real-time.

PRAYER ROOM

A prayer room for attendees will be available in Moscone North 114.

PRESS ROOM

The Press Room is located in Moscone South 209 and is open to all registered Press. Hours of operation:

Monday, March 4	9:00 AM – 7:00 PM	Thursday, March 7	7:00 AM – 6:00 PM
Tuesday, March 5	7:00 AM – 7:00 PM	Friday, March 8	7:00 AM – 12:00 PM
Wednesday, March 6	7:00 AM – 7:00 PM		

PRIVACY POLICY

To view our full privacy statement please visit *https://www.rsaconference.com/dellprivacy*

REPLACEMENT BADGES

Attendees and exhibitors are required to wear Conference badges to all Conference functions, including evening events. Badges are not transferable. Please be careful with your badge and badge holder! If you lose your badge and/or badge holder, you will be required to purchase a new one for a **fee of $100**. If you find a misplaced badge, please return it to Registration.

RSAC CISO BOOT CAMP

CISOs carry the weight of the world's security on their shoulders. Leading cybersecurity teams. Building effective security strategy. It's all in a day's work. In this inaugural, invite-only program, 100 CISOs will gather, partner and collaborate for 1½ days to learn about new strategies and techniques for securing their organization and will have every opportunity to share their professional insights with equally experienced peers.

RSAC ONDEMAND

RSAC onDemand is a great way to experience highlights of RSA Conference—online. A complimentary feature for all pass holders, RSAC onDemand lets you catch up on some of the most looked-forward-to moments from Conference—or even re-watch your favorites—live or on-demand. To learn more about RSAC onDemand, visit *rsaconference.com/ondemand2*.

RSAC SECURITY OPERATIONS CENTER

Take a tour of a working SOC! Head to the Moscone South Lower Level for the RSA Conference Security Operations Center. See what's really taking place on the Moscone Wireless Network in real time.

Sponsored by: cisco RSA

SAFE WALK PROGRAM

Working in conjunction with San Francisco Travel, increased patrols will be in place in and around official RSAC hotels not serviced by RSAC bus routes. Additional information on paths of travel and on-demand services is available at the designated walking-distance hotels.

* *Open to Full Conference Registrants only.*

GENERAL CONFERENCE INFORMATION

SESSION PRESENTATIONS	Session presentations are posted online at *www.rsaconference.com/downloads2019*. You can download the presentations by searching on the Sessions & Events page.
SHUTTLE DROP OFF LOCATIONS	Shuttle service is offered from a variety of participating hotels and is available to drop you off at Moscone Center South Driveway. Please refer to pages 12 – 13 for a map and list of hotel pickup and drop-off locations, routes and shuttle hours.
STREET EATS	Stop by any of our food trucks on Mission Street or Howard Street. Open Tuesday through Thursday from 11 AM to 2 PM. Street Eats is available to all pass types and both cash and credit cards are accepted.
TOP RATED SPEAKERS	Speakers whose scores are above 4.3 (on a scale of 1 to 5) for two or more conferences for individual or co-speaker sessions only are indicated with a top rated symbol in the session detail pages.
TRIP REPORT	We're making it easier for you to share your RSA Conference experience with your colleagues. You'll receive a post-Conference email listing the sessions you attended and the exhibiting companies you visited. Session information will include a link to the location on the RSA Conference website where presentation PDFs can be found. Exhibitor information will include links to each of the exhibiting companies you visited. Please note, you'll receive information ONLY for the sessions you attended and the exhibitors you visited, for which your badge was scanned. Trip reports will be available on request 90 days post-Conference at no cost. After 90 days there will be a $60 charge per request.
WHEELED TRANSPORT DEVICES POLICY	Wheeled transport devices (with or without motors) are not permitted at any RSA Conference venue. This includes hover-boards, skateboards, uniwheels and all similar products. Wheelchairs and ADA-compliant mobility scooters are permitted.
WIRELESS INTERNET	Free wireless is available in select Conference areas. Connect to SSID: ***.RSACONFERENCE*** (subject to terms and conditions). *Important! The wireless network available at the Moscone Center and Marriott Marquis is an open, unsecured 5 GHz network. Also note that this year, RSA and Cisco AMP Threat Grid will be using data from the Moscone Wireless Network for an educational demonstration on a working SOC. We strongly recommend that you use appropriate security measures, such as utilizing a VPN connection, installing a personal firewall and keeping your operating system up-to-date with security patches. We recommend turning off your wireless adapter when not in use and ensuring ad-hoc (peer-to-peer) capabilities are disabled on your device.*

THE MARRIOTT MARQUIS

You're not going to want to miss all of the action happening on the Yerba Buena Level of the Marriott Marquis.

RSAC INNOVATION SANDBOX CONTEST

The RSAC Innovation Sandbox Contest has crowned the Most Innovative Startups who create cutting-edge technologies to minimize infosec risk for the past 14 years! Come witness the Top 10 Finalists grab the spotlight for a three-minute pitch while demonstrating groundbreaking security technologies to the broader RSA Conference community.

Exclusive RSAC Innovation Sandbox Media Sponsor:

WSJ PRO CYBERSECURITY

AGENDA – MONDAY, MARCH 4, 2019

1:30 PM	**Doors Open**
1:45 PM – 2:00 PM	**Opening Remarks** ***Hugh Thompson**, Program Committee Chairman, RSA Conference*
2:00 PM – 3:30 PM	**Top 10 Finalists Presentations** Three-minute pitches followed by Q&A with judges.
3:30 PM – 4:15 PM	**Audience Meet and Greet with Top 10 Finalists** While judges debate the winner, the audience has the opportunity to meet with the Top 10 Finalists and learn more about their solutions.
4:15 PM – 4:30 PM	**Judges Panel** RSAC Innovation Sandbox judges will invite the top contestants on stage to share their impressions of the selected companies, providing advice to guide the companies as they move forward.
4:30 PM	**Announcement of Winner**

RSAC SANDBOX

The RSA Conference Sandbox is full of hands-on interactive experiences to test your infosec skills. Demo and discuss how pervasive computing and connectedness will inevitably lead to a broader threat landscape in healthcare and business; expand your thinking about threats to smart cities, electric grids and industrial processing plants; learn more about wireless hacking and vulnerabilities in radio frequency devices, and challenge your infosec skills. See the following pages for times and event descriptions.

HOURS:

Tuesday, March 5	4:45 PM – 6:30 PM*
Wednesday, March 6	8:00 AM – 4:00 PM
Thursday, March 7	8:00 AM – 3:30 PM

** Open to Full Conference Pass holders, Tuesday One-Day Full Conference Pass holders, Press and CyBEER Ops ticket holders only.*

Exclusive RSAC Sandbox Media Sponsor:

TechTarget | SearchSecurity

RSAC EARLY STAGE EXPO

The RSAC Early Stage Expo is the perfect megaphone for emerging infosec startups. Interested in seeing the new innovations they are bringing to the table? Meet over 50 of the industry's most promising newcomers by visiting their kiosks or sitting in on a short demo at the Early Stage Expo briefing center.

HOURS:

Tuesday, March 5	4:45 PM – 6:30 PM*
Wednesday, March 6	8:00 AM – 4:00 PM
Thursday, March 7	8:00 AM – 3:00 PM

** Open to Full Conference Pass holders, Tuesday One-Day Full Conference Pass holders, Press and CyBEER Ops ticket holders only.*

Exclusive RSAC Early Stage Expo Media Sponsor:

crunchbase

RSAC LAUNCH PAD

Brand-new to RSA Conference, RSAC Launch Pad is a springboard for great solutions to cybersecurity's pressing challenges. Inspired by the RSAC Innovation Sandbox Contest, RSAC Launch Pad is designed to give new talent a platform to share their brilliant industry solutions. Watch three selected participants give a 10-minute pitch on their groundbreaking products to a panel of leading security venture capitalists, including Enrique Salem, Ted Schlien and Theresia Gouw, and see who will walk away with investments that could take their company to the next level.

AGENDA – TUESDAY, MARCH 5, 2019

3:50 PM	**Doors Open**
4:00 PM	**Welcome by Hugh Thompson and Introduction of Venture Investors**
4:05 PM – 4:40 PM	**Company Pitches** Three companies each have 10 minutes to pitch their companies and answer questions from the Venture Investors.
4:40 PM	**Event Close and Networking** The first annual RSAC Launch Pad event wraps up and is immediately followed by the CyBEER Ops Networking Reception & International Meet-Up.

This event is open to Full Conference Pass holders, Tuesday One-Day Full Conference Pass holders, Press and CyBEER Ops ticket holders.

RSAC SANDBOX

The RSA Conference Sandbox is full of hands-on interactive experiences to test your infosec skills. Demo and discuss how pervasive computing and connectedness will inevitably lead to a broader threat landscape in healthcare and business; expand your thinking about threats to smart cities, electric grids and industrial processing plants; learn more about wireless hacking and vulnerabilities in radio frequency devices, and challenge your infosec skills.

The RSAC Sandbox is located in the Yerba Buena level of the Marriott Marquis.

RSAC SANDBOX HOURS

Tuesday, March 5*	4:45 PM – 6:00 PM
Wednesday, March 6	8:00 AM – 4:00 PM
Thursday, March 7	8:00 AM – 3:30 PM

** Open to Full Conference Pass holders, Tuesday One-Day Full Conference Pass holders, Press and CyBEER Ops ticket holders only.*

Exclusive RSAC Sandbox Media Sponsor:

TechTarget | SearchSecurity

SANS NETWARS IN THE RSAC SANDBOX

SANS Core NetWars Experience is a hands-on information security challenge developed to build and enhance your skills as an infosec professional. Compete with your peers through progressively difficult challenges. Score points on our interactive scoreboard either by yourself or in a team of up to five players. SANS NetWars was designed for novice (hints available) to advanced professionals and covers various aspects of penetration testing, forensics, defense, and your ability to rely on your experiences and problem-solving skills to navigate from Level 1 through Level 5 of gameplay.

SANS NetWars seating is limited to 40 players. Seats will be available on a first-come, first-served basis.

WEDNESDAY, MARCH 6

8:10 AM – 10:10 AM	**SANS Core NetWars Experience** SBX2-W1 ***Chris Elgee,*** *Builder & Breaker, Counter Hack Challenges*
10:50 AM – 12:50 PM	**SANS Core NetWars Experience** SBX2-W2 ***Chris Elgee****, Builder & Breaker, Counter Hack Challenges*
1:40 PM – 3:40 PM	**SANS Core NetWars Experience** SBX2-W3 ***Chris Elgee****, Builder & Breaker, Counter Hack Challenges*

THURSDAY, MARCH 7

8:00 AM – 9:30 AM	**SANS Core NetWars Experience—Intro to Capture the Flag** SBX2-R1 ***Chris Elgee****, Builder & Breaker, Counter Hack Challenges; Co-hosted by* ***Women's Society in Cyberjutsu (WSC)***
11:40 AM – 1:40 PM	**SANS Core NetWars Experience** SBX2-R2 ***Chris Elgee****, Builder & Breaker, Counter Hack Challenges*

WIRELESS VILLAGE SANDBOX

The Wireless Village Sandbox is a group of experts in the areas of information security, WiFi and radio communications with the common purpose to teach the exploration of these technologies. We provide the very best in Wireless Capture the Flag (WCTF) which was designed to allow for active real time and real-world practice with the radio frequency (RF) tools to promote learning on cutting-edge topics as they relate to radio communications. This year for RSA Conference we will have some great mini competitions and Fox and Found events for you to test your skills, whether they were just learned or if you are a seasoned veteran. Come for the talks, stay for the practice and the competition.

WEDNESDAY, MARCH 6

9:30 AM – 10:30 AM	**Hunting and Tracking Rogue Radio Frequency Devices** SBX3-W1 ***Eric Escobar****, Principal Security Consultant, SecureWorks*
1:50 PM – 2:50 PM	**First Steps in RF: Lessons Learned** SBX3-W2 ***Dave Weinstein****, Software Engineering Manager, Google*

THURSDAY, MARCH 7

8:00 AM – 9:00 AM	**Wireless Offense and Defense, Explained and Demonstrated!** SBX3-R1 ***Rick Farina****, Senior Product Manager, WLAN Software Security, Aruba;* ***Rick Mellendick****, Chief Security Officer, Process Improvement Achievers LLC*
11:30 AM – 12:30 PM	**Bluetooth Reverse Engineering: Tools and Techniques** SBX3-R2 ***Mike Ryan****, Founder, ICE9 Consulting*

INDUSTRIAL CONTROL SYSTEMS SANDBOX

As the backbone of modern society, vulnerabilities in industrial control systems (ICS) has come to the forefront of businesses, governments and organizations. This year, ICS will conduct a deeper dive into the Industrial Internet of Things, simulate an ICS cyberattack and think through implications of smart cities on the grid. Visit the ICS Village Sandbox for demos and talks that will be held throughout each day.

WEDNESDAY, MARCH 6

10:50 AM – 11:20 AM
SCADA Attack Detection 101 SBX4-W1
***Oleg Kolesnikov**, Vice President of Threat Research / Cybersecurity, SECURONIX; **Harshvardhan Parashar**, Security Researcher, SECURONIX*

11:20 AM – 11:50 AM
Debunking the Hacker Hype: The Reality of Widespread Blackouts SBX4-W2
***Selena Larson**, Intelligence Analyst, Dragos, Inc.*

3:00 PM – 3:30 PM
Cybersecurity and Privacy: The Two Main Tenets in the Smart City Project SBX4-W3
Panel Discussion
*MODERATOR: **Maryam Rahmani**, Global Partnership Officer, Global Cyber Alliance*
*PANELISTS: **Tony Batalla**, Head of IT, San Leandro City; **Lan Jenson**, CEO, Adaptable Security Corp; **Sokwoo Rhee**, Associate Director of Cyber-Physical Systems Innovation, National Institute of Standards and Technology*

3:30 PM – 4:00 PM
Safety Systems Are the New Target: Design Security Using Safety Methods SBX4-W4
***Marty Edwards**, Director of Strategic Initiatives, International Society of Automation (ISA)*

THURSDAY, MARCH 7

9:10 AM – 9:40 AM
How Long to Boom: Understanding and Measuring ICS Hacker Maturity SBX4-R1
***Sergio Caltagirone**, Director, Threat Intelligence, Dragos*

9:40 AM – 10:10 AM
I Belong Here SBX4-R2
***Michelle Mullinix**, Digital Analysis and Investigations, Executive Office For US Attorneys*

1:10 PM – 1:40 PM
Hunt Advanced Attackers on a Budget Less than the GDP of a Small Country SBX4-R3
***John Strand**, Owner, Black Hills Information Security*

1:40 PM – 2:10 PM
Internal Affairs: Building Incident Command Frameworks through Diplomacy SBX4-R4
***Dana-Megan Rossi**, Assoc. Director, Product Security Policy, Strategy & Incident Response, Becton, Dickinson and Company*

INTERNET OF THINGS SANDBOX

IoT Village™ delivers expertise advocating for security advancements in Internet of Things (IoT) devices. This exhibit highlights vulnerable connected devices and groundbreaking security research found in devices as common as smart cameras to devices as complex as medical devices. Experience thought-provoking talks by expert security researchers who dissect real-world exploits and vulnerabilities and analyze the impact on consumer and business environments.

WEDNESDAY, MARCH 6

8:30 AM – 9:00 AM
Internet of Food: How IoT Threatens Fields, Farms and Factories SBX1-W1
***Ryan Flores**, Senior Manager Threat Research, Trend Micro; **Akira Urano**, Senior Threat Researcher, Trend Micro*

9:00 AM – 9:30 AM
Shadow IoT Hacking the Corporate Environment: Office as the New Smart Home SBX1-W2
***Ondrej Vlcek**, Chief Technology Officer, Avast*

12:40 PM – 1:10 PM
Yet Another IoT Hack SBX1-W3
***Joshua Meyer**, Associate Security Analyst, Independent Security Evaluators*

1:10 PM – 1:40 PM
The Emerging Grey App Threat—Mobile Kids Apps are Gateway to Parents SBX1-W4
***Frances Dewing**, CEO, Rubica*

THURSDAY, MARCH 7

10:20 AM – 11:00 AM
Run for Your Life—No Literally—Do It! SBX1-R1
*MODERATOR: **Lisa Green**, Director, People Relations, Independent Security Evaluators*
*PANELISTS: **Katie Curran**, Information Security Engineer, Blackline; **Kat Fitzgerald**, Principal Security Architect, Zebra Technologies; **Xena Olsen**, Cyber Threat Intel Analyst, Discover Financial Services*

11:00 AM – 11:30 AM
Hello? It's Me, Your Not So Smart Device. We Need to Talk. SBX1-R2
***Alex Balan**, Chief Security Researcher, Bitdefender*

2:20 PM – 2:50 PM
Internet of Laws: Navigating the IoT Legal Landscape SBX1-R3
***Amit Elazari**, Director, Global Cybersecurity Policy, Intel Corporation, and Lecturer, UC Berkeley School of Information (MICS)*

2:50 PM – 3:20 PM
U-Boot, I-Hack SBX1-R4
***Andrew Bindner**, Manager, Penetration Testing, Rapid7; **Carlota Bindner**, Security Associate, Rapid7*

RSAC Security Scholar

RSA Conference Security Scholar connects 80 of the brightest up-and-coming cybersecurity students with leading experts, peers and Conference attendees. The goal of the program is to share knowledge, experience and connections to enrich the discourse on how to stay ahead of cyberthreats.

ASU New College of Interdisciplinary Arts and Sciences, Arizona State University
Raida Khan
Muhammed Kilig

Boston University
Dan Gould
Aanchal Malhotra

Cal Poly
Ryan Solorzano
Marco Zuñiga

Carnegie Mellon University, Information Networking Institute
Nicholas Amon
Ankit Jena
Jamie Thorpe
Era Vuksani

Data Science Institute, Columbia University, Center for Cybersecurity
Abhishek Shah
Mohamed Tarek

Florida Tech
Ghassen Kilani
Giordano Benitez Torres

George Mason University
Sean McCoy
Mei Nelson

Georgia Institute of Technology
Celine Irvene
Elizabeth Krizay

Johns Hopkins Whiting School of Engineering, Information Security Institute
Jennifer Li
Kalyani Bansidhar Pawar

MIT CSAIL
Peter Griggs
Cattalyya Nuengsigkapian

Michigan State University
Chris Fennell
Matt Pasco

Mississippi State University
William Lee
Kaleb Thornton

NYU Tandon School of Engineering
Preston Moore
Melisa Savich

North Carolina Agricultural and Technical State University
Patrick Hines
John Jenkins

NC State University
Iffat Anjum
Sarah Elder

Northeastern University, Cybersecurity and Privacy Institute
Ankit Kumar
Tien Vo-Huu

PennState College of Information Sciences and Technology
Will Paetsch
Jared Trigili

Purdue University
Timothy Bagiackas
Jason Bays
Mikaela Brower
Nicolás Villacís Vukadinović

Rice University
Qiao Kang
Jonathan Sharman

Stanford Cyber Initiative
Ross Ewald
Francesca Ginexi

Texas A&M Cybersecurity Center
Nathan Powell
Casey Stephens

CLTC Center for Long-Term Cybersecurity, UC Berkeley
Melissa Griffith
Vy-An Phan

Berkeley School of Information
Daren Childers
J.M. Porup

UC Davis College of Engineering
Somdutta Bose
Jiyu Chen

UCSD CSE Computer Science and Engineering
Vivek Arte
Hannah Davis

University of Colorado Colorado Springs
David W. H. A. da Silva
Simeon Wuthier

University of Illinois
Vignesh Babu
Hoang Hai Nguyen

University of Maryland
Courtland Climer
Robert Morrison

UMUC University of Maryland University College
Christiane Brown
Eliot Jung

UMass Amherst, The Commonwealth's Flagship Campus
A. Pinar Ozisik

UNC Charlotte
Rawan Al-Shaer
Ghaith Husari

USC Viterbi School of Engineering
Megan Andersen
Ayman Siraj

UTSA Computer Science
Safwa Ameer
Mohd Amjad Sabra
Victoria St. John

United States Air Force Academy
Tricia Dang
Christian Sylvester

United States Naval Academy, Annapolis
Morgan Giraud
Cordell Maas

University of Washington Bothell, Cyber Security Engineering
Allison Gibson
Jaynie Shorb

Master of Cybersecurity & Leadership, University of Washington Tacoma
Yared Beyene
Michael Smith

Virginia Tech
Chandler Cain
Jason McGinthy

Come by and meet the RSAC Security Scholar Class of 2019 at the Poster Board Exhibition on Wednesday, March 6, from 2 PM to 3 PM in Moscone West, Level 2.

PREMIER RSAC SECURITY SCHOLAR AND RSAC COLLEGE DAY SPONSORS:

DELL · Intuit powering prosperity · Lockheed Martin · NBCUniversal · RSA · Walmart InfoSec

RSAC AdvancedU

RSAC AdvancedU teaches cyber-awareness for children, provides outreach to college students to encourage a career in information security and supports education throughout the various stages of a career within the industry. RSAC AdvancedU includes the following pillars:

RSAC CYBERSAFETY INITIATIVE

The RSAC CyberSafety Initiative raises awareness of the dangers you face when you are online. In the ***RSAC CyberSmart Parents Education Seminar—Keeping Your Family Safe Online*** we share the latest research on the online lives and habits of teens and parents.

RSAC SECURITY SCHOLAR

RSAC Security Scholar program works with participating universities to identify 80 college students to attend RSA Conference to learn about the evolving information security industry, forge lasting connections within the community, engage with renowned industry experts and participate in unique learning and team-building events.

ASSOCIATION CREDITS

Our Association Credits program partners with leading information security education associations, such as GIAC, $(ISC)^2$ and ISACA, to give attendees the opportunity to receive Continuing Professional Education credits to maintain critical certifications.

RSAC COLLEGE DAY

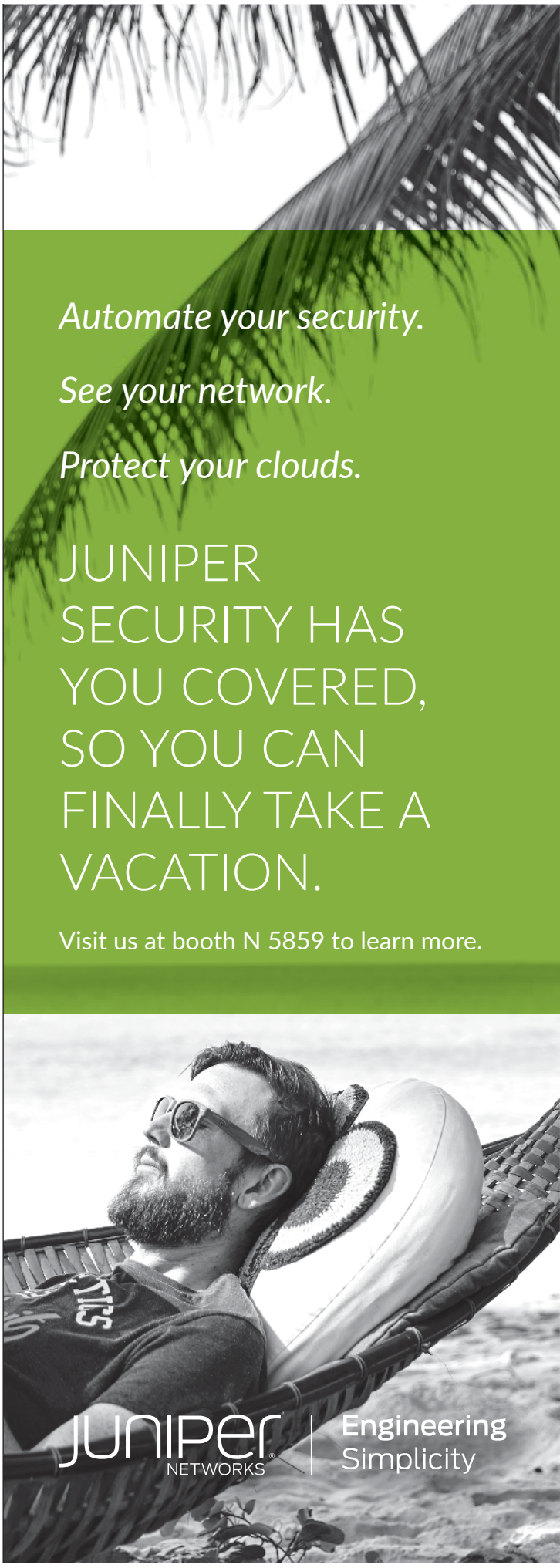
Offered FREE to current students or recent 2018 graduates, the annual RSA Conference College Day program is the place to explore career options, hear from the best in the field, and network with leading companies looking for professionals to join their workforce.

Participants enjoy two days of Full Conference privileges on Thursday, March 7, and Friday, March 8, 2019, which gains them access to over 150 sessions and keynotes, and over 650 exhibitors. Students are also invited to an exclusive networking breakfast with sponsor panel and evening open house to meet some of the industry's top professionals and corporate sponsors.

Check out the agenda at:
www.rsaconference.com/collegeday

RSAC SECURITY SCHOLAR AND RSAC COLLEGE DAY PREMIER SPONSORS:

DELL · intuit powering prosperity · LOCKHEED MARTIN · NBCUniversal · RSA · Walmart InfoSec



DELIVERY FORMATS

Absorb content and hear differing perspectives through a variety of innovative methods during RSA Conference 2019.

BIRDS OF A FEATHER*

Come join us for the Birds of a Feather sessions mornings (7 – 7:50 AM) and afternoons (12:40 – 1:30 PM) on Wednesday and Thursday! Grab your breakfast or lunch and bring it to the discussion rooms. Some topics are pre-defined and led by speakers, others will develop organically; by design, this is loosely structured to give you an opportunity to network and set the agenda for discussions of interest to you. Only open to Full Conference Pass holders.
Note: Press is not permitted in Birds of a Feather sessions.

CLASSROOM

Classroom sessions are traditional presentations delivered by one to two presenters, following slide decks that are available from the Conference site. Presentations are concluded with audience Q&A.

LEARNING LABS*

Learning Labs provide highly interactive, facilitated learning experiences. All of the content is very hands-on and small group oriented. Seating is limited in Labs, assuring maximum engagement and participation. Labs are open to Full Conference attendees only; utilize Reserve a Seat to schedule your participation. Due to the popularity of the Learning Labs, you can only reserve one Lab on your schedule, so pick carefully from our 20 great offerings.
Note: Press is not permitted in Lab sessions.

NORTH & SOUTH EXPO BRIEFING CENTERS

Get tactical help with the pressing challenges you face each day. Technical experts from our Expo vendors present short demonstrations to help you make strategic plans and purchase decisions for your organization.

RSAC After Hours

BETTER.

More options. More fun. *RSAC After Hours.*

Blow off some steam with **RSAC After Hours**. Previously called the "RSAC Bash," RSAC After Hours offers Full Conference and Discover Pass holders the chance to hang out with industry peers and colleagues in a setting of their choice. Choose one of our three unique RSAC After Hours events on Tuesday, Wednesday and Thursday nights of Conference.

RSAC After Hours: Game Night

Tuesday, March 5, 7:00 – 9:30 PM
Moscone West, Level 2

As a cybersecurity all-star, you'll enter the event with VIP treatment. Then it's off to the races. In the Full Court, you'll go head to head with other industry players in our arcade and game hall. Then take a load off in the sports lounge and bar, complete with a live DJ and tailgate-themed refreshments. And at 7:30, the night really gets going as the Celtics face off against the Warriors—live and on the big screen. It's cybersecurity's biggest game of the year, and trust us, you don't want to miss any of the action.

RSAC After Hours: Whiskey & Wine Tasting

Wednesday, March 6, 6:30 – 8:00 PM,
Marriott Marquis, Golden Gate B

What pairs well with RSAC 2019? A whiskey & wine tasting, of course. Kick off the night with a walk through the "underground cellar." Then, gather in the lounge to sip on an assortment of wines and whiskeys expertly selected from local vineyards and distilleries while soaking up the jazzy sounds of our live band. And keep the night going in our group tasting area, where you can mingle with other cybersecurity connoisseurs and raise a glass to another great year at RSA Conference.

RSAC After Hours: Comedy Club

Thursday, March 7, 6:30 – 8:30 PM,
Moscone South, South Stage

You're good for a network backup. How about a laugh? Get your fill at RSAC After Hours: Comedy Club. Stroll in and strike a pose on the red carpet before taking your seat in the front row of our very own comedy club. Serving up bottomless laughs—plus delicious food and cocktails—some of the funniest comedy acts around will take the stage, adding some good humor to a busy week. Now, who said cybersecurity professionals were all business?

Flexibility. Fun. What's not to love?

Space is limited so be sure to reserve a seat for your RSAC After Hours event today.

DELIVERY FORMATS

PANEL DISCUSSIONS

Panel sessions are traditional format, featuring a moderator and several panelists representing different viewpoints.
The discussions are concluded with audience Q&A.

PEER2PEER SESSIONS*

P2P sessions enable groups of no more than 30 people that share a common interest to come together and productively explore a specific security topic, with discussion facilitated by an experienced practitioner. ***Note: Press is not permitted in Peer2Peer sessions.***

RSAC EARLY STAGE EXPO BRIEFING CENTER

Get tactical help with the pressing challenges you face each day. Technical experts from our Early Stage Expo exhibitors present short demonstrations showcasing new approaches from up and coming vendors.

** Open to Full Conference Pass holders only.*

† Trainings and Tutorials are offered for an additional fee.

RSAC SANDBOX

RSAC Sandbox 2019 offers hands-on experiences addressing, discussing and simulating threats and vulnerabilities in IoT devices, wireless networks and industrial control systems. It also features the SANS NetWars experience, where you can challenge your infosec skills. The Sandbox is open to all badge types, except on Tuesday when it's open to Full Conference Pass holders, Tuesday One-Day Full Conference Pass holders, Press and CyBEER Ops ticket holders only.

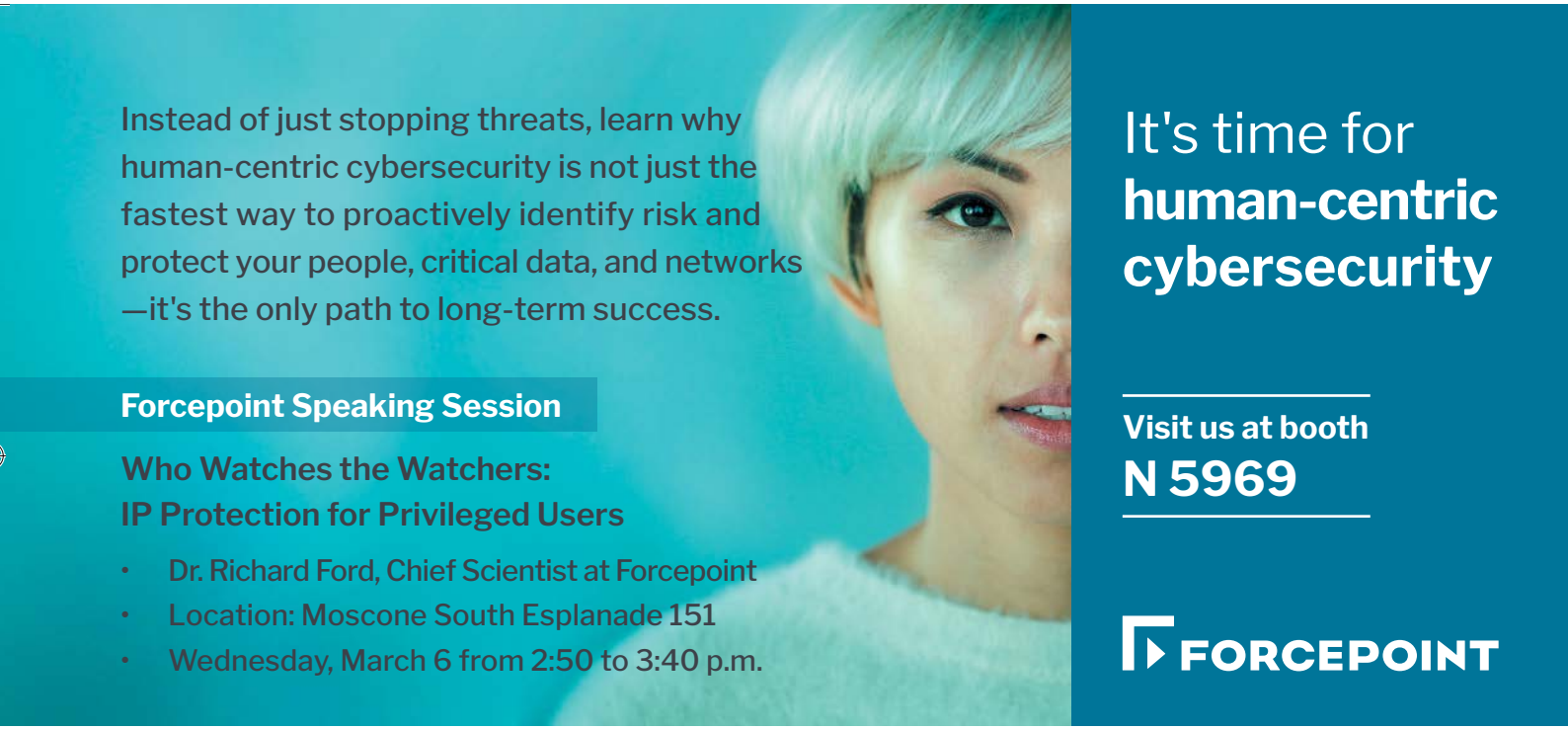
SEMINARS

Start your Conference week on a high note, meeting other practitioners and engaging in these focused Monday seminars. Our seminar portfolio and topics have expanded this year, so be sure to explore all of the options.

Check the appropriate sessions details pages (pp. 41 – 43) for access information. Some seminars are open to all badge types and some seminars are only open to Full Conference and Discover Pass holders.

TRAININGS & TUTORIALS†

Immerse yourself in intensive, skill-building two-day sessions on Sunday/Monday of Conference week. Trainings & Tutorials are led by respected authorities from the **SANS Institute**, **CSA**, **ISACA** and **(ISC)²**. Please note, the Trainings & Tutorials are available for purchase.



TRACKS

ANALYTICS, INTELLIGENCE & RESPONSE

[AIR] Analytics, Intelligence & Response covers the application of investigative and analytic techniques that help organizations anticipate, identify, contain, investigate and resolve incidents in the enterprise. It also explores threat intelligence gathering, automating response and sharing across technologies and organizations.

APPLICATION SECURITY & DEVSECOPS

[ASEC] Application Security & DevSecOps focuses on secure software development as well its intersection with security operations. Sessions will focus on sharing real-world, enterprise-level experience, covering topics such as secure application design, secure configurations, containerization and secure development methodologies.

ASSOCIATION SPECIAL TOPICS

[AST] Navigate the association landscape and learn about opportunities in training, best practices, credentialing, special programs, and career development from leaders in the field.

BLOCKCHAIN & APPLIED CRYPTO

[BAC] Explore emerging use cases and practical applications for this rapidly changing, transformative technology. Topics include encryption, distributed ledgers, cryptocurrency, decentralized identity, tokenization, key management, homomorphic encryption and the implications of quantum computing on encryption.

BRIDGING THE GAP: CYBERSECURITY + PUBLIC INTEREST TECH

[PITC] A new field is emerging—a community of people using their skills in technology to change the world for the better: the professional field of public interest technology. There is a need to bridge the gap between what technologists are trying to build and what social scientists are trying to address. Join us for an inspiring track with cybersecurity expert Bruce Schneier and over a dozen leading security, civic and social sector leaders.

Brought to you by Bruce Schneier and the Ford Foundation

FORDFOUNDATION

C-SUITE VIEW

[CXO] This track focuses on the intersection of business and security. It features experiences and opinions of CXOs, communicating cyber-risk to the board, and the latest trends and issues in information security that impact the executive suite.

CLOUD SECURITY & VIRTUALIZATION

[CSV] The Cloud Security & Virtualization track includes sessions on the security aspects of using and leveraging cloud services, virtualization technologies/services, segmentation, deployment models, network function virtualization and hybrid architectures.

CRYPTOGRAPHY

[CRYP] This academically focused and refereed track for mathematicians and computer scientists offers presentations of the very latest papers about the science of cryptography.

CYBERSECURITY FUTURE PROOF: 2025

[CSFP] What does the world look like in 2025? What technology, process and staffing considerations should you be making now to prepare for whatever may lie in the future to put you ahead of the adversary? Cybersecurity Future Proof: 2025 delivers a rare look into the security crystal ball and includes traditional presentations and interactive lab-like sessions, designed for the cross-section of RSA Conference attendees from technology, business, academia, policy and law, to help frame your future thinking.

GOVERNANCE, RISK & COMPLIANCE

[GRC] This track covers the creation and implementation of risk management frameworks, compliance-related sessions on standards, and instituting governance across the extended enterprise. This track also contains sessions on a wide variety of security metrics and measurements.

HACKERS & THREATS / HACKERS & THREATS ADVANCED

(two tracks)

[HT] & **[HTA]** Hackers & Threats sessions include discussions around the growing underground economy, advanced threats, ransomware, cyber-weapons, new classes of vulnerabilities, exploitation techniques, reverse engineering, and how to combat these problems. The second track, Hackers & Threats Advanced, is technically advanced and will include live demos and code dissection.

HUMAN ELEMENT

[HUM] This track explores how people make trust choices, innovative ways to secure the human, and how classic attacks and emerging threats now include a human element. Topics include social networking/engineering, insider threats, information operations, and user behavior analytics.

IDENTITY

[IDY] This track covers the processes, technologies and policies for managing and controlling digital identities across the extended enterprise.

KEYNOTES

[KEY] RSAC keynote speakers are inspiring leaders, thinkers, and innovators that will share perspectives and knowledge on the information security industry. Don't miss the action on two stages this year: South and West.

LAW

[LAW] The Law track explores topics ranging from unintended consequences due to legislation, legal rulings, liability, and emerging issues on the legal landscape.

Sponsored by: ABA Section of Science & Technology Law

MACHINE LEARNING & ARTIFICIAL INTELLIGENCE

[MLAI] Sessions examine the applications and limitations of machine learning and artificial intelligence in cybersecurity, exploring fundamentals, applications, potential to address workforce shortages, automation, and future evolution of capabilities.

TRACKS

MOBILE & IoT SECURITY

[MBS] This track provides focused discussion on policies, processes and technologies for managing mobile security in the enterprise, including device management and emerging threats to mobile platforms. It will also explore the challenges posed by the Internet of Things and the implications of the interconnectivity of everything.

POLICY & GOVERNMENT

[PNG] This track features sessions on current and proposed government strategies, policies, legislation, and standards that could shape the direction of cloud computing, cyber-norms, public private-partnerships, big data initiatives, cyberthreat intelligence sharing, industry standards, and security compliance requirements for years to come.

PRIVACY

[PRV] This dedicated half-track explores the privacy issues related to big data, social media, cloud, legislative changes, IoT, and other emerging technologies and processes in the enterprise.

PROFESSIONAL DEVELOPMENT

[PROF] Professional Development covers technical and business/management training, professional certifications and career development, diversity as well as staff and personnel management.

PROTECTING DATA & THE SUPPLY CHAIN ECOSYSTEM

[PDAC] This track explores the cascading security requirements of the extended enterprise and the classification, tracking, and protection of data. It covers data protection regulations, DLP and threats to sensitive data, and emerging trends, as well as vendor and partner SLAs, supply chain mapping, continuous enforcement, and how to future-proof vendor contracts and risk assessments for evolving requirements.

SECURITY MASHUP

[MASH] This track includes interesting speakers and sessions on a wide range of topics not found anywhere else during the week.

SECURITY STRATEGY & ARCHITECTURE

[STR] Security Strategy & Architecture covers the policy, planning, and evolving areas of enterprise security architecture and the management issues of implementing successful security programs. Sessions will include the structures and tools needed to build a security program that enables and enhances business processes, cyber-resiliency, and cyber-hygiene.

SPONSOR SPECIAL TOPICS

[SPO] Listen to a spectrum of experts and security issues delivered and discussed by leading-edge companies.

TECHNOLOGY INFRASTRUCTURE & OPERATIONS

[TECH] This track focuses on the most interesting and challenging elements of current and emerging security infrastructure, providing a highly technical view on strategic planning, implementation, orchestration, vulnerability assessment, and security monitoring for the defense of networks, endpoints, operational technology, and systems.

SPECIAL THURSDAY TRACK

BRIDGING THE GAP: CYBERSECURITY + PUBLIC INTEREST TECH

Our work in cybersecurity is inexorably intertwined with public policy and—more generally—the public-interest. It's obvious in the debates on encryption and vulnerability disclosure, but it's also part of the policy discussions about the Internet of Things, cryptocurrencies, artificial intelligence, social media platforms and pretty much everything else related to IT.

This societal dimension to our traditionally technical area is bringing with it a need for public-interest technologists. This is a catch-all category of technologists who are doing public policy work, or technology for public good, or technology within organizations doing broader public good. It's a growing field—one far broader than cybersecurity—and one that I want to focus on here at RSA Conference.

Together with the Ford Foundation, I have put together a mini-track on public-interest tech. Six sessions throughout the day on Thursday will highlight different aspects of this important work. We'll look at public-interest technologists inside governments, as part of civil society, at universities, and in corporate environments.

We all need to help. I don't mean that we all need to quit our jobs and go work on legislative staffs; there's a lot we can do while still maintaining our existing careers. We can advise governments and other public-interest organizations. We can agitate for the public-interest inside the corporations we work for. We can speak at conferences and write opinion pieces for publication. We can teach part-time at all levels. But some of us will need to do this full-time.

There's an interesting parallel to public-interest law, which covers everything from human-rights lawyers to public defenders. In the 1960s, that field didn't exist. The field was deliberately created, funded by organizations like the Ford Foundation. They created a world where public-interest law is valued. Today, when the ACLU advertises for a staff attorney, paying a third to a tenth of a normal salary, it gets hundreds of applicants. Today, 20% of Harvard Law School grads go into public-interest law, while the percentage of computer science grads doing public-interest work is basically zero. This is what we need to fix.

Please stop in at my mini-track. Come for a panel that interests you, or stay for the whole day. Seek me out to talk about this further. Pretty much all the major policy debates of this century will have a strong technological component—and an important cybersecurity angle—and we all need to get involved.

Best,

Bruce Schneier
Fellow and Lecturer, Harvard Kennedy School

THURSDAY, MARCH 7 – Moscone South 301*

9:20 AM – 10:10 AM **Introduction: Public Interest Technologists and Cybersecurity** PITC-R03
MODERATOR: ***J. Bob Alotta****, Astraea Foundation*
PANELISTS: ***Matt Mitchell****, Tactical Tech;* ***Bruce Schneier****, Fellow and Lecturer, Harvard Kennedy School*

10:40 AM – 11:30 AM **Public Interest Tech in Silicon Valley** PITC-R05
Mitchell Baker*, Chairwoman, Mozilla Corporation;* ***Cindy Cohn****, EFF*

12:00 PM – 12:50 PM **Working in Civil Society** PITC-R07
Sarah Aoun*, Digital Security Technologist;* ***Peter Eckersley****, Partnership on AI;* ***Harlo Holmes****, Director of Newsroom Digital Security, Freedom of the Press Foundation;* ***John Scott-Railton****, Senior Researcher, Citizen Lab*

1:30 PM – 2:20 PM **Government Needs You** PITC-R09
Travis Moore*, TechCongress;* ***Hashim Mteuzi****, Senior Manager, Network Talent Initiative, Code for America;* ***Gigi Sohn****, Distinguished Fellow, Georgetown Law Institute for Technology Law & Policy;* ***Ashkan Soltani****, Independent Consultant, Soltani LLC*

2:50 PM – 3:40 PM **Changing Academia** PITC-R11
Latanya Sweeney*, Harvard;* ***Danny Weitzner****, MIT CSAIL*

4:10 PM – 5:00 PM **The Future of Public Interest Tech** PITC-R14
MODERATOR: ***Jenny Toomey****, Director, Internet Freedom, Ford Foundation*
PANELISTS: ***Bruce Schneier****, Fellow and Lecturer, Harvard Kennedy School;* ***Ben Wizner****, ACLU*

** See Session Detail pages for session abstracts. Open to Full Conference Pass holders only.*

READING LIST:

Public interest technology resources page:
https://public-interest-tech.com
Essay on public interest technology for *IEEE Security & Privacy* by Bruce Schneier:
https://www.schneier.com/essays/archives/2019/02/public-interest_tech.html
Freedman Consulting report on public interest tech:
The URL is complicated; Google "freedman pivotal moment"

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SOCIAL ACTIVITIES

Enrich your RSA Conference 2019 experience and take advantage of these networking events and activities to connect with like-minded peers.

CyBEER OPS NETWORKING RECEPTION & INTERNATIONAL MEET-UP*

Delight in local California craft beers and non-alcoholic drinks as you mingle with peers and RSAC friends from around the world. This event occurs on Tuesday from 4:45 to 6:30 PM in the RSAC Sandbox and RSAC Early Stage Expo on the Yerba Buena level of the Marriott Marquis. *Event is free for Full Conference attendees and Press. All other badge holders can purchase tickets through registration for a fee of $25. Event access is restricted to attendees 21 and over and is first come, first served.*

EXPO PUB CRAWL

Enjoy your choice of complimentary beer, wine and non-alcoholic beverages as you visit sponsoring companies' booths to learn about their latest products, services and innovations. Located at select sponsor booths within the Expo on Wednesday, March 6, from 4:30 – 6 PM.

FIRST-TIMERS MEET-UP*

Wednesday, March 6 & Thursday, March 7, 7:00 AM – 8:00AM, Moscone West Level 2 Alcove

Start the day with a meet-up with other RSAC First-Timers. Grab your complimentary breakfast and enjoy this time to regroup, share takeaways and, of course, caffeinate.

FIRST-TIMERS ORIENTATION & NETWORKING RECEPTION*

Join other RSA Conference first-time attendees for an informative session and networking reception on Monday, March 4, from 4 – 5 PM at the Marriott Marquis, Golden Gate A. This event is open to Full Conference Pass holders and features a 30-minute presentation followed by a 30-minute networking reception with light refreshments.

POWER PAUSE—MINDFULNESS & MOVEMENT

Wednesday, March 6 & Thursday, March 7, 6:00 AM – 7:00AM, Moscone West Level 2 Alcove

This event is designed for the dreamers, doers, entrepreneurs, go-getters, hustlers and game changers. If you want to discover ways to maximize your performance and achieve greater results, this session is for you. This yoga class and meditation session is designed for all levels from beginners to advanced practitioners. Wear athletic attire and show up as you are.

RSAC AFTER HOURS**

Blow off some steam with RSAC After Hours. Previously called the "RSAC Bash," RSAC After Hours offers Full Conference and Discover Pass holders the chance to hang out with industry peers and colleagues in a setting of their choice. Choose one of our three unique RSAC After Hours events on Tuesday, Wednesday or Thursday nights of the Conference.

RSAC After Hours: Game Night on Tuesday, March 5, 7:00 – 9:30 PM, Moscone West, Level 2

RSAC After Hours: Whiskey & Wine Tasting on Wednesday, March 6, 6:30 – 8:00 PM, Marriott Marquis, Golden Gate B

RSAC After Hours: Comedy Club on Thursday, March 7, 6:30 – 8:30 PM, Moscone South, South Stage

Flexibility. Fun. What's not to love? Space is limited so be sure to reserve a seat for your RSAC After Hours event today.

RSAC WOMEN'S LEADERSHIP CELEBRATION RECEPTION

On Monday, March 4, 4:30 – 6:00 PM, in Moscone South 303, after our *She Speaks Security* seminar, join us in celebrating the contributions and rich history of women in science and technology. Hosted with our planning partners: Women's Society of Cyberjutsu, Executive Women's Forum on Information Security, Risk Management and Privacy (EWF), The Diana Initiative, Women in Security and Privacy (WISP) and Women in CyberSecurity (WiCyS). All RSA Conference attendees are welcome to attend.

SOCIAL MEDIA & TWITTER CHAT

Socialize with us! Follow *@RSAConference* on Twitter and the *#RSAC* hashtag for live updates from the Conference floor. We'll be live tweeting and posting photos and videos to share all RSAC 2019 happenings with you.

@RSAConference will also be hosting a Twitter Chat sponsored by NCSA at 11 AM on Tuesday, March 5. Follow the *#RSAC* hashtag to participate!

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NATIONAL CYBERSECURITY ALLIANCE

WELCOME RECEPTION

Join your peers in the Expo while kicking off RSA Conference in style at the Welcome Reception. Enjoy drinks and light fare on Monday, March 4, from 5 – 7 PM. Get exclusive access to the exhibitors you've been waiting to meet; network with peers as you preview cutting-edge products from more than 650 leading information security companies.

Sponsored by:

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* *Open to Full Conference Registrants only.* ** *Open to Full Conference, Full Conference One-Day (for day of admittance) and Discover Pass holders.*

KEYNOTES – Tuesday, March 5

8:00 AM	WEST STAGE	OPENING

8:10 – 8:35 AM	WEST STAGE	KEY-T01W

The Trust Landscape

***Rohit Ghai**, President, RSA; **Niloofar Razi Howe**, Cybersecurity Strategist, Entrepreneur*

We stand at a remarkable inflection point in our digital evolution, facing an unprecedented assault on trust. In a hyperconnected world, where malicious or manipulative activity can be spread to millions in an instant, information itself is a battlefield with the power to erode trust in society's most sacred institutions. How can we tackle such a consequential challenge? The notion of risk must be properly defined in this modern digital context. Adopting the right understanding of risk not only restores our faith in what matters most but is ultimately the catalyst for human progress.

8:35 – 8:55 AM	WEST STAGE	KEY-T02W

Lightning in a Bottle, or Burning Down the House?

***Dr. Celeste Fralick**, Chief Data Scientist, McAfee, LLC; **Steve Grobman**, Senior Vice President and Chief Technology Officer, McAfee, LLC*

Fire. In the wild, it's a force for destruction. Controlled, it powers civilization's forward evolution. But containing phenomena—natural or manmade—is a devilish challenge. Innovations that strengthen our defenses can also fuel targeted attacks, so the weaponization of AI to amplify the impact of cyberattacks is enough to give anyone pause. Discussion of its delegation at scale across our organizations is a worthy conversation. What is the path forward to advance and protect human progress? How do we nurture sparks of innovation without burning bridges to the future?

8:55 – 9:15 AM	WEST STAGE	KEY-T03W

Rise of the Machines: Staying Ahead of the Next Threat

***Liz Centoni**, Senior Vice President | General Manager Cisco IoT, Cisco; **Matt Watchinski**, Vice President, Global Threat Intelligence Group, Talos, Cisco*

The robots are coming, and they are connected to the Internet. Are we prepared to defend this new attack surface, which is exponentially greater than what we protect today? Our primary focus of the last decade was identifying and containing costly data breaches. The new frontier of connected devices represents the next generation of threats. Hear why you need to get in front of this cycle and how leaders can collaborate across security, information technology and operations to translate early lessons into successful defense strategies.

9:20 – 10:05 AM	WEST STAGE	KEY-T04W

The Cryptographers' Panel

*MODERATOR: **Zulfikar Ramzan, Ph.D.**, Chief Technology Officer, RSA*

*PANELISTS: **Whitfield Diffie**, Cryptographer and Security Expert, Cryptomathic; **Shafi Goldwasser**, Director, Simons Institute for the Theory of Computing; **Ronald Rivest**, Professor, Massachusetts Institute of Technology; **Adi Shamir**, Borman Professor of Computer Science, The Weizmann Institute, Israel*

Humans have been using cryptographic techniques since the dawn of time to safeguard their data and achieve confidentiality, integrity, authenticity and privacy of their communications. Cryptography has evolved in the face of the Internet and has enabled advances like e-commerce. Join the founders and leaders of the field as they discuss what the future holds in the face of increased hyperconnectivity and digital transformation.

10:05 – 10:30 AM	WEST STAGE	KEY-T05W

The FBI: At the Heart of Combating Cyberthreats

***Susan Hennessey**, Senior Fellow, Governance Studies, The Brookings Institution and Executive Editor, Lawfare; **Christopher A. Wray**, Director, Federal Bureau of Investigation*

FBI Director Christopher Wray will discuss how the FBI's unique position as the lead domestic US law enforcement and intelligence agency is central to US government efforts to counter criminal and national security cyberthreats to the United States and its citizens. Director Wray will participate in a fireside chat-style interview to discuss the cyberthreats and technological challenges that face America.

* *On Tuesday morning, the keynotes are open to Full Conference, Discover Pass and Press Registrants only.*

= *Top-rated speaker.*

Tuesday, March 5 – KEYNOTES

11:00 – 11:50 AM	SOUTH STAGE	KEY-T06S

Top 10 Ways to Make Hackers Excited: About the Shortcuts Not Worth Taking

***Paula Januszkiewicz**, Chief Executive Officer, CQURE*

Designing secure architecture can always be more expensive, time consuming, and complicated. Come to the session and learn what mistakes were eliminated when working with customers.

1:00 – 1:50 PM	SOUTH STAGE	KEY-T07S

A Cloud Security Architecture Workshop

***Dave Shackleford**, Senior Instructor, SANS Institute*

Core cloud security architecture best practices, based on too many projects and deployments to count. This session will quickly bring you up to speed on cloud security architecture design principles.

2:20 – 3:10 PM	SOUTH STAGE	KEY-T08S

Security at 36,000 Feet!

***Emily Heath**, Vice President and Chief Information Security Officer, United Airlines*

Ladies and gentlemen, the fasten seatbelt sign is on! Join us for an engaging discussion on how an evolving and constantly moving security program is run at one of the world's largest airlines.

3:40 – 4:30 PM	SOUTH STAGE	KEY-T09S

Lessons Learned from 30+ Years of Security Awareness Efforts

***Ira Winkler**, President, Secure Mentem*

This session will cover 30+ years of experience in examining the science and practice of awareness and defines what works and what doesn't in reducing user-related risk.

Protect applications with intrinsic security.

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Visit us at booth N 5655 to discover how to protect your apps from the data center to the cloud to the device.

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KEYNOTES — Wednesday, March 6

8:00 – 8:50 AM	SOUTH STAGE	KEY-W02S

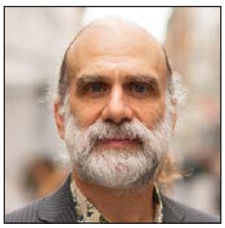
Hacking Exposed: LIVE—Bypassing NextGen

***Stuart McClure**, Chairman and Chief Executive Officer, Cylance Inc.; **Brian Robison**, Chief Evangelist, Cylance Inc.*

In typical Hacking Exposed style, this session will deliver the latest and greatest hacks in live demonstrations that will illuminate the tools and techniques of the attacker.

9:20 – 10:10 AM	SOUTH STAGE	KEY-W03S

The Role of Security Technologists in Public Policy



***Bruce Schneier**, Fellow and Lecturer, Harvard Kennedy School*

The defining policy question of the Internet age is this: How much of our lives should be governed by technology, and under what terms? We need to be involved in that discussion.

10:30 – 10:55 AM	WEST STAGE	KEY-W04W

The Power of People: Amplifying Our Human Capacity through Technology and Community

***Ann Johnson**, Corporate Vice President, Cybersecurity Solutions Group, Microsoft*

Cybersecurity is at an inflection point. We are witnessing people being empowered by technology, while large gaps are forming that threaten their ability to amplify human capacity. In order to grow and maximize our potential, we must acknowledge those gaps and close them by bringing diverse sets of people and data together. Machine learning, artificial intelligence and automation hold promise for closing the security gaps, but the battle to solve the critical challenges we face around the world requires much more, including renewed efforts to recruit new cybersecurity professionals outside traditional channels, caring for the mental health of these first-line defenders, while growing and nurturing the power of everyone, everywhere.

10:55 – 11:15 AM	WEST STAGE	KEY-W06W

Palo Alto Networks and Arista Networks CEOs Reveal Secrets to a Successful Cloud Journey

***Nikesh Arora**, Chief Executive Officer and Chairman, Palo Alto Networks; **Jayshree Ullal**, President and Chief Executive Officer, Arista Networks*

Palo Alto Networks CEO Nikesh Arora and Arista Networks CEO Jayshree Ullal offer their unique blend of trend spotting and straight-shooting business observations as they discuss the opportunity and the perils organizations face as they make their journey to the cloud. Both executives have led cloud-based businesses through massive growth and have seen how the pace of innovation can serve as an accelerate on a global scale. Come hear them share their views on how to harness digital transformation in a world that poses ever-present cyberthreats and the importance of diverse perspectives.

11:15 – 11:55 AM	WEST STAGE	KEY-W07W

Weaponization of the Internet

*MODERATOR: **Ted Schlein**, General Partner, Kleiner Perkins*

*PANELISTS: **Nathaniel Gleicher**, Head of Cyber Security, Facebook; **Del Harvey**, Vice President, Trust and Safety, Twitter; **Robert Joyce**, Senior Advisor, National Security Agency; **Peter Warren Singer**, Strategist, New America*

The internet promised all an equal voice in public discourse, but bots and rogue advertising are being used to manipulate public opinion, critically threatening public dialog. Globally, nation states, partisan agencies and political parties have grabbed the internet & social media reins to spread disinformation. This panel explores issues involved in controlling the internet, censorship and the impact on democracy.

Choose the way you want to view the keynote presentations:

In person in two locations this year: Moscone West Street Level & Moscone South Esplanade Level *(space is limited)*

Alternate viewing areas:
Moscone West Levels 2 & 3

Online and on the go at *www.rsaconference.com/live*

= Top-rated speaker.

1:30 – 2:20 PM	SOUTH STAGE	KEY-W10S

Strategic Competition: The Rise of Persistent Presence and Innovation

***Olivia Gazis**, Intelligence and National Security Reporter, CBS News; **General Paul Nakasone**, United States Army, Commander, United States Cyber Command, Director, National Security Agency, Chief, Central Security Service*

Threats have moved well beyond exploitation and disruption to destruction and corrosion. Hear how NSA and USCYBERCOM use counterthreats to defend our nation.

2:50 – 3:40 PM	SOUTH STAGE	KEY-W12S

From Dystopia to Opportunity: Stories from the Future of Cybersecurity

***Amit Elazari**, Director, Global Cybersecurity Policy, Intel Corporation, and Lecturer, UC Berkeley School of Information (MICS); **Keren Elazari**, Analyst & Researcher, K3r3n3.com*

A hacker and a lawyer confront the future of cybersecurity: How are evolving attack trends impacting policy landscapes? Can trust become a feature? What can hackers do for you? Embrace what's next.

4:00 – 4:25 PM	WEST STAGE	KEY-W14W

A View from the Front Lines of Cybersecurity

***Sandra Joyce**, Senior Vice President, Global Intelligence, FireEye; **Kevin Mandia**, Chief Executive Officer, FireEye*

As one of the foremost experts in cybersecurity, Kevin Mandia will discuss today's threat environment and its impact on enterprises and agencies around the world. He will be joined on stage by Sandra Joyce, FireEye's senior vice president of Global Intelligence, who will share insight into the threat actors, tactics and trends that are likely to play an integral role in the landscape of cybersecurity in the years to come.

4:25 – 4:50 PM	WEST STAGE	KEY-W16W

A Conversation with Donna Brazile and Mary Matalin

***Donna Brazile**, Veteran Democratic Political Strategist, Adjunct Professor, Author and Syndicated Columnist; **Mary Matalin**, Celebrated Conservative Voice and Former Presidential Advisor*

For over three decades, Matalin and Brazile have maintained an intense philosophical commitment to their respective politics, along with a deep, mutual admiration and respect for each other on both the personal and professional levels. Together, the pair provides insightful, inspiring and informative commentary, as well as a welcome reprieve to the often-overwrought modern political landscape.

4:50 – 5:15 PM	WEST STAGE	KEY-W17W

How Technology and Innovative Approaches Can Transform Your Organization

***Megan Smith**, Chief Executive Officer, shift7, Third Chief Technology Officer of the United States (2014-2017)*

As the third chief technology officer of the United States, Megan Smith fundamentally altered the composition of the Federal Government. Her team recruited top talent "rabble-rousers" from Silicon Valley and other tech sectors to address such critical issues as artificial intelligence, education and training, urban and rural poverty, data science, and economic inclusion. Smith will describe how they teamed up with colleagues to employ their talents and adopt new approaches to using data, innovation and rapid iteration in order to create a more open, collaborative and responsive government—and will explain how your company can do the same.

RSAC LoyaltyPlus

Our RSAC LoyaltyPlus Program is offered to eligible Full Conference Pass holders who have attended a total of five or more RSA Conferences. As an RSAC LoyaltyPlus member, you will enjoy many benefits, including:

- Fastlane access to Tuesday keynotes
- Reserved check-in counter at registration
- Exclusive access to the LoyaltyPlus lounge with snacks and drinks and recharge stations.

LOYALTYPLUS LOUNGE HOURS:

Monday	8:00 AM – 5:30 PM
Tuesday	6:30 AM – 4:30 PM
Wednesday	7:00 AM – 5:30 PM
Thursday	7:00 AM – 5:30 PM
Friday	8:00 AM – 1:30 PM

RSAC LoyaltyPlus Lounge location: Moscone West Level 2

KEYNOTES – Thursday, March 7

8:00 – 8:50 AM	SOUTH STAGE	KEY-R02S

Stress, Burnout and You: Fireside Chat with Dr. Christina Maslach

***Josh Corman**, Chief Security Officer, PTC; **Christina Maslach**, Professor of Psychology, Emerita, University of California, Berkeley*

Become hyperaware of the impact of stress and the fallout that leads to profound industry issues like burnout and toxicity. Help to be a champion of wellness in your organization.

9:20 – 10:10 AM	SOUTH STAGE	KEY-R03S

Hacking Exposed: Hacking Macs

***Dmitri Alperovitch**, Co-Founder & Chief Technology Officer, CrowdStrike;*
***George Kurtz**, Chief Executive Officer, CrowdStrike*

In the typical raw Hacking Exposed style, the session will demonstrate real-world case studies of advanced intrusions on MacOS systems, with detailed breakdown of TTPs and artifacts.

10:30 – 10:55 AM	WEST STAGE	KEY-R04W

Stop Worrying about the Right Things

***Mary O'Brien**, General Manager, IBM Security; **Caleb Barlow**, Vice President, IBM Security, X-Force Threat Intelligence*

What if you think being hacked is an advantage? Or failure is your goal? Where closed means open? Or if you could guard less to secure more? IBM Security's Mary O'Brien, general manager, and Caleb Barlow, vice president of threat intelligence, share the insights that they've learned running a fully immersive cyber-range, using AI to fight attacks and standing with organizations through difficult situations that challenge conventional thinking.

10:55 – 11:40 AM	WEST STAGE	KEY-R06W

The Five Most Dangerous New Attack Techniques and How to Counter Them

*MODERATOR: **Alan Paller**, Research Director and Founder, SANS Institute*

*PANELISTS: **Heather Mahalik**, Director of Forensics Engineering, ManTech, and Mobile Forensics Course Director, SANS Institute; **Ed Skoudis**, Instructor, SANS Institute; **Johannes Ullrich**, Dean of Research, SANS Technology Institute*

Which are the most dangerous new attack techniques? How do they work? How can you stop them? What's coming next and how can you prepare? This fast-paced briefing features the three people best positioned to provide answers and best able to communicate them: the nation's top expert/teacher on mobile forensics, the director of the Internet Storm Center and the top hacker exploits expert/teacher in the US. They also answer audience questions.

2:50 – 3:40 PM	SOUTH STAGE	KEY-R11S

The Future of Data Protection: Adapting to the Privacy Imperative

*MODERATOR: **J. Trevor Hughes**, President & Chief Executive Officer, IAPP*

*PANELISTS: **Kalinda Raina**, Senior Director, Head of Global Privacy, LinkedIn; **Ruby Zefo**, Chief Privacy Officer, Uber*

This session will explore the future of privacy, in which personal data has become a currency impacted by competing regulations, like GDPR and CCPA, and complex ethical and competitive imperatives.

= Top-rated speaker.

4:00 – 4:25 PM	WEST STAGE	KEY-R13W

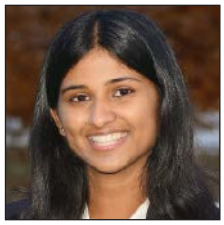
Three Things the Security Industry Isn't Talking About (but Should Be)

***Pat Gelsinger**, Chief Executive Officer, VMware; **Shannon Lietz**, Director, Intuit*

The biggest threat to security today is our hyper-focus on threats. Most innovations have centered on finding and dealing with attacks. By contrast, very little has been done in how we shrink the attack surface. That domain needs to be a topic to achieve big gains in security. Join VMware CEO Pat Gelsinger and Intuit DevSecOps Leader Shannon Lietz, as they unveil the three things the industry needs to talk about to reduce the attack surface and shift the advantage to the defenders.

4:25 – 4:45 PM	WEST STAGE	KEY-R15W

Tales of a Teenage Security Supergirl



***Kyla Guru**, Founder and Chief Executive Officer, Bits N' Bytes Cybersecurity Education*

In her keynote at RSA Conference, Kyla Guru will share her story of being a social entrepreneur in the cybersecurity industry, the challenges she has faced and what she believes should be the greater mission of all cybersecurity initiatives. Guru will use her unique perspective of going through the education system to talk about what she sees for the future of the industry, and, of course, how we can make radical change to our current state of cyber-insecurity.

4:45 – 5:30 PM	WEST STAGE	KEY-R16W

Connecting the Dots for the Future

***John T. Chambers**, Founder and Chief Executive Officer, JC2 Ventures, Former Chairman and Chief Executive Officer, Cisco; **Diane Brady**, Award-Winning Writer, Author and Consultant*

Diane Brady and John Chambers will discuss the process of how they co-wrote their new book, *Connecting the Dots: Lessons for Leadership in a Startup World*. They will also cover Chambers's leadership roles serving as CEO and executive chairman at Cisco up through his current position as founder and CEO of JC2 Ventures, where he works with startups from all around the world. Chambers will speak to the importance of diverse teams in the development of a successful business and what he looks for when investing in startups.

KEYNOTES — Friday, March 8

8:30 – 9:20 AM	SOUTH STAGE	KEY-F01S

In the Wake of an Attack: Thoughts from a Seasoned CISO

***Bob Lord**, Chief Security Officer, DNC;*
***Hugh Thompson**, RSA Conference Program Chair, RSA Conference*

Bob Lord has had a front-row seat, security-wise, at many high-profile organizations. Join to learn how he's helping would-be US presidentials to be secure, with sage recommendations that can be useful for all.

9:50 – 10:40 AM	SOUTH STAGE	KEY-F02S

(Girl) Scouting for Talent: The Solution in the Next Generation

***Sylvia Acevedo**, Chief Executive Officer, Girl Scouts of the USA*

Girls are the "secret weapon" of our future, and the opportunity is in your hands to positively impact individuals, businesses and cybersecurity by helping to develop a strong, diverse STEM workforce.

11:10 AM – 12:00 PM	SOUTH STAGE	KEY-F03S

Engineering Trust and Security in the Cloud Era, Based on Early Lessons

*MODERATOR: **Quentin Hardy**, Head of Editorial, Google Cloud*

*PANELISTS: **Suzanne Frey**, Vice President, Engineering, Google Cloud; **Amin Vadhat**, Google Fellow and Networking Technical Lead, Google*

In the early Internet, trust was implicit. Now, it's built. Cloud is an opportunity to build securely from the ground up, incorporating lessons from decades of building secure distributed networks.

12:30 PM – 1:15 PM	WEST STAGE	KEY-F04W

CONFERENCE CLOSING

A Conversation with Tina Fey, Writer, Actress and Producer

Please join us on Friday as Hugh Thompson sits down for an insightful conversation with the multitalented Tina Fey.

RSAC onDemand

BETTER.

Welcome to RSAC's virtual side. **RSAC onDemand.**

RSAC onDemand lets you watch and re-watch many Conference favorites. Starting March 5 your RSAC 2019 Pass lets you unlock this exclusive content:

- Nearly 200 sessions across 20 tracks, covering all of cybersecurity's angles
- Seven seminars that address some of today's most top-of-mind issues
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SUNDAY/MONDAY TUTORIALS & TRAININGS†

SANS TUTORIALS

Immerse yourself in an intensive, skill-building two-day session led by respected authorities from the SANS Institute.

Dates: Sunday, March 3 & Monday, March 4
Time: 9:00 AM – 5:00 PM
Location: Moscone West 3003, 3004, 3005, 3006

Each of these SANS Tutorials qualifies you for 12 CPE credits.

Automating Information Security with Python

Mark Baggett

Python is a simple, user-friendly language that is designed to make quickly and easily automate the tasks performed by security professionals. Whether you are new to coding or have been coding for years, this course will have you creating programs that make your job easier and your work more efficient. The self-paced course starts from the very beginning, assuming you have no prior experience or knowledge of programming. It covers all the essentials of the language up front. If you already know the essentials, you will find that the pyWars lab environment allows you to quickly accelerate to more advanced material. You will learn the skills you need to customize or even build tools that empower you to automate the daily routine of today's cybersecurity professional and achieve more value in less time.

Critical Security Controls: Planning, Implementing and Auditing

James Tarala

This course helps you master the specific, proven techniques and tools needed to implement and audit the Critical Security Controls as documented by the Center for Internet Security (CIS). The Critical Security Controls are rapidly becoming accepted as the highest priority list of cybersecurity measures that must be implemented and proven before anything else at nearly all serious and sensitive organizations. The controls were selected and defined as the best way to block known attacks and find and mitigate damage from attacks that get through. For security professionals, this course enables you to see how to put the controls in place in your existing network though effective and widespread use of cost-effective automation. For auditors, CIOs and risk officers, the course is the best way to understand how you will measure whether the controls are effectively implemented.

Lethal Threat Hunting and Incident Response Techniques

Eric Zimmerman

Prevention systems alone are insufficient to counter focused human adversaries who know how to get around most security and monitoring tools. The key is to look constantly for attacks that get past security systems and to catch intrusions in progress rather than after attackers have completed their objectives and done worse damage to the organization. For the incident responder, this process is referred to as "threat hunting," which involves using known adversary behaviors to proactively examine networks and endpoints in order to identify new data breaches. This course provides you with advanced skills that can be used to hunt down, identify, counter and recover from a wide range of threats within enterprise networks, including APT nation-state adversaries, organized crime syndicates and hactivists.

Security Awareness — How to Build, Maintain and Measure a Mature Awareness Program

Lance Spitzner

Organizations have invested a tremendous amount of money and resources into securing technology, but little if anything into securing their employees and staff. As a result, people, not technology, have become their weakest link in cybersecurity. The most effective way to secure the human element is to establish a high-impact security awareness program that goes beyond just compliance and changes behaviors. This intense course will teach you the key concepts and skills needed to build, maintain, and measure just such a program. All course content is based on lessons learned from hundreds of security awareness programs from around the world. You will learn not only from your instructor, but from extensive interaction with your peers, as well. Please bring example materials from your security awareness program that you can show and share with other students during the course.

ISACA TRAINING

Deepen your knowledge in the field of information security management while preparing for ISACA's exams.

Dates: Sunday, March 3 & Monday, March 4
Time: 9:00 AM – 5:00 PM
Location: Moscone West 3002

CISM Two-Day Cram to the Max Course

***Albert J. Marcella Jr.**, CISA, CISM*

Planning to take ISACA®'s Certified Information Security Manager® (CISM®) exam this year? Join your fellow CISM-exam candidates and an expert, CISM-certified instructor to get in some valuable study tips and insight! This CISM Exam Prep Course is an intensive, cram-style course that will cover some of the more challenging topics from the CISM job practice areas. Topics will include information security governance, information risk management, information security program development and information security incident management. Drill through sample exam items, ask your most pressing questions and get the answers to build your confidence and make final preparations for exam day.

This course is specifically designed for those already preparing to sit for the CISM exam. *Continuing Professional Education (CPE) Credit Hours: 14.5*

SUNDAY/MONDAY TUTORIALS & TRAININGS†

(ISC)² TRAININGS

Review and identify the information security areas you need to master for the CISSP and CCSP exams with two-day trainings from the creators of the industry's gold standard certifications.

Dates: Sunday, March 3 & Monday, March 4
Time: 9:00 AM – 5:00 PM
Location: Moscone West 3007, 3008, 3009

(ISC)² CCSP® Cloud Security Professional Two-Day Crash Course

Ben Malisow

During this fast-paced, two-day session you will cover the six domains covered by the (ISC)² the Certified Cloud Security Professional CBK. This fact-filled course will assist in your review of the CBK topics and deepen your knowledge of cloud computing and cloud information security. You will receive and utilize the official (ISC)² Certified Cloud Security Professional certification credential study guide and materials published by (ISC)².

(ISC)² CISSP® Certified Information Systems Security Professional Introduction

Lyron Andrews

During this fast-paced, two-day session, you will cover the eight domains of the (ISC)² CISSP CBK. This fact-filled course will assist in your review of the CBK topics and deepen your knowledge of information security. Each day of the presentation is divided into various domains of the CBK. These domains will cover essential topics such as current security challenges, problem resolution, application security, network security, infrastructure planning, legal considerations, international privacy, investigations and forensics among other topics.

(ISC)² Security Architecture

Kevin Stoffell

Security architecture development is designed for information security professionals involved in enterprise-wide security planning or acquisition of systems and software that contain information security components. This course is designed to deliver an understanding of key security architecture concepts and implementation. This course overlaps with the Certified Information Systems Security Professional Information Systems Security Architecture Professional (CISSP-ISSAP®) certification; however, the focus does not fully align with the certification syllabus.

CSA TRAINING

Expand your understanding of cloud security with Cloud Security Alliance's two-day training.

Dates: Sunday, March 3 & Monday, March 4
Time: 9:00 AM – 5:00 PM
Location: Moscone West 3001

The Certificate of Cloud Security Knowledge (CCSK) Plus Training

***Jon-Michael C. Brook**, CISSP, CCSK, Certified AWS Solution Architect*

The Certificate of Cloud Security Knowledge (CCSK) Plus class provides students a comprehensive review of cloud security fundamentals, prepares them to take the Cloud Security Alliance (CSA) CCSK v4 certificate exam and guides them through six hands-on labs that tie cloud security best practices to real-world applications. Starting with a detailed description of cloud computing, the course covers all major domains in the Security Guidance v4 document from the CSA, gives a high-level overview of the CSA Cloud Controls Matrix (CCM) and includes recommendations from the European Network and Information Security Agency (ENISA) Cloud Computing document and the National Institute of Standards and Technology (NIST).

This class is geared towards security professionals, but is also useful for anyone looking to expand their knowledge of cloud security. Having a basic understanding of security fundamentals, such as firewalls, secure development, encryption and identity management is helpful, but not required. Individual laptop and some pre-class setup one week prior is required.

† SANS Tutorials and (ISC)², ISACA and CSA Trainings are offered for an additional fee.

Top-rated speaker.

Sessions and speakers are subject to change; please visit www.rsaconference.com/us2019 for the most up-to-date information.

MONDAY EVENTS & ACTIVITIES

8:30 AM – 5:40 PM

SEMINARS – FULL CONFERENCE & DISCOVER PASS HOLDERS ONLY

See following pages for details and room locations.

8:00 AM – 5:00 PM

SEMINARS – OPEN TO ALL BADGE TYPES

See following pages for details and room locations.

8:00 AM – 5:00 PM
West Street Level

BROADCAST ALLEY

Watch top security publications shoot live and record exclusive interviews.

11:00 AM – 12:00 PM

TWITTER CHAT

Sponsored by:

NATIONAL CYBERSECURITY ALLIANCE

Building a Better Today for a More Secure Tomorrow
Follow us on Twitter and use *#ChatSTC* and *#RSAC* to join!

1:30 PM – 4:30 PM
Marriott Yerba Buena

RSAC INNOVATION SANDBOX CONTEST

Exclusive RSAC Innovation Sandbox Media Sponsor:

WSJ PRO CYBERSECURITY

The RSAC Innovation Sandbox Contest has crowned innovative companies who build cutting-edge technologies to minimize infosec risk for the past 14 years. Witness the 2019 Top 10 Finalists battle it out for the coveted title of "Most Innovative Startup." See page 18 for a detailed agenda.

4:00 PM – 5:00 PM
Marriott Golden Gate A

FIRST-TIMERS ORIENTATION & NETWORKING RECEPTION

This event is open to Full Conference Pass holders and features a 30-minute presentation followed by a 30-minute networking reception with light refreshments.

4:30 PM – 6:00 PM
Moscone South 303

RSAC WOMEN'S LEADERSHIP CELEBRATION RECEPTION

Join us in celebrating the contributions and rich history of women in science and technology. Hosted with our planning partners: Women's Society of Cyberjutsu, Executive Women's Forum on Information Security, Risk Management and Privacy (EWF), The Diana Initiative, Women in Security and Privacy (WISP) and Women in CyberSecurity (WiCyS). All RSA Conference attendees are welcome to attend.

5:00 PM – 7:00 PM
Moscone South Lower Level

RSAC SECURITY OPERATIONS CENTER

Sponsored by:

cisco RSA

Take a tour of a working SOC! Head to the Moscone South Lower Level for the RSA Conference Security Operations Center. See what's really taking place on the Moscone Wireless Network in real time.

5:00 PM – 7:00 PM
Expos

WELCOME RECEPTION

Join your peers in the Expo while kicking off RSA Conference in style at the Welcome Reception. Enjoy drinks and light fare from 5 – 7 PM. Get exclusive access to the exhibitors you've been waiting to meet; network with peers as you preview cutting-edge products from more than 650 leading information security companies.

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= *Networking event.*

MONDAY SEMINARS

Full Conference & Discover Pass Seminars

9:00 AM – 3:40 PM | **Moscone West 2018**

Security, Privacy and Human Behavior SEM-M01

***Lujo Bauer**, Carnegie Mellon University; **Laura Brandimarte**, University of Arizona; **Sunny Consolvo**, User Experience Researcher, Google; **Lorrie Cranor, Ph.D.**, Director, CyLab Security and Privacy Institute, Carnegie Mellon University; **Sanchari Das**, Doctoral Researcher, Indiana University; **Jason Hong**, Professor, Human Computer Interaction Institute; **Apu Kapadia**, Associate Director, Security Program, Indiana University Bloomington; **Emilee Rader**, Associate Professor and AT&T Scholar, Department of Media and Information, Michigan State University; **Elissa M. Redmiles**, Ph.D. Candidate, Computer Science, University of Maryland; **Blase Ur**, Neubauer Family Assistant Professor, University of Chicago; **Pamela Wisniewski**, University of Central Florida*

What is it about human behavior that makes cybersecurity so inherently difficult? Come join this masterfully curated seminar, led by renowned expert Dr. Lorrie Cranor, professor in the School of Computer Science and the Engineering and Public Policy Department at Carnegie Mellon University and director of the CyLab Usable Privacy and Security Laboratory. Leading researchers will share important findings around security and privacy behaviors and mental models, explore security and privacy tools that humans can actually use, and examine emerging threats and challenges that surface as humans adopt new technology.

8:30 AM – 5:40 PM | **Moscone West 2022**

Emerging Threats SEM-M03

***Lior Ben-Porat**, Security Researcher, Microsoft; **Olivier Bilodeau**, Cybersecurity Research Director, GoSecure; **Christopher Elisan**, Senior Malware Researcher, Flashpoint; **John Fokker**, Head of Cyber Investigations, McAfee; **James Foster**, CEO, ZeroFOX; **Daniel Frank**, Security Researcher, F5 Networks; **Kenneth Geers**, Chief Research Scientist, Comodo; **Nelly Ghaoui**, Senior Policy Coordinator, Ministry of Economic Affairs and the Climate of the Netherlands; **Ian Gray**, Director of Americas Research and Analysis, Flashpoint; **Tamer Hassan**, CTO & Co-Founder, White Ops; **Reiko Kondo**, Director, Office of the Director-General for Cybersecurity, Ministry of Internal Affairs and Communications; **Carles Lopez-Penalver**, Cybercrime Analyst, Chainalysis; **Renato Marinho**, Chief Research Officer, Morphus Labs; **Austin McBride**, Threat Analytics Researcher, Cisco Systems; **Stuart McClure**, Chairman and CEO, Cylance; **Masarah Paquet-Clouston**, Researcher, GoSecure CounterTack Inc.; **Philip Reitinger**, President & CEO, Global Cyber Alliance; **Evelyn Remaley**, Deputy Associate Administrator for Policy, NTIA / US Department of Commerce; **Brian Robison**, Sr. Director of Security Technology, Cylance; **Raj Samani**, Chief Scientist, McAfee Fellow, McAfee; **Jason Straight**, Chief Privacy Officer / SVP Cyber Risk Solutions, UnitedLex Corporation; **Michael Tiffany**, President & Co-Founder, White Ops; **Candid Wueest**, Threat Researcher, Symantec*

This seminar will provide a full day of focus on emerging threats, from cryptojacking and ransomware to social engineering and IoT attacks. Sessions will get inside the minds and motivations of the adversaries, discuss the changing threat landscape, top attack vectors, new and innovative research, and effective response and recovery strategies.

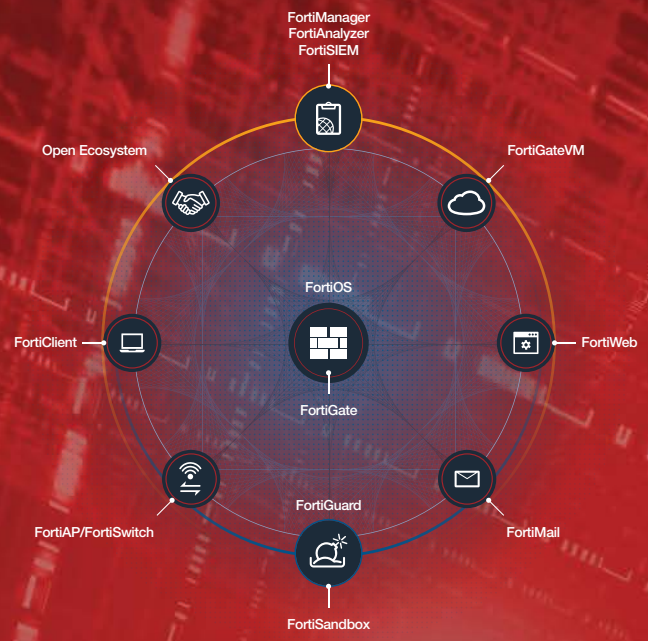
8:30 AM – 5:15 PM | **Moscone West 2014**

Security Foundations SEM-M04

***Daniel Bailey**, Chief Security Architect, Carbonite; **Sam Bisbee**, CSO, Threatstack; **Julie Fitton**, VP, Digital Product Security, Stanley Black & Decker; **Rob Fry**, VP of Engineering, Jask; **Salah Machani**, Director of Technology, RSA; **Kathleen Moriarty**, Global Lead Security Architect, Dell Technologies; **Hugh Thompson**, RSA Conference*

This seminar will explain some of the most important security principles and will provide practitioners with an overview of essential concepts to enhance understanding of current advanced security issues, offering up-to-date perspectives. While designed for practitioners of five or less years of direct security experience, this seminar will be of value to the full spectrum of RSA Conference attendees.

FORTINET SECURITY FABRIC



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All Access Seminars

8:30 AM – 4:30 PM | **Moscone South 207**

CSA Summit: CSA 10 CSA-M01

__Jerry Archer__, Senior Vice President and Chief Security Officer, Salliemae; __Jon Callas__, Technology Fellow, ACLU; __David Cass__, Chief Information Security Officer Cloud and SaaS Operations & Global Partner Cloud Security Services, IBM; __Rich Campagna__, Chief Marketing Officer, Bitglass; __Jay Chaudhry__, CEO, Chairman and Founder, Zscaler, Inc.; __Pete Chronis__, CISO, Turner; __Jason Clark__, Chief Strategy Officer, Netskope; __Dave Estlick__, Chief Information Security Officer, Starbucks Technology; __Eran Feigenbaum__, Chief Security Officer, Oracle Cloud; __Nicole Forbes__, Global Vice President of IT and CISO, Baxter International; __Jason Garbis__, Vice President of Cybersecurity Products, Cyxtera; __Rajiv Gupta__, Senior Vice President, Cloud Security Business Unit, McAfee; __Kurt Hagerman__, CxO Advisor, Cyber Strategy, Coalfire; __Mike Hanley__, Director of Security, Duo; __Scott Howitt__, Senior Vice President & Chief Information Security Officer, MGM Resorts International; __Kevin Kiley__, Vice President of Sales & Business Development, OneTrust; __Setu Kulkarni__, Vice President, Strategy & Business Development, WhiteHat; __Eric Olden__, Senior Vice President, Oracle Security and Identity, Oracle; __Vinay Patel__, Managing Director, Global Head of Information Security, Citigroup Enterprise Operations & Technology; __Juan Pablo Perez-Etchegoyen__, Chief Technology Officer, Onapsis; __Nico Popp__, Senior Vice President Information Protection, Symantec; __Jim Reavis__, CEO, Cloud Security Alliance; __Marc Rogers__, Executive Director, Cybersecurity Strategy, Okta; __Stephen Scharf__, Managing Director and Global Chief Security Officer, Depository Trust & Clearing Corporation; __Bob Schuetter__, Chief Information Security Officer, Valvoline; __Andy Smith__, Vice President of Product Marketing, Centrify; __Jennifer Steffens__, Chief Executive Officer, IOActive, Inc; __Becky Swain__, GRC & Cloud Security Assurance Consultant

The year 2019 marks the 10-year anniversary of Cloud Security Alliance (CSA). From inception, the CSA has been dedicated to defining and raising awareness of best practices to help ensure a secure cloud computing environment throughout the world. In its 10th year at RSA Conference, the CSA Summit will reflect on the lessons learned by enterprises and providers as cloud has become the dominant IT system in the market. We will also explore new frontiers that are accelerating change in information security, such as artificial intelligence, blockchain and IoT.

** This content is brought to you by CSA. Attendees selecting this seminar will have their contact details shared with CSA.*

8:30 AM – 5:00 PM | **Moscone South 201**

IAPP: Understanding the CCPA IAPP-M01

__Patricia Bailin__, CIPP/US, CIPM, CIPT, Head of Privacy & Data Ethics, Datavant; __Helen Beckschi__, CIPP/US, US Privacy, Wells Fargo Bank; __Andrea D'Ambra__, CIPP/E, Partner, Norton Rose Fulbright; __Lothar Determann__, Partner, Baker McKenzie; __D. Reed Freeman__, CIPP/US, Co-Chair, Cybersecurity and Privacy Practice Group, WilmerHale; __Travis LeBlanc__, Partner, Cooley LLP; __Dominique Shelton Leipzig__, CIPP/US, Partner, Perkins Coie; __Stacey Schesser__, CIPP/US, Deputy Attorney General, California Department of Justice; __Ari Schwartz__, Managing Director, Cybersecurity Services, Venable; __Andrew Serwin__, CIPP/C, CIPP/E, CIPP/G, CIPP/US, CIPM, Partner, Morrison & Foerster; __Jacob Snow__, Technology and Civil Liberties Attorney, ACLU of Northern California

Passed seemingly overnight just before the July 4 holiday, the California Consumer Privacy Act 2018 stands to radically change the way that organizations throughout the United States, and even the world, handle personal data. It's fair to say it could impact organizations in ways that are similar to the EU's General Data Protection Regulation, and the time horizon for compliance is even shorter: CCPA comes into force on January 1, 2020. In this full-day workshop, some of the leading thinkers in California privacy gather to help you understand what the law says and how it will change the way you do business.

** This content is brought to you by IAPP. Attendees selecting this seminar will have their contact details shared with IAPP.*

9:00 AM – 5:00 PM | **Moscone South 204**

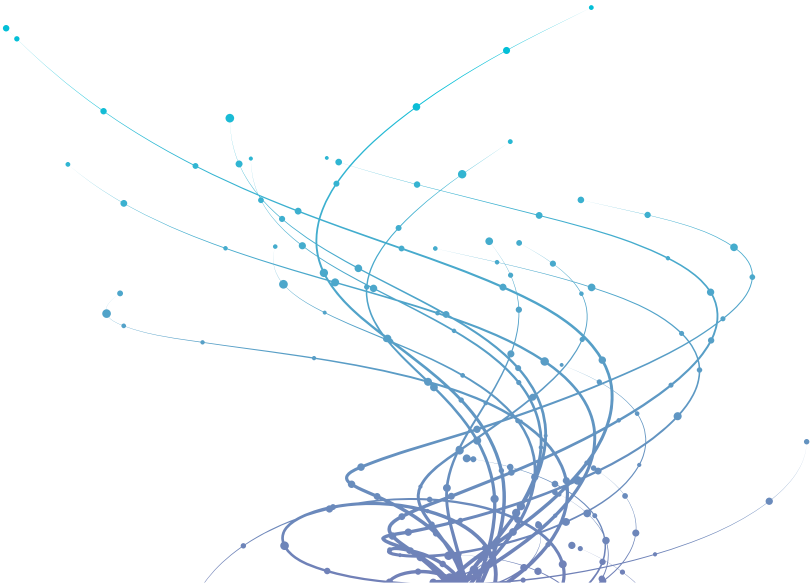
DevOps Connect: DevSecOps Day @ RSAC DOC-M01

__Jennifer Czaplewski__, Director, Security Analytics, Security Ninjas and Risk Management, Target; __Kevin Hanaford__, Head of Information Security, Infrastructure & IT, Remitly; __Jodie Kautt__, Vice President of Cyber Security, Target; __Omar Khawaja__, CISO, Information Security & Risk Mgmt, MBA, CISSP, CPHIMS, CCSK, Highmark Health; __Courtney Kissler__, Vice President, Nike Digital Platform Engineering; __Oleg Kreb__, Chief Architect, Visa; __Shannon Lietz__, Leader and Director, DevSecOps, Intuit; __Larry Maccherone__, DevOps and DevSecOps Transformation, Comcast; __Mark Miller__, Co-Founder, All Day DevOps, Senior Storyteller, Sonatype; __Rich Mogull__, Analyst & CEO, Securosis; __Ernest Mueller__, Director of Engineering Operations, AT&T Cybersecurity; __Chris Roberts__, Advisor with Attivo Networks, R&D with HHS, etc.; __DJ Schleen__, DevSecOps Evangelist and Security Architect, Aetna/CVS; __Alan Shimel__, Founder, DevOps.com, Co-Founder DevOps Institute; __Alexandra Shulman-Peleg__, SVP, Cloud Platforms Security Engineering and Cloud GIS Program Lead, Citi; __Poornaprajna Udupi__, CISO, Lyra Health; __Navin Vembar__, Former CTO, GSA; __Chenxi Wang__, Managing General Partner, Rain Capital; __Derek Weeks__, Vice President, Sonatype; __James Wickett__, Head of Research, Signal Sciences; __Caroline Wong__, Vice President, Cobalt.io; __John Willis__, VP of Devops and Digital Practices, SJ Technologies; __Hasan Yasar__, Dev{Sec}Ops Evangelist, Technical Manager, Adjunct Faculty Member at SEI, Head of Research, Carnegie Mellon University; __Anne Marie Zettlemoyer__, Cyber Strategist, Board Member, Researcher, Vice President, Security Engineering, Mastercard

In the past few years, security integration within the DevOps pipeline has given rise to the idea of DevSecOps. Once seen as the bottleneck and inhibitor of the development and deployment process, security has become an integral part of the movement towards automation and the removal of manual oversight enforcement. As stated in the DevSecOps Manifesto, "We must adapt our ways to ensure data security and privacy issues are not left behind because we were too slow to change." There are practitioners in the field who are pushing forward with the idea of creating a secure application development pipeline, with security integrated from conception to deployment.

In this year's DevOps Connect: DevSecOps Day at RSA Conference 2019, you'll hear stories from those practitioners, explaining how they made the cultural transformation from legacy development and deployment processes to integrated systems that include security as a part of the process, not as an overseer or bottleneck to secure application development. This series of first-person talks will give you a perspective on how you and your team can enable faster application development with more rapid deployment to production, while integrating security into your DevOps initiatives.

**This content is brought to you by DevOps.com. Attendees selecting this seminar will have their contact details shared with DevOps Connect.*



9:00 AM – 11:30 AM & 1:30 PM – 4:00 PM | **Moscone South 304**

CyberSmart Parents Education Seminar—Keeping Your Family Safe Online SEM-M02

***Jace Brooklyn**, Hacker High; **Pete Herzog**, Managing Director, ISECOM; **Aidan Jake**, Hacker High; **Gloria Moskowitz-Sweet**, LCSW, PPSC, Co-Founder, My Digital TAT2; **Erica Pelavin**, Co-Founder, My Digital TAT2*

This seminar will arm you with the knowledge and tools to help teach children how to better recognize and resist online challenges.

9:00 AM – 12:20 PM | **Marriott Golden Gate A**

How-to for Innovators and Entrepreneurs SEM-M05

***Geoff Belknap**, CISO, Slack; **Kristina Bergman**, CEO, Integris Software; **Dave DeWalt**, Founder & CEO, NightDragon Investments; **Sarah Guo**, Partner, Greylock; **Choo Kim-Isgitt**, Head of Marketing, TruSTAR; **Mark Kraynak**, Partner, Aspect Ventures; **Tim McKnight**, CISO, Thompson Reuters; **CP Morey**, Head of Phantom Marketing, Splunk; **Rob Sloan**, WSJ Pro Cybersecurity, Research Director, Wall Street Journal Pro; **Gene Teare**, Head of Content, Crunchbase; **Ariel Tseitlin**, Partner, Scale Venture Partners; **Chris Wysopal**, CTO, Veracode*

This half-day info-rich seminar will explore how to start a company from stealth to exit, find funding and financing in today's competitive marketplace, provide an inside view of what makes a CISO take a shot on a startup, give tips and insights from brand makers and marketing gurus on how to rise above the noise. Each segment includes an opportunity for audience members to ask questions of the panelists and a networking break to meet with fellow entrepreneurs and speakers.

8:00 AM – 12:00 PM | **Moscone South 301**

Solving Our Cybersecurity Talent Shortage SEM-M06

***Jim Gordon**, GM Security Ecosystem Strategy & Development, Intel Corporation; **Emily Heath**, VP & CISO, United Airlines; **Alicia Jessip**, Regional Inclusion & Diversity Manager – West and Northwest, TEKsystems; **Elaine Marino**, Founder and CEO, Equili; **Carmen Marsh**, CEO, Inteligenca; **Vanessa Pegueros**, Vice President and CISO, DocuSign; **Claudia Schabel**, President, Schabel Solutions; **Jennifer Steffens**, CEO, IOActive, Inc.; **Selena Templeton**, Executive Editor & Podcast Host, ITSPmagazine; **Caroline Wong**, Chief Security Strategist, Cobalt.io; **Karen Worstell**, CEO, W Risk Group LLC*

In this seminar, you will hear from leaders driving innovation with culture, inclusion, equity and diversity, and from change agents on how you can make shift happen.

1:00 PM – 4:30 PM | **Moscone South 301**

She Speaks Security: Gaining Confidence Speaking and Submitting to Speak SEM-M07

***Joyce Brocaglia**, CEO and Founder, Alta Associates & The Executive Women's Forum; **Elena Elkina**, Co-Founder, Women in Security and Privacy (WISP); **Jessica Gulick**, CEO, Katzcy; **Andrea Little Limbago**, Chief Social Scientist, Virtru; **Cameron Over**, Director, Cybersecurity, CrossCountry Consulting; **Roberta Stempfley**, Director, CMU – SEI – CERT*

This robust half-day forum, developed with community groups, will offer a mentor-focused opportunity to inspire, prepare and equip women for submitting and presenting to large groups.

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Welcome to the German Pavilion at RSA® Conference 2019!

German Evening Reception
March 6th, 7:00 pm, German Consulate General, 1960 Jackson Street, San Francisco
Get your personal invitation at the German Pavilion

German Panel Session 2019

Innovative Answers to the IoT Security Challenges
Panel discussion about innovative ways for identity management, securely enabling connectivity of IoT devices and security for legacy systems while keeping the usability at a high level.
Moderator: Prof. Dr. Norbert Pohlmann, Director of if (is), Chairman of TeleTrusT - IT Security Association
The Panelists:

- Dr. Kim Nguyen, Managing Director of D-Trust, the Trust Center of Bundesdruckerei
- Heinfried Cznottka, Director Business Development, achelos GmbH
- Jean-Paul Verheylewegen, Global Sales Manager, MB Connect Line GmbH

March 6th, 1:30 pm – 2:20 pm, Moscone South Esplanade 154
Sponsor Special Topic Track at RSA® Conference 2019

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TUESDAY EVENTS & ACTIVITIES

6:30 AM – 8:00 AM
Moscone West Level 2

CONTINENTAL BREAKFAST*

Full Conference Pass holders, grab breakfast and then head directly to your chosen keynote viewing location.

KEYNOTES**

Keynote abstracts can be found on pages 30 – 31.

8:00 AM
West Stage Keynotes

Opening

8:10 AM
West Stage Keynotes

The Trust Landscape

***Rohit Ghai**, President, RSA; **Niloofar Razi Howe**, Cybersecurity Strategist and Entrepreneur*

8:35 AM
West Stage Keynotes

Lightning in a Bottle, or Burning Down the House?

***Dr. Celeste Fralick**, Chief Data Scientist, McAfee, LLC; **Steve Grobman**, Senior Vice President and Chief Technology Officer, McAfee, LLC*

8:55 AM
West Street Level

Rise of the Machines: Staying Ahead of the Next Threat

***Liz Centoni**, Senior Vice President | General Manager Cisco IoT, Cisco; **Matt Watchinski**, Vice President, Global Threat Intelligence Group, Talos, Cisco*

9:20 AM
West Street Level

The Cryptographers' Panel

*MODERATOR: **Zulfikar Ramzan, Ph.D.**, Chief Technology Officer, RSA*
*PANELISTS: **Whitfield Diffie**, Cryptographer and Security Expert, Cryptomathic; **Shafi Goldwasser**, Director, Simons Institute for the Theory of Computing; **Ronald Rivest**, Professor, Massachusetts Institute of Technology; **Adi Shamir**, Borman Professor of Computer Science, The Weizmann Institute, Israel*

10:05 AM
West Street Level

The FBI: At the Heart of Combating Cyberthreats

***Susan Hennessey**, Senior Fellow, Governance Studies, The Brookings Institution and Executive Editor, Lawfare; **Christopher A. Wray**, Director, Federal Bureau of Investigation*

11:00 AM
South Esplanade

Top 10 Ways to Make Hackers Excited: About the Shortcuts Not Worth Taking

***Paula Januszkiewicz**, Chief Executive Officer, CQURE*

1:00 PM
South Esplanade

A Cloud Security Architecture Workshop

***Dave Shackleford**, Sr. Instructor, SANS Institute*

2:20 PM
South Esplanade

Security at 36,000 Feet!

***Emily Heath**, Vice President and Chief Information Officer, United Airlines*

3:40 PM
South Esplanade

Lessons Learned from 30+ Years of Security Awareness Efforts

***Ira Winkler**, President, Secure Mentem*

9:00 AM – 5:00 PM
Moscone West Street Level

BROADCAST ALLEY

Watch top security publications shoot live and record exclusive interviews.

10:00 AM – 6:00 PM
Moscone South Lower Level

RSAC SECURITY OPERATIONS CENTER

Sponsored by: cisco RSA

Take a tour of a working SOC! Head to the Moscone South Lower Level for the RSA Conference Security Operations Center. See what's really taking place on the Moscone Wireless Network in real time.

10:00 AM – 6:00 PM
Moscone North & South Lower Level

EXPO

The RSA Conference Expo will give you the opportunity to interact with an impressive breadth of information security exhibitors and sponsors.

10:20 AM – 5:30 PM
Moscone North & South Lower Level

EXPO BRIEFING CENTER

See following pages for abstracts and a complete schedule on pages 115 –118.

11:00 AM – 2:00 PM
Howard Street, Mission Street

STREET EATS

With options for all tastes, stop by any of our food trucks on Mission Street or Howard Street. Available to all pass types and both cash and credit cards are accepted.

11:00 AM – 4:30 PM
Locations Vary

TRACK SESSIONS

See detailed information on following pages for descriptions and badge access.

= Top-rated speaker.

TUESDAY EVENTS & ACTIVITIES

Hours Vary by Location

LAW TRACK SESSIONS*

Marriott Nob Hill A, 11:00 AM – 4:30 PM; Moscone South 201, 5:00 PM – 5:50 PM

See detailed information on following pages for descriptions.

2:20 PM – 4:20 PM

Moscone West Level 3

LEARNING LABS*

Learning Labs provide highly interactive, facilitated learning experiences and are very hands-on and small group oriented. Seating is limited; use Reserve a Seat to schedule your participation. You can only reserve one Lab on your schedule, so pick carefully from our 20 great offerings. ***Note: Press is not permitted in Lab sessions.***

4:00 PM – 6:30 PM

Marriott RSAC Sandbox

RSAC CYBREW CAFÉ

The RSAC Cybrew Café, our full-service coffee bar, will be serving your favorite beverages.

4:00 PM – 4:45 PM

Marriott Yerba Buena 8

RSAC LAUNCH PAD***

RSAC Launch Pad is designed to give new talent a platform to share their brilliant industry solutions. Watch three selected participants give a 10-minute pitch on their groundbreaking products to a panel of leading security venture capitalists. And see who walks away with investments that could take their company to the next level.

4:45 PM – 6:30 PM

Marriott Yerba Buena 8

RSAC SANDBOX***

The RSA Conference Sandbox is full of hands-on interactive experiences to test your infosec skills.

Exclusive RSAC Sandbox Media Sponsor:

TechTarget | SearchSecurity

4:45 PM – 6:30 PM

Marriott Yerba Buena 9

RSAC EARLY STAGE EXPO***

The RSAC Early Stage Expo is the perfect megaphone for emerging infosec startups. Located in the Marriott Marquis, meet over 50 of the industry's most promising newcomers and learn about their innovative products and solutions.

Exclusive RSAC Early Stage Expo Media Sponsor:

crunchbase

4:45 PM – 6:30 PM

Marriott RSAC Sandbox & RSAC Early Stage Expo

CYBEER OPS NETWORKING RECEPTION & INTERNATIONAL MEET-UP ***

Delight in local California craft beers and non-alcoholic drinks as you mingle with peers and RSAC friends from around the world. CyBEER Ops opens RSAC Sandbox, where you can check out up and coming startups and the RSAC IoT Village, ICS Village and Wireless Village Sandboxes.

** Event is free for Full Conference and Tuesday Full Conference One-Day Pass holders age 21 and over as well as Press. All other badge holders can purchase tickets through registration for a fee of $25. Event access is limited and is on a first come, first served basis.*

6:00 PM – 9:00 PM

Marriott SoMa

NON-PROFITS ON THE LOOSE

Meet and mingle with industry and government leaders while enjoying food and drink at the Marriott Marquis, just blocks from the Moscone Center. The Anti-Phishing Working Group (APWG), the Internet Society/Online Trust Alliance and the Cyber Threat Alliance (CTA) invite you to join us for the ninth Annual Non-Profits on the Loose for great food, fun and networking. Thank you for supporting our passions, stop by and discuss how we can improve cybersecurity together.

Attendees must have an RSA Conference badge.

7:00 PM – 9:30 PM

Moscone West Level 2

RSAC AFTER HOURS: GAME NIGHT**

As a cybersecurity all-star, you'll enter RSAC After Hours: Game Night with VIP treatment. Then it's off to the races. In the Full Court, you'll go head to head with other industry players in our arcade and game hall. Then take a load off in the sports lounge and bar, complete with a live DJ and tailgate-themed refreshments. And at 7:30 PM, the night really gets going as the Celtics face off against the Warriors—live and on the big screen.

Open to Full Conference and Discover Pass holders. Choose one of the RSAC After Hours events on Tuesday, Wednesday or Thursday nights of Conference. Space is limited so make sure to reserve a seat.

= *Networking event.*

** Open to Full Conference Pass holders only.*
*** Open to Full Conference and Discover Pass holders only.*
**** Open to Full Conference Pass holders, Press and CyBEER Ops ticket holders only.*

TUESDAY SESSION DETAILS

10:20 AM

TRACK / TOPIC | SESSION LENGTH | BADGE ACCESS

Expo Briefing Center North | 30 min | ALL

Kubernetes Deployments: How Not to Get Hacked BC-T1N

***Sol Cates**, VP of Technology Strategy, CTO, Thales eSecurity Inc.*

Kubernetes adoption continues to skyrocket as the standard container orchestration framework. However, security and regulatory issues exist in this new frontier; fortunately there are best practices.

10:40 AM

Expo Briefing Center South | 20 min | ALL

An Intelligent Approach to Beating Global Cybersecurity Threats BC-T1S

***Laurent Gil**, Security Evangelist, Oracle Cloud Infrastructure (OCI), Oracle*

This session will be designed to help organizations develop a real-life approach to implementing AI algorithyms and machine learning enabled security in their own environments.

11:00 AM

Analytics, Intelligence & Response | 50 min | FC

Advancing Incident Response in the Age of New Compliance Requirements AIR-T06

***Steven Chabinsky**, Global Chair of Data, Privacy & Cybersecurity, White and Case, LLC; **Shawn Henry**, CSO and President of Services, CrowdStrike*

The growing frequency of cyberattacks coincides with new regulatory compliance requirements. This session will cover critical areas of operational, security, legal and business response readiness.

Application Security & DevSecOps | 50 min | FC

Security Automation at Scale ASD-T06

***Gary Ramah**, Security, Disney*

DevOps has helped with everything from more frequent feature releases to increased application stability. What can DevSecOps help with?

Blockchain & Applied Crypto 2x | 50 min | FC

From Ephemeral Infrastructure to Ephemeral Communications BAC-T06

***Paul Kocher**, Founder & Researcher, Cryptography Research Inc.; **Joel Wallenstrom**, CEO, Wickr*

Why the combination of end-to-end encryption and ephemerality is the most powerful security enforcer and antidote to mainstream data-obsessed and security-poor business models.

11:00 AM, *CONTINUED*

TRACK | SESSION LENGTH | BADGE ACCESS

C-Suite View | 50 min | FC

Expense in Depth: Managing Your Total Cost of Controls CXO-T06

***Malcolm Harkins**, Chief Security & Trust Officer, Cylance*

Malcolm Harkins will show why a total cost of controls model for measuring information security costs is required to manage digital risks, maximize business efficiency and minimize risk exposure.

C-Suite View 2x | 50 min | FC

Defining a Cyber-Risk Appetite That Works CXO-W10R

***Jack Jones**, Chairman, FAIR Institute*

A clearly defined risk appetite can be transformative to a cyber-risk management program. In this session you'll learn how to define an unambiguous risk appetite that drives better decision-making.

Cloud Security & Virtualization △ | 50 min | FC

Building a Leading Cloud Security Program CSV-T06

*MODERATOR: **Michael Johnson**, CISO, Capital One*
*PANELISTS: **Jerry Archer**, Chief Security Officer, Sallie Mae; **Devon Bryan**, EVP and CISO, Federal Reserve; **Doug Greene**, VP and CISO, Guardian Life Insurance; **Christopher Porter**, SVP and Chief Information Security Officer, Fannie Mae; **Alice Rison**, Senior Director, Software Engineering, Capital One*

A moderated panel featuring C-suite executives discussing the key aspects of a mature and effective cloud security program in financial services, insurance, and government. *No press allowed.*

Cryptography | 50 min | FC

Public Key Encryption CRYP-T06 ✪

***Suvradip Chakraborty**, IIT Madras; **Sherman S. M. Chow**, Chinese University of Hong Kong*

Theory and application of public key encryption will be discussed.

TOPIC 1: Structure-Preserving Certificateless Encryption and Its Application
Authors: Tao Zhang; Huangting Wu; Sherman S. M. Chow

TOPIC 2: Public Key Encryption Resilient to Post-Challenge Leakage and Tampering Attacks
Authors: Suvradip Chakraborty and C. Pandu Rangan

Expo Briefing Center North | 30 min | ALL

Context-Wrapped Security: Driving Down Business Risk BC-T2N

***Colin McKinty**, Cyber Strategy – Americas, BAE Systems*

Humans unconsciously gather information to aid decision-making. Too often in security we make important decisions without the context. Learn why actionable context is key to reducing business risk.

Governance, Risk & Compliance | 50 min | FC

Superforecasting II: Risk Assessment Prognostication in the 21st Century GRC-T06 ✪

***Richard Howard**, CSO, Palo Alto Networks*

Qualitative risk matrices and heat maps are just bad science. The "new" math consists of latency curves, Bayes algorithm and Monte Carlo simulations. Come see how to do them.

= Top-rated speaker. 2x = Session given twice. △ Space is limited; no press allowed. ✪ Advanced session.
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11:00 AM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Hackers & Threats	50 min	FC

Hacking the Human: Special Edition HT-T06

MODERATOR: ***Lorrie Cranor, Ph.D.****, Director, CyLab Security and Privacy Institute, Carnegie Mellon University*
PANELISTS: ***Lujo Bauer****, Carnegie Mellon University;* ***Apu Kapadia****, Assoc. Professor of Computer Science and Assoc. Director, Security Program, Indiana University Bloomington;* ***Emilee Rader****, Associate Professor and AT&T Scholar, Department of Media and Information, Michigan State University*

What is it about human behavior that makes cybersecurity so inherently difficult? Hear the latest research on behaviors and mental models and explore tools that humans can actually use.

Hackers & Threats Advanced	50 min	FC

Live Adversary Simulation: Red and Blue Team Tactics HTA-T06

James Lyne*, Director of Research, SANS Institute;* ***Stephen Sims****, Security Researcher, SANS Institute*

We all have penetration testers, but are they working effectively with the defense in our organizations? We need ongoing communication and adversary simulation. Let's look at some real-world usage!

11:00 AM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Human Element	50 min	FC

Humans Are Awesome at Risk Management HUM-T06

Andy Ellis*, CSO, Akamai Technologies*

Humans are awesome at risk management. Learn some mental models for understanding how that decision you think is foolish is likely driven by all the tools made us the dominant species on the planet.

Identity	50 min	FC

Building Identity for an Open Perimeter IDY-T06

Tejas Dharamshi*, Senior Security Software Engineer, Netflix, Inc.*

Come and learn how Netflix has made identity the new security perimeter by leveraging identity, single sign-on, multifactor and adaptive authentication, device health and authorization.

Law	50 min	FC

Hot Topics in Cyber-Law 2019 LAW-T06

MODERATOR: ***Michael Aisenberg****, Principle Cyber Policy Counsel, The MITRE Corporation*
PANELISTS: ***Kimberly Peretti****, Partner, Lead Cybersecurity Practice, Alston & Bird, LLP;* ***Lucy Thomson****, Attorney, Livingston PLC;* ***Stephen Wu****, Shareholder, Silicon Valley Law Group*

Theme-setting expert panel on critical emerging legal issues. Objective will be a practical, useable snapshot of recent developments in cyber-law and -litigation, policy, and industry frameworks.

11:00 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Machine Learning & Artificial Intelligence △	50 min	FC

Lessons Learned in Automating Decision-Making: Pitfalls and Opportunities MLAI-T06

***Sounil Yu**, Chief Security Scientist, Bank of America*

There's a strong desire to automate all aspects of security. However, organizations need to take certain precautions before enabling automation across all components of the security stack. *No press allowed.*

Mobile & IoT Security	50 min	FC

Hindsight and 2020: A Clear-Eyed Look at Shared Responsibil-I-o-T MBS-T06

***Josh Corman**, CSO, PTC; **Julie Fitton**, Vice President, Digital Product Security*

Spanning gadgets and Industrial IoT, in Congress and CA Law, for Mirai and WannaCry… Volatil-I-o-T. This session will crystalize 2018 game changers, warn what's coming, and outline shared Responsibil-IoTs.

Policy & Government	50 min	FC

Risks and Results: Counter-Risks to the Nation's Critical Infrastructure PNG-T06

***Christopher Krebs**, Director, Cybersecurity and Infrastructure Security Agency (CISA)*

Examine how the newly established National Risk Management Center advances the ongoing work of DHS and its partners.

Privacy	50 min	FC

Privacy Essentials for Security Professionals PRV-T06

***Todd Fitzgerald**, Managing Director/CISO, CISO SPOTLIGHT, LLC*

Security officers and practitioners need to be versed in the privacy language. Session will explore US, Canadian and EU law, GDPR challenges, Privacy Shield, and today's fundamental privacy concepts.

Protecting Data & the Supply Chain Ecosystem	50 min	FC

Rethinking Efficient Third-Party Risk Management PDAC-T06

***Todd Inskeep**, Principal, Cyber Security Strategy, Booz Allen Hamilton*

Third-party risk programs can take a lot of resources. Build an efficient and cost-effective program for your company by thinking differently about third-party risk.

Security Strategy & Architecture	50 min	FC

Future-Proof Cybersecurity Strategy STR-T06

***Timothy Lee**, CISO, City of Los Angeles/ITA*

This presentation will focus on three must-haves for CISOs to future-proof their cybersecurity strategy.

11:00 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Sponsor Special Topics	50 min	ALL

Cybersecurity Silo-Busters 1, Cyberthreat Actors 0 (Game in Progress) SPO1-T06

***Koos Lodewijkx**, VP & CTO, IBM Security; **Sridhar Muppidi**, VP & CTO, IBM Security*

Learn how to empower critical information-sharing about potential threats across multiple data sources to improve organizational productivity.

Sponsor Special Topics	50 min	ALL

Using Machine Learning to Improve Security Predictions SPO2-T06

***Grant Bourzikas**, Chief Information Security Officer (CISO) & Vice President of McAfee Labs Operations, McAfee*

In this session, McAfee's CISO will provide a "how to" for organizations to improve their security by predicting attacks through insights gleaned from data science and machine learning.

Sponsor Special Topics	50 min	ALL

Harnessing the Law of Data Gravity – Cyber Defense and the Hybrid Cloud SPO3-T06

***Sian John**, Chief Security Advisor, Microsoft; **Diana Kelley**, Cybersecurity Field CTO, Microsoft*

The law of data gravity guides your SOC teams to focus on intelligent automation and security decision making where context and integration is most abundant.

Technology Infrastructure & Operations 2x	50 min	FC

Cybersecurity Tips, Tools and Techniques for Your Professional Toolbag TECH-T06 ⚙

***Ron Woerner**, President / Chief Trusted Advisor, RWX Security Solutions, LLC*

This rapid-fire session provides a vast array of security apps for any situation. You will see security tools such as Nmap, Kali Linux, SysInternals Suite, Wireshark and many more in action.

11:10 AM

Expo Briefing Center South	20 min	ALL

Identity = Security BC-T2S

***Michael Kaczmarek**, VP, Product and Solutions Marketing, Neustar*

Identity is an actionable understanding of who or what is on the other end of any connection. Leveraging identity to tailor protection is the future of online security.

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11:40 AM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center North	30 min	**ALL**

Leverage the Latest Threat Intelligence to Stay Ahead of Cyberthreats BC-T3N

***Dmitriy Ayrapetov**, Executive Director, Product Management, SonicWall*

Take an in-depth look at data and trends from the SonicWall Capture Threat NetworkSecurity Center. Then see how SonicWall can help personalize threat data to your environment, so you can take informed, decisive actions.

Expo Briefing Center South	20 min	**ALL**

Get Your Head Out of the Cloud. Zero-Trust Access for Hybrid IT. BC-T3S

***Bryan Embrey**, Sr. Product Marketing Manager, Pulse Secure*

Multicloud is the new IT normal, but is there a simple and secure way to give appropriate app connectivity to the cloud and data center? Find out how with a zero-trust framework for hybrid IT.

12:10 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center South	20 min	**ALL**

In Nine Months, You Could Be Fined for a CCPA Violation. Want to Know Why? BC-T4S

***Nick Cavalancia**, Founder and Chief Techvangelist, Netwrix*

Join this session to learn about the looming CCPA, the challenges it presents to your organization, how it will impact your IT team and key grey areas to look into.

12:20 PM

Expo Briefing Center North	30 min	**ALL**

Zero-Trust Privilege for the Modern Threatscape BC-T4N

***David McNeely**, Chief Strategy Officer, Centrify*

This session will explore the zero-trust approach to privileged access management, which mandates a "never trust, always verify, enforce least privilege" approach.

Threats can come from anywhere, so we protect you everywhere.

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Intelligent Security Starts at the Edge

To drive innovation, your security architecture needs to transform from the data center, beyond the cloud, to the Edge. *Akamai is the Edge.*

Visit Akamai today at **Booth N 6153** to learn how we help:

- Protect Internet-facing apps and APIs
- Secure customer experiences to stop fraud and credential abuse
- Keep users safe from targeted threats in the move to Zero Trust
- Secure corporate application access

Take part in our *#AkamaiCrackTheCode* challenge by visiting Akamai at Booth N 6153.

TUESDAY SESSION DETAILS

12:40 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center South	20 min	ALL

Detect and Block Web App Attacks—Before They Strike Your Business BC-T5S

***Rusty Carter**, VP, Product Management, Arxan Technologies*

Bad actors are evading traditional security measures. Learn how to extend protection to the web app endpoint, to provide greater visibility and response capabilities before attacks hit infrastructure.

1:00 PM

TUESDAY

Analytics, Intelligence & Response	50 min	FC

ATT&CK in Practice: A Primer to Improve Your Cyber-Defense AIR-T07

***Freddy Dezeure**, CEO, Freddy Dezeure BVBA; **Richard Struse**, Chief Strategist, Cyber Threat Intelligence, MITRE Corporation*

A primer into the ATT&CK Framework, starting from describing adversary behavior to practical operational use cases in prevention, detection and response and highlighting relevant supporting tools.

Application Security & DevSecOps	50 min	FC

DevOps' Seven Deadly Diseases ASD-T07

***John Willis**, Founder, Botchagalupe Technologies*

In this presentation, we will look at the "Seven Deadly Diseases" of IT organization work and show examples of how to uncover these diseases through a process of organizational forensics.

Blockchain & Applied Crypto	50 min	FC

Blockchainification of Cyber-Supply Chain Risk: Hype vs. Hope BAC-T07

***Celia Paulsen**, Cybersecurity Researcher, National Institute of Standards and Technology*

Get to the bottom of fact and fiction as an NIST researcher discusses how various blockchain technologies are or could be used, focusing on cyber-supply chain risk management.

C-Suite View	50 min	FC

Building Security In—DevSecOps CXO-T07

***Noopur Davis**, SVP, Chief Product and Information Security Officer, Comcast Business*

Comcast uses a DevSecOps approach to security, focusing on automation, speed and development team empowerment. It's agile and effective. It's about building security in rather than bolting it on.

1:00 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Cryptography	50 min	FC

ID-Based and Predicate Encryption CRYP-T07 ⚙

***Olivier Blazy**, Associate Professor, Xlim, Université de Limoges; **Sayantan Mukherjee**, IISc, Bangalore*

Techniques for enhancing identity-based encryption and predicate encryption will be discussed.

TOPIC 1: Downgradable Identity-Based Encryption and Applications
Authors: Olivier Blazy; Paul Germouty; Duong Hieu Phan

TOPIC 2: Large Universe Subset Predicate Encryption Based on Static Assumption (without Random Oracle)
Authors: Sanjit Chatterjee; Sayantan Mukherjee

Expo Briefing Center North	30 min	ALL

Hunting the Hunters: Going Behind Enemy Lines BC-T5N

***Brian Hussey**, VP, Cyber Threat Detection and Response, Trustwave*

Learn about top government sponsored threat actors targeting the US. Trustwave will demonstrate attacks and how to defend against them via threat-hunting, endpoint and network-security services.

Governance, Risk & Compliance	50 min	FC

The Metrics Manifesto GRC-T07

***Richard Seiersen**, President, M-Cubed*

Learn to make metrics like a pro using predictive analytics. Walk away inspired to apply these approaches to security operations as well as board presentations.

Hackers & Threats	50 min	FC

Secure the Pod Bay Doors, HAL: Cybersecurity Risks of IoT Automation HT-T07

***Stephen Hilt**, Senior Threat Researcher, Trend Micro; **Numaan Huq**, Senior Threat Researcher, Trend Micro*

Find out how two researchers built and hacked into home automation systems and, based on their findings, discuss how to lower the risks that these complex IoT environments are creating.

Human Element	50 min	FC

The Art of the Nudge, Cheap Ways to Steer User Behavior HUM-T07 ⚙

***Branden Williams**, Director, Cyber Security, Union Bank*

Manipulating human behavior is one of the oldest learned crafts of any civilization. This session will teach attendees how to nudge employees to choose a secure pathway when presented with a choice.

Identity	50 min	FC

Studies of 2FA, Why Johhny Can't Use 2FA and How We Can Change That IDY-T07

***L Jean Camp**, Professor, Indiana University; **Sanchari Das**, Doctoral Researcher, Indiana University*

Knowing why people do not adopt 2FA and the work-arounds undermining 2FA enables strategies and interactions to increase acceptability. The science, the tools and the techniques for 2FA usability.

Top-rated speaker. 2x = Session given twice. △ Space is limited; no press allowed. ⚙ Advanced session.
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1:00 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Law	50 min	FC

Elections at Risk: Global Threats / Local Impact LAW-T07

MODERATOR: ***Michael Aisenberg****, Principle Cyber Policy Counsel, The MITRE Corporation*
PANELISTS: ***Serge Jorgensen****, Founding Partner/CTO, Sylint Group;* ***Robert Martin****, Senior Principal Engineer, MITRE Corporation;* ***Kay Stimson****, VP, Government Affairs, Dominion Voting Systems;* ***Lucy Thomson****, Attorney, Livingston PLC*

Combatting cyberattacks and social media manipulation to interfere with elections is critical. Learn about vulnerabilities, attacks and consensus proposals for strong, resilient election systems.

Machine Learning & Artificial Intelligence	50 min	FC

The Rise of the Machines, AI- and ML-Based Attacks Demonstrated MLAI-T07

Etienne Greeff*, CTO, SecureData Europe;* ***Wicus Ross****, Lead Researcher, SecureData Labs*

Until now there has been little practical examples of the offensive use of AI and ML. This talk will introduce and demonstrate two novel attacks using topic modelling together with some defensive strategies.

1:00 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Mobile & IoT Security	50 min	FC

Evolution of AI-Bot Swarming Intelligence with Robots MBS-T07

Thomas Caldwell*, President, CTO, League of AI*

Botnets, chatbots, social media bots exist in society. AI-Bots use cognitive swarming intelligence to form security teams with robots and humans, enabling a new layer of cyber- and physical security.

Policy & Government	50 min	FC

Cybersecurity Rubicon: Is US Domestic and Foreign Cyber-Policy on Track PNG-T07

MODERATOR: ***Sam Curry****, Chief Security Officer, Cybereason*
PANELISTS: ***Mieke Eoyang****, Vice President for the National Security Program, Third Way;* ***Chris Painter****, Commissioner, Global Commission on the Stability of Cyberspace;* ***Eric Rosenbach****, Co-Director, Belfer Center for Science and International Affairs;* ***Ari Schwartz****, Managing Director, Venable;* ***Kiersten Todt****, President and Managing Partner, Liberty Group Ventures; Managing Director, The Cyber Readiness Institute*

American cyber-policy has undergone massive shifts over the last three years. Is the country gaining or losing ground relative to its nearest competitors?

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BOLDLY

Whether you are finding new ways to treat disease, improve education, combat climate change, or streamline banking, your company is changing the world and using software to do it. But if the software you are developing or buying is insecure, you can't achieve your vision – no matter how important or innovative it is. That's where Veracode comes in. We help you secure the software you build, buy, and download so that you can boldly focus on your mission.

YOU CHANGE THE WORLD, WE'LL SECURE IT.

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1:00 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Privacy 2x	50 min	FC

Connected Cars: A Security and Privacy by Design Study 10 Years in the Making PRV-W03R

***Ed Adams**, CEO, Security Innovation, Inc.; **Larry Ponemon**, Founder, The Ponemon Institute*

Connected cars—what could go wrong? Learn about the safety, security and privacy trade-offs, and the Privacy by Design system used for "Talking Cars," a program to save 10,000 lives per year.

Privacy	50 min	FC

New Rules: Comparing the CA Consumer Privacy Act and EU GDPR—What Every Security Professional Needs to Know PRV-T07

*MODERATOR: **John Carlin**, Partner, Morrison & Foerster LLP*
*PANELISTS: **Lisa Monaco**, Former White House Homeland Security, and Counterterrorism Advisor; **Snir Ben Shimol**, Director of Cybersecurity, Varonis*

Current and former US and EU government insiders discuss recent regulatory developments regarding data protection, trends and practical takeaways for avoiding government scrutiny or litigation.

Professional Development	50 min	FC

Roadmap to Entrepreneurial Success: Lessons Learned Along The Way PROF-T07

***Paul Burmester**, Head of Innovation & Partnerships, Singtel Innov8; **Gene Teare**, Head of Content, Crunchbase*

You've got a brilliant idea; how do you see it through in the crowded startup world? Join this fireside chat for valuable lessons learned, mistakes to avoid and what it takes to thrive as an entrepreneur.

Protecting Data & the Supply Chain Ecosystem	50 min	FC

When the One You Trust Hurts You Most: Real-World Attack, Real-Time Response PDAC-T07

***Bret Hartman**, VP and CTO, Security Business Group, Cisco Systems; **Jyoti Verma**, Technical Leader, Cisco Systems*

Experience a real-time, real-world supply chain attack fueled by rapid internal lateral movement. Watch as split-second, critical decisions are made to stop one of today's most challenging attacks.

Security Strategy & Architecture	50 min	FC

The Digital Risk Dilemma: How to Protect What You Don't Control STR-T07

***Nick Hayes**, VP of Strategy, InSights*

More of your attack surface resides on web infrastructure you don't own or control. This session will outline the tools, tactics and best practices to protect your entire digital footprint.

1:00 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Sponsor Special Topics	50 min	ALL

Accelerate and Simplify Incident Response with Security Automation SPO1-T07

***Nick Bilogorskiy**, Cybersecurity Strategist, Juniper Networks*

Explore how to effectively leverage machine learning and automation to accelerate and simplify incident response.

Sponsor Special Topics	50 min	ALL

99 Security Products and You Still Got Breached? SPO2-T07

***Matthew Chiodi**, Chief Security Officer, Public Cloud, Palo Alto Networks; **Sandra Wenzel**, Sr. Systems Engineer, Palo Alto Networks*

The cybersecurity industry has misled us. Buying the sexiest point products has not delivered better security. Understand why and learn how simplicity in security platforms must prevail moving forward.

Sponsor Special Topics	50 min	ALL

Playing with Fire: How Cyber-Physical Attacks Threaten Our Connected World SPO3-T07

***Sandra Joyce**, Vice President and Head of Global Intelligence Operations, FireEye*

The scale and impact of malicious nation-state cyber-activity is striking. Future attacks could have more significant real-world consequences to the health, safety and security of civilians worldwide.

Technology Infrastructure & Operations	50 min	FC

2028 Future State: Long Live the Firewall? TECH-T07

*MODERATOR: **Harry Sverdlove**, CTO and Founder, Edgewise Networks*
*PANELISTS: **Jennifer Minella**, VP of Engineering & Security, Carolina Advanced Digital, Inc.; **Marcus Ranum**, Consultant, Independent; **Adam Shostack**, President, Shostack & Associates*

Using threat modeling and best practices to understand how firewalls must evolve to tackle the current and future challenges of network security.

1:10 PM

Expo Briefing Center South	20 min	ALL

The Scarlet Email: A Look at the Financial Underbelly of BEC Criminal Groups BC-T6S

***Josh Wilson**, Field CTO, Agari*

This presentation will discuss the tactics used by a BEC group called Scarlet Widow to recruit money mules using romance schemes and how the group uses online services to launder stolen gift cards.

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1:40 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center North	30 min	**ALL**

Highlighting Security Blind Spots in the DevOps Butler BC-T6N

Nimrod Stoler*, Security Researcher, CyberArk*

Is your DevOps infrastructure secure? We'll explore in-depth research on the Jenkins automation server, tactics to identify security weaknesses and best practices to mitigate risk and protect secrets.

Expo Briefing Center South	20 min	**ALL**

Is DNS Part of Your Cybersecurity Strategy? BC-T7S

Craig Sanderson*, VP Product Management – Security, Infoblox*

DNS is critical to the fabric of the Internet. Attackers often exploit DNS to steal data and as a malware control point. Learn how organizations can use DNS as a pervasive asset for threat defense.

2:10 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center South	20 min	**ALL**

Cloud Revolution—Digital Transformation and Disruption of Data Protection BC-T8S

Gary Marsden*, Senior Director, Encryption Products and Cloud Solutions, Gemalto*

Tech and commercial advances underpinning cloud introduce irreversible changes, compliance needs, threats, but significant opportunities. This session will discuss challenges and how we overcome the disruption.

2:20 PM

Analytics, Intelligence & Response	50 min	**FC**

Flash War: Tapering an Accelerating Attack Chain AIR-T08

Derek Manky*, Chief of Security Insights, Global Threat Alliances, Fortinet, Inc.*

Breach latency is decreasing, attacks now swiftly penetrate networks using automation/swarm technology. Dwell time is long. Kill chain defense needs to step up to taper this accelerating attack chain.

Cybersecurity is a numbers game.

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Zero anxiety about cyber threats is achieved through deploying a proactive strategy of defense. Our AI-driven security solutions help you prevent attacks before they can damage your devices, your data, or your reputation.
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CYLANCE

TUESDAY SESSION DETAILS

*BADGE ACCESS: **FC** = Open to Full Conference Registrants only • **ALL** = Open to all attendees*

2:20 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Application Security & DevSecOps	50 min	FC

Building Security Processes for Developers and DevOps Teams ASD-T08

***Ainsley Braun**, CEO, Tinfoil Security, Inc.*

With code being pushed as quickly as every hour, adjustments have to be made to the way security works. Train your developers to take on security concerns and work with your team.

Blockchain & Applied Crypto 2x	50 min	FC

Mechanical Backdoors in Cold War Encryption Machines BAC-T08

***Marcus Sachs**, Chief Security Officer, Pattern Computer*

Many stories have been told about breaking the Enigma. This talk will cover mechanical Hagelin cipher devices that were sold "pre-broken" during the Cold War, and used by some countries into the 1990s.

C-Suite View	50 min	FC

How to Make Sense of Cybersecurity Frameworks CXO-T08

***Frank Kim**, Senior Instructor, SANS Institute*

Learn how to make sense of the veritable alphabet soup of cybersecurity frameworks to simplify the complex world of security and structure your program to meet both business and technology goals.

Cloud Security & Virtualization	50 min	FC

Using Automation to Help Achieve Security in a Multicloud Environment CSV-T08

***Brad Arkin**, VP, Chief Security Officer, Adobe*

Security in a multicloud environment requires investment in automated tools to help ensure consistency with security policies and compliance. This session will discuss some of the components needed for an automated security stack.

Cloud Security & Virtualization 2x	50 min	FC

A Cloud Security Architecture Workshop CSV-T07R

***Dave Shackleford**, Sr. Instructor, SANS Institute*

Core cloud security architecture best practices, based on too many projects and deployments to count. This session will quickly bring you up to speed on cloud security architecture design principles.

Cryptography	50 min	FC

Homomorphic Encryption CRYP-T08

***Malika Izabachène**, Research Engineer – Cryptography Expert, CEA LIST; **Yuriy Polyakov**, Associate Research Professor, New Jersey Institute of Technology*

Theory and implementation of homomorphic encryption will be discussed.

TOPIC 1: An Improved RNS Variant of the BFV Homomorphic Encryption Scheme
Authors: Shai Halevi; Yuriy Polyakov; Victor Shoup

TOPIC 2: New Techniques for Multivalue Input Homomorphic Evaluation and Applications
Authors: Sergiu Carpov; Malika Izabachène; Victor Mollimard

2:20 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center North	30 min	ALL

Next-Gen Cloud Security Architectures for the Cloud-First Future BC-T7N

***Christopher Park**, Chief Technical Implementation Officer, iboss*

This session will discuss available cloud-based security options and the advantages of next-gen containerized cloud gateway architecture for achieving scalable, hardware-free compliance and security.

Governance, Risk & Compliance	50 min	FC

Finding the Right Answers—Facilitating Insider Threat Analysis Using OCTAVE GRC-T08

***Randy Trzeciak**, Technical Manager, Software Engineering Institute; **Brett Tucker**, Technical Manager, Cyber Risk, Carnegie Mellon University, Software Engineering Institute*

This session will provide a scripted risk facilitation discussion with one of the industry's leading experts in insider threat programs, Randy Trzeciak, using the OCTAVE FORTE process.

Hackers & Threats	50 min	FC

Mirai Nikki: The Future of DDoS HT-T08

***Elliott Peterson**, Special Agent, FBI*

This is the untold story of the international investigation team racing to stop Mirai Botnet DDoS attacks, what they learned, and what the future of DDoS botnets will look like.

Hackers & Threats Advanced 2x	50 min	FC

What's Your Game Plan? Leveraging Apple's Game Engine to Detect Threats HTA-T08

***Patrick Wardle**, Co-Founder, Digita Security*

To detect new Mac malware, a behavior-based approach is needed. Our open-source monitoring framework provides input to a rule-based system that leverages Apple's game engine to detect threats.

Human Element	50 min	FC

Cyber-Influence: Cyberwar and Psychological Operations HUM-T08

***Lawrence Dietz**, General Counsel, TAL Global Corporation*

The real cyberwar is one of influence. We have seen that the Russians and ISIS are very good at it, while the US and allies lag. This session will explore why this is the case.

Identity	50 min	FC

More than Vaulting: Adapting to New Privileged Access Threats IDY-T08

***Lance Peterman**, Security Architect, Merck*

Today's threats are changing rapidly, is your privileged access management (PAM) program keeping up? We'll update PAM's evolution, look at new threats and discuss new approaches to reducing risk.

= Top-rated speaker. 2x = Session given twice. △ Space is limited; no press allowed. Advanced session.
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2:20 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Law	50 min	FC

DHS Hackers and the Lawyers Who Advise Them LAW-T08

MODERATOR: ***Gabriel Taran****, Assistant General Counsel for Cybersecurity, Department of Homeland Security*
PANELISTS: ***Jason Hill****, Deputy Chief, NCATS, CS&C, Department of Homeland Security;* ***Rob Karas****, Director, Cybersecurity & Infrastructure Security Agency's (NCATS) Program;* ***Matthew Slowik****, Attorney, DHS OGC, Department of Homeland Security;* ***Kelly Thiele****, Cybersecurity Analyst, Cybersecurity and Infrastructure Security Agency's (NCATS) Program*

Government hackers open their toolboxes while their lawyers discuss the complex legal issues that can result. The team will share examples of mitigating legal pitfalls to provide actionable services and results.

Learning Labs △	2 HRS	FC

How to Run a Cyber-Incident Response Exercise Using an Open-Source Scenario LAB1-T08

John Elliott*, Data Protection Specialist;* ***Tim Wiseman****, Author*

The more times an organization practices managing a security incident, the better it gets at responding to a real one. You'll learn the skills to facilitate an exercise and take away a scenario to use.

Learning Labs △	2 HRS	FC

Bad Intelligence: Or How I Learned to Stop Buying and Love the Basics LAB2-T08

Heather Gantt-Evans*, Senior Manager, EY;* ***Larry Lipsey****, Senior Consultant, EY;* ***Brett Rogers****, Manager, Cybersecurity, EY*

Following the intelligence "gold rush," buying every feed and tool available, organizations were left with a hefty bill for "bad intel." This talk will share a basic framework to produce and target intelligence.

Learning Labs △	2 HRS	FC

Crypto Hero (Hands-On) LAB3-T08

Elizabeth Biddlecome*, Instructor, CCSF;* ***Sam Bowne****, Instructor, CCSF;* ***Kaitlyn Handelman****, Instructor, CCSF;* ***Travis Knapp-Prasek****, Student, CCSF*

Will cover encryption systems and blockchains, including AES, RSA, Bitcoin, Ethereum, Stellar and quantum computation. Participants must bring a laptop capable of running VMware virtual machines.

Learning Labs △	2 HRS	FC

Cloud CTF: Identifying and Resolving Attacks in Azure LAB4-T08

Lesley Kipling*, Lead investigator / Chief Security Advisor, Microsoft;* ***Ola Peters****, Cybersecurity Incident Response and Recovery Architect, Microsoft;* ***Anthony Petito****, Incident Response Team Lead, Microsoft;* ***Jonathan Trull****, Senior Director, Cyber, Microsoft*

Get your hands dirty as a member of Contoso's blue team investigating and resolving a series of attacks against cloud workloads hosted in Azure.

Machine Learning & Artificial Intelligence	50 min	FC

AI: Hacking without Humans How Can Human Brains Be Hacked? MLAI-T08

Anthony J. Ferrante*, Global Head of Cybersecurity and Senior Managing Director, FTI Consulting, Inc.*

AI models are built with a type of machine learning called deep neural networks (DNNs). This presentation will discuss the security, ethical and privacy concerns surrounding this technology.

2:20 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Mobile & IoT Security	50 min	FC

Mobile Security and the Post-Perimeter World: 10 Years of Mobile Threats MBS-T08

***Michael Murray**, Chief Security Officer, Lookout; **Apurva Kumar**, Security Intelligence Engineer, Lookout*

The first decade of widespread use of mobile technologies saw a constant evolution of the attack landscape. The coming decade will see them continue to evolve and adapt to a post-perimeter world.

Policy & Government	50 min	FC

The Women Driving Innovation in State Cybersecurity PNG-T08

*MODERATOR: **Maggie Brunner**, Program Director, Cybersecurity, Emergency Communications & Technology, National Governors Association*
*PANELISTS: **Deborah Blyth**, CISO, State of Colorado; **Chetrice Mosley**, Cybersecurity Program Director, Indiana Department of Homeland Security Office of Technology; **Maria Thompson**, State Chief Information Risk Officer, North Carolina Department of Information Technology*

Panelists will explore how women are leading innovation in state cybersecurity policy and training the next generation.

Privacy	50 min	FC

Use of Facial Recognition to Combat Terrorism PRV-T08

*MODERATOR: **Sam Kaplan**, Chief Privacy Officer, Department of Homeland Security*
*PANELISTS: **Debra Danisek**, Privacy Officer, US Customs and Border Protection; **Michael Hardin**, Director of Planning, Program Analysis and Evaluation, Office of Field Operations, US Customs and Border Protection; **Christopher Pierson**, Founder & CEO, BLACKCLOAK; **C.M. Toke Vandervoort**, VP, Deputy General Counsel, Under Armour, & DHS Data Privacy & Integrity Advisory Committee Member*

Learn about the government's use of facial recognition technology to facilitate a large-scale transformation of international travel to and from the United States.

Protecting Data & the Supply Chain Ecosystem	50 min	FC

Your Data's Integrity: Protect and Respond to Ransomware and Critical Events PDAC-T08

***Anne Townsend**, Lead Cybersecurity Engineer, NIST/NCCoE – MITRE*

Dive deep into NIST's newest Data Integrity publications and learn how to identify, protect, detect, respond to, and recover from ransomware, malware, or honest human mistakes.

Security Strategy & Architecture	50 min	FC

Lift and Shift, Don't Lift and Pray: Pragmatic Cloud Migration Strategies STR-T08

***Rich Mogull**, Analyst & CEO, Securosis*

Learn the latest best practices for migrating even the oldest organizational resources into the cloud.

2:20 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Security Strategy & Architecture	210 min	FC

A General Introduction to Modern Cryptography STR1-T08

***Josh Benaloh**, Senior Cryptographer, Microsoft*

This session will offer a beginner's tour through the basics of modern cryptography and a few topical applications.

Sponsor Special Topics	50 min	ALL

Machine Learning: The What and Why of AI SPO1-T08

***Timothy Keanini**, Distinguished Engineer, Advanced Threat Solutions, Cisco*

Learn what machine learning is and examine different techniques and when to use them. You'll become more informed and gain six questions to ask vendors.

Sponsor Special Topics	50 min	ALL

Using the Cloud to Secure vs. Securing the Cloud SPO2-T08

***Tom Corn**, GM, SVP of Security Products, VMware, Inc.*

We've harnessed the unique properties of private/public clouds to revolutionize how we architect and run applications. Can we harness these properties to revolutionize how we secure them? Come see how.

Sponsor Special Topics	50 min	ALL

How to Apply a Zero-Trust Model to Cloud, Data and Identity SPO3-T08

***Nicolas Popp**, SVP Info Protection, Symantec*

A safe migration to Office 365, AWS, Azure, etc. requires tenants such as visibility, protection and control. This session will discuss best practices on how to accomplish zero trust in the cloud.

Technology Infrastructure & Operations	50 min	FC

Back to the Basics: How to Create Effective Information Security Policies TECH-T08

***Chuck Kesler**, Chief Information Security Officer, Pendo.io*

This case study from Duke Health and Duke University will share an approach for using virtualized secure enclaves for addressing security and compliance challenges in healthcare and academic research.

Technology Infrastructure & Operations 2x	50 min	FC

Cybersecurity Tips, Tools and Techniques for Your Professional Toolbag TECH-T06R

***Ron Woerner**, President / Chief Trusted Advisor, RWX Security Solutions*

This rapid-fire session provides a vast array of security apps for any situation. You will see security tools such as Nmap, Kali Linux, SysInternals Suite, Wireshark and many more in action.

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2:40 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center South	20 min	**ALL**

Edge Computing: New Hope against Insider Threat? BC-T9S

***Hoke Smith**, Director, Security and Analytics, Nuix*

Insider attacks can be some of the most damaging. Learn about a new approach that makes use of real-time analytics at the edge to detect and even prevent attacks.

3:00 PM

Expo Briefing Center North	30 min	**ALL**

The Five Stages of Security Change in the World of Converged IT/IoT/OT BC-T8N

***Ellen Sundra**, VP, Systems Engineering, ForeScout*

Changing from siloed security to the converged world of all-connected networks and devices? Learn best practices to effectively address this challenge from someone who's been through it before.

3:10 PM

Expo Briefing Center South	20 min	**ALL**

Spartacus as a Service: Privacy, Obfuscation and the Right to Be Forgotten BC-T10S

***Mike Kiser**, Strategist and Evangelist, Office of the CTO, SailPoint*

This session will examine the current state of the right to be forgotten and then proposes an alternative solution suggested by the life of Spartacus: privacy through obfuscation.

3:40 PM

Analytics, Intelligence & Response	50 min	**FC**

Unraveling Detection Methodologies: Indicators vs. Anomalies vs. Behaviors AIR-T09

***Joe Slowik**, Adversary Hunter, Dragos*

IOCs, anomalies and behaviors are used without examining just what these terms mean for defense. This presentation will explore these terms in depth to see just what each means and its benefits.

Application Security & DevSecOps	50 min	**FC**

Release Your Inner DevSecOp ASD-T09

***Shannon Lietz**, Director, Intuit; **James Wickett**, Head of Research, Signal Sciences*

DevSecOps brings security to the DevOps party, completely changing the security playbook. This talk will cover 10 practices and patterns we've implemented, bringing DevSecOps value to everyone involved.

3:40 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Blockchain & Applied Crypto	50 min	**FC**

Cryptojacking: What's in Your Environment? BAC-T09

***Ayse Kaya Firat**, Head of Analytics and Customer Insights, Cisco Systems; **Austin McBride**, Threat Analytics Researcher, Cisco*

Cryptojacking, cloud miners, crypto phishing and the criminal enterprises behind them. What are malicious actors doing with crypto and how they are profiting from your environment at your expense.

Blockchain & Applied Crypto 2x	50 min	**FC**

From Ephemeral Infrastructure to Ephemeral Communications BAC-T06R

***Paul Kocher**, Founder & Researcher, Cryptography Research Inc.; **Joel Wallenstrom**, CEO, Wickr*

Why the combination of end-to-end encryption and ephemerality is the most powerful security enforcer and antidote to mainstream data-obsessed and security-poor business models.

C-Suite View	50 min	**FC**

CISO: How to Understand and Manage Your Human Risk CXO-T09

***Lance Spitzner**, Director, SANS Institute*

Key to managing human risk is a mature awareness program. This talk will provide CISOs a roadmap and proven examples of what success looks like, the models to leverage and the path to get there.

Cloud Security & Virtualization	50 min	**FC**

Security at the Speed of DevOps: A Reality Check CSV-T09

***Steve Martino**, SVP, Chief Information Security Officer, Cisco Systems; **Sujata Ramamoorthy**, Sr. Director, Information Security, Cisco Systems*

Speed is at the core of today's digital business. Join this session to hear how security meets the speed of business at Cisco using DevSecOps practices.

Cryptography	50 min	**FC**

Functional Encryption CRYP-T09

***Răzvan Roşie**, Ph.D. Student, ENS Paris, CNRS, INRIA, PSL Research University and University of Luxembourg*

Methodologies for enhancing functional encryption will be discussed.

Topic 1: Efficient Function-Hiding Functional Encryption: From Inner-Products to Orthogonality
Authors: Manuel Barbosa; Dario Catalano; Azam Soleimanian; Bogdan Warinschi

Topic 2: Robust Encryption, Extended
Authors: Rémi Géraud; David Naccache; Răzvan Roşie

Expo Briefing Center South	20 min	**ALL**

Attack Simulation: Exfiltrating Data from an Organization without Hacking It BC-T11S

***Clifford Vazquez**, Director Enterprise Architect Capgemini's Cybersecurity Global Service Line, Capgemini*

Learn about the latest attack methods that avoid detection and define how your organization should react to today's cyberattacks.

3:40 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center North	30 min	ALL

Protecting Your Organizations' Very Attacked People BC-T9N

***Jennifer Cheng**, Director, Product Marketing, Proofpoint*

Attackers are targeting organizations in new ways, through their people. These targets are called VAPs (very attacked people). This session will focus on how to identify them and how to protect them.

Governance, Risk & Compliance 2x	50 min	FC

We're Not in Kansas Anymore: Measuring the Impact of a Data Breach GRC-T09

***Suzanne Widup**, Senior Analyst, Verizon Enterprise Solutions*

This session will propose a new way to measure data-breach impact for future risk calculations after studying over 4,000 incidents. Characteristics that intensify a breach's effect are discussed.

Hackers & Threats	50 min	FC

Practical Malware Analysis Essentials for Incident Responders HT-T09

***Lenny Zeltser**, Instructor, SANS Institute; VP of Products, Minerva Labs*

Learn key malware analysis tactics using free tools at this fast-paced, practical session from an industry pioneer. Go beyond automated sandboxes to boost incident response and threat hunting skills.

Hackers & Threats Advanced	50 min	FC

The Foreshadow Attack: From a Simple Oversight to a Technological Nightmare HTA-T09

***Raoul Strackx**, Postdoctoral Researcher, Imec-DistriNet, KU Leuven*

2018 was the year speculative execution vulnerabilities caused havoc. This session will discuss the Foreshadow/L1TF vulnerability, how it got introduced, what its impact was and how it got mitigated.

Human Element	50 min	FC

Cyber-Hustle: Security Lessons from Hollywood HUM-T09

***Sam Curry**, Chief Security Officer, Cybereason; **Scott Howitt**, SVP, CISO, MGM Resorts International*

Security remains a form of human-to-human conflict in spite of the weapons and terrain, and understanding the "old school" hustles and cons from classic and new movies helps our current mission.

Identity	50 min	FC

Delivering Automated, Modern Enterprise App Auth in Old Orgs, Quickly IDY-T09

***Jon Lehtinen**, Lead Identity Engineer, Thomson Reuters*

Jon Lehtinen's organizations dropped WAM and converted to OIDC/OAuth/SAML, all delivered through self-service. This saves millions and positions them for the future of federated auth profiles. Come learn how.

3:40 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Law	50 min	FC

Blockchain Anchored Swap Meet: A Mock Trial LAW-T09

*MODERATOR: **Hoyt Kesterson**, Senior Security Architect, Avertium*
*PANELISTS: **April Doss**, Partner, Saul Ewing Arnstein & Lehr; **Serge Jorgensen**, Founding Partner/CTO, Sylint Group; **Steven Teppler**, Partner, Chair Privacy and Security Practice, Mandelbaum Salsburg P.C.; **Brian Tsuchida**, Chief United States Magistrate Judge, United States District Court, Western District of Washington*

Is it possible to create contracts that will stand up in court using a computer-transcribed recording for the agreement, a voice print as an electronic signature, and blockchain for a timestamp?

Machine Learning & Artificial Intelligence	50 min	FC

Ethical Bias in AI-Based Security Systems: The Big Data Disconnect MLAI-T09

***Clarence Chio**, Co-Founder, CTO, Unit21; **Winn Schwartau**, Founder, Winn Schwartau, LLC*

We don't know how AI makes decisions; bias in big data is the root of error in security systems. We focus on biases in AI systems, and propose a framework to eliminate bias in data and algorithms.

Mobile & IoT Security	50 min	FC

Achieving Operational Security Excellence in Connected IoT Solutions MBS-T09

***Michele Guel**, Distinguished Engineer/IoT Security Strategist, Cisco Systems*

This session will summarize key attack vectors against connected IoT systems and explain how specific security concepts and requirements may be combined to mitigate the risk of attacks using those vectors.

Policy & Government	50 min	FC

Come Get Your Free NSA Reverse Engineering Tool! PNG-T09

***Robert Joyce**, Senior Advisor, National Security Agency*

Overview of NSA's GHIDRA software reverse engineering tool, running on Windows, Mac and LINUX. Supporting a variety of processor instruction sets with expanded functionality uniquely developed at NSA.

Privacy	50 min	FC

What Should a US Federal Privacy Law Look Like? PRV-T09

*MODERATOR: **Angelique Carson**, IAPP*
*PANELISTS: **Julie Brill**, Corporate Vice President and Deputy General Counsel, Microsoft; **Keith Enright**, Chief Privacy Officer, Google; **Nithan Sannappa**, Associate Legal Director, Product, Twitter*

A federal US privacy law seems inevitable. What should it look like? How should industry and advocates work together to strike the right balance between consumer concerns and allowing companies to thrive?

Protecting Data & the Supply Chain Ecosystem	50 min	FC

Due Diligence Meets Small Business: Nightmares from the Other Side PDAC-T09

***Lawrence Cruciana**, Chief Systems Engineer, Corporate Information Technologies, Corp*

This session will present effective techniques that can help to achieve transparency and improvement of third parties that are smaller businesses.

*BADGE ACCESS: **FC** = Open to Full Conference Registrants only • **ALL** = Open to all attendees*

3:40 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Security Strategy & Architecture	50 min	FC

Cyber-Defense Matrix Reloaded STR-T09

***Sounil Yu**, Chief Security Scientist, Bank of America*

This session will show new use cases of the Cyber-Defense Matrix, including how to measure controls, align them against emerging threats, and manage your security program through design patterns.

Sponsor Special Topics	50 min	ALL

HTTPS: Is Privacy Making Us Less Secure? SPO1-T09

***Hal Lonas**, CTO, Webroot*

HTTPS promised many security benefits. But what if this tech is actually opening us up to new vulnerabilities? This presentation will examine why the benefits of HTTPS might not outweigh the risks.

Sponsor Special Topics	50 min	ALL

Making Security a Competitive Advantage SPO2-T09

***Sam King**, CEO, Veracode; **Chris Wysopal**, CTO, Veracode*

Companies that treat security as a strategic revenue driver by creating secure software and ensuring the software they are using is secure are establishing a competitive advantage over their peers.

Sponsor Special Topics	50 min	ALL

You Just Got Breached! Is There Any Security Solution That Really Works? SPO3-T09

*MODERATOR: **Marie Hattar**, CMO, Keysight Technologies*
*PANELISTS: **Sean Cordero**, VP of Cloud Strategy, Neskope; **Lance Dubsky**, VP, IT Security Technology, Iron Mountain; **Justin Harvey**, Global Incident Response Leader, Accenture; **Steve McGregory**, Director of ATI Research Center, Ixia*

Join us for a panel discussion with industry veterans who have learned the hard way that when it comes to network security, everyone can be the best because everyone has their own metrics.

Technology Infrastructure & Operations	50 min	FC

Update on Confidential Computing TECH-T09

***Olya Ohrimenko**, Researcher, Microsoft Research*

This session will highlight hardware security advances for confidential computing, featuring research on designing confidential services that leverage TEEs to support consortium blockchains and secure multiparty AI scenarios.

4:10 PM

Expo Briefing Center South	20 min	ALL

Three Things Every Boardroom Wants to Know BC-T12S

***Jonathan Goldberger**, VP and General Manager, Security Solutions, Unisys*

The C-suite is more involved in security—compliance, liability and revenue are all affected by (in)security. This session will discuss what every security program must incorporate into their ballroom reporting.

4:20 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center North	30 min	ALL

Mind the Gap: Four Key Areas Where Infosec Expectations Fall Short of Reality BC-T10N

***Raymond Pompon**, Principal Threat Research Evangelist, F5 Networks*

This session will examine surveys and field data to identify four key gaps between what security professionals want to get done and what they're actually able to do—and suggest ways to close the gap.

4:40 PM

Expo Briefing Center South	20 min	ALL

The Nightmare on Cyber-Hygiene Street BC-T13S

***Nicola Whiting**, Chief Strategy Officer, Titania*

Examines the technology ecosystem needed to be able to trust AI to unlock a future where robust, resilient systems defend themselves—so we can put to bed our Nightmare on Cyber-Hygiene Street.

5:00 PM

Expo Briefing Center North	30 min	ALL

Authentication and Security at the Speed of Conversation BC-T11N

***Vijay Balasubramaniyan**, CEO and Co-Founder, Pindrop*

Pindrop will detail the three pillars of their voice identity platform—speed, accuracy and security. The session will show how voice shapes customer experiences and the environmental impact on sounds.

Law	50 min	FC

Navigating Today's Data Privacy Regulation Labyrinth LAW-T10

*MODERATOR: **Greg Silberman**, Chief Privacy Officer, Cylance Inc.*
*PANELISTS: **Malcolm Harkins**, Chief Security & Trust Officer, Cylance Inc.; **Theresa Payton**, CEO and Founder, Fortalice Solutions; **Ruby Zefo**, Chief Privacy Officer, Uber*

Our panel will assess the policy implications of regulatory changes in the US and abroad and their effects on cyberthreat management, data collection and use, and technology innovation.

5:10 PM

Expo Briefing Center South	20 min	ALL

Dissecting ERP Breaches: They're More Common Than You Know BC-T14S

***Juan Pablo Perez-Etchegoyen**, CTO, Onapsis*

It seems like everyday there is another high profile breach in the news that details customer records lost, compliance failures and bad cybersecurity hygiene. Do you ever wonder where these records are maintained in the organization or what applications were exposed?

= Top-rated speaker. 2x = Session given twice. △ Space is limited; no press allowed. Advanced session.
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WEDNESDAY EVENTS & ACTIVITIES

6:00 AM – 7:00 AM
Moscone West Level 2 Alcove

POWER PAUSE—MINDFULNESS & MOVEMENT*

This yoga class and meditation session is designed for all levels from beginners to advanced practitioners.

7:00 AM – 8:00 AM
Various Locations

CONTINENTAL BREAKFAST*

Full Conference Pass holders, breakfast is available in Moscone West Levels 2 & 3 and Moscone South Levels 2 & 3.

7:00 AM – 7:50 AM
& 12:40 PM – 1:30 PM
Moscone West Level 3

BIRDS OF A FEATHER*

Grab your breakfast or lunch and bring it to the discussion rooms. Some topics are pre-defined and led by speakers, others will develop organically; by design, this is loosely structured to give you an opportunity to network and set the agenda for discussions of interest to you. ***Note: Press is not permitted in Birds of a Feather sessions.***

7:00 AM – 8:00 AM
Moscone West Level 2 Alcove

FIRST-TIMERS MEET-UP*

Enjoy this time to regroup, share takeaways and, of course, caffeinate.

KEYNOTES

Keynote abstracts can be found on pages 32 – 33.

8:00 AM – 8:50 AM
South Esplanade

Hacking Exposed: LIVE—Bypassing NextGen
Stuart McClure, *Chairman and Chief Executive Officer, Cylance Inc.;* ***Brian Robison***, *Chief Evangelist, Cylance Inc.*

9:20 AM – 10:10 AM
South Esplanade

The Role of Security Technologists in Public Policy
Bruce Schneier, *Fellow and Lecturer, Harvard Kennedy School*

10:30 AM – 10:55 AM
West Street Level

The Power of People: Amplifying Our Human Capacity through Technology and Community
Ann Johnson, *Corporate Vice President, Cybersecurity Solutions Group, Microsoft*

10:55 AM – 11:15 AM
West Street Level

Palo Alto Networks and Arista Networks CEOs Reveal Secrets to a Successful Cloud Journey
Nikesh Arora, *Chief Executive Officer and Chairman, Palo Alto Networks;* ***Jayshree Ullal***, *President and Chief Executive Officer, Arista Networks*

11:15 AM – 11:55 AM
West Street Level

Weaponization of the Internet
MODERATOR: ***Ted Schlein***, *General Partner, Kleiner Perkins*
PANELISTS: ***Nathaniel Gleicher***, *Head of Cyber Security, Facebook;* ***Del Harvey***, *Vice President, Trust and Safety, Twitter;* ***Robert Joyce***, *Senior Advisor, National Security Agency;* ***Peter Warren Singer***, *Strategist, New America*

1:30 PM – 2:20 PM
South Esplanade

Strategic Competition—The Rise of Persistent Presence and Innovation
Olivia Gazis, *Intelligence and National Security Reporter, CBS News;* ***General Paul Nakasone***, *United States Army, Commander, United States Cyber Command, Director, National Security Agency, Chief, Central Security Service*

2:50 PM – 3:40 PM
South Esplanade

From Dystopia to Opportunity: Stories from the Future of Cybersecurity
Dr. Amit Elazari Bar On, *Director, Global Cybersecurity Policy, Intel Corporation, and Lecturer, UC Berkeley School of Information (MICS);* ***Keren Elazari***, *Analyst & Researcher, K3r3n3.com*

4:00 PM – 4:25 PM
West Street Level

A View from the Front Lines of Cybersecurity
Sandra Joyce, *Senior Vice President, Global Intelligence, FireEye;* ***Kevin Mandia***, *Chief Executive Officer, FireEye*

4:25 PM – 4:50 PM
West Street Level

A Conversation with Donna Brazile and Mary Matalin
Donna Brazile, *Veteran Democratic Political Strategist, Adjunct Professor, Author and Syndicated Columnist;*
Mary Matalin, *Celebrated Conservative Voice and Former Presidential Advisor*

4:50 PM – 5:15 PM
West Street Level

How Technology and Innovative Approaches Can Transform Your Organization
Megan Smith, *Chief Executive Officer, shift7, Third Chief Technology Officer of the United States (2014 – 2017)*

8:00 AM – 10:10 AM
& 1:30 PM – 3:40 PM
Locations Vary

TRACK SESSIONS

See detailed information on following pages for descriptions and badge access.

8:00 AM – 12:50 PM
& 1:30 PM – 5:00 PM
Marriott Nob Hill A

LAW TRACK SESSIONS*

See detailed information on following pages for descriptions.

8:00 AM – 11:20 AM
& 1:30 PM – 4:30 PM
Moscone West Level 3

LEARNING LABS*

Learning Labs provide highly interactive, facilitated learning experiences and are very hands-on and small group oriented. Seating is limited; use Reserve a Seat to schedule your participation. You can only reserve one Lab on your schedule, so pick carefully from our 20 great offerings. ***Note: Press is not permitted in Lab sessions.***

= *Top-rated speaker.*

WEDNESDAY EVENTS & ACTIVITIES

8:00 AM – 4:00 PM
Marriott Yerba Buena 8

RSAC SANDBOX

The RSA Conference Sandbox is full of hands-on interactive experiences to test your infosec skills.

Exclusive RSAC Sandbox Media Sponsor:

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8:00 AM – 4:00 PM
Marriott, RSAC Sandbox

RSAC CYBREW CAFÉ

A full-service coffee bar.

8:00 AM – 4:00 PM
Marriott Yerba Buena 9

RSAC EARLY STAGE EXPO

The RSAC Early Stage Expo is the perfect megaphone for emerging infosec startups. Meet over 50 of the industry's most promising newcomers and learn about their innovative products and solutions, and check out the RSAC Early Stage Expo Briefing Center (details on pages 180 – 185).

Exclusive RSAC Early Stage Expo Media Sponsor:

crunchbase

8:00 AM – 5:00 PM
Moscone West Street Level

BROADCAST ALLEY

Watch top security publications shoot live and record exclusive interviews.

9:20 AM – 12:50 PM
& 1:30 PM – 5:00 PM
Moscone South Level 3

PEER2PEER SESSIONS*

P2P sessions enable groups of no more than 30 people that share a common interest to come together and productively explore a specific security topic, facilitated by an experienced practitioner. ***Note: Press is not allowed in Peer2Peer sessions.***

10:00 AM – 6:00 PM
Moscone South Lower Level

RSAC SECURITY OPERATIONS CENTER

Take a tour of a working SOC! Head to the Moscone South Lower Level for the RSA Conference Security Operations Center. See what's really taking place on the Moscone Wireless Network in real time.

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10:00 AM – 6:00 PM
Moscone North & South Lower Levels

EXPO

Come see how RSA Conference 2019 exhibitors offer you the latest technological solutions, provide hands-on learning opportunities and demonstrate how they can help you better secure your organization.

10:30 AM – 4:10 PM
Moscone North & South Lower Levels

EXPO BRIEFING CENTER

See following pages for abstracts and a complete schedule on pages 115–118.

11:00 AM – 2:00 PM
Howard Street, Mission Street

STREET EATS

With options for all tastes, Street Eats is the easy way to fuel up between sessions or get energized before your next keynote. Stop by any of our food trucks on Mission Street or Howard Street.

11:30 AM – 1:00 PM
Marriott Golden Gate B

EXECUTIVE WOMEN'S FORUM MEET & GREET AT RSA CONFERENCE 2019

EWF Alta Associates' Executive Women's Forum Information Security, Risk Management & Privacy

The Executive Women's Forum and Accenture are hosting a Meet & Greet for all the amazing women attending RSA Conference 2019. Enjoy the company of your peers—some of the brightest minds at the event—for a fun, relaxed, professional get together. Engage and connect with the most dynamic personalities; the women in Information Security who make it happen. Join in interactive discussions and get to know each other. We look forward to meeting you!
**** All attendees will need an RSA Conference badge to access the Golden Gate level at the Marriott Marquis.***

2:00 PM – 3:00 PM
Moscone West Level 2

RSAC SECURITY SCHOLAR POSTER BOARD EXHIBITION

RSA Conference Security Scholar connects the brightest up-and-coming cybersecurity students to leading experts, peers and conference attendees. We are offering the RSAC Security Scholars the opportunity to demonstrate their work at a poster board exhibition. Drop by, provide feedback and meet the RSAC Security Scholar Class of 2019!

4:30 PM – 6:00 PM
Moscone North & South Lower Levels

EXPO PUB CRAWL

Enjoy your choice of complimentary beer, wine and non-alcoholic beverages as you visit sponsoring companies' booths to learn about their latest products, services and innovations. Located at select sponsor booths within both halls.

6:30 PM – 8:00 PM
Marriott Golden Gate B

RSAC AFTER HOURS: WHISKEY & WINE TASTING**

Kick off the night with a walk through the "underground cellar." Then, gather in the lounge to sip on an assortment of wines and whiskeys expertly selected from local vineyards and distilleries while soaking up the jazzy sounds of our live band. And keep the night going in our group tasting area, where you can mingle with other cybersecurity connoisseurs and raise a glass to another great year at RSA Conference.

Open to Full Conference and Discover Pass holders. Choose one of the RSAC After Hours events on Tuesday, Wednesday or Thursday nights of Conference. Space is limited so make sure to reserve a seat.

= *Networking event.* * *Open to Full Conference Registrants only.* ** *Open to Full Conference and Discover Pass Registrants only.*

8:00 AM

TRACK / TOPIC | SESSION LENGTH | BADGE ACCESS

Analytics Intelligence & Response — 50 MIN — FC

The State of the Union on Cyber-Intelligence AIR-W02

***Jared Ettinger**, Cyber Intelligence Researcher, Carnegie Mellon University, Software Engineering Institute*

Be among the first to hear the results of a study on cyber-intelligence best practices, key challenges and technologies across the US, and learn from the practices of high-performing organizations.

Application Security & DevSecOps — 50 MIN — FC

Will Your Application Be Secure Enough When Robots Produce Code for You? ASD-W02

***Hasan Yasar**, Technical Manager, Faculty Member, Carnegie Mellon University, Software Engineering Institute*

We are inches away from automating code generation. As things are changing, threats are also evolving on attacking SDLC. We need to understand software factory principles to be ready for the future.

Association Special Topics — 50 MIN — ALL

Results of the (ISC)² Workforce Survey AST1-W02

***John McCumber**, Director, (ISC)²*

Awareness of the cybersecurity skills shortage has been growing worldwide. Nevertheless, that workforce gap continues to grow, putting organizations at risk despite increases in tech spending.

Association Special Topics — 50 MIN — ALL

Hearing Voices: The Cybersecurity Pro's View of the Profession AST2-W02

***Candy Alexander**, President, ISSA International; **Jon Oltsik**, Senior Principal Analyst & ESG Fellow, Enterprise Strategy Group*

ISSA/ESG will review the results of the 2018 research on topics such as cybersecurity careers, skills development, organizational considerations and you—the cybersecurity professional.

Association Special Topics — 50 MIN — ALL

Building—and Keeping—Your Cybersecurity Team with Nontraditional Staff AST3-W02

*MODERATOR: **Rob Clyde**, Chair, Board of Directors, ISACA*
*PANELISTS: **Tracey Dedrick**, Board Director, ISACA; **Theresa Grafenstine**, Managing Director, Deloitte & Touche LLP; **Tammy Moskites**, Managing Director, Accenture; **Gregory Touhill**, President, Cyxtera Federal Group, Cyxtera Technologies, Inc.*

The people are as important as the processes and technology. This ISACA panel will discuss hiring strategies and the training that will engage and retain amid the persistent cybersecurity skills gap.

Blockchain & Applied Crypto — 50 MIN — FC

Automated Fault Analysis of Block Cipher Implementations BAC-W02

***Jakub Breier**, Senior Cryptography Security Analyst, Underwriters Laboratories*

This talk will present a fully automated way to carry out differential fault analysis on assembly implementations of symmetric block ciphers.

8:00 AM, CONTINUED

TRACK | SESSION LENGTH | BADGE ACCESS

C-Suite View — 50 — FC

Doing Security Orchestration, Automation and Response Before It Was Born CXO-W02

***Tim Callahan**, SVP of Global Security and Chief Security Officer, Aflac Inc.*

SOAR technology and techniques ingest info/data, analyze it to understand threats, and auto-block or impede exploitation. Learn how SOAR efficiently blocks millions of avenues of possible compromise.

Cloud Security & Virtualization 2x — 50 MIN — FC

Protecting the Cloud with the Power of Cloud CSV-W02

***Jay Kelath**, Head of Product Security, Dow Jones & Company; **Pranavkumar Patel**, Senior Security Engineer, Dow Jones & Company*

This talk will walk you through Dow Jones Hammer, a self-healing cloud security tool designed to protect hundreds of AWS accounts against misconfiguration with auto-remediation.

Cryptography — 50 MIN — FC

Security Model and White-Box Crypto CRYP-W02

***Estuardo Alpirez Bock**, Aalto University; **Atsushi Takayasu**, The University of Tokyo*

Theoretical aspects of security model and white-box cryptography will be discussed.

TOPIC 1: Tight Reductions for Diffie-Hellman Variants in the Algebraic Group Model
Authors: Taiga Mizuide; Atsushi Takayasu; Tsuyoshi Takagi

TOPIC 2: Doubly Half-Injective PRGs for Incompressible White-Box Cryptography
Authors: Estuardo Alpirez Bock; Alessandro Amadori; Joppe W. Bos; Chris Brzuska; Wil Michiels

Governance, Risk & Compliance 2x — 50 MIN — FC

We're Not in Kansas Anymore: Measuring the Impact of a Data Breach GRC-T09R

***Suzanne Widup**, Senior Analyst, Verizon Enterprise Solutions*

This session will propose a new way to measure data-breach impact for future risk calculations after studying over 4,000 incidents. Characteristics that intensify a breach's effect are discussed.

Governance, Risk & Compliance — 50 MIN — FC

Data Breach or Disclosure: A Quantitative Risk Analysis GRC-W02

***Evan Wheeler**, CISO, Financial Engines*

This session will tackle the supposed limitations of quantitative analysis head on by comparing two data-confidentiality scenarios that appear similar, but analysis reveals meaningful differences.

= Top-rated speaker. 2x = Session given twice. △ Space is limited; no press allowed. Advanced session.
Sessions and speakers are subject to change; visit www.rsaconference.com or check the pocket guide or mobile app for room locations and up-to-date information.

*BADGE ACCESS: **FC** = Open to Full Conference Registrants only • **ALL** = Open to all attendees*

8:00 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Hackers & Threats	50 MIN	FC

Hacking and Hardening Kubernetes HT-W02

***Jay Beale**, CTO, COO, InGuardians; **Adam Crompton**, Senior Security Analyst, InGuardians*

Learn to attack and defend Kubernetes! This talk will demonstrate attacks on a Kubernetes cluster, then defenses that break the attacks. Attendees can download the cluster, as well as the defense YAML files.

Hackers & Threats Advanced	50 MIN	FC

RF Exploitation: IoT and OT Hacking with Software-Defined Radio HTA-W02

***Harshit Agrawal**, Security Researcher, MIT Academy of Engineering, SPPU; **Himanshu Mehta**, Team Lead (Senior Threat Analysis Engineer), Symantec*

Exploration and use of SDR to exploit the world we live in, full of interconnected devices. The session will discuss planning/phases of attacking RF, illustrating Internet of Radio Vulnerabilities.

Human Element	50 MIN	FC

The Rise of the Cyber-Culture Hacker HUM-W02

***Christine Izuakor**, Senior Manager – Global Security Strategy and Awareness, United Airlines*

There's a new and critical role brewing in the cybersecurity industry—the cyber-culture hacker. Learn more about what cyber-culture hackers do and why you need one immediately!

8:00 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Identity	50	FC

Zero-Knowledge (ZK) Proofs—Privacy-Preserving Authentication IDY-W02

***Rajan Behal**, Managing Director, KPMG; **Karla Clarke**, Manager, KPMG*

Come and learn how "zero-knowledge (ZK) proofs" breakthrough in cryptography is enabling privacy-preserving authentication. Yes it's possible to give back consumers the control of their personal data.

Law	50 MIN	FC

AI and Machine Learning: Managing the Risks of Major Lawsuits LAW-W02

*MODERATOR: **Stephen Wu**, Shareholder, Silicon Valley Law Group*
*PANELISTS: **Ted Claypoole**, Partner, Womble Bond Dickinson; **Abraham Kang**, Senior Director Software, Samsung; **Natalie Pierce**, Shareholder, Littler Mendelson P.C.; **Stephen Wu**, Shareholder, Silicon Valley Law Group*

How can companies minimize the risk of lawsuits for AI/machine learning accidents, data breaches and other systemic events? Learn action steps to mitigate legal risks for selling and operating AI systems and robots through examples of AI used in financial services, transportation and HR management.

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8:00 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Learning Labs △	3 HRS	FC

Are You a Secure Coding Champion? LAB3-W02

***Pieter Danhieux**, Founder & CEO, Secure Code Warrior; **Matias Madou**, CTO & Founder, Secure Code Warrior*

These two-hour sessions will be hands-on, guided learning for students. The goal is to teach students new skills by allowing them to work through real-life defensive simulations in secure coding.

Machine Learning & Artificial Intelligence	50 MIN	FC

Automating Security Controls Using Models and Security Orchestration MLAI-W02

***Kurt Lieber**, VP, CISO IT Infrastructure, Aetna*

To combat new types of malware, organizations need to look at model-driven security orchestration where security responses to emerging threats and attacks are automated and driven at machine speed.

Mobile & IoT Security	50 MIN	FC

Japan's New Cybersecurity Strategy to Close an IoT Gap MBS-W02

***Mihoko Matsubara**, Chief Cybersecurity Strategist, NTT Corporation*

Japan adopted a new Cybersecurity Strategy and a tax incentive for IoT investments in 2018. This session will analyze current cybersecurity and policy challenges and opportunities in Japan.

Policy & Government	50 MIN	FC

Nation-States Behaving Badly: The Evolving Rules of the Game in Cyberspace PNG-W02

*MODERATOR: **Catherine Lotrionte**, Brent Scowcroft Scholar, Atlantic Council*
*PANELISTS: **Tom Corcoran**, Head of Cyber Security, Farmers Insurance Group; **James Lewis**, Senior Vice President, Center for Strategic International Studies (CSIS); **Paul Rosenzweig**, Senior Fellow, R Street Institute; **Rob Strayer**, Deputy Assistant Secretary for Cyber and International Communications and Information Policy, US Department of State*

Cyberspace is regularly described as a lawless domain. This panel will examine recent events to explore whether standards of conduct are evolving that constructively shape behavior.

Privacy	50 MIN	FC

Lesson Learned: What I Have Experienced While Implementing GDPR PRV-W02

***Michael Mrak**, Head of Department Compliance, Casinos Austria AG*

The GDPR is a big challenge but also opportunity not only for European countries. This presentation will show how an international gaming operator implemented the GDPR.

8:00 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Protecting Data & the Supply Chain Ecosystem	50 MIN	FC

Supply Chain Security for Critical Energy Infrastructure PDAC-W02

*MODERATOR: **Sharla Artz**, Vice President, Government Affairs, Policy & Cybersecurity, UTC*
*PANELISTS: **Tom Alrich**, Principal Consultant, Tom Alrich LLC; **Art Conklin**, Associate Professor, University of Houston; **Marcus Sachs**, Chief Security Officer, Pattern Computer*

The bad guys have figured out that the best way to attack critical energy infrastructure is through the supply chain. What can energy companies do to protect themselves?

Security Strategy & Architecture	50 MIN	FC

How to Detect and Stop Attacks as They Occur with a Limited Budget STR-W02

***John Allred**, Senior Manager, EY*

What capabilities and tools do you need to detect, remediate and smother attacks in real time?

Technology Infrastructure & Operations	50 MIN	FC

Getting Practical with Addressing Risks in OT Networks: Where to Start? TECH-W02

***Galina Antova**, Co-Founder, Claroty*

Case studies and best practices from dozens of large organizations—from understanding the true extent of the exposure to prioritizing the concrete measures, as well as addressing governance and IR.

8:10 AM

RSAC Sandbox	2 HRS	ALL

SANS Core NetWars Experience SBX2-W1

***Chris Elgee**, Builder & Breaker, Counter Hack Challenges*

SANS NetWars Experience develops and tests your information security skills in a safe, interactive environment, while having a little fun with your fellow IT security professionals.

8:30 AM

RSAC Sandbox	30 MIN	ALL

Internet of Food: How IoT Threatens Fields, Farms and Factories SBX1-W1

***Ryan Flores**, Senior Manager Threat Research, Trend Micro; **Akira Urano**, Senior Threat Researcher, Trend Micro*

Get a taste of the security weaknesses challenging the food production industry as it takes advantage of the efficiencies offered by IoT.

= Top-rated speaker. 2x = Session given twice. △ Space is limited; no press allowed. Advanced session.
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BADGE ACCESS: ***FC*** *= Open to Full Conference Registrants only •* ***ALL*** *= Open to all attendees*

9:00 AM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
RSAC Sandbox	30 MIN	**ALL**

Shadow IoT Hacking the Corporate Environment: Office as the New Smart Home SBX1-W2

Ondrej Vlcek*, Chief Technology Officer, Avast*

Many security teams underestimates the impact of shadow IoT as devices are popping up on corporate networks in the thousands. Live demos of attack on consumer IoT in a "secure" office environment.

RSAC Early Stage Expo Briefing Center	20 MIN	**ALL**

Internal Combustion: The Insider Threat to Industrial Control Systems BC-W1ESE

David Formby*, Co-Founder, CEO/CTO, Fortiphyd Logic, Inc.*

Insiders are the most likely threats to ICS networks, yet current security solutions do little to stop them. Come see demos on a 3D ICS simulation to learn how to protect your ICS.

9:20 AM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Analytics Intelligence & Response	50 MIN	**FC**

Tales from the Front Lines AIR-W03

MODERATOR: ***Rob Sloan****, Research Director, WSJ Pro Cybersecurity*
PANELISTS: ***Tom Etheridge****, VP of Services, CrowdStrike;* ***Stuart McKenzie****, VP Mandiant EMEA, FireEye;* ***Wendi Whitmore****, Global Lead of IBM X-Force Incident Response and Intelligence Services, IBM Security*

This session will educate and entertain attendees with tales from the front lines of incident response. Find out the who, what, where, when, why and how of cyberattacks and what you need to do.

Application Security & DevSecOps	50 MIN	**FC**

Security Precognition: Chaos Engineering in Incident Response ASD-W03

Kyle Erickson*, Director of IT Security, Optum;* ***Aaron Rinehart****, Chief Enterprise Security Architect, Optum*

Large distributed systems have unpredictable outcomes that are costly when they occur. IR is a reactive exercise. Chaos engineering allows for IR teams to proactively predict incident patterns.

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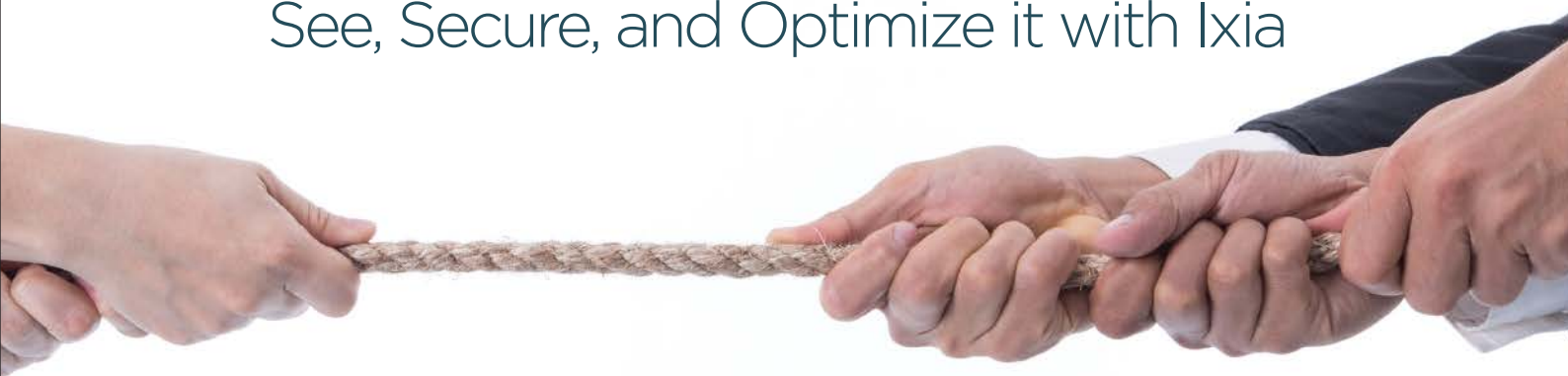

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WEDNESDAY SESSION DETAILS

9:20 AM, CONTINUED

TRACK | SESSION LENGTH | BADGE ACCESS

Blockchain & Applied Crypto — 50 MIN — FC

Demystifying Quantum Computers BAC-W03

***Charlie Kaufman**, Security Architect, Dell Technologies; **Radia Perlman**, Fellow, Dell Technologies*

This talk will explain what a program on a quantum computer would look like, including how one could break RSA.

C-Suite View 2x — 50 MIN — FC

Building Security In—DevSecOps CXO-T07R

***Noopur Davis**, SVP, Chief Product and Information Security Officer, Comcast Business*

Comcast uses a DevSecOps approach to security, focusing on automation, speed and development team empowerment. It's agile and effective. It's about building security in rather than bolting it on.

C-Suite View — 50 MIN — FC

Inside the Timehop Breach Response CXO-W03

***Nick Selby**, Director of Cyber Intelligence & Investigations, New York Police Department*

With four million European users, Timehop was one of the first to breach personal data under the new GDPR regime. The Timehop disclosure was stunning in its openness and detail. This is how it happened.

Cloud Security & Virtualization — 50 MIN — FC

Securing Cloud-Native Applications at Scale CSV-W03

***Ashwin Ambekar**, Principal Architect (Security), eBay Inc.*

This session will walk through capabilities, security challenges, threat analysis, security strategy and recommendations on best practices for a cloud-native architecture.

Cryptography — 50 MIN — FC

Foundation CRYP-W03

***Benedikt Auerbach**, Research assistant, Ruhr-University Bochum; **Tim Wood**, University of Bristol/KU Leuven*

Topics on cryptographic foundation will be discussed.

TOPIC 1: Error Detection in Monotone Span Programs with Application to Communication-Efficient Multiparty Computation
Authors: Nigel P. Smart and Tim Wood

TOPIC 2: Lossy Trapdoor Permutations with Improved Lossiness
Authors: Benedikt Auerbach; Eike Kiltz; Bertram Poettering; Stefan Schoenen

Cybersecurity Future Proof: 2025 — 50 MIN — FC

Building a Defensible Cyberspace: 2025 CSFP-W03

*MODERATOR: **Jason Healey**, Senior Research Scholar, Columbia University, School of Public and International Affairs*
*PANELISTS: **Melody Hildebrandt**, EVP, Fox; **Angela McKay**, Director, Cybersecurity Policy, Microsoft; **Greg Rattray**, Managing Director, JP Morgan Chase; **Phil Venables**, Partner and Chief Operational Risk Officer, Goldman Sachs*

A more defensible cyberspace is possible with technology, operation, and policy innovations to give defenders the most advantage at greatest scale at least cost. Learn from five decades of success and failure.

9:20 AM, CONTINUED

TRACK | SESSION LENGTH | BADGE ACCESS

Governance, Risk & Compliance 2x — 50 MIN — FC

GDPR: How to Work Out If Your Security Is "Appropriate" GRC-W03

***John Elliott**, Data Protection Specialist*

GDPR requires organizations to implement "appropriate technical and organizational measures" to protect personal data. This session will help you to determine what's appropriate for your organization.

Hackers & Threats — 50 MIN — FC

How Vault 7 Leaks Helped Develop My Own Cyber Espionage Weapon HT-W03

***Wayne Ronaldson**, Red Team Lead, Loop Secure*

The presenter sought to develop an attack capability based on information available via the Vault 7 leaks to see whether an individual could glean enough information to build their own cyberespionage tool.

Hackers & Threats Advanced — 50 MIN — FC

Guardians of the Port: Infinity War HTA-W03

***Zheng Min**, Security Expert, Alibaba*

This talk will demonstrate that most of Apple system defenses can be bypassed through (Mach) port object-oriented programming (POP) and propose XNU Kernel Object Protector to protect defenseless kernel objects.

Human Element — 50 MIN — FC

Democratizing Security: A Story of Security Decentralization HUM-W03

***Harshil Parikh**, Director of Security, Medallia, Inc.*

A call for democratizing security, this talk will discuss initiatives to decentralize security. Results: better vulnerability remediation and culture of security ownership across the company.

Identity — 50 MIN — FC

Important Things You Need to Know about Storing Your Identity IDY-W03

***Paula Januszkiewicz**, CEO, CQURE*

You will learn how the password attacks are performed, the typical paths where credentials can be leaked and how to prevent these by implementing various solutions.

Law — 50 MIN — FC

The EU's General Data Protection Regulation: One Year Later LAW-W03

*MODERATOR: **Paul Rosenzweig**, Senior Fellow, R Street Institute*
*PANELISTS: **Francoise Gilbert**, Shareholder, GreenburgTraurig; **Harvey Jang**, Global Data Protection and Privacy Counsel, Cisco Systems Inc.; **Ariel Silverstone**, External Data Protection Officer, Data Protectors; **Mark Weatherford**, Global Information Security Strategist, Booking Holding*

The EU's GDPR is a legal disruption. It challenges existing trans-Atlantic data sharing and may give rise to copycat legislation in Asia, the US, and the States. Come hear how the first year has gone.

= Top-rated speaker. 2x = Session given twice. △ Space is limited; no press allowed. Advanced session.
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9:20 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Learning Labs △	2 HRS	FC

Holistically Mitigating Human Vulnerabilities and Attacks
LAB1-W03

***Tracy Celaya**, Consultant, Systems Evolution, Inc.; **Alexandra Panaretos**, National Practice Lead for Security Awareness and Training, EY; **Ira Winkler**, President, Secure Mentem*

In this lab, attendees will work through common attacks targeting people, and identify an appropriate holistic combination of technology, process, and awareness to mitigate human vulnerabilities.

Learning Labs △	2 HRS	FC

Defending Digital Democracy: How Security Professionals Can Help LAB2-W03

***Mari Dugas**, Project Coordinator, Cyber Security Project and D3P; **Jordan D'Amato**, Executive Director, Defending Digital Democracy Project (D3P), Belfer Center, Harvard*

Digital threats to democracy are multiplying. Take a crash course on how officials are securing elections by joining a simulation of 2020 under attack. Work together to defeat cyber- and info ops.

Learning Labs △	2 HRS	FC

Verizon Incident Preparedness Report—Taming the Data Beast
LAB4-W03

***Eric Gentry**, Managing Principal, Rapid Response Retainer, Verizon; **John Grim**, Senior Manager | Investigative Response, Verizon; **Chris Novak**, Director | Investigative Response, Verizon; **Ashish Thapar**, Managing Principal, APJ, Verizon Threat Research Advisory Center (VTRAC)*

The "Verizon Incident Preparedness Report—Taming the Data Beast" tackles data breach preparation for that inevitable spar with the daemon of death in the age of digital heroes.

Machine Learning & Artificial Intelligence	50 MIN	FC

Attacking Machine Learning: On the Security and Privacy of Neural Networks MLAI-W03

***Nicholas Carlini**, Research Scientist, Google*

This talk will examine security and privacy problems with neural networks. Included will be how to attack classifiers make them misclassify inputs, and extract sensitive training data out of a pretrained network.

Mobile & IoT Security	50 MIN	FC

Attack Vectors in Orbit: The Need for IoT and Satellite Security
MBS-W03

***Bill Malik**, VP Infrastructure Strategies, Trend Micro*

Hear attack scenarios posed by satellites and other devices with primitive security connected to the growing IoT ecosystem. Will blockchain, AI or ML be the key to lowering the risk of attack?

Peer2Peer △	50 MIN	FC

What Tools and Techniques Work in Malware Analysis? P2P1-W03

***Lenny Zeltser**, Instructor, SANS Institute; VP of Products, Minerva Labs*

How to analyze malware discovered as part of incident response or breach investigations? Learn what the role of automated tools and manual techniques for deriving threat intelligence in such efforts.

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WEDNESDAY SESSION DETAILS

9:20 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Peer2Peer △	50 MIN	**FC**

To Pay or Not to Pay: A Ransom Discussion P2P2-W03

***Lee Parrish**, Vice President, Chief Information Security Officer, Blucora*

Assemble with your peers to discuss the pros and cons of paying a ransom to recover your data. Do we do it on a case-by-case basis or never pay? What are the ramifications of not paying?

Peer2Peer △	50 MIN	**FC**

Reorganize DevSecOps or Continue to Fail at Agile P2P3-W03

***Marina Kernes**, Director of PMO for Data, Platform and Security, Entertainment Partners*

Inspection at the end forces a choice between an unmitigated risk or a late delivery. Engaging DevSecOps resources from the start ensures that expert feedback is incorporated without causing delays.

Policy & Government	50 MIN	**FC**

Engaging Internationally in Support of Cybersecurity for Critical Functions PNG-W03

*MODERATOR: **Catherine Lotrionte**, Brent Scowcroft Scholar, Atlantic Council*
*PANELISTS: **Jeanette Manfra**, Assistant Secretary, Office of Cybersecurity and Communications (CS&C), Department of Homeland Security; **Ciaran Martin**, CEO of the National Cyber Security Centre, UK Government; **Cheri McGuire**, CISO, Standard Chartered Bank; **Leo Simonovich**, VP and Global Head, Industrial Cyber & Digital Security, Siemens Energy*

This panel will examine how governments and the private sector can manage global cyber-risks in national critical functions through robust international cooperation.

Privacy 2x	50 MIN	**FC**

Connected Cars: A Security and Privacy by Design Study 10 Years in the Making PRV-W03

***Ed Adams**, CEO, Security Innovation, Inc.; **Larry Ponemon**, Founder, The Ponemon Institute*

Connected cars—what could go wrong? Learn about the safety, security and privacy trade-offs, and the Privacy by Design system used for "Talking Cars," a program to save 10,000 lives per year.

Protecting Data & the Supply Chain Ecosystem	50 MIN	**FC**

Multiparty Vulnerability Disclosure: From Here to Where? PDAC-W03

*MODERATOR: **John Banghart**, Senior Director, Venable*
*PANELISTS: **Kent Landfield**, Chief Standards and Technology Policy Strategist, McAfee; **Art Manion**, Vulnerability Analysis Technical Manager, CERT Coordination Center; **Audrey Plonk**, Director, Global Security Policy, Intel Corporation*

Multiparty vulnerability disclosure: What works, what doesn't, and where do we go from here? Hear the views of experts from different perspectives.

9:20 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Security Strategy & Architecture	50 MIN	**FC**

Access Control for Multi-Vendor Big Data and BI Environments STR-W03

***Anmol Singh**, Lead Analyst, KuppingerCole*

Do you have control about who can see which data returned from your BI tools? While there is not the perfect out-of-the-box solutions, there are some ways to tackle this challenge.

Sponsor Special Topics	50 MIN	**ALL**

Honeypot Predators: Hunter vs. Prey SPO1-W03

***Aamir Lakhani**, Senior Researcher, Fortinet, Inc.*

This talk will examine how threat hunting organizations can setup honeypots to gather threat intelligence, harvest new malware, and gain an insight inside the world scams, hacks, and cybercrime.

Sponsor Special Topics	50 MIN	**ALL**

What Happens to Your Threat Model When Hardware Isn't Really Hardware? SPO2-W03

***Window Snyder**, Chief Software Security Officer, Intel Corporation*

Join Intel's Chief Software Security Officer, Window Snyder, for a discussion about hardware and software update cycles and the importance of rethinking the way we think about hardware security.

Sponsor Special Topics	50 MIN	**ALL**

How to Evolve Threat Hunting by Using the MITRE ATT&CK Framework SPO3-W03

***Jared Myers**, Sr. Threat Researcher, Carbon Black*

The ATT&CK matrix is a vital tool for evaluating your threat hunting capabilities. From a tool-agnostic view, learn how to leverage this approach to improve the efficiency of your threat hunting.

Technology Infrastructure & Operations	50 MIN	**FC**

Building High Performance and Innovative Security Programs that Embrace Cyber/Physical Convergence TECH-W03

***Eman Al Awadhi**, Director of Cyber Security & Resilience, Expo 2020 Dubai; **Eddie Schwartz**, Chief Information Security Officer, Block.One*

This session will offer practitioner perspectives on third-party risk considerations, testing approaches and agile practices implemented to deal with the increasing cyber/physical threats and vulnerabilities.

9:30 AM

RSAC Early Stage Expo Briefing Center	20 MIN	**ALL**

Automate Software Vulnerability Management with an AppSec System of Record BC-W2ESE

***Anita D'Amico**, CEO, Code Dx, Inc.*

Code Dx automates the configuration of AppSec tests, correlation and prioritization of results, and tracking of remediation from a centralized platform that fits right into a DevSecOps environment.

= Top-rated speaker. 2x = Session given twice. △ Space is limited; no press allowed. Advanced session.
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9:30 AM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
RSAC Sandbox	60 MIN	**ALL**

Hunting and Tracking Rogue Radio Frequency Devices SBX3-W1

***Eric Escobar**, Principal Security Consultant, SecureWorks*

This talk will explore the dangers of rogue radio frequencies and highlight tactics, techniques and tools which can be used to identify and locate potential threats.

10:00 AM

RSAC Early Stage Expo Briefing Center	20 MIN	**ALL**

Where Are We Now? Tracking Market Trends in the Security Space BC-W3ESE

***Shamus Noonan**, Account Director, Crunchbase*

This session will chart the trajectory of the security market over the last 5 years, and identify geographic and funding trends to address where we might be headed in the future.

10:30 AM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center North	30 min	**ALL**

Building Effective Cyber-Defense Strategies against Privileged Attacks BC-W1N

***Tal Guest**, Director of Product Management, BeyondTrust*

This session will discuss available cloud-based security options and the advantages of next-gen containerized cloud gateway architecture for achieving scalable, hardware-free compliance and security.

RSAC Early Stage Expo Briefing Center	20 MIN	**ALL**

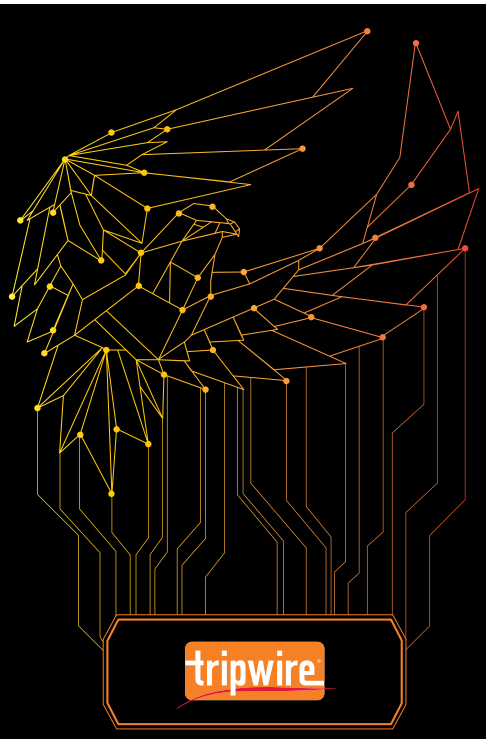
Compromised Credentials: Tackling a Perpetual Weak Link BC-W4ESE

***Joshua Horwitz**, COO, PasswordPing; **Michael Greene**, CEO , PasswordPing*

Billions of credentials are circulating online and since most users reuse passwords across sites, hackers can gain unauthorized access to accounts. This session will highlight simple prevention tips.

tripwire

ALL NODES LEAD TO TRIPWIRE



Gain total visibility across your IT/OT environment

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10:40 AM

TRACK / TOPIC | SESSION LENGTH | BADGE ACCESS

Cybersecurity Future Proof: 2025 | 1.5 HRS | FC

How to Eliminate a Major Vulnerability in the Cybersecurity Workforce CSFP-W05

***Laura Bate**, Policy Analyst, New America; **Danielle Santos**, Program Manager, NIST*

This session will move beyond talking about getting more women into cybersecurity and focus on action. We road test cutting-edge strategies to solve the problem and learn to use them across industries.

Expo Briefing Center South | 20 min | ALL

The Art of Remediation BC-W1S

***Austin Murphy**, Vice President, Managed Services, CrowdStrike*

Join CrowdStrike to explore strategies for performing effective remote remediation of compromised systems, instead of disrupting business operations by taking systems offline and reimaging them.

Law | 50 MIN | FC

What You Need to Know about the Cybersecurity Landscape and Cyber-Cases LAW-W05

*MODERATOR: **Julia Bowen**, Senior VP/General Counsel, The MITRE Corp.*
*PANELISTS: **Richard Aldrich**, Cyber Security Policy and Compliance Analyst, Booz, Allen, Hamilton/DOD OSD; **Adriana Sanford**, International TV Commentator / Professor – Cyber Security Law, Pepperdine University*

Interactive presentation on the most significant recent cases in cyber-law, and consequences for noncompliance. Companies also struggle to adhere to multiple regulators and conflicting foreign laws.

Peer2Peer △ | 50 MIN | FC

Vetting Vendor Artificial Intelligence Claims: Separating Fact from Fiction P2P1-W05

***John Dickson**, Principal, Denim Group, Ltd.*

Learn how peers are vetting vendor claims involving AI embedded in security products and putting AI and machine learning to work as part of a broader security strategy.

Peer2Peer △ | 50 MIN | FC

Threat Hunting: Best Practices, Current Challenges and Lessons Learned P2P2-W05

***Roger O'Farril**, Information Security Team Lead, Federal Reserve Bank*

This discussion will look to bring forward what other professionals are doing in the threat-hunting space. Best practices, lessons learned and challenges will be discussed.

Peer2Peer △ | 50 MIN | FC

Overcoming the PaaS Dilemma: What You Do Not See? P2P3-W05

***Wayne Anderson**, Enterprise Security Architect, McAfee*

Platform as a Service introduces new architectural patterns to manage data and application access. Share implementation experience, and explore protective patterns for your next PaaS application.

10:50 AM

TRACK / TOPIC | SESSION LENGTH | BADGE ACCESS

RSAC Sandbox | 2 HRS | ALL

SANS Core NetWars Experience SBX2-W2

***Chris Elgee**, Builder & Breaker, Counter Hack Challenges*

SANS NetWars Experience develops and tests your information security skills in a safe, interactive environment, while having a little fun with your fellow IT security professionals.

RSAC Sandbox | 30 MIN | ALL

SCADA Attack Detection 101 SBX4-W1

***Oleg Kolesnikov**, Vice President of Threat Research / Cybersecurity, SECURONIX; **Harshvardhan Parashar**, Security Researcher, SECURONIX*

In this talk, you will learn about the fundamentals of ICS/SCADA attack detection. You will see a demo and learn about some practical detection techniques, including ML-based anomaly detection.

11:00 AM

RSAC Early Stage Expo Briefing Center | 20 MIN | ALL

World's First Endpoint-Based Real-Time Phishing Prevention Using Computer Vision BC-W5ESE

***Arun K. Buduri**, Co-Founder & President, PIXM, INC.*

Why do phishing attacks continue to rise? How are today's solutions blindsided in detecting them? Come and learn why real-time phishing detection on the endpoint will change the game in anti-phishing.

11:10 AM

Expo Briefing Center South | 20 min | ALL

There's No Intelligence in AI without Security Data Management BC-W2S

***Scott Mongeau**, Cybersecurity Data Scientist, SAS Institute, Inc.*

A defined security data management plan can reduce data headaches and increase the time for analysis and investigations. Join this session for practical data management best practices you can apply.

11:20 AM

RSAC Sandbox | 30 MIN | ALL

Debunking the Hacker Hype: The Reality of Widespread Blackouts SBX4-W2

***Selena Larson**, Intelligence Analyst, Dragos, Inc.*

Attendees will leave with a better understanding of electric grid cyberattacks, the adversaries targeting critical infrastructure, and what is really required for disruptive attacks.

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11:30 AM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
RSAC Early Stage Expo Briefing Center	20 MIN	**ALL**

Malicious Bot Attacks—Why They're Increasing, and How to Stop Them BC-W6ESE

Shreyans Mehta*, CTO, Co-Founder, Cequence Security*

Discover how malicious bots are targeting your organization, why traditional security tools can't detect and stop them, and how Cequence Security can with its innovative application security platform.

11:40 AM

Expo Briefing Center South	20 min	**ALL**

Security for a Zero-Trust World BC-W3S

Jay Bhansali*, Product Marketing Engineer (Director), MobileIron*

Enterprise security models fail as perimeters dissolve and data travels across devices apps, and networks. MobileIron will outline an architecture that brings true trust to a zero-trust world.

12:00 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center North	30 min	**ALL**

Continuous Endpoint Monitoring at Scale for the Global Enterprise BC-W3N

Anthony Di Bello*, VP, Strategic Development, OpenText*

Common approaches to continuous monitoring do not scale and may introduce risk of privacy violations. This talk will present a realistic approach to continuous endpoint monitoring to address these challenges.

Law	50 MIN	**FC**

Cybersecurity: Federalism as Defense-in-Depth LAW-W08

MODERATOR: ***Gregory von Lehmen****, Special Assistant to the President, Cybersecurity, University of Maryland University College*
PANELISTS: ***Frank Grimmelmann****, President & CEO/Intelligence Liaison Office, Arizona Cyber Threat Response Alliance (ACTRA);* ***Chetrice Mosley****, Cybersecurity Program Director, Indiana Department of Homeland Security Office of Technology;* ***Brian Ray****, Professor of Law and Co-director, Center for Cybersecurity and Privacy Protection, Cleveland Marshall School of Law, Cleveland State University*

This panel will underscore the importance of state-level initiatives as a complement to federal efforts across a wide range of cybersecurity issues.

12:00 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Peer2Peer △	50 MIN	**FC**

Defining Your Organization's Compliance and Certification Strategy P2P1-W08

***David Graves**, Security Architect, Hewlett Packard Enterprise*

Compliance with security standards and legislation is challenging. Join a discussion on how to drive compliance and certification by mapping overlapping security controls to define a custom strategy.

Peer2Peer △	50 MIN	**FC**

Strength in Community: Sharing Experiences with the Cybersecurity Framework P2P2-W08

***Thomas Conkle**, Cybersecurity Engineer, G2, Inc.*

Come discuss how your organization and others have developed risk-informed cybersecurity strategies for mitigating and addressing threats and vulnerabilities in their organization.

Peer2Peer △	50 MIN	**FC**

The Kubes: Practical Container Orchestration Security P2P3-W08

***Diana Kelley**, Cybersecurity Field CTO, Microsoft*

Come share and learn methods for securing Kubernetes and orchestration: how to track, technical strategies, and processes to ensure orchestration stays robust over time.

12:10 PM

Expo Briefing Center South	20 min	**ALL**

Hybrid Security for Your Hybrid Enterprise BC-W4S

***Todd Peterson**, IAM Evangelist, One Identity*

We will discuss ways to ensure that as you secure your cloud you don't leave legacy environments unprotected. We'll talk about access and identity lifecycle management for today's hybrid enterprise.

RSAC Sandbox	20 min	**ALL**

Engaging the Media 101 SBX5-W1

***Rob Sloan**, WSJ Pro Cybersecurity, Research Director, Wall Street Journal Pro*

This session will explore how startups can engage with the media. Rob Sloan will give tips on presenting story ideas, share insight on how newsrooms work and talk about how to become an expert source.

12:30 PM

RSAC Early Stage Expo Briefing Center	20 MIN	**ALL**

SDP vs. VPN: Five Reasons to Make the Switch BC-W7ESE

***Micha Rave**, VP of Product, Meta Networks*

Learn why enterprises are switching from VPN to Software-Defined Perimeter (SDP): Zero-Trust Security. Simpler Management. Seamless User Experience, Cloud Scale.

12:40 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center North	30 min	**ALL**

Creating a Modern AppSec Toolchain to Quantify Service Risks BC-W4N

***Tim Mackey**, Senior Technology Evangelist, Synopsys*

When regulations collide with the security threat landscape, continuous monitoring for risk changes is required. This session will cover how AppSec toolchains increase security awareness.

Expo Briefing Center South	20 min	**ALL**

Simplexity: Access Management and the Future of Dynamic Authorization BC-W5S

***Eve Maler**, VP of Innovation and Emerging Technology, ForgeRock*

Scale authorization to new needs for distributed data, central policy, relationships beyond roles and consumer privacy! The session will demo User-Managed Access (UMA) and Identity Relationship Management (IRM).

RSAC Sandbox	30 MIN	**ALL**

Yet Another IoT Hack SBX1-W3

***Joshua Meyer**, Associate Security Analyst, Independent Security Evaluators*

A presentation on how to find vulnerabilities in embedded devices, including a demo of exploits discovered through new research and how analysts can find similar vulnerabilities in other devices.

1:00 PM

RSAC Early Stage Expo Briefing Center	20 MIN	**ALL**

A New Assurance Paradigm BC-W8ESE

***Mark Strutner**, Senior Cybersecurity Expert, ToucanX*

ToucanX introduces an architecture that, by design, segregates assets that are considered sensitive and/or classified and makes them virtually inaccessible to a malicious actor, regardless of the level of penetration or type of attack.

1:10 PM

Expo Briefing Center South	20 min	**ALL**

Secure Your Digital Crown Jewels with Micro-Segmentation BC-W6S

***Faraz Aladin**, Head of Technical Product Marketing, Illumio*

Illumio's Adaptive Security Platform® protects mission-critical crown jewels with micro-segmentation—preventing unauthorized lateral traffic in data centers and clouds in the event of a breach.

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1:10 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
RSAC Sandbox	30 MIN	**ALL**

The Emerging Grey App Threat: Mobile Kids Apps Are Gateway to Parents SBX1-W4

***Frances Dewing**, CEO, Rubica*

Mobile gaming applications aimed specifically at children are creating a back-door way to gain access to a variety of devices.

1:20 PM

Expo Briefing Center North	30 min	**ALL**

One Person Can Change the World: The Story behind GDPR BC-W5N

***Helge Husemann**, Global Technical Evangelist, Malwarebytes*

Learn more about Maximilian Schrems, an activist who became known for campaigns against Facebook for privacy violation and who brought GDPR to life. Learn how one person helped change the world.

1:30 PM

Analytics, Intelligence & Response	50 MIN	**FC**

Coordinated Vulnerability Disclosure: Debate from the Trenches AIR-W10

MODERATOR: ***Paul Kocher**, Founder & Researcher, Cryptography Research Inc.*
PANELISTS: ***Alex Gantman**, VP Product Security, Qualcomm;* ***Art Manion**, Vulnerability Analysis Technical Manager, CERT Coordination Center;* ***Alex Rice**, Co-Founder and CTO, HackerOne*

Modern complexity increases the likelihood of intrusion and malfunction due to flaws in the software. The panel of practitioners will debate the issues as they recreate the good and the bad from 2018.

Application Security & DevSecOps	50 MIN	**FC**

Practical Approaches to Cloud Native Security ASD-W10

***Karthik Gaekwad**, Principal Engineer, Oracle Cloud*

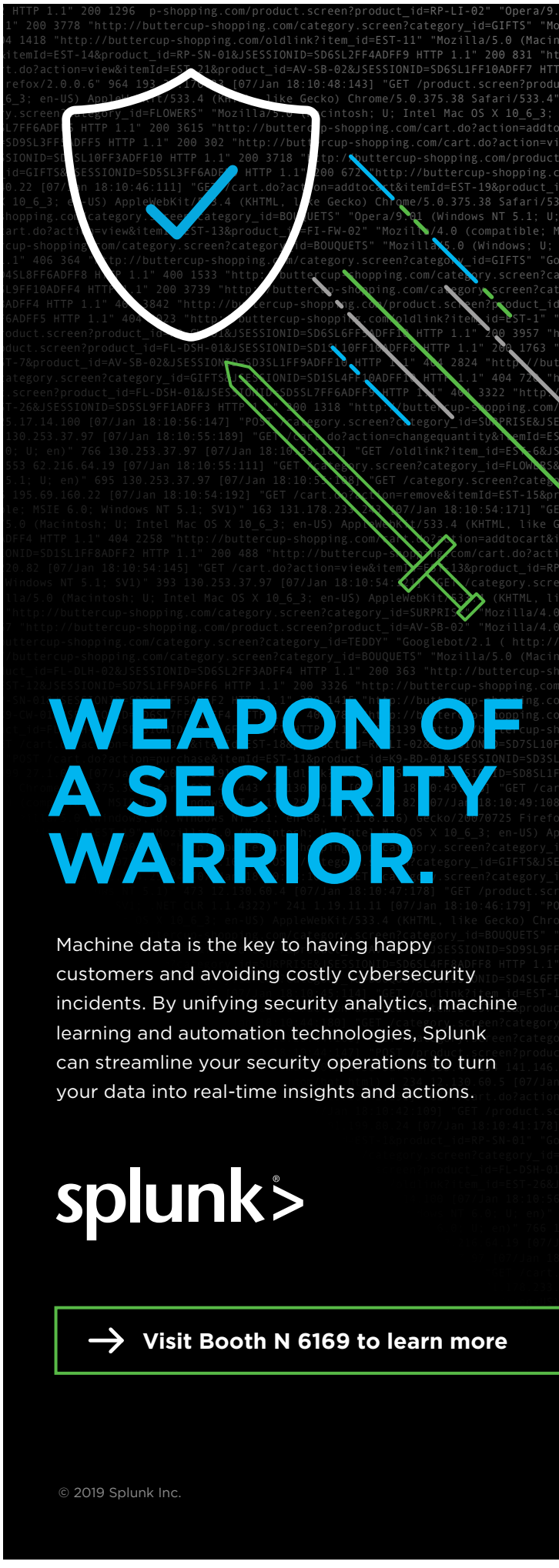
K8s is the go-to platform for large organizations moving their applications to cloud native infrastructure. The presenter will discuss the basics of building secure clusters and opensource tooling that helps.

Blockchain & Applied Crypto	50 MIN	**FC**

Hacked by Crypto BAC-W10

***Bret Jordan**, Director, Office of the CTO, Symantec;* ***Brian Witten**, VP & Chief Product Security Officer (CPSO), Symantec*

This talk will cover new security standards including TLS 1.3, Encrypted SNI, DNS SEC and DNS over HTTPs, including both advantages and surprising, counterintuitive new risks.



WEDNESDAY SESSION DETAILS

1:30 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
C-Suite View 2x	50 MIN	FC

How to Make Sense of Cybersecurity Frameworks CXO-T08R

***Frank Kim**, Senior Instructor, SANS Institute*

Learn how to make sense of the veritable alphabet soup of cybersecurity frameworks to simplify the complex world of security and structure your program to meet both business and technology goals.

C-Suite View	50 MIN	FC

Defining a Cyber-Risk Appetite That Works CXO-W10

***Jack Jones**, Chairman, FAIR Institute*

A clearly defined risk appetite can be transformative to a cyber-risk management program. In this session you'll learn how to define an unambiguous risk appetite that drives better decision-making.

Cloud Security & Virtualization	50 MIN	FC

Treating Cloud-Specific Threats with Automatic Remediation CSV-W10 ✿

***Jay Ball**, Head of Application Security, Zocdoc; **Josh Barons**, Head of Information Security, Zocdoc*

Identifying and managing new cloud threats in a fast-paced technology- and development-focused healthcare company.

Cryptography	50 MIN	FC

Cryptographers' Panel CRYP-W10

*MODERATOR: ♀**Bart Preneel**, Full Professor, KU Leuven*
*PANELISTS: **Dan Boneh**, Professor, Stanford University; **Mariana Raykova**, Research Scientist, Google; **Adi Shamir**, Borman Professor of Computer Science, The Weizmann Institute, Israel; **Reza Shokri**, Computer Science Assistant Professor, National University of Singapore*

A lively debate is guaranteed in the regular Cryptography Track panel session.

Cybersecurity Future Proof: 2025	50 MIN	FC

Cybersecurity Futures 2025 CSFP-W10

***Dawn Thomas**, Associate Director, CNA's Institute for Public Research; **Steve Weber**, Professor, University of California Berkeley*

This session will explore, via four alternate scenarios, the future of cybersecurity (2025) and the new problem sets that cybersecurity professionals will encounter in a changing strategic environment.

Governance, Risk & Compliance	50 MIN	FC

Barney Fife Metrics: The Bullet That We Have but Don't Use, and Why GRC-W10

***Jon Boyens**, Manager, Security Engineering & Risk Management Group, National Institute of Standards and Technology; **Celia Paulsen**, Cybersecurity Researcher, National Institute of Standards and Technology*

New research from NIST explores what differentiates successful information security metrics programs, why the field is stagnating and what is needed to move forward.

1:30 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Hackers & Threats	50 MIN	FC

Digital Surveillance and Cyberespionage at Scale HT-W10

***Steven Adair**, President, Volexity*

Learn how OceanLotus, one of the most advanced and pervasive threat groups that is active today, manages its tracking, exploitation, and command and control operations around the world.

Hackers & Threats Advanced	50 MIN	FC

Hopping into Enterprise Networks from Thin Air with BLEEDINGBIT HTA-W10

***Nadir Izrael**, CTO and Co-Founder, Armis; **Ben Seri**, VP of Research, Armis*

Join Armis researchers for a live demo of a wireless access point takeover using the BLEEDINGBIT vulnerabilities found in BLE chips which are used in the majority of wireless APs sold to enterprises.

Human Element	50 MIN	FC

Your Ideal Victim Is My Hero HUM-W10

♀***Shannon Lietz**, Director, Intuit; **Myoki Spencer**, Manager, Security Automation, Intuit*

Knowing an adversary's ideal victim can change the game. Adversaries have ideal victims that help increase their ROI on the attacks they create. Deception and honeypots can prevent an attack.

Identity	50 MIN	FC

No More Firewalls! How Zero-Trust Networks Are Reshaping Cybersecurity IDY-W10

***Matt Soseman**, Security Architect, Microsoft*

Through live demos, understand how identities and devices are changing your approach to providing access to corporate resources, in cloud and on-premises—no PowerPoint allowed!

Law	50 MIN	FC

Ransom: A Real-World Case Study in Data Theft, Forensics and the Law LAW-W10

***Randy Sabett**, Special Council, Cooley; **Jason Straight**, Chief Privacy Officer / SVP Cyber Risk Solutions, UnitedLex Corporation*

Noted security/privacy pro Jason Straight will illuminate one of the most intriguing cases in his 15-year career involving data theft, ransom, digital forensics, hacker negotiations and more.

Learning Labs △	3 HRS	FC

How to Design and Operate a DDOS Testing Program LAB3-W10

***Murray Goldschmidt**, Chief Operating Officer, Sense of Security Pty Ltd.; **Sharjil Khan**, Principal Consultant, Redwolf Security Inc; **James Mal**, Director, Sales Global, Redwolf Security Inc*

Learn to design, implement and operate a DDoS testing program to simulate attacks, measure response and determine if practices are working. Build resilience with no- or low-cost measures for on-prem and cloud.

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1:30 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Machine Learning & Artificial Intelligence	50 MIN	FC

Machine Learning Toolbox for Cybersecurity Risk Management MLAI-W10

Bugra Karabey*, Senior Risk Manager, Microsoft*

Machine learning models/techniques (LSTM RNN deep neural nets, word embeddings, topic modelling), and use case scenarios utilized within the semi-annual Information Security Risk Reviews at Microsoft.

Mobile & IoT Security	50 MIN	FC

Anatomy of an Enterprise Mobile Security Incident MBS-W10

Aaron Turner*, CEO, Hotshot Technologies*

Based on a real-world situation, learn how mobile vulnerabilities have been used by attackers to gain access to sensitive enterprise information and credentials, including defeating soft tokens.

Peer2Peer △	50 MIN	FC

Speed Dating for Security: 200 Creative Engagement Ideas in 50 Minutes P2P1-W10

Bianca Wirth*, Manager – Corporate Security Education & Awareness, Insurance Australia Group*

Have you ever wished for 29 more brains you can use to generate new ideas on how to change user security behavior? Join this speed ideation session to create 200 security awareness ideas in 50 minutes!

1:30 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Peer2Peer △	50 MIN	FC

Leveraging Tactical Threat Intelligence for Strategic Decision-Making P2P2-W10

Xena Olsen*, Cyber Threat Intel Analyst, Fortune 500 Financial Services*

Enterprises underutilize threat intelligence data. The session will discuss how companies can use threat intelligence data beyond network defense to aid strategic decision-making.

Peer2Peer △	50 MIN	FC

Quantum Computing and Preparing Cyber-Systems for the Post-Quantum Era P2P3-W10

Michele Mosca*, Professor, University of Waterloo*

Has meaningful progress been made in quantum computation? More stakeholders are starting to prepare for the transition to post-quantum algorithms. What is being done already and what else is needed?

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1:30 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Privacy	50 MIN	FC

The NIST Privacy Framework: What It Is And What It Means for You PRV-W10

***Naomi Lefkovitz**, Senior Privacy Policy Advisor, National Institute of Standards and Technology; **Kevin Stine**, Chief, Applied Cybersecurity Division, NIST*

The National Institute of Standards and Technology is developing a voluntary Privacy Framework for enterprise risk management. Learn what to expect and how you can contribute!

RSAC Early Stage Expo Briefing Center	20 MIN	ALL

Cloud Workload Security Platform with Real-Time, Zero-Day Attack Prevention BC-W9ESE

***Jayant Shukla**, CTO & Co-Founder, K2 Cyber Security, Inc.*

K2 protects cloud workloads and applications against zero-day attacks with no false positives and offers a new approach for enforcing microsegmentation based on cryptographic identity for workloads.

Security Strategy & Architecture	50 MIN	FC

Deep Modernization of a Corporate IT Infrastructure STR-W10

***John Tolbert**, Managing Director, KuppingerCole*

Lessons learned on the long road towards a zero-trust cloud-native digital enterprise IT architecture for a highly regulated European company.

Sponsor Special Topics	50 MIN	ALL

Ransomware Attack Protection and Recovery: Lessons from the Front Lines SPO1-W10

*MODERATOR: **Peter Beardmore**, Dir. of Marketing for Digital Risk Management Solutions, RSA*
*PANELISTS: **Bob Bender**, Chief Technology Officer, Founders Federal Credit Union; **Amy Blackshaw**, Director, RSA; **Stafan Voss**, Senior Director, Product Management, Dell Technologies*

This session will feature modern requirements to detect and respond to advanced cyberattacks such as ransomware and feature firsthand experiences from a security executive who's been targeted by attacks.

Sponsor Special Topics	50 MIN	ALL

Simplicity from Complexity: Cybersecurity Insights that Matter Most SPO2-W10

***Leah MacMillan**, Sr. Vice President, Global Marketing, Trend Micro*

We are short 2.9 million security professionals, making the ability to correlate threats and gain insights essential. Learn about the value of data complexity on the journey to threat response simplicity.

1:30 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Sponsor Special Topics	50 MIN	ALL

Innovative Answers to the IoT Security Challenges SPO3-W10

*MODERATOR: **Norbert Pohlmann**, Professor / Director, Institute for Internet Security*
*PANELISTS: **Heinfried Cznottka**, Director Business Development, achelos GmbH; **Kim Nguyen**, Fellow, Bundesdruckerei GmbH; **Jean-Paul Verheylewegen**, Global Sales Manager, MB connect line GmbH*

Panel discussion about innovative ways for identity management, securely enabling connectivity of IoT devices and security for legacy systems while keeping the usability at a high level.

Technology Infrastructure & Operations	50 MIN	FC

Lost Boys: How Linux and Mac Intersect in a Windows-Centric Security World TECH-W10

***Alexander Benoit**, Lead Security Analyst, sepago GmbH; **Josh Harriman**, VP of Cyber Security Intelligence, Ziften*

Windows has such a large business market share, it can render Linux and Mac the Lost Boys of security. Neglecting Linux and Mac in your environment can affect your overall security posture.

1:40 PM

Expo Briefing Center South	20 min	ALL

Applied Prediction: Using Forecasts to Get Proactive about Security BC-W7S

***Ed Bellis**, Chief Technology Officer, Kenna Security*

We can predict the weather but still don't have foresight into attacks heading our way. This talk will discuss new predictive models and how to incorporate them into security workflows.

RSAC Sandbox	2 HRS	ALL

SANS Core NetWars Experience SBX2-W3

***Chris Elgee**, Builder & Breaker, Counter Hack Challenges*

SANS NetWars Experience develops and tests your information security skills in a safe, interactive environment, while having a little fun with your fellow IT security professionals.

1:50 PM

RSAC Sandbox	1 HR	ALL

First Steps in RF: Lessons Learned SBX3-W2

***Dave Weinstein**, Software Engineering Manager, Google*

It can be daunting for senior staff to enter a new problem domain. This talk will be a discussion of lessons learned in starting from the basics in RF, and how to apply that more broadly.

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2:00 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center North	30 min	**ALL**

A New Paradigm for Security BC-W6N

***Jason Garbis**, VP, Products, Cyxtera*

This session will dissect the concept of software-defined perimeter and explore how this architecture enables a creatively disruptive approach to security, while avoiding any actual IT disruption.

Learning Labs △	2 HRS	**FC**

Creating/Building a Phishing Training Program LAB1-W11

***Cheryl Conley**, Cyber Governance Risk & Compliance Senior Staff, Lockheed Martin; **Tonia Dudley**, Security Solutions Advisor, Cofense*

Learn how to establish a cutting-edge phishing simulation program, including management and stakeholder buy in, simulating attacks, training tactics, handling repeat clickers, key metrics and privacy.

Learning Labs △	2 HRS	**FC**

Breaking Out of the Security Metrics Matrix: Steps in the Right Direction LAB2-W11

***Tim Crothers**, Vice President of Security, Target; **James Stanger**, Chief Technology Evangelist, CompTIA*

Learn from authorities in the field about how to create and customize meaningful metrics that allow you to reduce exposure time and manage risk.

2:00 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Learning Labs △	2 HRS	**FC**

Evasion Tactics in Malware from the Inside Out LAB4-W11

***Erez Breiman**, CTO, Minerva Labs; **Omri Segev Moyal**, Co-Founder & VP of Research, Minerva Labs; **Lenny Zeltser**, Instructor, SANS Institute; VP of Products, Minerva Labs*

Malware authors use clever tactics to evade detection. Learn how evasion works and how you can start analyzing malware using a debugger in this hands-on session. Come with a lab VM, per instructions.

2:10 PM

Expo Briefing Center South	20 min	**ALL**

Seven Hells! We Need One Language to Communicate about IT Assets BC-W8S

***Alejandro Lavie**, Director, Strategy, Flexera*

It's not High Valyrian or Dothraki, but companies struggle with vast inventory definitions and classifications of IT assets which inhibit their ability to make decisions and secure their environment.

WEDNESDAY SESSION DETAILS

2:40 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center North	30 min	ALL

Got Breached? Determining the Extent of Your Intrusion BC-W7N

***Tim Bandos**, Vice President, Cybersecurity, Digital Guardian*

To determine the true extent of a breach, the newest forensic techniques will be demonstrated in a walk-through of a real Fortune 100 company scenario.

Expo Briefing Center South	20 min	ALL

Unhackable: Why Businesses Are Turning to Hardware-Enforced Cybersecurity BC-W9S

***Dennis Lanahan**, Director of Sales, Owl Cyber Defense*

This session will explain what a data diode is, how it works, the benefits of hardware-enforced tools and the basics of how they can be used to help secure networks, devices and data.

2:50 PM

Analytics Intelligence & Response	50 MIN	FC

Prosilience: Moving beyond Operational Resilience AIR-W12

***Summer Fowler**, Chief Security Officer, Argo AI; **Roberta Stempfley**, Director, CMU – SEI – CERT*

Moving beyond resilience to prosilience: how to apply leading-edge technical concepts to anticipate and adapt your organization's capabilities before a disruptive event occurs.

Application Security & DevSecOps	50 MIN	FC

How I Learned Docker Security the Hard Way (So You Don't Have To) ASD-W12

***Paul Asadoorian**, Founder & CEO, Security Weekly*

Security professionals today struggle securing container environments. You will learn the different container security models and detailed incident response examples from an actual attack.

Blockchain & Applied Crypto	50 MIN	FC

Breaking the Blockchain: Real-World Use Cases, Opportunities and Challenges BAC-W12

***Michael Mylrea**, Senior Advisor | Cyber Security | Blockchain Lead (PI) | Pacific Northwest National Laboratory*

The presentation will share lessons learned from developing and implementing one of the first and largest blockchain cybersecurity R&D projects in partnership with US industry and government.

C-Suite View	50 MIN	FC

Cybersecurity Head On: How Successful Organizations Win CXO-W12

***Michelle Beistle**, Counsel and Chief Compliance Officer, Privacy and Ethics, Unisys; **Mat Newfield**, CISO, Unisys*

Explore how legal counsel and cybersecurity teams must come together and become bilingual in order to meet today's complex challenges and build more effective cybersecurity programs in the process.

2:50 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Cloud Security & Virtualization	50 MIN	FC

Red Team View: Gaps in the Serverless Application Attack Surface CSV-W12

***Michael Cotton**, SVP Research & Development, Digital Defense, Inc.*

This talk will discuss new and previously unknown methods of targeting an application's serverless component services and leveraging them to gain privileged access.

Cloud Security & Virtualization 2x	50 MIN	FC

Protecting the Cloud with the Power of Cloud CSV-W02R

***Jay Kelath**, Head of Product Security, Dow Jones & Company; **Pranavkumar Patel**, Senior Security Engineer, Dow Jones*

This talk will walk you through Dow Jones Hammer, a self-healing cloud security tool designed to protect hundreds of AWS accounts against misconfiguration with auto-remediation.

Cryptography	50 MIN	FC

Post-Quantum Cryptography CRYP-W12

***Saba Eskandarian**, Stanford University; **Mélissa Rossi**, Thales & ENS Paris*

Design and analysis of post-quantum cryptographic algorithms will be discussed.

TOPIC 1: Post-Quantum EPID Signatures from Symmetric Primitives
Authors: Dan Boneh, Saba Eskandarian, Ben Fisch

TOPIC 2: Assessment of the Key-Reuse Resilience of NewHope
Authors: Aurélie Bauer, Henri Gilbert, Guénaël Renault, Mélissa Rossi

Cybersecurity Future Proof: 2025	50 MIN	FC

You've Predicted the Future, Now What? Pulling the Right Security Levers CSFP-W12

***John Pescatore**, Director, SANS Institute*

This session will detail a methodology for developing realistic action plans and achievable milestones to minimize business impact by evolving and enhancing limited people, processes and technology resources.

Governance, Risk & Compliance	50 MIN	FC

Virtual Pen Testing Using Risk Models GRC-W12

***Joel Amick**, Director, Cyber Analytics and Data Science, TIAA; **Jack Freund**, Director, Cyber Risk, TIAA*

Attendees will be shown how to leverage risk assessment data to identify likely paths of system compromise using attacker, control and loss simulations to help prioritize remediation efforts.

Hackers & Threats	50 MIN	FC

An Overview of AI and Machine Learning Attacks and Vulnerabilities 2019 HT-W12

***Abraham Kang**, Senior Director Software, Samsung*

Attend this talk if you want a better understanding of security issues faced by developers creating solutions on top of AI and machine learning.

= Top-rated speaker. 2x = Session given twice. △ Space is limited; no press allowed. ⚙ Advanced session.
Sessions and speakers are subject to change; visit www.rsaconference.com or check the pocket guide or mobile app for room locations and up-to-date information.

BADGE ACCESS: **FC** = Open to Full Conference Registrants only • **ALL** = Open to all attendees

2:50 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Hackers & Threats Advanced	50 MIN	FC

Function Fuzzer HTA-W12

***Jason Raber**, Principle Engineer, Malwarebytes*

A technique for finding software vulnerabilities. A key feature is the ability to hook internal functions of a binary (without source code) to fuzz parameters.

Human Element	50 MIN	FC

Beyond Hybrid War: How China Utilizes Social Media to Influence the West HUM-W12

***Priscilla Moriuchi**, Director of Strategic Threat Development, Recorded Future*

This session will cover China's domestic and foreign use of digital information operations, and will present the first research on China's Internet-based influence operations targeting the West.

Identity	50 MIN	FC

How the H@ck R U? A Modern Identity Assurance Approach in a Hacked World IDY-W12

***Angel Grant**, Director Identity, Fraud & Risk Intelligence, RSA*

A tour of the dark web, methods and tools cybercriminals use to obtains identity information, and tips to embrace our interconnected world for stronger identity assurance.

Law	50 MIN	FC

Cryptocurrency Hacking and the Legal Climate for Blockchain Technology LAW-W12

*MODERATOR: **Julie Lewis**, President, CEO and Founder, Digital Mountain, Inc.*
*PANELISTS: **Hoyt Kesterson**, Senior Security Architect, Avertium; **Aleks Kobzanets**, Special Agent, Federal Bureau of Investigation; **Christopher Ott**, Partner, Davis Wright Tremaine*

Join DOJ, FBI, data security and forensics veterans to discuss how blockchain technologies and cryptocurrency are impacting cyber-investigations, as well as legal and regulatory considerations.

Machine Learning & Artificial Intelligence	50 MIN	FC

Build Intelligent Vulnerability Scoring to Optimize Security Residual Risks MLAI-W12

***Bill Chen**, Chief Security Architect, Visa Inc.; **Gyan Prakash**, Sr. Director, Visa Inc.*

The ability to effectively prioritize critical findings is a key success factor for every CISO. This talk will answer the question which vulnerabilities to be resolved first, and why with intelligent tool.

Mobile & IoT Security	50 MIN	FC

Hacking Healthcare Live: Digital Disease, Clinical Crisis MBS-W12

*MODERATOR: **Christian Dameff**, Emergency Physician and Clinical Informatics Fellow, University of California San Diego*
*PANELISTS: **Suzanne Schwartz**, Associate Director for Science & Strategic Partnerships, Center for Devices & Radiological Health – US Food & Drug Administration; **Jeff Tully**, Resident Anesthesiologist, UC Davis Medical Center; **Beau Woods**, Cyber Safety Advocate, I Am the Cavalry*

Healthcare cybersecurity is in critical condition, and unsuspecting doctors face the reality of practice in a brave new world of insecure technologies and vulnerable patients in a live simulation.

2:50 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Peer2Peer △	50 MIN	FC

Trapping Bears with Honey: Sharing Tricks and Techniques to Lure Bad Guys P2P1-W12

***Olivier Bilodeau**, Cybersecurity Research Director, GoSecure*

Honeypots are effective to lure attackers into delivering malware and showing tactics, techniques and procedures. Let's discuss the next steps to take with these, share experience and collaborate.

Peer2Peer △	50 MIN	FC

Meeting Cybersecurity Regulatory Requirements with Cloud Delivery Models P2P2-W12

***Jeffrey King**, Principal, Promontory*

Most cybersecurity regulations are written with a bias toward on-premise service delivery models, with little consideration to cloud delivery models. This results in compliance challenges.

Peer2Peer △	50 MIN	FC

Increasing Usage of a Secure Development Lifecycle P2P3-W12

***Cassie Crossley**, Director, Product Security Office, Schneider Electric*

Discuss techniques and best practices for embedding a secure development lifecycle into your organization.

Policy & Government	50 MIN	FC

Bridging the Divide—Cybersecurity Priorities in 116th Congress PNG-W12

*MODERATOR: **Jamil Jaffer**, Adjunct Professor & Director, National Security Law & Policy Program and Founder & Executive Director, National Security Institute, George Mason University Law School*
*PANELISTS: **Hope E. Goins**, Staff Director, House Committee on Homeland Security; **Mike Flynn**, Senior Counsel, Committee on Homeland Security and Government Affairs*

With new leadership in Congress and divided government, this esteemed panel will discuss issues like supply chain, destructive cyberattacks, protection of key networks and social media weaponization.

Privacy	50 MIN	FC

Global Legislative Trends in Data Privacy and Security Regulation for 2019 PRV-W12

***April Doss**, Partner, Saul Ewing Arnstein & Lehr; **Natasha Kohne**, Partner, Akin Gump; **William Rogers**, Partner, Prince Lobel Tye LLC*

With a year of GDPR experience, its influence is ripe for commentary. We will focus on global themes and emerging trends reflected in recent legislative activity concerning data privacy and security.

Protecting Data & the Supply Chain Ecosystem	50 min	FC

What Lurks within Your IT: Spotlight on the Dark Side of the Supply Chain PDAC-W12

***Dawn Cappelli**, VP Global Security and CISO, Rockwell Automation; **Edna Conway**, Chief Security Officer, Global Value Chain, Cisco Systems Inc.*

Altered components, tainted software and shipments diverted to allow unauthorized "modifications!" IT/OT security experts will explore this third-party risk and what to do about it.

2:50 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Security Strategy & Architecture	50 MIN	FC

The Fallacy of the "Zero-Trust Network" STR-W12

***Paul Simmonds**, CISO / CEO, Global Identity Foundation*

Zero-trust networks? Separating the marketing BS and hype from the architectural imperative we all face.

Sponsor Special Topics	50 MIN	ALL

Who Watches the Watchers: IP Protection for Privileged Users SPO1-W12

***Richard Ford**, Chief Scientist, Forcepoint*

Often developers of IP represent the greatest risk to its theft. Learn how behavioral analytics can protect IP from legitimate users using the FBI's affidavit on the GE IP theft as case study.

Sponsor Special Topics	50 MIN	ALL

Designing for Doomsday: Effective API Security Approaches from the Edge SPO2-W12

***Josh Shaul**, Vice President, Web Security, Akamai Technologies*

API security has emerged as the single biggest challenge organizations face to securing their threat surface. Learn to detect, defend and design security in from the beginning. Are you prepared?

Sponsor Special Topics	50 MIN	ALL

Unmasking Operation Shaheen SPO3-W12

***Kevin Livelli**, Director of Threat Intelligence, Cylance, Inc.; **Tom Pace**, Sr. Director, Worldwide Consulting, Cylance, Inc.*

Cylance shows how a threat actor evaded eight antivirus products before deliberately surrendering to distract, delay and divert target resources.

Technology Infrastructure & Operations	50 MIN	FC

Making Security Automation Real TECH-W12

***Jessica Fitzgerald-McKay**, Security Automation Lead, National Security Agency; **David Waltermire**, Security Automation Architect, National Institute of Standards and Technology*

Only through standardized posture information will defenders be able to automate security and harden the network to attack.

3:00 PM

RSAC Sandbox	30 MIN	ALL

Cybersecurity and Privacy: The Two Main Tenets in the Smart City Project SBX4-W3

*MODERATOR: **Maryam Rahmani**, Global Partnership Officer, Global Cyber Alliance*
*PANELISTS: **Tony Batalla**, Head of IT, San Leandro City; **Lan Jenson**, CEO, Adaptable Security Corp; **Sokwoo Rhee**, Associate Director of Cyber-Physical Systems Innovation, National Institute of Standards and Technology*

The smart city projects bring many benefits to the community when done right. The panelists will discuss the importance of security by design in support of cybersecurity, privacy and public safety.

3:10 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center South	20 min	ALL

TLS Redirection: How to Make MitM on HTTPS Possible BC-W10S

***Aleksei Tiurin**, Senior Security Researcher, Acutenix*

Fresh view on HTTPS. How web vulnerabilities and modern technologies can "bring down" HTTPS protection.

3:20 PM

Expo Briefing Center North	30 min	ALL

What a Cyberattack Looks Like When You're Watching Your Data BC-W8N

***Brian Vecci**, Technical Evangelist, Varonis*

Watch a live cyberattack! From popping a shell with Metasploit to data exfiltration via DNS tunneling, this session will demo how analysts use Varonis to detect, investigate and stop advanced attacks.

3:30 PM

RSAC Sandbox	30 MIN	ALL

Safety Systems Are the New Target: Design Security Using Safety Methods SBX4-W4

***Marty Edwards**, Director of Strategic Initiatives, International Society of Automation (ISA)*

Triton/Trisis/Hatman shows that industrial control safety systems are the new target. To maintain the safety of these systems you must design your cybersecurity protections with the same safety rigor.

3:40 PM

Expo Briefing Center South	20 min	ALL

GDPR Security Postmortems: Lessons Learned from Facebook, Uber and Others BC-W11S

***Scott M. Giordano, Esq.**, VP, Data Protection, Spirion*

This session will review security postmortems of Facebook, Uber and others, determine what went wrong, and discuss the implications for complying with the security requirements of the GDPR going forward.

4:00 PM

Expo Briefing Center North	30 min	ALL

Red vs. Blue? Why Not Purple? Doing Good While Knowing Evil. BC-W9N

***David DeSanto**, Director, Products and Threat Research, Spirent*

Learn how emulating actual data breach assessments in production networks can help you know your organization's security posture regularly—and rigorously—and keep your defenses ready.

= Top-rated speaker. 2x = Session given twice. △ Space is limited; no press allowed. ⚙ Advanced session.
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4:10 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center South	20 min	**ALL**

As Cyber Criminals Raise Their Game, So Should Security Awareness Programs BC-W12S

Craig Kunitani*, COO, Security Mentor;* ***Marie White****, CEO, Security Mentor*

Do you rely solely on phishing to ensure your employees are secure? If so, they may well be at risk. We'll explore the importance of a comprehensive approach to employee security awareness.

Law	50 MIN	**FC**

Into the Breach: Dealing with Law Enforcement and Counsel in a Cyber-Crisis LAW-W15

MODERATOR: ***Nicole Friedlander****, Partner, Sullivan & Cromwell LLP*
PANELISTS: ***Kristy Greenberg****, Assistant United States Attorney, United States Attorney's Office for the Southern District of New York;* ***Erin Joe****, Section Chief, FBI Cyber Division, Federal Bureau of Investigation (FBI)*

This session will explore effective strategies for engagement with law enforcement and counsel during cyber-incident response.

4:10 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Peer2Peer △	50 MIN	**FC**

Zero Trust, the Goose and the Golden Ticket P2P1-W15

Karen Reinhardt*, Director, Security Tools, Entrust Datacard*

In the evolving world of cloud and IoT, where zero trust is the rule of Internet, how can practical trust be established? Join us to discuss trust and identity in a zero-trust world.

Peer2Peer △	50 MIN	**FC**

Best Practices for Securing Enterprise IoT P2P2-W15

John Johnson*, CTO & Professor, RIG & Excelsior College*

Participants will share best practices for securing and managing IoT, BYOD and other nontraditional systems being connected to their enterprise TCP/IP networks.

Peer2Peer △	50 MIN	**FC**

What's Your Externally Facing API and Service Attack Surface? P2P3-W15

Mark Willis*, Director, Software Security, Aetna*

How well do you know your externally facing API and services and whether they are adequately secured? Let's all get together to share ideas and help remove this long overlooked blind spot.

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THURSDAY EVENTS & ACTIVITIES

6:00 AM – 7:00 AM
Moscone West Level 2 Alcove

POWER PAUSE—MINDFULNESS & MOVEMENT*

This yoga class and meditation session is designed for all levels from beginners to advanced practitioners.

7:00 AM – 8:00 AM
Various Locations

CONTINENTAL BREAKFAST*

Full Conference Pass holders, head directly to your chosen morning session. Breakfast is available in Moscone West Levels 2 & 3 and Moscone South Levels 2 & 3.

7:00 AM – 7:50 AM
& 12:40 PM – 1:30 PM
Moscone West Level 3

BIRDS OF A FEATHER*

Grab your breakfast or lunch and bring it to the discussion rooms. Some topics are pre-defined and led by speakers, others will develop organically; by design, this is loosely structured to give you an opportunity to network and set the agenda for discussions of interest to you. ***Note: Press is not permitted in Birds of a Feather sessions.***

7:00 AM – 8:00 AM
Moscone West Level 2 Alcove

FIRST-TIMERS MEET-UP*

Start the day with a meet-up with other RSAC First-Timers. Grab your complimentary breakfast and enjoy this time to regroup, share takeaways and, of course, caffeinate.

KEYNOTES

Keynote abstracts can be found on pages 34 – 35.

8:00 AM – 8:50 AM
South Esplanade

Stress, Burnout and You: Fireside Chat with Dr. Christina Maslach
***Josh Corman**, Chief Security Officer, PTC; **Christina Maslach**, Professor of Psychology, Emerita, University of California, Berkeley*

9:20 AM – 10:10 AM
South Esplanade

Hacking Exposed: Hacking Macs
***Dmitri Alperovitch**, Co-Founder & Chief Technology Officer, CrowdStrike; **George Kurtz**, Chief Executive Officer, CrowdStrike*

10:30 AM – 10:55 AM
West Street Level

Stop Worrying about the Right Things
***Mary O'Brien**, General Manager, IBM Security; **Caleb Barlow**, Vice President, IBM Security, X-Force Threat Intelligence*

10:55 AM – 11:40 AM
West Street Level

The Five Most Dangerous New Attack Techniques and How to Counter Them
*MODERATOR: **Alan Paller**, Research Director and Founder, SANS Institute*
*PANELISTS: **Heather Mahalik**, Director of Forensics Engineering, ManTech, and Mobile Forensics Course Director, SANS Institute; **Ed Skoudis**, Instructor, SANS Institute; **Johannes Ullrich**, Dean of Research, SANS Technology Institute*

2:50 PM – 3:40 PM
South Esplanade

The Future of Data Protection: Adapting to the Privacy Imperative
*MODERATOR: **J. Trevor Hughes**, President & Chief Executive Officer, IAPP*
*PANELISTS: **Kalinda Raina**, Senior Director, Head of Global Privacy, LinkedIn; **Ruby Zefo**, Chief Privacy Officer, Uber*

4:00 PM – 4:25 PM
West Street Level

Three Things the Security Industry Isn't Talking About (but Should Be)
***Pat Gelsinger**, Chief Executive Officer, VMware; **Shannon Lietz**, Director, Intuit*

4:25 PM – 4:45 PM
West Street Level

Tales of a Teenage Security Supergirl
***Kyla Guru**, Founder and Chief Executive Officer, Bits N' Bytes Cybersecurity Education*

4:45 PM – 5:30 PM
West Street Level

Connecting the Dots for the Future
***John T. Chambers**, Founder and Chief Executive Officer, JC2 Ventures, Former Chairman and Chief Executive Officer, Cisco; **Diane Brady**, Award-Winning Writer, Author and Consultant*

8:00 AM – 10:10 AM
& 1:30 PM – 3:40 PM
Various Locations

TRACK SESSIONS

See detailed information on following pages for descriptions and badge access.

8:00 AM – 11:20 AM
& 1:30 PM – 4:30 PM
Moscone West Level 3

LEARNING LABS*

Learning Labs provide highly interactive, facilitated learning experiences and are very hands-on and small group oriented. Seating is limited; use Reserve a Seat to schedule your participation. You can only reserve one Lab on your schedule, so pick carefully from our 20 great offerings. ***Note: Press is not permitted in Lab sessions.***

= Top-rated speaker.

THURSDAY EVENTS & ACTIVITIES

8:00 AM – 3:30 PM
Marriott Yerba Buena 8

RSAC SANDBOX

The RSA Conference Sandbox is full of hands-on interactive experiences to test your infosec skills.

RSAC Early Stage Expo Exclusive Media Sponsor:

TechTarget | SearchSecurity

8:00 AM – 3:00 PM
Marriott, RSAC Sandbox

RSAC CYBREW CAFÉ

A full-service coffee bar.

8:00 AM – 3:00 PM
Marriott Yerba Buena 9

RSAC EARLY STAGE EXPO

The RSAC Early Stage Expo is the perfect megaphone for emerging infosec startups. Meet over 50 of the industry's most promising newcomers and learn about their innovative products and solutions, and check out the RSAC Early Stage Expo Briefing Center (details on pages 180 – 185).

RSAC Early Stage Expo Exclusive Media Sponsor:

crunchbase

8:00 AM – 5:00 PM
Moscone West Street Level

BROADCAST ALLEY

Watch top security publications shoot live and record exclusive interviews.

9:20 AM – 5:00 PM
South 301

BRIDGING THE GAP: CYBERSECURITY + PUBLIC INTEREST TECH*

See following pages for descriptions.

9:20 AM – 12:50 PM
& 1:30 PM – 5:00 PM
Moscone South Level 3

PEER2PEER SESSIONS*

P2P sessions enable groups of no more than 30 people that share a common interest to come together and productively explore a specific security topic, facilitated by an experienced practitioner. ***Note: Press is not allowed in Peer2Peer sessions.***

10:00 AM – 3:00 PM
Moscone South Lower Level

RSAC SECURITY OPERATIONS CENTER

Take a tour of a working SOC! Head to the Moscone South Lower Level for the RSA Conference Security Operations Center. See what's really taking place on the Moscone Wireless Network in real time.

Sponsored by:

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10:00 AM – 3:00 PM
Moscone North & South Lower Levels

EXPO

Come see how RSA Conference 2019 exhibitors offer you the latest technological solutions, provide hands-on learning opportunities and demonstrate how they can help you better secure your organization.

10:30 AM – 12:00 PM
Moscone North & South Lower Levels

EXPO BRIEFING CENTER

See following pages for abstracts and a complete schedule on pages 115–118.

11:00 AM – 2:00 PM
Howard Street, Mission Street

STREET EATS

With options for all tastes, Street Eats is the easy way to fuel up between sessions or get energized before your next keynote. Stop by any of our food trucks on Mission Street or Howard Street.

6:30 PM – 8:30 PM
Moscone South Esplanade, South Stage

RSAC AFTER HOURS: COMEDY NIGHT

You're good for a network backup. How about a laugh? Get your fill at RSAC After Hours: Comedy Club. Stroll in and strike a pose on the red carpet before taking your seat in the front row of our very own comedy club. Serving up bottomless laughs—plus delicious food and cocktails—some of the funniest comedy acts around will take the stage, adding some good humor to a busy week. Now, who said cybersecurity professionals were all business?

Open to Full Conference and Discover Pass holders. Choose one of the RSAC After Hours events on Tuesday, Wednesday or Thursday nights of Conference. Space is limited so make sure to reserve a seat.

THURSDAY SESSION DETAILS

8:00 AM

TRACK / TOPIC | SESSION LENGTH | BADGE ACCESS

Analytics Intelligence & Response — 50 MIN — FC

How CTI Can Play a Key Role to Get Security on Board AIR-R02

***Jean-Yves Riverin**, Cyber Threat Intelligence Senior Advisor, Desjardins*

Walk-through of the creation of Desjardins' SOC eight years ago and all the ensuing steps accomplished over the years to improve its maturity and get the ongoing support of upper management.

Application Security & DevSecOps — 50 MIN — FC

Container Security at the Speed of CI/CD ASD-R02

***Tim Chase**, Director of Security, HealthStream*

Containers are everywhere! But how do you deal with the security challenges of using containers? This session will discuss why containers are complex to secure and a solution on securing them.

Association Special Topics — 50 MIN — ALL

The NIST Cybersecurity Framework: Building on Success AST1-R02

*MODERATOR: **Kelly Hood**, Cybersecurity Engineer, G2 Inc.*
*PANELISTS: **Matthew P Barrett**, Program Manager, National Institute of Standards and Technology; **Gary Coverdale**, Chief Information Security Officer, Mono County, CA; **Plamen Martinov**, Chief Information Security Officer, University of Chicago*

The Cybersecurity Framework PM from NIST and industry practitioners will discuss the adoption, near-term goals, experiences and lessons learned from implementing the Cybersecurity Framework.

Association Special Topics — 50 MIN — ALL

Responding to and Recovering from Cybersecurity Incidents AST2-R02

*MODERATOR: **Kelvin Coleman**, Executive Director, National Cyber Security Alliance*
*PANELISTS: **Bob Kolasky**, Director, National Risk Management Center, National Protection and Programs Directorate, U.S. Department of Homeland Security; **Daniel Medina**, Director, Strategic and Technical Engagements, Glasswall Solutions Inc.; **Bridgette Walsh**, Chief, Partnerships and Engagement, Office of Cybersecurity and Communications, National Protection and Programs Directorate, U.S. Department of Homeland Security*

After a cybersecurity incident is detected, every passing moment is critical. Experts will outline what you need to know in order to mitigate the effects of a breach and recover.

Association Special Topics — 50 MIN — ALL

Please see addendum for session details.

Blockchain & Applied Crypto — 50 MIN — FC

The Detrimental Nature of Proofs of Work, and Risks to Cryptocurrencies BAC-R02

***Guy Stewart**, Co-Founder and CTO, Egni Inc.*

This session will analyze destabilizing aspects of cryptocurrencies and how a departure from the PoW paradigm can mitigate the problem, and will also discuss beneficial side effects of increased robustness.

8:00 AM, *CONTINUED*

TRACK | SESSION LENGTH | BADGE ACCESS

C-Suite View — 50 MIN — FC

What Sennacherib Taught Me about Security: How to Translate Cyber-Speak CXO-R02

***Mary Ann Davidson**, Chief Security Officer, Oracle*

If you work for Sennacherib, King of Assyria, you need to speak Akkadian. If you work in cybersecurity, you need to speak many languages beside Geek to be understood by those who need to get it.

Cloud Security & Virtualization — 50 MIN — FC

Kubernetes Runtime Security: What Happens if a Container Goes Bad? CSV-R02

***Jen Tong**, Security Advocate, Google*

Kubernetes security discussions often focus on safe configurations and deployments. This talk will focus on a different aspect: runtime security. Runtime security mitigates damage done by a compromise.

Cryptography — 50 MIN — FC

MAC and Authenticated Encryption CRYP-R02 ✿

***Bart Mennink**, Radboud University, Nijmegen; **Yu Sasaki**, NTT Secure Platform Laboratories*

Techniques on message authentication code (MAC) and authenticated encryption (AE) will be discussed.

TOPIC 1: Universal Forgery and Multiple Forgeries of MergeMAC and Generalized Constructions
Authors: Tetsu Iwata; Virginie Lallemand; Gregor Leander; Yu Sasaki

TOPIC 2: Linking Stam's Bounds with Generalized Truncation
Authors: Bart Mennink

Governance, Risk & Compliance — 50 MIN — FC

What Makes a Good KRI? Using FAIR to Discover Meaningful Metrics GRC-R02

***Marta Palanques**, Director, Enterprise Risk Management, ADP; **Steve Reznik**, Director, Operational Risk Management, ADP*

This session will review characteristics of good and bad risk metrics, and introduce a method using sensitivity analysis to identify key risk indicators.

Hackers & Threats — 50 MIN — FC

Business Email Compromise: Operation Wire Wire and New Attack Vectors HT-R02

***Anne Connell**, Cybersecurity Engineer, CMU – SEI – CERT*

This talk will analyze "Operation Wire Wire" to detail how BEC attacks chose targets, methods of obtaining information, the new attack vectors, how the money travels, and offers new defense techniques.

= Top-rated speaker. 2x = Session given twice. △ Space is limited; no press allowed. ✿ Advanced session.
Sessions and speakers are subject to change; visit www.rsaconference.com or check the pocket guide or mobile app for room locations and up-to-date information.

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8:00 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Hackers & Threats Advanced	50 MIN	FC

Cryptojacking Meets IoT HTA-R02

***Sherri Davidoff**, CEO, LMG Security; **Matt Durrin**, Security Consultant, LMG Security*

Hackers have a new way to profit off your security cameras, smart lighting, and even your fancy coffeepot: cryptojacking. Watch an infection of an IoT device with the Mirai botnet and mine Monero.

Hackers & Threats Advanced 2x	50 MIN	FC

What's Your Game Plan? Leveraging Apple's Game Engine to Detect Threats HTA-T08R

***Patrick Wardle**, Co-Founder, Digita Security*

To detect new Mac malware, a behavior-based approach is needed. Our open-source monitoring framework provides input to a rule-based system that leverages Apple's game engine to detect threats.

Human Element	50 MIN	FC

Cheaper by the Dozen: Application Security on a Limited Budget HUM-R02

***Christopher Romeo**, CEO, Security Journey*

Do you have one million dollars to spend on application security? If not, learn which projects fit together to solve AppSec problems. Explore OWASP projects: purpose, usage, risk, HR and advice on starting.

8:00 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Identity	50 MIN	FC

Securing Intel PC for FIDO Support: Industry Standard to Remove Passwords IDY-R02

***Nitin Sarangdhar**, Senior Principal Engineer, Intel Corporation*

This session will cover how password removal is accomplished by FIDO industry standard and best practices to implement FIDO Authenticators on Intel trusted execution environment–based PCs.

Learning Labs △	3 HRS	FC

Threat Hunting across Thousands of Multicloud Workloads LAB3-R02

***Matthew Chiodi**, Chief Security Officer, Public Cloud, Palo Alto Networks; **Gaurav Kumar**, CTO, RedLock*

Are you sure your cloud environments are really safe? Get your hands dirty threat hunting across multiple public cloud environments utilizing a combination of open source and commercials tools.

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BitSight's Security Ratings Platform

drives usage of critical security applications including: Vendor Risk Management & Security Performance Management.

Risk-based and outcome-driven, BitSight enables security and risk leaders to make intelligent, data-driven security decisions to measurably reduce cyber risk.

bitsight.com

8:00 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Mobile & IoT Security	50 MIN	FC

Manufacturers Approach towards Cybersecurity Threats Targeting Healthcare MBS-R02

MODERATOR: ***Jonathan Bagnall****, Sr. Security Manager, Product Security & Services Office (PSSO), Royal Philips*
PANELISTS: ***Phil Englert****, System Director, Technology Operations, Retired – Catholic Health Initiatives;* ***Roberta Hansen****, Director, Product Cybersecurity, Abbott;* ***Michael McNeil****, Global Product Security & Services Officer, Royal Philips;* ***David Nathans****, Product Security Office, Siemens Healthcare*

Improving medical device and services cybersecurity. What do manufacturers, medical device owners and regulators need to consider?

Professional Development	50 MIN	FC

Mushrooming Economic Inequality Menaces Security: Here's How to Fix It PROF-R02

Laura Koetzle*, Vice President, Group Director, Forrester Research*

Today's consumer data monopolies, automation and economic concentration combine to fuel economic inequality. In this session, learn how we got here, why this is our problem and how to fix it.

Protecting Data & the Supply Chain Ecosystem	50 MIN	FC

Software Bill of Materials: Progress toward Transparency of Third-Party Code PDAC-R02

Allan Friedman*, Director of Cybersecurity, NTIA / US Department of Commerce*

How to assemble, share and use third-party component data? An update and initial outcomes from an NTIA-convened process on SBOMs, with input from different sectors.

RSAC Sandbox	1.5 HRS	ALL

SANS Core NetWars Experience — Intro to Capture the Flag SBX2-R1

Chris Elgee*, Builder & Breaker, Counter Hack Challenges; Co-hosted by* ***Women's Society in Cyberjutsu*** *(WSC)*

SANS NetWars Experience develops and tests your information security skills in a safe, interactive environment, while having a little fun with your fellow IT security professionals.

RSAC Sandbox	1 HR	ALL

Wireless Offense and Defense, Explained and Demonstrated! SBX3-R1

Rick Farina*, Senior Product Manager, WLAN Software Security, Aruba;* ***Rick Mellendick****, Chief Security Officer, Process Improvement Achievers LLC*

This session will discuss the use of radio frequency that is often overlooked for network enumeration and attack. Without understanding the offensive attacks an organization can't perform effective defense.

8:00 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Security Mashup	50 MIN	FC

Threat Hunting Using 16th-Century Math and Sesame Street MASH-R02

Vernon Habersetzer*, Sr. Enterprise Technical Expert, Walmart*

Uncover unique and unusual behaviors in any sized network through the simple, yet effective hunting methods covered in this session. These methods can be applied to any network or endpoint data.

Security Strategy & Architecture	50 MIN	FC

Future Forests: Realistic Strategies for AD Security & "Red Forest" Architecture STR-R02

Katie Knowles*, Security Consultant, MWR InfoSecurity*

This session will investigate a realistic process to implement Microsoft's Red Forest for Active Directory. This recommended journey integrates lessons learned from both attackers and defenders.

Technology Infrastructure & Operations 2x	50 MIN	FC

Election Hacking is No Longer Theoretical: Russians Are Pwning Our Votes TECH-R02

James Foster*, CEO, ZeroFOX;* ***Avi Rubin****, Professor, Johns Hopkins University*

Election hacking is real. The vulnerability of modern elections has never been greater and the advanced challengers to the systems, processes and infrastructure are quickly gaining more ground.

9:10 AM

RSAC Sandbox	30 MIN	ALL

How Long to Boom: Understanding and Measuring ICS Hacker Maturity SBX4-R1

Sergio Caltagirone*, Director, Threat Intelligence, Dragos*

ICS hackers don't start by disrupting electric grids but mature over time. Using threat intelligence we model ICS threat maturity to determine individual threat risk and predict threat timelines.

9:20 AM

Analytics Intelligence & Response	50 MIN	FC

Joining Forces: Transforming Cybersecurity through Diversity and Data AIR-R03

MODERATOR: ***Heather King****, Chief Operating Officer, Cyber Threat Alliance*
PANELISTS: ***Jeannette Jarvis****, Director Product Marketing, Fortinet, Inc.;* ***Michelle Martinez****, Senior Threat Intelligence Analyst, Rapid 7;* ***Kathleen Whitbey****, Program Manager, CTI Information Sharing, Palo Alto Networks*

Stakeholders are joining forces to share threat intelligence for the good of all and the internet as a whole, and women bring diverse perspectives offering solutions to problems facing the industry.

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9:20 AM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Application Security & DevSecOps	50 MIN	FC

Stop That Release, There's a Vulnerability! ASD-R03

Christine Gadsby*, Head of Product Security Operations, BlackBerry*

Join us to explore the security development life cycle and how to prioritize software security fixes.

Blockchain & Applied Crypto	50 MIN	FC

Raiding Lost BTC and Other Cryptocurrencies BAC-R03

Konstantinos Karagiannis*, CTO, Security Consulting, BT Americas*

Ways to recover lost BTC and other cryptocurrencies. The techniques you'll learn come not only from ongoing crypto lab research and experimentation but real-world lessons learned.

Blockchain & Applied Crypto 2x	50 MIN	FC

Mechanical Backdoors in Cold War Encryption Machines BAC-T08R

Marcus Sachs*, Chief Security Officer, Pattern Computer*

Many stories have been told about breaking the Enigma. This talk will cover mechanical Hagelin cipher devices that were sold "pre-broken" during the Cold War, and used by some countries into the 1990s.

9:20 AM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Bridging the Gap: Cybersecurity + Public Interest Tech	50 MIN	FC

Introduction: Public Interest Technologists and Cybersecurity PITC-R03

MODERATOR: ***J. Bob Alotta****, Astraea Foundation*
PANELISTS: ***Matt Mitchell****, Tactical Tech;* ***Bruce Schneier****, Fellow and Lecturer, Harvard Kennedy School*

Public interest technologists apply technological expertise to further the public interest. In this session, we'll talk about who and how—and what needs to be done in the future.

C-Suite View	50 MIN	FC

Diversity and Inclusion: Impacting Culture to Create a More Creative Environment CXO-R03

MODERATOR: ***Michael Palmer****, VP and CISO, National Football League*
PANELISTS: ***Alissa Abdullah, Ph.D.****, VP, Chief Information Security Officer, Xerox Corporation;* ***Roland Cloutier****, Staff VP, Global Chief Security Officer, ADP;* ***Emily Heath****, VP & CISO, United Airlines;* ***Jason Witty****, CISO, JP Morgan*

Diversity and inclusion positively impact security organizations, but there's still work to do. CISOs will share their experiences in their drive to change cultures within and outside of their organizations.

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9:20 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Cryptography	50 MIN	FC

Side Channel and Leakage Resilience CRYP-R03 ⚙

***Liron David**, Tel-Aviv University; **Antonio Faonio**, IMDEA Software Institute*

Topics on side channel attacks and leakage resilience cryptography will be discussed.

TOPIC 1: Poly-Logarithmic Side Channel Rank Estimation via Exponential Sampling
Authors: Liron David; Avishai Wool

TOPIC 2: Efficient Fully-Leakage Resilient One-More Signature Schemes
Authors: Antonio Faonio

Governance, Risk & Compliance	50 MIN	FC

NIST Cybersecurity Framework and PCI DSS GRC-R03

***Troy Leach**, Chief Technology Officer, PCI Security Standards; **Emma Sutcliffe**, Senior Director, Data Security Standards, PCI Security Standards Council*

This session will cover PCI SSC's current efforts to map controls between the NIST Cybersecurity Framework and PCI DSS.

Hackers & Threats	50 MIN	FC

Anatomy of Phishing Campaigns: A Gmail Perspective HT-R03

***Nicolas Lidzborski**, Security Lead – Senior Staff Software Engineer, Google; **Ali Zand**, Software Engineer, Google*

This talk will summarize the insights from the latest evolution of phishing attacks as seen by Gmail.

Hackers & Threats Advanced	50 MIN	FC

Malicious, Misbehaving or Misunderstood? Making Bad USBs Good Again HTA-R03 ⚙

***Eric Knapp**, Chief Engineer, Director of Innovation, Honeywell; **Peter Viscarola**, Consulting Partner, OSR Open Systems Resources, Inc.*

Deep dive into the USB protocol, to understand how USB can be as difficult and dangerous as it is useful. A hacked e-cigarette will illustrate how a USB attack works, and how to defend against it.

Human Element	50 MIN	FC

Don't Hand Me That! The Art of Incident Analysis HUM-R03

***Kristy Westphal**, VP, CSIRT, Union Bank*

This talk will explore various cases where gut feeling wasn't the best way to analyze a security event and the consequences that came from an improper analysis.

Identity	50 MIN	FC

Decentralized Identity: No Promises Edition IDY-R03

***Pamela Dingle**, Director of Identity Standards, Microsoft; **Preeti Rastogi**, Principal Software Engineer, Microsoft*

Decentralized identity promises amazing benefits. Join us for an overview of how public keys stored on a ledger might act as an anchor for digital trust and architectures evolving to leverage that trust.

9:20 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Learning Labs △	2 HRS	FC

Mental Health in Cybersecurity: Preventing Burnout, Building Resilience LAB1-R03

***Ryan Louie**, Psychiatrist, Foundation Physicians Medical Group, Inc.*

Mental health directly impacts the daily work and lives of cybersecurity professionals. This session will discuss the stressors unique to cybersecurity, burnout and how to build mental resilience.

Learning Labs △	2 HRS	FC

Cybersecurity Leadership Effectiveness Using the 7-S Framework LAB2-R03

***Todd Fitzgerald**, Managing Director/CISO, CISO SPOTLIGHT, LLC*

How do we know if the CISO's security program has accounted for all the components to be effective? This session will examine cybersecurity strategy, structure, staff, skills, style and shared values.

Learning Labs △	2 HRS	FC

Cyber Defense Matrix Reloaded LAB4-R03 ⚙

***Sounil Yu**, Chief Security Scientist, Bank of America*

This session will show new use cases of the Cyber Defense Matrix, including how to measure controls; align them against emerging threats; and manage your security program through design patterns.

Mobile & IoT Security	50 MIN	FC

Fixing the Mess of IoT Security MBS-R03

***Ken Munro**, Partner, Pen Test Partners*

With a live demo this talk will show how an IoT device can be hacked and explore why authorities still fail to deal with this growing issue. We'll also give advice for parents/kids/friends about IoT security.

Peer2Peer △	50 MIN	FC

"Next-Next-Gen Security 3.0": Truth and Lies P2P1-R03

***Pete Lindstrom**, Vice President for Security Strategies, IDC*

This P2P will address the latest and greatest security tools and methods to help determine which ones are unlikely to succeed and which have real merit to contribute to a strong security program.

Peer2Peer △	50 MIN	FC

Making MITRE ATT&CK™ Work for You: Sharing Best Practices for Success P2P2-R03

***Katie Nickels**, ATT&CK Threat Intelligence Lead, MITRE*

This session will bring together ATT&CK users to share best practices and lessons learned, allowing participants to leave with actionable insights to improve their defenses.

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9:20 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Peer2Peer △	50 MIN	FC

De-Bugging Legal Issues in Bug Bounty Programs and VDP
P2P3-R03

***Peter Fisk**, Attorney, Lane Powell PC*

VDP is a legal device as much as it is technical. Some of the basic issues are known—safe harbor, scope, disclosure—but on the whole there is no standard legal playbook yet. Let's change that.

Policy & Government	50 MIN	FC

Investigating IoT Crime: The Value of IoT Crime Classification
PNG-R03

*MODERATOR: **Evan Perez**, Senior Justice Correspondent, CNN*
*PANELISTS: **Anthony J. Ferrante**, Global Head of Cybersecurity and Senior Managing Director, FTI Consulting, Inc.; **Jordan Kelly**, Senior Managing Director, FTI Consulting; **Aristedes Mahairas**, Special Agent in Charge, Federal Bureau of Investigation (FBI)*

Our presentation proposes a comprehensive approach towards cybercrime interpretation through a framework of three separate and complementary views to achieve actionable recommendations.

Professional Development	50 MIN	FC

Women in Cybersecurity: Finding, Attracting and Cultivating Talent PROF-R03

***Mandy Galante**, Director of the Information Technology Institute, Mater Dei Prep High School, The SANS Institute; **Michele Guel**, Distinguished Engineer/ IoT Security Strategist, Cisco Systems*

From cyber-competitions to camps, internships and careers, this session will summarize what works and what doesn't in increasing the participation of young women in cybersecurity.

Protecting Data & the Supply Chain Ecosystem	50 MIN	FC

Context-Based Data Sensitivity Classification PDAC-R03

***Anchit Arora**, Program Manager, Cisco Systems; **John Cashman**, Information Security Architect, Cisco Systems*

Importance of context-based models for enterprises as the foundation of data identity preserving capabilities such as data tagging and lead to effective data protection.

Security Mashup	50 MIN	FC

NONE of Us Are as Smart as ALL of Us MASH-R03

***Wade Baker**, Partner, Cyentia Institute; **Jay Jacobs**, Data Scientist, Cyentia Institute*

We analyze 1,000+ recent security industry reports using various machine learning and meta-analysis techniques to share consensus lessons found deep within our corpus of published research.

Security Strategy & Architecture	50 MIN	FC

Security Learns to Sprint: DevSecOps STR-R03

***Tanya Janca**, Senior Cloud Developer Advocate, Microsoft*

This talk will explain what security teams need to adjust in order to turn DevOps into DevSecOps, by weaving security into each of the "Three Ways," with steps audience members can start immediately.

Malwarebytes

What do Businesses want when they get Impacted by Cyberthreats?

MALWAREBYTES ENDPOINT PROTECTION & RESPONSE

WE DON'T JUST DETECT CYBERTHREATS, WE FIX THEM

Come to a live demo @ Malwarebytes

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9:20 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Sponsor Special Topics	50 MIN	ALL

The Upside Down—The Roles & Responsibilities of Cybercrime Syndicates SPO1-R03

***Maya Horowitz**, Director, Threat Intelligence & Research, Check Point Software Technologies Ltd.; **Oded Vanunu**, Head of Products Vulnerability Research, Check Point Software Technologies Ltd.*

Cybercrime has shifted from the "the lone wolf" operator to a well-organized and structured money-making machine. Take a deep dive into the underground roles and structures.

Sponsor Special Topics	50 MIN	ALL

Please see Addendum for session details.

Sponsor Special Topics	50 MIN	ALL

Effectiveness vs. Efficiency: 10 Capabilities of the Modern SOC SPO3-R03

***Oliver Friedrichs**, VP, Security Automation and Orchestration, Splunk*

In this session, Splunk will share the 10 must-have capabilities of the modern SOC that focus on bringing efficiency to security teams and optimizing their security workflows.

Technology Infrastructure & Operations	50 MIN	FC

Protecting Your Achilles Heel: Managing Security Risk in Your Legacy Product Portfolio TECH-R03

***Kyle Brunell**, Connected Product Security Leader, EY*

Legacy products were not developed with today's threats in mind yet are expected to operate long into the future. Security is a pervasive challenge that cannot be addressed by security teams alone.

9:30 AM

RSAC Early Stage Expo Briefing Center	20 MIN	ALL

IoT WiFi is the Hacker's Greenfield, It Cannot Wait to WAP3 BC-R1ESE

***Shlomo Touboul**, Founder & CEO, WifiWall*

The ultrafast IoT network deployments require better WiFi security. Those 2.4GHz WiFi networks, cannot wait for an upgrade and need to secure the existing implementations.

9:40 AM

RSAC Sandbox	30 MIN	ALL

I Belong Here SBX4-R2

***Michelle Mullinix**, Digital Analysis and Investigations, Executive Office For US Attorneys*

I had no mentors, no guidance beyond my DD 214. I made a path in cybersecurity. Then I started sharing what I did with coworkers and students and other veterans. Before I knew it, I was the mentor.

10:00 AM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
RSAC Early Stage Expo Briefing Center	20 MIN	ALL

Privileged Access Management: Making it Affordable and Easy BC-R2ESE

***Peter Senescu**, Founder, Xton Technologies LLC*

Are you tired of enterprise grade PAM tools that are so expensive and hard to manage that they are never fully implemented or worse put off to next year's budget?

10:20 AM

RSAC Sandbox	40 MIN	ALL

Run for Your Life—No Literally—Do It! SBX1-R1

*MODERATOR: **Lisa Green**, Director, People Relations, Independent Security Evaluators*
*PANELISTS: **Katie Curran**, Information Security Engineer, Blackline; **Kat Fitzgerald**, Principal Security Architect, Zebra Technologies; **Xena Olsen**, Cyber Threat Intel Analyst, Discover Financial Services*

Despite their benefits, smart devices open people up to new attacks that they may have not considered, such as an aid to attackers in domestic abuse and harassment.

10:30 AM

Expo Briefing Center North	30 MIN	ALL

Don't Let the Lights Go Out: Inside the Mind of a Power Hacker BC-R1N

***Joseph Carson**, Chief Security Scientish and Advisory CISO, Thycotic*

This session will explore a real-world hack into a power station to explain the planning, perimeter security, engines and SCADA controls. Learn the challenges of reporting to the board and lessons learned.

Expo Briefing Center South	20 MIN	ALL

Resolve and Evolve: Machine Learning for Email Threat Protection BC-R1S

***Dena Bauckman**, CISSP, VP, Product Management, Zix*

As email threats become more advanced, machine learning is a technique being used to detect these attacks. Learn the latest about machine learning and how it is changing the threat landscape.

RSAC Early Stage Expo Briefing Center	20 MIN	ALL

DevOps, Cloud Sprawl and Security: A Complicated Relationship BC-R3ESE

***Paul McCarty**, Founder & Engineer, SecureStack*

DevOps inspired automation gone wild + the clouds endless capacity increases risk and costs. Paul McCarty talks about how to tame the Cloud Sprawl beast by implementing real DevSecOps principles.

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THURSDAY SESSION DETAILS

BADGE ACCESS: ***FC*** *= Open to Full Conference Registrants only •* ***ALL*** *= Open to all attendees*

10:40 AM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Bridging the Gap: Cybersecurity + Public Interest Tech	50 MIN	FC

Public Interest Tech in Silicon Valley PITC-R05

Mitchell Baker*, Chairwoman, Mozilla Corporation;* ***Cindy Cohn****, EFF*

Silicon Valley is at the epicenter of the ongoing technological transformation of human society. How can technologists become forces for the public interest within their own organizations?

Peer2Peer △	50 MIN	FC

Getting Started with a Quantitative Cyber-Risk Program
P2P1-R05

Anthony Martin-Vegue*, Director, Information Security Risk, Informatica*

Join a discussion on implementing a quantitative cyber-risk program, such as Factor Analysis of Information Risk (FAIR), at your company.

10:40 AM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Peer2Peer △	50 MIN	FC

Internet Data Privacy Regulation: Not If, but How and by Whom
P2P2-R05

Andrea Little Limbago*, Chief Social Scientist, Virtru*

The battle is on to define the future of the Internet. This session will discuss global laws and policies reshaping the Internet, moves to protect data privacy, and the impact on global business and democracy.

Peer2Peer △	50 MIN	FC

Can Cybersecurity Awareness Be Trained? P2P3-R05

Gopal Padinjaruveetil*, CISO, Auto Club Group*

Awareness is not a behavior. Behavior is not just an action. Behavior is the visible byproduct of complex internal processes. Changing how people think and behave is complicated and nonlinear.

Unsecured privileged accounts add risk to your business anywhere they exist—100% of advanced cyber attacks involve them. Seamlessly protect privileged accounts across the enterprise—on premises, in the cloud and on your endpoints with CyberArk. **Visit our Booth N 6253** to learn why the world's leading organizations prioritize privileged account security with CyberArk to detect and mitigate threats.

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THURSDAY SESSION DETAILS

11:00 AM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
RSAC Early Stage Expo Briefing Center	20 MIN	**ALL**

Medical Workflows Are the Key to Healthcare Cybersecurity
BC-R4ESE

***Leon Lerman**, CEO, Cynerio*

In this session we will demonstrate a different way of looking at medical device communications that not only addresses zero-day threats but also allows healthcare security teams to enforce protection in a way that has no risk of interfering with clinical operations.

RSAC Sandbox	30 MIN	**ALL**

Hello? It's Me, Your Not So Smart Device. We Need to Talk.
SBX1-R2

***Alex Balan**, Chief Security Researcher, Bitdefender*

A quick crash course into hardware hacking, chasing IoT botnets, remotely mass hacking IoTs and live demos at each step.

11:10 AM

Expo Briefing Center North	30 MIN	**ALL**

Identity Iceberg Ahead: Machine Identities and Their Need for Protection BC-R2N

***Michael Thelander**, Director, Product Marketing Venafi*

Machine identities and their authentication—using certificates, digital keys and code signing—are the safety net under our information economy. Learn how to protect them with three key concepts.

11:30 AM

RSAC Early Stage Expo Briefing Center	20 MIN	**ALL**

ArecaBay Force Field: Continuous API Security Powered by a Network Engine BC-R5ESE

***Lebin Cheng**, CEO, ArecaBay Inc.; **Ravi Balupari**, Head of Engineering and Security, ArecaBay Inc.*

API data breach is on the rise thanks to advanced threats at payload object level. ArecaBay continuously discover/monitor/secure all API flows (north-south and east-west), with zero Dev/DevOps impact.

RSAC Sandbox	1 HR	**ALL**

Bluetooth Reverse Engineering: Tools and Techniques SBX3-R2

***Mike Ryan**, Founder, ICE9 Consulting*

Learn how to reverse engineer and hack Bluetooth devices using the tools and techniques discussed in this talk. Whether you're a Bluetooth newbie or a pro, you'll learn something.

11:40 AM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
RSAC Sandbox	2 HRS	**ALL**

SANS Core NetWars Experience SBX2-R2

***Chris Elgee**, Builder & Breaker, Counter Hack Challenges*

SANS NetWars Experience develops and tests your information security skills in a safe, interactive environment, while having a little fun with your fellow IT security professionals.

12:00 PM

Bridging the Gap: Cybersecurity + Public Interest Tech	50 MIN	**FC**

Working in Civil Society PITC-R07

***Sarah Aoun**, Digital Security Technologist; **Peter Eckersley**, Partnership on AI; **Harlo Holmes**, Director of Newsroom Digital Security, Freedom of the Press Foundation; **John Scott-Railton**, Senior Researcher, Citizen Lab*

Bringing a technological perspective into civil society can transform how organizations do their work. This session will examine how this transformation can happen from a variety of perspectives.

Expo Briefing Center North	30 MIN	**ALL**

Managing Effective Security Policies in a Hybrid Enterprise Network BC-R3N

***Reuven Harrison**, Chief Technology Officer, Tufin*

This session explores some of the new elements of the modern hybrid enterprise including cloud, micro-services and DevOps. The session will offer an approach to managing a hybrid security policy.

Peer2Peer △	50 MIN	**FC**

Data Travel Hygiene: Security Vulnerability at Border Crossings
P2P1-R07

***Brian Warshawsky**, Systemwide Export Control Office, Insider Threat Program Senior Officer, and ITAR Empowered Official, University of California Office of the President*

Failure to protect mobile device contents at border crossings exposes organizations and individual travelers to legal action, prosecution and viral scorn. Discussion of the new best practices.

Peer2Peer △	50 MIN	**FC**

Where Does Your Budget Go? P2P2-R07

***Todd Inskeep**, Principal, Cyber Security Strategy, Booz Allen Hamilton*

If companies spend 10 percent of the IT budget on security, where should that budget go? How do you optimize spend against the identify/protect/detect/respond/recover framework?

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12:00 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Peer2Peer △	50 MIN	**FC**

Vehicle-to-Infrastructure Cybersecurity: Securing Transportation's Future P2P3-R07

Christopher Waters*, Cyber Solutions Technical Leader, GDIT*

Join this P2P session about current and emerging security mechanisms in transportation infrastructure and connected/autonomous vehicle communications. Help build security the right way!

12:30 PM

RSAC Early Stage Expo Briefing Center	20 MIN	**ALL**

A Modern Approach to CSIRT Using Osquery BC-R6ESE

Milan Shah*, Co-Founder & CTO, Uptycs, Inc*

Learn how to implement comprehensive IR capability and maximize ROI on open source tooling with a SaaS model that is powered by Uptycs and osquery; the universal endpoint agent released by Facebook.

12:40 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Expo Briefing Center North	30 MIN	**ALL**

From Endpoint to Any Point: Defending the New Perimeter with Cloud Security BC-R4N

Gill Langston*, Senior Product Manager, Avast*

Both point products and on-prem appliances have limitations. Learn why SMBs need to break free from costly appliances and develop a cloud security stack that protects users in the office or on the go.

1:00 PM

RSAC Early Stage Expo Briefing Center	20 MIN	**ALL**

Defense by Reason of Economics BC-R7ESE

Ben Schmidt*, CSO, PolySwarm*

A lot of cybersecurity solutions focus on driving up the cost for the attacker. We are flipping the equation by making economic incentives constant, accessible, and attractive for good defenders.

iboss® Secure Cloud Gateway

Secure user internet access on any device, from any location, in the cloud

Shift the focus from defending perimeters to following users for consistent cloud security in the office, at home, and on the road—no appliances required.

Learn More at Booth N 5553

1:10 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
RSAC Sandbox	30 MIN	**ALL**

Hunt Advanced Attackers on a Budget Less than the GDP of a Small Country SBX4-R3

***John Strand**, Owner, Black Hills Information Security*

Don't have a budget of a Fortune 5 company? This talk is for you. The talk will cover new attack tools and free techniques to detect them. Come for the new "hacks." Stay for the detection techniques!

1:30 PM

Analytics Intelligence & Response	50 MIN	**FC**

Purple Team at Scale AIR-R09

***Jason O'Dell**, Director of Incident Response and Hunt, Walmart*

This session will provide examples, lessons learned and practical advice for implementing continuous purple teaming at scale based on experiences at the world's largest retailer.

Application Security & DevSecOps	50 MIN	**FC**

Cover Your aaS with DevSecOps ASD-R09

***Cindi Carter**, Vice President, Chief Security Officer, Mede/Analytic; **Yaron Levi**, CISO, Blue Cross and Blue Shield of Kansas City*

Presenters will share their story about making security part of the culture for an organization with 3,500 developers who didn't want to have anything to do with security.

Blockchain & Applied Crypto	50 MIN	**FC**

Using High-Entropy Encryption for Enterprise Collaboration BAC-R09

***Aaron Turner**, CEO, Hotshot Technologies; **Jonathan Warren**, CTO, HighSide*

An in-depth discussion of how to use high-entropy elliptic curve cryptography. From how the keys can be created in a distributed way to avoid security problems, revoked to restrict data access.

Bridging the Gap: Cybersecurity + Public Interest Tech	50 MIN	**FC**

Government Needs You PITC-R09

***Travis Moore**, TechCongress; **Hashim Mteuzi**, Senior Manager, Network Talent Initiative, Code for America; **Gigi Sohn**, Distinguished Fellow, Georgetown Law Institute for Technology Law & Policy; **Ashkan Soltani**, Independent Consultant, Soltani LLC*

Government needs technologists at all levels. In this session, you'll hear how public interest technologists are having an impact on government.

C-Suite View	50 MIN	**FC**

Communicating with the Board CXO-R09

***Tim Callahan**, SVP of Global Security and Chief Security Officer, Aflac Inc.; **Richard Clarke**, CEO, Good Harbor Security Risk Management*

This fireside chat will dig into essential elements (regulatory and best practice) of cyber-program communication, including strong two-way communication between the CISO and the board, and building trust.

1:30 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Cloud Security & Virtualization	50 MIN	**FC**

Zero-Trust Networking Is Facilitating Cloud Transformation CSV-R09

***Richard Stiennon**, Chief Research Analyst, IT-Harvest*

The CIO's journey to a cloud-first strategy. The endgame is one where applications are hosted in the cloud and visible only to authorized users. Real-world examples of success provided.

Cryptography	50 MIN	**FC**

Block Cipher: Cryptanalysis CRYP-R09

***Gembu Ito**, Nagoya University; **Baoyu Zhu**, Department of Computer Science and Technology, Tsinghua University*

Cryptanalytic attacks on block cipher algorithms will be discussed.

TOPIC 1: MILP-Based Differential Attack on Round-Reduced GIFT
Authors: Baoyu Zhu; Xiaoyang Dong; Hongbo Yu

TOPIC 2: Quantum Chosen-Ciphertext Attacks against Feistel Ciphers
Authors: Gembu Ito; Akinori Hosoyamada; Ryutaroh Matsumoto; Yu Sasaki; Tetsu Iwata

Governance, Risk & Compliance	50 MIN	**FC**

How to Measure Ecosystem Impacts GRC-R09

***Jay Jacobs**, Data Scientist, Cyentia Institute; **Adam Shostack**, President & Consultant, Shostack & Associates*

The deployment of DMARC for email security is a case study of how to measure security. This talk will cover measuring DMARC adoption, what could be measured and couldn't, and lessons for your projects.

Hackers & Threats Advanced	50 MIN	**FC**

Reverse Engineering Attribution: The Man Behind the Man Behind the Curtain HTA-R09

***John Miller**, Deputy Director, Threat Intelligence, FireEye; **Jayce Nichols**, Senior Director of Collection & Research, FireEye*

Threat actors can manipulate attribution analysis techniques; this session will talk about the implications.

Human Element	50 MIN	**FC**

Awareness at Scale: Creating Risk-Aware Cultures in Big Companies HUM-R09

*MODERATOR: **Tom Pendergast**, Chief Learning Officer, MediaPro, Inc.*
*PANELISTS: **Kemi Okutubo**, Senior Information Security Manager, International Monetary Fund; **Ellen Powers**, Information Security Communication Strategist, Intel Corporation; **Deborah Walter**, Manager, Information Security Training and Awareness, AmerisourceBergen*

Scaling a security awareness program to a global employee population in multiple languages requires planning, focus and lots of support. Come learn how it's done.

= Top-rated speaker. 2x = Session given twice. △ Space is limited; no press allowed. ⚙ Advanced session.
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1:30 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Identity	50 MIN	FC

Blockchain-Based Identity: Exploring the Messy Space between Promise and Reality IDY-R09

MODERATOR: ***Joni Brennan****, President, DIACC*
PANELISTS: ***Anil John****, Technical Director, DHS S&T Silicon Valley Innovation Program, Department of Homeland Security, Science & Technology;* ***Rene McIver****, Chief Security Officer, SecureKey Technologies Inc.;* ***Adam Migus****, Principal, The Migus Group, LLC;* ***Zhijun Zhang****, Lead Security Architect, The World Bank Group*

This panel will explore business, legal and technical issues around blockchain-based identity that sit in the messy space and its current realistic ability to solve real-world challenges.

Learning Labs △	3 HRS	FC

Blockchain, Cryptocurrency, Smart Contracts and Initial Coin Offerings: A Technical Perspective LAB3-R09

Arijit Das*, Research Associate, Naval Postgraduate School;* ***Tom Plunkett****, Consulting Solutions Director, Oracle;* ***Captain Brandan R. Schofield****, Logistics Officer, United States Marine Corps;* ***Captain Brittany E. Snelgrove****, Logistics Officer, United States Marine Corps*

This interactive lab includes examples and best practices for blockchain, cryptocurrency, smart contracts and initial coin offerings.

1:30 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Mobile & IoT Security	50 MIN	FC

Engineering Out the Cyber-Risk to Protect What Matters Most MBS-R09

Andrew Bochman*, Grid Security Strategist, Idaho National Laboratories;* ***Virginia Wright****, Energy-Cyber Portfolio Manager, Idaho National Laboratory*

To help owners of the nation's most critical systems, this talk will introduce a new approach, drawn from engineering first principals, to take the highest value targets off the table.

Peer2Peer △	50 MIN	FC

Show Me Your Security Posture … or Else! P2P1-R09

Tammy Green*, Sr. Principal Security Architect, Symantec*

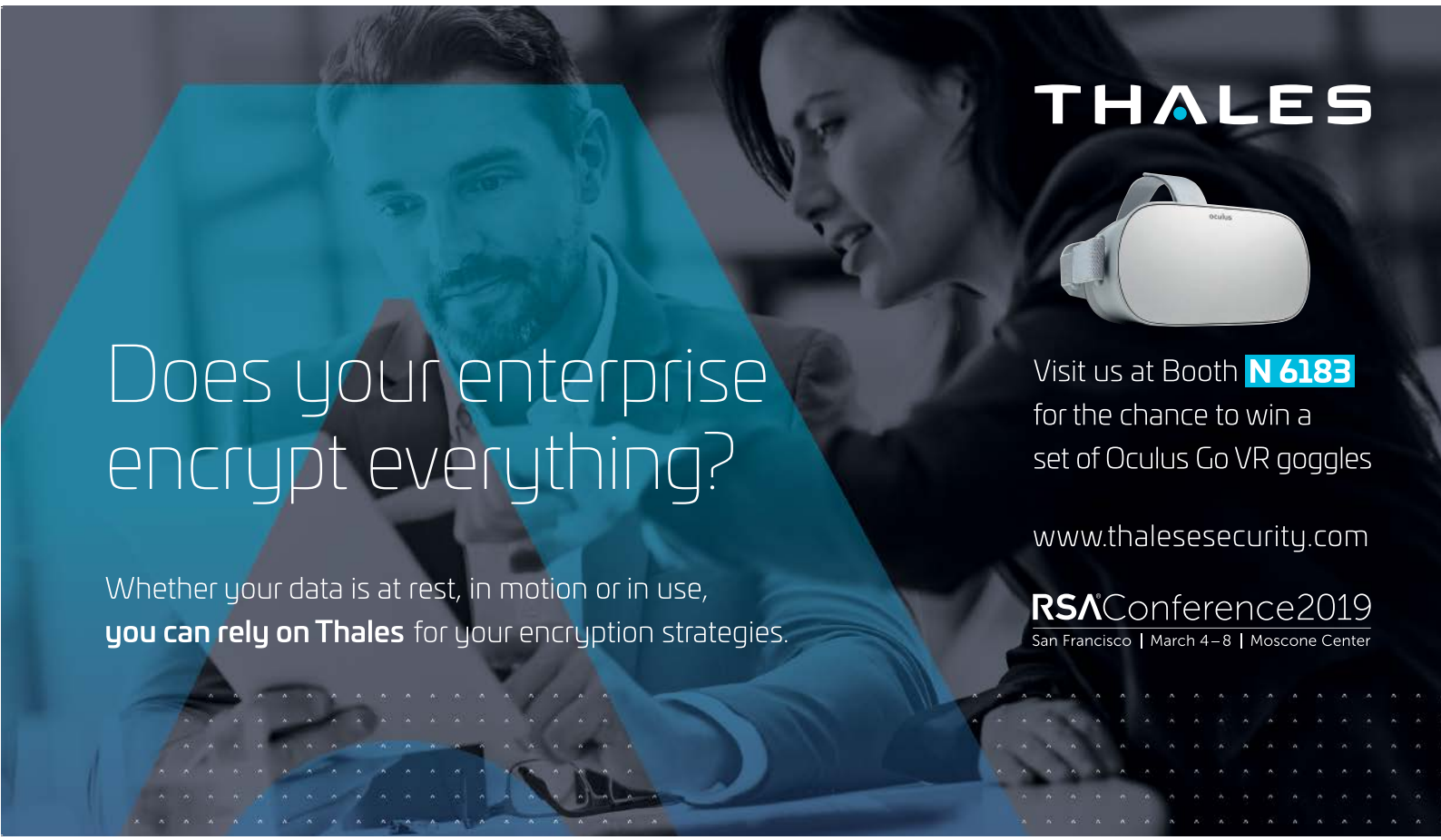
When should vendors be obliged to provide customers detailed information about the security stance of the products? What evidence is reasonable to provide and yet still useful to the customer?

Peer2Peer △	50 MIN	FC

Healthcare Cybersecurity: Helping Secure Emerging Health Technologies P2P2-R09

Sue Wang*, Cybersecurity Engineer, NIST; Technical Lead, MITRE Corporation*

A discussion of security vulnerabilities in the healthcare industries and how to ensure cybersecurity is baked into new healthcare products and services.



1:30 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Peer2Peer △	50 MIN	FC

High Speed, Low Drag: How Intelligence Teams Leverage Deep/Dark Web Data P2P3-R09

***Lance Cottrell**, Chief Scientist, Ntrepid Corporation*

If you find yourself in a fair fight, you didn't plan your mission properly. How can law organizations execute meaningful OSINT to combat real-world challenges? Join the conversation.

Professional Development	50 MIN	FC

How to Create a Truly Diverse Cyber-Workforce PROF-R09

*MODERATOR: **Shelley Westman**, Principal, EY*
*PANELISTS: **Jordan Jacobson**, Student, Cal Poly Pomona; **Dan Manson**, Professor of Computer Information Systems, California State Polytechnic University; **Mat Newfield**, CISO, Unisys*

A varied and unique panel consisting of a CISO, legal expert, educator and student will focus on how to build a diverse and varied workforce in cybersecurity and why this matters in the real world.

Protecting Data & the Supply Chain Ecosystem	50 MIN	FC

The Power of Ecosystems: A Look under the Supply-Chain Covers PDAC-R09

***Jennifer Bisceglie**, CEO, Interos Solutions, Inc.; **Mark Weatherford**, Global Information Security Strategist, Booking Holdings*

This session will visually explore the ecosystems of three nation-state supply chains from the headlines to demonstrate why end-to-end transparency of business ecosystems is critical.

Protecting Data & the Supply Chain Ecosystem 2x	50 MIN	FC

When the One You Trust Hurts You Most: Real-World Attack, Real-Time Response PDAC-T07R

***Bret Hartman**, VP and CTO, Security Business Group, Cisco Systems; **Jyoti Verma**, Technical Leader, Cisco Systems*

Experience a real-time, real-world supply chain attack fueled by rapid internal lateral movement. Watch as split-second, critical decisions are made to stop one of today's most challenging attacks.

RSAC Early Stage Expo Briefing Center	20 MIN	ALL

Proactively Managing OSS Security Risks in Corporate IT Environment BC-R8ESE

***Tae-Jin (TJ) Kang**, Co-Founder & CEO, Insignary*

In this session, we discuss the challenges related to securing the corporate IT environment in constant flux and a way to proactively manage open source software (OSS) security risks.

1:30 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Security Mashup	50 MIN	FC

Investigative Journalists Speak Out Year V MASH-R09

*MODERATOR: **Dan Hubbard**, Chief Product Officer, Lacework Inc.*
*PANELISTS: **Joseph Menn**, Investigative Journalist, Reuters; **Nicole Perlroth**, Cybersecurity Journalist, New York Times; **Kevin Poulsen**, Contributing Editor, Wired Magazine and Daily Beast*

One would think that after five consecutive years we would have nothing left to discuss, but that can't be further from the truth.

Security Strategy & Architecture	50 MIN	FC

Getting Product Cybersecurity Right in a Large Mature Corporation STR-R09

***Matthew Bohne**, Vice President, Chief Product Security Officer, Honeywell*

Lessons learned on what it takes to secure consumer and B2B products in a large multinational corporation. This talk will give practical techniques on how to evolve the company and gain support.

Security Strategy & Architecture	50 MIN	FC

Making Security a Best Practice in Every Aspect of Open Source STR1-R09

***Valecia Maclin**, General Manager, Customer Security & Trust Engineering, Microsoft*

Microsoft has grown its use of open source significantly over the past decade. This session will share lessons learned and ways the community is collaborating to help improve security practices.

Sponsor Special Topics	50 MIN	ALL

Cyber-Risk Management: New Approaches for Reducing Your Cyber-Exposure SPO2-R09

***Kevin Flynn**, Sr. Product Marketing Mgr., Tenable*

This session will describe new ways to objectively measure cyber-risk to help guide strategic decision-making, thus allowing organizations to effectively prioritize and benchmark risk management efforts.

Sponsor Special Topics	50 MIN	ALL

The Future Is Hybrid: Key Considerations for Cloud and DevOps SPO3-R09

***Lamar Bailey**, Director, Security Research and Development, Tripwire*

This session will explore the key considerations for expanding security operations to the cloud—from managing risk, to building trust across hybrid, physical, virtual, public/private cloud environments.

Technology Infrastructure & Operations	50 MIN	FC

Schrodinger's Pentest: Scoping Entanglement TECH-R09

***Laurent Desaulniers**, Intrusion Testing Detector, GoSecure*

Obtain better value in pentesting, by asking the hard questions and by learning to differentiate between buzzword-compliance and actual security testing.

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THURSDAY SESSION DETAILS

*BADGE ACCESS: **FC** = Open to Full Conference Registrants only • **ALL** = Open to all attendees*

1:40 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
RSAC Sandbox	30 MIN	**ALL**

Internal Affairs: Building Incident Command Frameworks through Diplomacy SBX4-R4

***Dana-Megan Rossi**, Assoc. Director, Product Security Policy, Strategy & Incident Response, Becton, Dickinson and Company*

This discussion will identify key strategies and techniques for building a command structure that facilitates decision making and tactical execution.

2:00 PM

Learning Labs △	2 HRS	**FC**

Fine-Tuning Your Cyber-Defense Technologies with the ATT&CK Framework LAB1-R10

***Lane Thames**, Senior Security Researcher, Tripwire*

Learn how to fine-tune your cybersecurity technology stacks such as deception and preemptive controls using MITRE's Adversarial Tactics, Techniques and Common Knowledge (ATT&CK) Framework.

2:00 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Learning Labs △	2 HRS	**FC**

Let's Make Risk a Game! 4,000 Cyber-Risks in Your Hand LAB2-R10

***Joel Benge**, Strategist, ADG Creative; **Earl Crane**, Founder and Chairman, Emergynt*

Join us as we unleash a terrible "what-if?" machine and explore 4,000 potential cyber-loss scenarios—in the form of a physical model. Come early and to get a free deck to model your own cyber-risks.

Learning Labs △	2 HRS	**FC**

Everything You Need to Know about Cybersecurity and Privacy Law in Two Hours! LAB4-R10

***Christopher Pierson**, Founder & CEO, BLACKCLOAK; **James Shreve**, Partner and Chair of the Cybersecurity Practice, Thompson Coburn LLP*

Understanding the most important cybersecurity and privacy laws is key to your job and success. Join us for a tour of these laws, some issue-spotting exercises and lots of fun in this learning lab.

2:20 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
RSAC Sandbox	30 MIN	**ALL**

Internet of Laws: Navigating the IoT Legal Landscape SBX1-R3

***Dr. Amit Elazari Bar On**, Director, Global Cybersecurity Policy, Intel Corporation, and Lecturer, UC Berkeley School of Information (MICS)*

This talk will give IoT practitioners and security researchers a quick intro to the variety of legal and regulatory concepts that govern IoT landscape focusing on recent trends and potential pitfalls.

2:50 PM

Analytics Intelligence & Response	50 MIN	**FC**

Incident Response beyond Enterprise IT AIR-R11

***Jason Escaravage**, Senior Vice President, Booz Allen Hamilton; **Phillip Hamill**, Principal – OT Delivery Lead, Booz Allen Hamilton*

Enterprises need to be ready to handle incidents in new domain areas—cloud, OT, mobile, etc. This session will speak to the challenges of building out effective IR readiness across evolving domains.

Application Security & DevSecOps	50 MIN	**FC**

API Security—Assume Possible Interference AST-R11

***Julie Tsai**, Infosec Leader*

What happens when the unexpected happens? Design for security and be able to diagnose and pivot quickly to adjust to real threats.

Blockchain & Applied Crypto	50 MIN	**FC**

How Bad Incentives Led to Crypto-Mining Malware, and What to Do about It BAC-R11

***Sandy Carielli**, Director of Security Technologies, Entrust Datacard*

Consider systems principles about incentives, trace the rise of crypto-mining malware to early incentive design for public blockchain and consider the pros and cons of alternative incentive models.

Bridging the Gap: Cybersecurity + Public Interest Tech	50 MIN	**FC**

Changing Academia PITC-R11

***Latanya Sweeney**, Harvard; **Danny Weitzner**, MIT CSAIL*

Higher education needs to incorporate a public interest perspective in technology departments. This session will look at some efforts to build these sorts of interdisciplinary classes, programs and institutes.

C-Suite View	50 MIN	**FC**

The Fine Art of Creating a Transformational Cybersecurity Strategy CXO-R11

***Jinan Budge**, Principal Analyst, Forrester Research; **Andrew Rose**, Chief Security Officer, Vocalink, a Mastercard Company*

It's time to rise and transform your security capability. Join this session to learn how to successfully kick off, create, build and deliver a strong security transformation and strategy.

2:50 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Cloud Security & Virtualization	50 MIN	**FC**

The Advantage of Ignoring the Long Tail of Security: A Product View CSV-R11

***James DeLuccia**, Cybersecurity Cloud B2C & B2B, New Products, Honeywell*

Practical product engineering cybersecurity focus that tackles the most critical to ensure a delightful customer experience, based on hundreds of deployed cloud products in B2B and B2C environment.

Cryptography	50 MIN	**FC**

Block Cipher: Design and Evaluation CRYP-R11

***Si Gao**, University of Bristol; **Kai Hu**, Key Lab of Cryptologic Technology & Information Security, Ministry of Education, Shandong University*

Design and evaluation of block cipher algorithms will be discussed.

TOPIC 1: Automatic Search for a Variant of Division Property Using Three Subsets
Authors: Kai Hu; Meiqin Wang

TOPIC 2: Constructing TI-friendly Substitution Boxes Using Shift-Invariant Permutations
Authors: Si Gao; Arnab Roy; Elisabeth Oswald

Governance, Risk & Compliance	50 MIN	**FC**

Math Is Hard: Compliance to Continuous Risk Management GRC-R11

***Max Blumenthal**, Senior Cyber Assurance Architect, Sandia National Laboratories; **Christie Gross**, Cybersecurity Solutions Engineer Lead, Delta Dental of California*

Participants will learn how to transition from a compliance mindset to a holistic and quantitative risk management approach that integrates assessment, monitoring and risk-analysis activities.

Governance, Risk & Compliance 2x	50 MIN	**FC**

GDPR: How to Work Out If Your Security Is "Appropriate" GRC-W03R

***John Elliott**, Data Protection Specialist*

GDPR requires organizations to implement "appropriate technical and organizational measures" to protect personal data. This session will help you to determine what's appropriate for your organization.

Hackers & Threats	50 MIN	**FC**

Hunt Advanced Attackers on a Budget Less than the GDP of a Small Country HT-R11

***John Strand**, Owner, Black Hills Information Security*

Don't have a budget of a Fortune 5 company? This talk is for you. The session will cover new attack tools and free techniques to detect them. Come for the new "hacks." Stay for the detection techniques!

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2:50 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Hackers & Threats Advanced	50 MIN	FC

Outsmarting Smart Contracts HTA-R11

***Adi Ashkenazy**, VP Product, XM Cyber; **Shahar Zini**, System Architect, XM Cyber*

Smart contracts are essentially immutable, open-source blocks of code with the innate capability to transfer value. Presenters will examine past failures and the likely future of smart-contract security.

Human Element	50 MIN	FC

Automation vs. Human Eyes: Optimizing Human Intuition for Success HUM-R11

***Tonia Dudley**, Security Solutions Advisor, Cofense*

Your highly-skilled SOC analysts need to know what to do—not them burn out quickly spending most of their day with eyes on glass. In this session, we'll look at how to balance human skill & automation.

Identity	50 MIN	FC

Adversarial Machine Learning against Modern Behavioral Biometrics Systems IDY-R11

***Ajit Gaddam**, Senior Director, Security Architecture Engineering, Visa Inc.; **Heng Tang**, Staff Software Security Engineer, Visa Inc.*

As behavioral biometrics–based authentication gains wide adoption, attackers are utilizing adversarial machine learning to subvert them. This talk will showcase novel attacks and defensive countermeasures.

2:50 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Mobile & IoT Security	50 MIN	FC

Why Industrial IoT Security Is Really about Saving Lives MBS-R11

MODERATOR: ***Emily Miller**, Director, National Security & Critical Infrastructure Programs, Mocana*
PANELISTS: ***Galina Antova**, Co-Founder, Claroty; **John Felker**, Director,National Cybersecurity & Communications Integration Center (NCCIC), CS&C, Department of Homeland Security; **Lorie Wigle**, Vice President, Software & Services Group, Intel Corporation*

Industrial control systems cannot tolerate downtime, or risk human safety in any way. A compromised system can result in millions of dollars lost—but even more devastatingly—the loss of life.

Peer2Peer △	50 MIN	FC

24 hours, 240 Million Threat Events P2P1-R11

***Timothy Brown**, Vice President, Security, SolarWinds*

This discussion will draw on insourced and outsourced IT experience to understand how to break down barriers, bridge gaps, overcome objections and leverage the right strategies for SOC success.

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- Manage vulnerabilities
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- Audit changes in Active Directory

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2:50 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Peer2Peer △	50 MIN	FC

Cyber-Innovation: How Do We Stimulate Innovation in the US, Europe and Asia P2P2-R11

***Grace Cassy**, Co-Founder, CyLon*

An in-depth look at early-stage cyber-markets. Compare and contrast developments, challenges and investment landscapes in US, Europe and Asia, and discuss how to stimulate cyber-innovation globally.

Peer2Peer △	50 MIN	FC

Best Practices for Youth Outreach and Education in Cybersecurity P2P3-R11

***Heather Ricciuto**, Global Leader – Academic Outreach Programs, IBM Security*

This session will share industry best practices for youth outreach and education in cybersecurity. The discussion may expand to broader community outreach on cybersecurity.

Policy & Government	50 MIN	FC

Measuring Cybersecurity Effectiveness in a Threat-Based World PNG-R11

*MODERATOR: **Jeanette Manfra**, Assistant Secretary, Office of Cybersecurity and Communications (CS&C), Department of Homeland Security*
*PANELISTS: **Marianne Bailey**, Deputy National Manager (DNM) for National Security Systems (NSS) and Senior Cybersecurity Executive, National Security Agency; **Kevin Cox**, Program Manager, Cybersecurity and Infrastructure Security Agency; **Matthew Scholl**, Chief, Computer Security Division, NIST*

The panel will explore using threat data to help agencies protect information and detect and respond quickly to adversarial actions. They will also examine federal efforts to create better threat models.

Professional Development 2x	50 MIN	FC

Empowering International Security Teams PROF-R11

***Caroline Wong**, Chief Security Strategist, Cobalt.io*

Language barriers, cultural differences and inconvenient time zones can interfere with even the most capable of security teams. Learn how to effectively empower international teams.

Protecting Data & the Supply Chain Ecosystem	50 MIN	FC

How Understanding Risk Is Changing for Open Source Components PDAC-R11

***Chris Wysopal**, CTO, Veracode*

The presenter will discuss solutions for how to keep up with open source vulnerabilities.

RSAC Sandbox	30 MIN	ALL

U-Boot, I-Hack SBX1-R4

***Andrew Bindner**, Manager, Penetration Testing, Rapid7; **Carlota Bindner**, Security Associate, Rapid7*

Identify potential vulnerabilities and intellectual property loss when U-Boot is incorrectly configured on embedded devices. Live demos of attacker techniques for bypassing U-Boot security.

2:50 PM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Security Mashup	50 MIN	FC

Election Hacking: Trading Malware for Votes MASH-R11

***Kenneth Geers**, Chief Research Scientist, Comodo*

Politicians and hackers use malware to steal votes and influence elections. This research correlates two years of national elections and in-country malware detections.

Security Strategy & Architecture	50 MIN	FC

Lessons from Applying MITRE ATT&CK in the Wild STR-R11

*MODERATOR: **Richard Struse**, Chief Strategist, Cyber Threat Intelligence, MITRE Corporation*
*PANELISTS: **Jessica Payne**, Security Person, Microsoft; **Rachael Schweizer**, Cybersecurity Analytics Lead, Pfizer; **David Westgard**, Lead Engineer, Cyber Security, Target*

Hear from experts that use MITRE's ATT&CK knowledge base discussing what works, what doesn't and how to achieve measurable improvements in your security posture through the use of adversary knowledge.

Sponsor Special Topics	50 MIN	ALL

Cybersecurity Is All About Protecting the "Seams" SPO1-R11

*MODERATOR: **Javvad Malik**, Security Evangelist, AT&T Business*
*PANELISTS: **Jaime Blasco**, VP & Chief Scientist, Alien Labs, AT&T Business; **Frederick Lee**, Former CISO, Square; **Russell Spitler**, AVP, Product, AT&T Cybersecurity; **Bindu Sundaresan**, Principal Architect, AT&T Business*

Cybercrime is all about exploiting the "seams" in organizations' networks. Fighting this requires a collaborative and coordinated approach with people, process and technology working together.

Sponsor Special Topics	50 MIN	ALL

Protecting You Better with Advanced Malware Research SPO3-R11

***Juraj Janosik**, Senior Software Engineer, ESET; **Robert Lipovsky**, Senior Malware Researcher, ESET*

Advanced, award-winning malware research directly translates into better detection and protection technology.

Technology Infrastructure & Operations	50 MIN	FC

What Every Security Professional Needs to Know About WiFi 6 TECH-R11

***Avril Salter**, Wireless Strategic Technologist and Architect, Salter & Associates*

The next generation of WiFi products (WiFi 6) are here. This session will describe the key technical differences between Wi-Fi 6 and existing WiFi networks, and discuss the implication to network security.

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4:10 PM

TRACK / TOPIC	SESSION LENGTH	BADGE ACCESS
Bridging the Gap: Cybersecurity + Public Interest Tech	50 MIN	FC

The Future of Public Interest Tech PITC-R14

MODERATOR: ***Jenny Toomey****, Director, Internet Freedom, Ford Foundation*
PANELISTS: ***Bruce Schneier****, Fellow and Lecturer, Harvard Kennedy School;* ***Ben Wizner****, ACLU*

This closing session will sum up the day and discuss future directions for growing the field, funding trajectories, outstanding needs and gaps, and how you can get involved.

Peer2Peer △	50 MIN	FC

How Are You Monitoring SCADA? P2P1-R14

Gib Sorebo*, Security Consulting Senior Manager, Accenture*

This session will draw on the experience of participants to understand what ICS detection technologies they're exploring, what works, and what technologies and techniques need more improvement.

4:10 PM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Peer2Peer △	50 MIN	FC

What Will It Take to Eliminate Passwords for Authentication? P2P2-R14

Kim Wagner*, Senior Director, Identity and Risk Products, Visa*

Passwords are insecure—often too simple, forgotten or easily stolen. Biometrics offers stronger authentication but will it ever replace passwords to become the de facto approach? What would it take?

Peer2Peer △	50 MIN	FC

Cloud Access Security Broker Best Practices P2P3-R14

Joshua Atencio*, Senior Information Security Engineer, Aetna*

This session will spark a discussion around best practices and methodology when deploying and fully utilizing the investment of a CASB to reduce the risk within a company's environment.

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FRIDAY EVENTS & ACTIVITIES

7:30 AM – 8:30 AM
Various Locations

CONTINENTAL BREAKFAST*

Full Conference Pass holders, head directly to your chosen morning session. Breakfast is available in Moscone West Levels 2 & 3 and Moscone South Levels 2 & 3.

8:00 AM – 1:00 PM
Moscone West Street Level

BROADCAST ALLEY

Watch top security publications shoot live and record exclusive interviews.

KEYNOTES

Keynote abstracts can be found on page 36.

8:30 AM – 9:20 AM
South Esplanade

In the Wake of an Attack: Thoughts from a Seasoned CISO
***Bob Lord**, Chief Security Officer, DNC; **Dr. Hugh Thompson**, RSA Conference Program Chair, RSA Conference*

9:50 AM – 10:40 AM
South Esplanade

(Girl) Scouting for Talent: The Solution in the Next Generation
***Sylvia Acevedo**, Chief Executive Officer, Girl Scouts of the USA*

11:10 AM – 12:00 PM
South Esplanade

Engineering Trust and Security in the Cloud Era, Based on Early Lessons
***Quentin Hardy**, Head of Editorial, Google Cloud; **Suzanne Frey**, Vice President, Engineering, Google Cloud; **Amin Vadhat**, Google Fellow and Networking Technical Lead, Google*

8:30 AM – 12:00 PM
Locations Vary

TRACK SESSIONS*

See detailed information on following pages for descriptions.

9:30 AM – 11:30 AM
Moscone West 3022

JOB SEARCH 2019: INTERVIEW SKILLS & RESUME REVIEW WORKSHOP*

This workshop has two components—the first explores how to best present your skills and self to potential companies and the second is a resume review workshop.

12:30 PM – 1:15 PM
Moscone West Street Level

CONFERENCE CLOSING

***Tina Fey**, Writer, Actress, and Producer; **Dr. Hugh Thompson**, RSA Conference Program Chair, RSA Conference*

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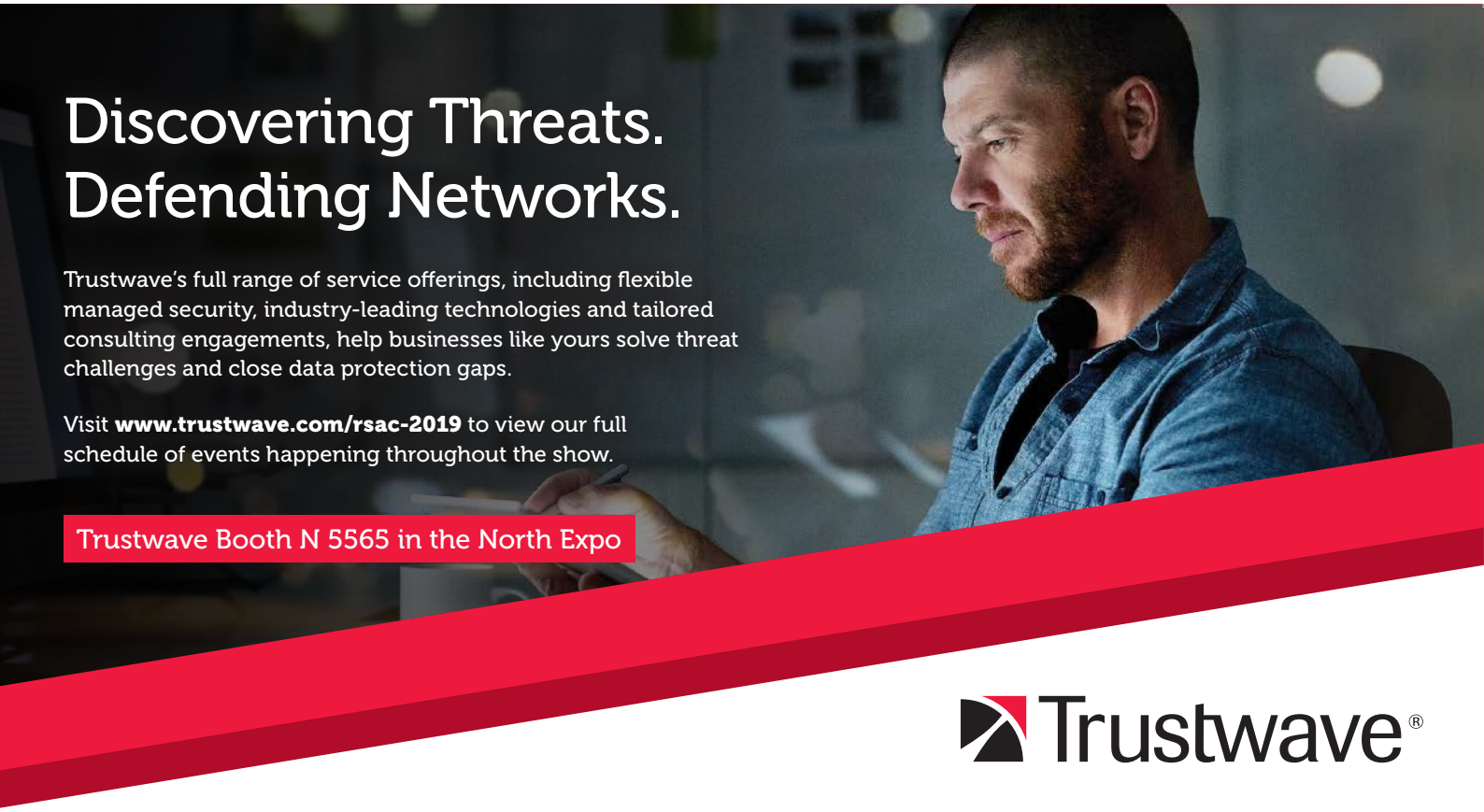

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8:30 AM

TRACK / TOPIC | SESSION LENGTH | BADGE ACCESS

Analytics Intelligence & Response — 50 MIN — FC

Use Model to Deconstruct Threats: Detect Intrusion by Statistical Learning AIR-F01

***Tao Zhou**, Senior Staff Algorithm Engineer, Alibaba*

This talk will describe how to identify unknown threats using statistical learning in large scale enterprise networks, and some tricks in performing pre-filter data and conducting post-correlate alarms.

Application Security & DevSecOps — 50 MIN — FC

Threat Modeling in 2019 ASD-F01

***Adam Shostack**, President & Consultant, Shostack & Associates*

Attacks always get better, so your threat modeling needs to evolve. Learn what's new and important in threat modeling in 2019. Take home ways to ensure your security engineering is up to date.

Blockchain & Applied Crypto — 50 MIN — FC

Key Management and Protection: Evaluation of Hardware, Tokens, TEEs and MPC BAC-F01

***Nigel Smart**, Professor, KU Leuven*

A review of the varied cryptographic key management and protection technologies available today, including emerging solutions designed to enhance security and usability in a dispersed environment.

C-Suite View — 50 MIN — FC

A New Employer-Driven Model of Cyber-Workforce Development For Dell CXO-F01

***Simone Petrella**, Chief Cyberstrategy Officer, CyberVista; **John Scimone**, Chief Security Officer, Dell Technologies*

Review a case study where job role and skills assessments were applied to Dell's core cyber-staff resulting in a more usable version of the NCWF along with a more effective workforce development path.

Cloud Security & Virtualization — 50 MIN — FC

Securely Deploying Micro Services, Containers & Serverless PaaS Web Apps CSV-F01

***Murray Goldschmidt**, Chief Operating Officer, Sense of Security Pty Ltd*

This presentation will address all the relevant information about the default security postures achieved by using public cloud and also the gotchas! Avoiding vendor defaults will render better outcomes.

Cryptography — 50 MIN — FC

Multiparty Computation and Application CRYP-F01

***Niek J. Bouman**, Technische Universiteit Eindhoven, the Netherlands; **Eleftheria Makri**, imec-COSIC, KU Leuven, Belgium*

Multiparty computation and its real-world applications will be discussed.

TOPIC 1: Fast Secure Comparison for Medium-Sized Integers and Its Application in Binarized Neural Networks
Authors: Mark Abspoel; Niek J. Bouman; Berry Schoenmakers; Niels de Vreede

TOPIC 2: EPIC: Efficient Private Image Classification (or: Learning from the Masters)
Authors: Eleftheria Makri; Dragos Rotaru; Nigel P. Smart; Frederik Vercauteren

8:30 AM, CONTINUED

TRACK | SESSION LENGTH | BADGE ACCESS

Governance, Risk & Compliance — 50 MIN — FC

Do You Know Your Organization's Top 10 Security Risks? GRC-F01

***Min-Hwei Liu**, Director, Information Security, Aetna*

Maintaining focus in a changing threat landscape—Top 10 Security Risks: steps to top 10 security risks; key success factors and metrics; steps to kick off this program in your organization.

Hackers & Threats — 50 MIN — FC

Phantom Menace, Episode I? The Attack that Undressed the Mexican Banks in '18 HT-F01

***Josu Ioza**, Information Security Advisor, Scotiabank*

An inside look into the 2018 SPEI (Interbanking Payment System in Mexico) attack, to not repeat history again.

Hackers & Threats Advanced — 50 MIN — FC

The New Gold Rush: How to Hack Your Own Best Mining Rig HTA-F01

***Roy Katmor**, CEO and Co-Founder, enSilo; **Udi Yavo**, CTO and Co-Founder, enSilo*

This talk will explain building a stealthy, decentralized platform mining rig with publicly available tools, and how techniques used by ransomware are now used for crypto-mining and how to protect against them.

Human Element — 50 MIN — FC

Designing Effective Security UX: If It's Not Usable, It's Not Secure HUM-F01

***Ranjeet Kumar Tayi**, User Experience Design Leader (Data Security Group), Informatica*

UX design plays a critical role in empowering people to protect their privacy by controlling their data. A human-centered design thinking approach to security can make products usable and secured.

Identity — 50 MIN — FC

4G to 5G Evolution: In-Depth Security Perspective IDY-F01

***Anand Prasad**, Chief Security Architect, Rakuten Mobile Networks*

We will present 4G security and issues followed by 5G security and security challenges from virtualization in 5G networks. We will conclude with a summary of 5G security enhancements expected in near future.

Mobile & IoT Security — 50 MIN — FC

Procuring IoT: Purchasing Guidance for Government Officials MBS-F01

***Daniel Kroese**, Associate Director, National Risk Management Center Cybersecurity and Infrastructure Security Agency, Department of Homeland Security*

Join the Department of Homeland Security for a briefing on IoT purchasing guidance, co-created by the tech industry to help the government make risk-informed decisions and drive demand for secure IoT.

FRIDAY SESSION DETAILS

8:30 AM, CONTINUED

TRACK | SESSION LENGTH | BADGE ACCESS

Mobile & IoT Security 2x | 50 MIN | FC

Anatomy of an Enterprise Mobile Security Incident MBS-W10R

***Aaron Turner**, CEO, Hotshot Technologies*

Based on a real-world situation, learn how mobile vulnerabilities have been used by attackers to gain access to sensitive enterprise information and credentials, including defeating soft tokens.

Policy & Government | 50 MIN | FC

A Separate Network for Critical Infrastructure: Is It a Good Idea? PNG-F01

*MODERATOR: **Robert Knake**, Senior Research Scientist, Northeastern University*
*PANELISTS: **Sharla Artz**, Vice President, Government Affairs, Policy & Cybersecurity, UTC; **Peter Fuhr**, Distinguished Scientist, Director, Grid Security, Tech Director UAS Research Center, Oak Ridge National Laboratory; **Samara Moore**, Director, Cybersecurity, Exelon*

Do utilities need a separate Internet? The National Infrastructure Advisory Council thinks so but is it practical? Come hear three practitioners debate the outcome of a yearlong study on the concept.

Professional Development | 50 MIN | FC

Five Secrets to Attract and Retain Top Tech Talent in Your Future Workplace PROF-F01

***Laurie Battaglia**, CEO & Workplace Strategist, Aligned at Work*

Are your top people leaving you and your organization? You the leader make the difference. Learn proven ways to attract and retain your top talent and keep them engaged at work.

Protecting Data & the Supply Chain Ecosystem | 50 MIN | FC

Infecting the Embedded Supply Chain PDAC-F01

***Zach Miller**, Software Engineer, in8 Solutions*

IoT devices are becoming more common and with that comes a litany of new development tools needed for these devices. Learn how these development tools can compromise your network.

Security Mashup | 50 MIN | FC

Saving Lives Using Social Networks MASH-F01

***Maria Namestnikova**, Web Analyst, Internet Child Safety Expert, Kaspersky Lab*

What does your child do on social networks? Do they hide or block their account from you? Does your child interact with strangers and share personal information with them but not with you?

Security Strategy & Architecture | 50 MIN | FC

STIR SHAKE'N SIP to Stop Robocalling STR-F01

***Daksha Bhasker**, Senior Security Architect, Comcast*

Thwart phone scam robocalls with secure architecture implementation of the STIR/Shaken (Secure Telephony Identity Revisited/Signature-based handling of Asserted Information using tokens) framework.

8:30 AM, CONTINUED

TRACK | SESSION LENGTH | BADGE ACCESS

Technology Infrastructure & Operations | 50 MIN | FC

SOC Automation, Enterprise Blueprinting and Hunting Using Open-Source Tools TECH-F01

***Brian Baskin**, Senior Threat Researcher, Carbon Black; **John Holowczak**, Senior Threat Analyst, Carbon Black*

With SOC visibility, moving beyond the interface and delving into the unknown aspects of a network is important. Discover ways to blueprint your network using readily available and native tools.

9:50 AM

Analytics Intelligence & Response | 50 MIN | FC

Vulnerabilities: What Is the Future AIR-F02

***Roberta Stempfley**, Director, CMU – SEI – CERT*

Artificial intelligence is creating a world with new threats and new attack surfaces. These issues will be explored in a lively back-and-forth between two experts.

Application Security & DevSecOps | 50 MIN | FC

DevSecOps for the Rest of Us! ASD-F02

***Sara Perrott**, Sr. Information Security Technology Engineer, BECU*

Traditional DevSecOps is very developer centric, but it doesn't have to be. Take your security ninja skills to the next level with automation!

Blockchain & Applied Crypto | 50 MIN | FC

Nation-State Exploitation of Cryptocurrencies BAC-F02

***Yaya Fanusie**, Senior Fellow, Foundation for Defense of Democracies; **Tom Robinson**, Chief Data Officer & Co-Founder, Elliptic*

Learn how cryptocurrencies are enabling nation-states to conduct espionage, evade sanctions, raise funds and engage in cyberwarfare.

C-Suite View | 50 MIN | FC

Developing Key Performance Indicators for Security CXO-F02

***James Tarala**, Principal Consultant, Enclave Security, LLC*

Learn practical steps to creating meaningful key performance indicators that can be easily communicated to leadership.

Cloud Security & Virtualization | 50 MIN | FC

Democratizing Cloud Security: Journey to Secure the Public Cloud CSV-F02

***Yunchao Liu**, Sr Software Engineer, Symantec; **Hardeep Singh**, Senior Principal Security Engineer, Symantec*

This session will take you through the presenters' journey of securing their AWS cloud environment and the workloads being migrated there.

= Top-rated speaker. 2x = Session given twice. Advanced session.
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9:50 AM, CONTINUED

TRACK | SESSION LENGTH | BADGE ACCESS

Cryptography — 50 MIN — FC

Secure Computation CRYP-F02

***Lucas Schabhüser**, Researcher, Technische Universität Darmstadt; **Liang Zhao**, Sichuan University, China*

Topics on secure computation will be discussed.

TOPIC 1: Context Hiding Multikey Linearly Homomorphic Authenticators
Authors: Lucas Schabhüser; Denis Butin; Johannes Buchmann

TOPIC 2: Revisiting the Secret Hiding Assumption Used in Verifiable (Outsourced) Computation
Authors: Liang Zhao

Governance, Risk & Compliance — 50 MIN — FC

What Does Cyber-Insurance Really Bring to the Table and…Are You Covered? GRC-F02

*MODERATOR: **Kara Owens**, Managing Director, Markel Corporation*
*PANELISTS: **Sarah Knight**, Senior Counsel, Privacy, Cybersecurity, and Information Governance, Gilead Sciences; **Stuart Panensky**, Partner, FisherBroyles, LLP*

Attendees of this session will gain a clear perspective of what benefits cyber-insurance can provide to their existing cybersecurity program.

Hackers & Threats — 50 MIN — FC

Advanced Smart Contract Hacking HT-F02

***Konstantinos Karagiannis**, CTO, Security Consulting, BT Americas*

If hacking Ethereum blockchain code is your passion, it's time to take your skills to the next level. Learn bleeding-edge exploits, and the killer skill of writing contracts to hack contracts.

Hackers & Threats Advanced — 50 MIN — FC

Blackbox Interpretability: Next Frontier in Adversarial ML Evasion HTA-F02

***Greg Ellison**, Data Scientist, Microsoft; **Holly Stewart**, Principal Research Manager, Microsoft*

The emerging field of blackbox interpretability promises deeper understanding of machine learning decisions, but it can also help hackers defeat your defenses. Learn how to use it for your benefit.

Human Element — 50 MIN — FC

Why Data-Driven Personalized Journeys Are the Future of Security Training HUM-F02

***Aika Sengirbay**, Sr. Information Security Program Lead, Autodesk;*
***Masha Sedova**, Co-Founder, Elevate Security*

Learn how Autodesk rethought security awareness training and leveraged behavioral data to create personal security journeys for each employee and unlocked behavior change companywide.

Identity — 50 MIN — FC

12 Ways to Hack 2FA IDY-F02

***Roger Grimes**, Data-Driven Defense Evangelist, KnowBe4*

All auth solutions can be hacked. Come learn at least 12 ways 2FA can be hacked, how 2FA works behind the scenes, what the holes are, how to hack it and how you can defend against those attacks.

9:50 AM, CONTINUED

TRACK | SESSION LENGTH | BADGE ACCESS

Mobile & IoT Security — 50 MIN — FC

Aviation Cybersecurity: Keeping the Wings On MBS-F02

***Peter Cooper**, Director, Pavisade; **Nathalie Feyt**, Chief Product Security Officer, Thales Avionics – AVS France*

Digitization in the aviation industry has produced a critical attack surface. This presentation will explore the global efforts to tackle the cybersecurity/safety challenge faced by the aviation industry.

Policy & Government — 50 MIN — FC

Behind the Headlines: A Public-Private Discourse on Cyber-Defense PNG-F02

*MODERATOR: **Theresa Payton**, CEO and Founder, Fortalice Solutions*
*PANELISTS: **Curtis Dukes**, Executive Vice President & General Manager, Security Best Pracices and Automation Group, Center for Internet Security; **John Felker**, Director, National Cybersecurity & Communications Integration Center (NCCIC), CS&C, Department of Homeland Security; **Neal Ziring**, Technical Director for the National Security Agency's Capabilities Directorate, National Security Agency (NSA)*

This panel will offer unpublished, coveted cyber-trends intelligence from key cyber-thinkers to help practitioners navigate crowded cyber-defense data points and take more proactive defensive action.

Professional Development — 50 MIN — FC

Why the Role of CISO Sucks and What We Should Do to Fix It! PROF-F02

***Gary Hayslip**, Vice President, CISO, WEBROOT; **Rick McElroy**, Head of Security Strategy, Carbon Black*

The role of CISO is an ever-slogging fight that grinds security executives with high stress and career risk. Let's talk about some ideas on how to help our peers thrive in this role.

Professional Development 2x — 50 MIN — FC

Empowering International Security Teams PROF-R11R

***Caroline Wong**, Chief Security Strategist, Cobalt.io*

Language barriers, cultural differences and inconvenient time zones can interfere with even the most capable of security teams. Learn how to effectively empower international teams.

Protecting Data & the Supply Chain Ecosystem — 50 MIN — FC

Blockchain Augmentation of the Trusted Supply Chain PDAC-F02

***Eduardo Cabre**, Product Development Engineering Manager, Intel Corporation; **Tom Dodson**, Supply Chain Security Architect, Intel Corporation*

Last year, we presented a Trusted Supply Chain to assure end users of the provenance and integrity of a platform. We return with an alternative blockchain implementation of the Trusted Supply Chain.

Security Mashup — 50 MIN — FC

Top 10 Security Disasters in ML: How Laurel and Yanny Replaced Alice and Bob MASH-F02

***Davi Ottenheimer**, Product Security, MongoDB*

If you thought confidentiality breaches were a crisis, are you ready to detect and prevent integrity failures at machine speed?

9:50 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Security Strategy & Architecture	50 MIN	FC

Introduction to Defending the Enterprise Using Automated SecOps STR-F02

***Tomasz Bania**, Cyber Defense Manager, Dolby*

This session will provide real-world insight on implementing automated security operations, for choosing a strategy, establishing a scope, planning the rollout and real-world examples.

Technology Infrastructure & Operations	50 MIN	FC

Intelligence-Driven Industrial Security with Case Studies in ICS Attacks TECH-F02

***Robert Lee**, CEO, Dragos, Inc.*

This talk will explore first-hand knowledge into industrial control system (ICS) cyberattacks and the lessons learned to drive the industry forward in the coming years.

11:10 AM

Analytics Intelligence & Response	50 MIN	FC

Law Enforcement: The Secret Weapon in the CISO's Toolkit AIR-F03

***John Fokker**, Head of Cyber Investigations, McAfee*

Enrich your expanding toolbox of security measures by working with law enforcement agencies (LEA) before, during or after a security breach.

Blockchain & Applied Crypto	50 MIN	FC

Key Management Architectures for Multinational Compliance BAC-F03

***Sundaram Lakshmanan**, Chief Technology Officer, CipherCloud*

Understand strategies for key management architectures that meet the needs of multinational corporations for data privacy, data protection, data sovereignty, data residency and compliance.

Cloud Security & Virtualization	50 MIN	FC

Secure Innovation in Public Cloud, Myth or Reality? CSV-F03

***Rehman Khan**, Director Cloud And Data Security, TD Ameritrade; **Brajesh Moni**, Cloud Security Consultant, TD Ameritrade*

Frictionless cloud security. Learn TD Ameritrade's journey to public cloud for innovation and enterprise initiatives.

Cryptography	50 MIN	FC

Privacy and Anonymity CRYP-F03

***Elizabeth Crites**, Brown University; **Yanhong Xu**, Nanyang Technological University, Singapore*

Cryptographic techniqes on privacy and anonimity will be discussed.

TOPIC 1: Delegatable Anonymous Credentials from Mercurial Signatures
Authors: Elizabeth C. Crites; Anna Lysyanskaya

TOPIC 2: Accountable Tracing Signatures from Lattices
Authors: San Ling; Khoa Nguyen; Huaxiong Wang; Yanhong Xu

11:10 AM, CONTINUED

TRACK	SESSION LENGTH	BADGE ACCESS
Governance, Risk & Compliance	50 MIN	FC

IMF Case Study: Metrics That Matter—Help Management with Decision-Making and Improve Security Posture of the Organization GRC-F03

***Sanaz Sadoughi**, Information Security Officer, International Monetary Fund*

Information security metrics presents a holistic view of the information security posture of the organization and helps management with decision-making to prioritize the investment to mitigate risk.

Hackers & Threats	50 MIN	FC

The Etiology of Vulnerability Exploitation HT-F03

***Jay Jacobs**, Data Scientist, Cyentia Institute; **Michael Roytman**, Chief Data Scientist, Kenna Security*

The presenters wondered why only some vulnerabilities were exploited in the wild. Their research led them on a journey towards a few dozen data points that helped them understand the probability of exploitation.

Hackers & Threats Advanced	50 MIN	FC

Behavior and Misbehavior: The First Ever RSAC SOC Report HTA-F03

***Jessica Bair**, Senior Manager, Advanced Threat Solutions, Cisco Security; **Percy Tucker**, Senior Manager, RSA; **Neil Wyler**, Threat Hunter, RSA*

One of the first things an attendee to any conference is looking for is the WiFi password, and RSA Conference is no different. But just what are you connecting to? What's happening on the back end? And really, just who're you sharing this network with?

Human Element	50 MIN	FC

Autism, Cybercriminals, Cybercrime and Employment HUM-F03

***Rebecca Ledingham**, Vice President Cybersecurity, Mastercard*

A significant number of cyber-offenders present with Autism disorders. Learn about people involved in the cybercrime environment by understanding the issues of offenders, victims and employees.

Identity	50 MIN	FC

Are Spoof-Proof Biometrics Really Possible? IDY-F03

***Stephanie Schuckers**, Director, Professor, Clarkson University, Center for Identification Technology Research*

Get the latest in spoof attack detection, testing and certification, and come away with best practices for secure biometric implementations from a globally recognized biometric security expert.

Mobile & IoT Security	50 MIN	FC

Changing the World with the UK's Code of Practice for Consumer IoT Security MBS-F03

***David Rogers**, Mobile Technology, Cyber Security & Standards Adviser, Department for Digital, Culture, Media & Sport (DCMS), UK*

The UK's Code of Practice for Consumer IoT Security, backed by open data global IoT security and privacy recommendations, aims to ensure products are secure by design. Learn how it works and what's coming next.

= Top-rated speaker. 2x = Session given twice. = Advanced session.
Sessions and speakers are subject to change; visit www.rsaconference.com or check the pocket guide or mobile app for room locations and up-to-date information.

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11:10 AM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Policy & Government	50 MIN	FC

Laboratories of Cyber Innovation—States Leading the Way PNG-F03

MODERATOR: ***David Forscey****, Senior Policy Analyst, National Governors Association*
PANELISTS: ***Deborah Blyth****, Chief Information Security Officer, State of Colorado;* ***Stephanie Helm****, Director, Massachusetts Cyber Center at Mass Tech Collaborative, Commonwealth of Massachusetts;* ***Peter Liebert****, Chief Information Security Office & Director, Office of Information Security, State of California;* ***Shawn Riley****, Chief Information Officer, State of North Dakota;* ***Mike Steinmetz****, State Cybersecurity Officer & Principal Homeland Security Advisor, State of Rhode Island*

Listen to a diverse group of cybersecurity leaders speak about the specific challenges and opportunities for states in cybersecurity and technology.

Professional Development	50 MIN	FC

Retaining and Growing Cybersecurity Talent: A Proven Model PROF-F03

Deidre Diamond*, Founder and CEO, CyberSN and Brainbabe*

To improve cybersecurity workforce retention companies must develop career development plans based on standardized, common-language projects and tasks. Fortune 500 case study to be shared.

Protecting Data & the Supply Chain Ecosystem	50 MIN	FC

Tales from the PSIRT: 10 Years of Bugs, Vulnerabilities and CVEs PDAC-F03

Jon Green*, VP and Chief Security Technologist, Aruba*

The Product Security Incident Response Team (PSIRT) is a critical part of keeping your IT infrastructure secure. But how do they function? We'll see how product companies go from discovery to CVE.

11:10 AM, *CONTINUED*

TRACK	SESSION LENGTH	BADGE ACCESS
Security Mashup	50 MIN	FC

Cybersecurity and Hospital Infection Control: Overlaps and Opportunities MASH-F03

Meghan Brett*, Hospital Epidemiologist, University of New Mexico School of Medicine;* ***Howard Poston****, Cyber R&D, The Cybermaniacs*

Cybersecurity and infection control are fields similar in threats and containment techniques. We provide an in-depth comparison between the fields focused on threat landscape and best practice.

Security Strategy & Architecture	50 MIN	FC

10 Lies You Tell Your Security Vendors—And What to Do Instead STR-F03

Michael Adler*, VP, Product – NetWitness Platform, RSA*

This session will review some of the issues that make it difficult for security vendors to meet the needs of customers and how to avoid those issues.

Technology Infrastructure & Operations	50 MIN	FC

Passwords and Patching: The Forgotten Building Blocks of Enterprise Security TECH-F03

Andrea Fisher*, Security Specialist, Microsoft;* ***Jon Wojan****, Partner Technical Architect, Microsoft*

The NSA hasn't responded to a zero-day attack in 24 months. Patching remains the biggest security issue until 2020. Get back to the basics and overcome foundational issues with patching and passwords.

Technology Infrastructure & Operations 2x	50 MIN	FC

Election Hacking is No Longer Theoretical: Russians Are Pwning Our Votes TECH-R02R

James Foster*, CEO, ZeroFOX;* ***Avi Rubin****, Professor, Johns Hopkins University*

Election hacking is real. The vulnerability of modern elections has never been greater and the advanced challengers to the systems, processes and infrastructure are quickly gaining more ground.

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GIAC Certifications develops and administers premier, professional information security certifications. More than 30 certifications align with SANS training and ensure mastery in critical, specialized infosec domains. GIAC certifications provide the highest and most rigorous assurance of cybersecurity knowledge and skill available to industry, government and military clients across the world.

The **International Association of Privacy Professionals** (IAPP) is the largest and most comprehensive global information privacy community and resource, helping practitioners develop and advance their careers and organizations manage and protect their data. Founded in 2000, the IAPP is a not-for-profit association that helps define, support and improve the privacy profession through networking, education and certification. More than just a professional association, the IAPP provides a home for privacy professionals around the world to gather, share experiences and enrich their knowledge.

The impact and sophistication of cybersecurity threats have created a global demand for professionals with cybersecurity expertise that is outpacing the supply. **ISACA**® developed Cybersecurity Nexus™ (CSX) to help fill the growing cybersecurity skills gap, provide cybersecurity guidance, training, credentials and career development for professionals at every stage of their careers, and help enterprises develop their cyber workforce. CSX, an innovative, holistic resource for cybersecurity solutions serves to highlight ISACA's continuing commitment to addressing the global need for skilled cybersecurity professionals.

(ISC)² is an international nonprofit membership association focused on inspiring a safe and secure cyber world. Best known for the acclaimed Certified Information Systems Security Professional (CISSP®) certification, (ISC)² offers a portfolio of credentials that are part of a holistic, programmatic approach to security. Our membership, over 130,000 strong, is made up of certified cyber, information, software and infrastructure security professionals who are making a difference and helping to advance the industry. Our vision is supported by our commitment to educate and reach the general public through our charitable foundation—The Center for Cyber Safety and Education™. Visit *www.isc2.org*.

SANS is the most trusted and by far the largest source for information security training and security certification in the world. It also develops, maintains, and makes available at no cost, the largest collection of research documents about various aspects of information security, and it operates the Internet's early warning system—the Internet Storm Center.

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The American Bar Association Section of Science & Technology Law (SciTech) sponsors the Law Track at RSA Conference 2019. SciTech has applied for Continuing Legal Education Credits in many mandatory CLE states for all sessions in this track. To sign-in for CLE credit, please visit the CLE Information Table during the Law Track Sessions in Marriott Marquis. Contact SciTech at (312) 988-5594 with any questions.

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APWG is the international coalition unifying the global response to cybercrime across industry, government and law-enforcement sectors, and NGO communities. APWG's membership worldwide is as global as its outlook with its directors, managers and research fellows advising national governments; global governance bodies such as the Organisation for Economic Co-operation and Development, the International Telecommunications Union and ICANN; hemispheric and global trade groups; and multilateral treaty organizations such as the European Commission, the Commonwealth of Nations, the G8 High Technology Crime Subgroup, Council of Europe's Convention on Cybercrime, the United Nations Office on Drugs and Crime and the Organization of American States. Operationally, APWG conducts its mission through: an exchange clearing more than 500 million data elements per month; the APWG.EU, the institution's European research chapter in Spain; and the STOP. THINK. CONNECT. cybersecurity awareness campaign.

CForum is an association of industry experts focused on continuing the discussion started during development of the "Framework for Improving Critical Infrastructure Cybersecurity" (the "Framework"). CForum provides an online community for information sharing and best practices to assist organizations in securing their environments. CForum's goal is to be an industry-led forum that discusses the topics surrounding the security practices, Framework, and how to evolve the Framework through version 2.0. Through the collaboration enabled by CForum we can help one another improve our security programs.

The **Cloud Security Alliance** is a not-for-profit organization with a mission to promote best practices and spread industry-wide education on security assurance within Cloud Computing. CSA is led by a broad coalition of industry practitioners, corporations, consumers, associations and other key stakeholders and serves as an incubator for international cloud standards. CSA's ever-expanding research and initiatives provide the industry with critical resources such as the Security Guidance and GRC Stack papers, Cloud Controls Matrix, CCSK training and certification, and the publicly accessible registry, CSA STAR.

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Data Security Council of India (DSCI) is a premier industry body on data protection in India, setup by NASSCOM®, committed to making the cyberspace safe, secure and trusted by establishing best practices, standards and initiatives in cybersecurity and privacy. DSCI works together with the Government and their agencies, Law Enforcement Agencies, industry sectors including IT-BPM, BFSI, CII, Telecom, industry associations, data protection authorities and think tanks for public advocacy, thought leadership, capacity building and outreach initiatives. For more information, visit: *www.dsci.in*.

Founded in 2002, the **Executive Women's Forum** (*www.ewf-usa.com)* is the largest member organization serving emerging leaders as well as the most prominent and influential female executives in Information Security, IT Risk Management Privacy. Our mission is to attract, retain and advance women in our field through education, leadership development and the creation of trusted relationships. We are committed to developing future leaders through our scholarship program and keeping kids safe online with the Cyber Security School Challenge. The dialogue that begins at our National Conference hosted by Alta Associates (*www.altaassociates.com*) on October 15 – 17, 2019, continues throughout the year during regional meetings, Cheer dinners, meet & greet events, mentoring and Leadership Journey programs. Our EWF Connect extends the access that occurs during EWF events via an 24/7 online interactive community. Become a member today!

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GlobalPlatform is a nonprofit industry association driven by approximately 100 member companies. Members share a common goal to develop GlobalPlatform's specifications, which are today highly regarded as the international standard for enabling digital services and devices to be trusted and securely managed throughout their lifecycle. GlobalPlatform protects digital services by standardizing and certifying a security hardware/firmware combination, known as a secure component, which acts as an on-device trust anchor. This facilitates collaboration between service providers and device manufacturers, empowering them to ensure the right level of security within all devices to protect against threats. Market sectors adopting GlobalPlatform technology include automotive, healthcare, government and enterprise ID, payments, premium content, smart cities, smart home, telecoms, transportation and utilities.

Founded by Internet pioneers, the **Internet Society** is a nonprofit organization dedicated to ensuring the open development, evolution and use of the Internet. Working through a global community of chapters and members, the Internet Society collaborates with a broad range of groups to promote the technologies that keep the Internet safe and secure, and advocates for policies that enable universal access. The Internet Society is also the organizational home of the Internet Engineering Task Force (IETF) and the Online Trust Alliance (OTA), which identifies and promotes security and privacy best practices that build consumer confidence in the Internet.

The **Information Systems Security Association** (ISSA) is dedicated to developing and connecting cybersecurity leaders globally. ISSA is the community of choice for international cybersecurity professionals dedicated to advancing individual growth, managing technology risk, and protecting critical information and infrastructure. The primary goal of ISSA is to promote management practices that will ensure the confidentiality, integrity and availability of information resources. ISSA facilitates interaction and education to create a successful environment for global information systems security and for the professionals involved. Members include practitioners at all levels of the security field in a broad range of industries such as communications, education, healthcare, manufacturing, financial and government.

The **National Cyber Security Alliance** (NCSA) is the nation's leading nonprofit, public-private partnership promoting cybersecurity and privacy education and awareness. NCSA works with a broad array of stakeholders in government, industry and civil society. NCSA's primary partners are DHS and NCSA's Board of Directors, which includes representatives from ADP; AT&T Services Inc.; Bank of America; CDK Global, LLC; CertNexus; Cisco; Cofense; Comcast Corporation; ESET North America; Facebook; Google; Intel Corporation; Marriott International; Mastercard; Microsoft Corporation; Mimecast; NXP Semiconductors; Raytheon; Salesforce; Symantec Corporation; Visa; and Wells Fargo. NCSA's core efforts include National Cyber Security Awareness Month (October); Data Privacy Day (Jan. 28); STOP. THINK. CONNECT.™, the global online safety awareness and education campaign co-founded by NCSA and the Anti-Phishing Working Group with federal government leadership from DHS; and CyberSecure My Business™, which offers webinars, web resources and workshops to help businesses be resistant to and resilient from cyberattacks. For more information on NCSA, please visit *staysafeonline.org/about-us/overview*.

OASIS is a nonprofit consortium that advances open standards and open source development on a global scale. It offers standards and open source projects a path to recognition in international policy and procurement. Any initiative for developing code, APIs, specifications or reference implementations can find a home at OASIS. Each project operates independently under industry-approved process and IPR policies. Some of the most widely adopted standards are developed at OASIS including: KMIP, STIX, TAXII, OpenC2 and SAML. Many of these have gone on to be published as ISO, IEC or ITU standards. New work is encouraged, and all are welcome to participate. OASIS members can be found in 100+ countries on virtually every continent. Major multinational companies, SMEs, government agencies, universities, research institutions, consulting groups and individuals are represented.

The OpenStack Foundation (OSF) supports the development and adoption of open infrastructure globally, across a community of 100,000 individuals in 187 countries, by hosting open source projects including OpenStack, Airship, Kata Containers, StarlingX, and Zuul, as well as supporting communities of practice, including datacenter cloud, edge computing, NFV, CI/CD and container infrastructure.
www.openstack.org/foundation

Industry association **SIMalliance** advocates the protection of sensitive connected and mobile services to drive their creation, deployment and remote management across multiple industries and use cases, including IoT. It promotes the essential role of a tamper resistant secure hardware component in delivering secure applications and services across all devices that can access wireless networks. SIMalliance facilitates delivery of secure connected services globally, by: anticipating market needs and developing enabling specs; collaborating with industry stakeholders to ensure new use cases and business models can be securely supported; clarifying and recommending existing technical standards relevant to the implementation of strong device security; promoting the availability of its members' standardised, global security infrastructure, together with an established process landscape, which offers an instant solution to many challenges associated with bringing mobile services to market and managing them remotely.

NON-PROFIT SPONSOR

The **Global Cyber Alliance** (GCA) is an international, cross-sector effort dedicated to eradicating cyber-risk and improving our connected world. We achieve our mission by uniting global communities, implementing concrete solutions, and measuring the effect. GCA, a 501(c)3, was founded in September 2015 by the Manhattan District Attorney's Office, the City of London Police and the Center for Internet Security. Learn more at *www.globalcyberalliance.org*.

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Is Your Data Safe?

At Varonis, protecting your file and email systems from cyberattacks and insider threats is our primary focus. We're fighting a different battle - so your data is protected first. Not Last.

Learn more at **www.varonis.com/rsac**

VARONIS | Booth N 5579

EXPLORE THE EXPO

EXPO HOURS

Monday, March 4	Tuesday, March 5	Wednesday, March 6	Thursday, March 7
Welcome Reception 5:00 PM – 7:00 PM	10:00 AM – 6:00 PM	10:00 AM – 6:00 PM Expo Pub Crawl 4:30 PM – 6:00 PM	10:00 AM – 3:00 PM

BROWSE EXHIBITORS in Alphabetical Order with Company Descriptions, on pages 119–179.
Alphabetical Order Listing on pages 187–189.

SEE EXPO FLOOR PLANS on pages 190–193.

You can also find Expo information on our website—or download our app! Visit *www.rsaconference.com/app1* or scan this QR code to get started.

DON'T MISS THESE SPECIAL HIGHLIGHTS:

WELCOME RECEPTION

Monday, 5:00 PM – 7:00 PM

Join your peers in the North and South Expos while kicking off RSA Conference in style at the Welcome Reception. Enjoy drinks and light fare on Monday evening from 5 to 7 PM. Get exclusive access to the exhibitors you've been waiting to meet; network with peers as you preview cutting-edge products from over 650 leading information security companies.

Sponsored by:

BRIEFING CENTER

Tuesday – Thursday, Ongoing

Stop by one of the two Briefing Centers for 20- to 30-minute technical demos featuring top companies in information security. Obtain answers to challenges currently facing your company and further enhance your security strategies for the coming year. For the presentation schedule, see pages 115–118; for session abstracts consult the sessions detail pages for each day.

EXPO PUB CRAWL

Wednesday, 4:30 PM – 6:00 PM

Enjoy your choice of complimentary beer, wine and non-alcoholic beverages as you visit sponsoring companies' booths to learn about their latest products, services and innovations. Located at select sponsor booths within both expo halls on Wednesday, March 6, from 4:30 to 6 PM.

PUB CRAWL SPONSORS:

adaptiva Booth S 3238	ATTACKIQ Booth N 4206	COFENSE Booth N 4436	CRYPTSOFT Booth S 2457	EGNYTE Booth S 2267
egress Booth N 4134	GARNER Booth S 2063	HID Booth N 4514	INFOSEC INSTITUTE Booth N 4303	keeper Booth S 2166
LOGICGATE Booth S 1968	NETSPI™ Booth N 4400	NYOTRON Booth N 4429	SEQURETEK Booth N 6385	UL Booth N 4617

BRIEFING CENTER SCHEDULE

Stop by one of the two Briefing Centers for 20- to 30-minute technical demos featuring top companies in information security. Obtain answers to challenges currently facing your company and further enhance your security strategies for the coming year. Briefing Center presentations are open to all badge types.

For session abstracts see the Session Details pages for each day.

TUESDAY, MARCH 5

North Expo

All Briefing Center sessions in the North Expo are 30 minutes long.

10:20 AM	THALES	**Kubernetes Deployments: How Not to Get Hacked** BC-T1N ***Sol Cates**, VP of Technology Strategy, CTO, Thales eSecurity Inc.*
11:00 AM	BAE SYSTEMS	**Context-Wrapped Security: Driving Down Business Risk** BC-T2N ***Colin McKinty**, Cyber Strategy – Americas, BAE Systems*
11:40 AM	SONICWALL	**Leverage the Latest Threat Intelligence to Stay Ahead of Cyberthreats** BC-T3N ***Dmitriy Ayrapetov**, Executive Director, Product Management, SonicWall*
12:20 PM	Centrify ZERO TRUST SECURITY	**Zero-Trust Privilege for the Modern Threatscape** BC-T4N ***David McNeely**, Chief Strategy Officer, Centrify*
1:00 PM	Trustwave	**Hunting the Hunters: Going Behind Enemy Lines** BC-T5N ***Brian Hussey**, VP, Cyber Threat Detection and Response, Trustwave*
1:40 PM	CYBERARK	**Highlighting Security Blind Spots in the DevOps Butler** BC-T6N ***Nimrod Stoler**, Security Researcher, CyberArk*
2:20 PM	iboss	**Next-Gen Cloud Security Architectures for the Cloud-First Future** BC-T7N ***Christopher Park**, Chief Technical Implementation Officer, iboss*
3:00 PM	FORESCOUT	**The Five Stages of Security Change in the World of Converged IT/IoT/OT** BC-T8N ***Ellen Sundra**, VP, Systems Engineering, ForeScout*
3:40 PM	proofpoint.	**Protecting Your Organizations' Very Attacked People** BC-T9N ***Jennifer Cheng**, Director, Product Marketing, Proofpoint*
4:20 PM	f5	**Mind the Gap: Four Key Areas Where Infosec Expectations Fall Short of Reality** BC-T10N ***Raymond Pompon**, Principal Threat Research Evangelist, F5 Networks*
5:00 PM	pindrop	**Authentication and Security at the Speed of Conversation** BC-T11N ***Vijay Balasubramaniyan**, CEO and Co-Founder, Pindrop*

BRIEFING CENTER SCHEDULE

South Expo

All Briefing Center sessions in the South Expo are 20 minutes long.

10:40 AM	ORACLE	**An Intelligent Approach to Beating Global Cybersecurity Threats** BC-T1S ***Laurent Gil**, Security Evangelist, Oracle Cloud Infrastructure (OCI), Oracle*
11:10 AM	neustar	**Identity = Security** BC-T2S ***Michael Kaczmarek**, VP, Product and Solutions Marketing, Neustar*
11:40 AM	Pulse Secure	**Get Your Head Out of the Cloud. Zero Trust Access for Hybrid IT.** BC-T3S ***Bryan Embrey**, Sr. Product Marketing Manager, Pulse Secure*
12:10 PM	netwrix	**In Nine Months, You Could Be Fined for a CCPA Violation. Want to Know Why?** BC-T4S ***Nick Cavalancia**, Founder and Chief Techvangelist, Netwrix*
12:40 PM	ARXAN Application Protection	**Detect and Block Web App Attacks—Before They Strike Your Business** BC-T5S ***Rusty Carter**, VP, Product Management, Arxan Technologies*
1:10 PM	AGARI	**The Scarlet Email: A Look at the Financial Underbelly of BEC Criminal Groups** BC-T6S ***Josh Wilson**, Field CTO, Agari*
1:40 PM	Infoblox NEXT LEVEL NETWORKING	**Is DNS Part of Your Cybersecurity Strategy?** BC-T7S ***Craig Sanderson**, VP Product Management – Security, Infoblox*
2:10 PM	gemalto	**Cloud Revolution—Digital Transformation and Disruption of Data Protection** BC-T8S ***Gary Marsden**, Senior Director, Encryption Products and Cloud Solutions, Gemalto*
2:40 PM	nuix	**Edge Computing: New Hope against Insider Threat?** BC-T9S ***Hoke Smith**, Director, Security and Analytics, Nuix*
3:10 PM	SailPoint	**Spartacus as a Service: Privacy, Obfuscation and the Right to Be Forgotten** BC-T10S ***Mike Kiser**, Strategist and Evangelist, Office of the CTO, SailPoint*
3:40 PM	Capgemini	**Attack Simulation: Exfiltrating Data from an Organization without Hacking It** BC-T11S ***Clifford Vazquez**, Director Enterprise Architect Capgemini's Cybersecurity Global Service Line, Capgemini*
4:10 PM	UNISYS | Securing Your Tomorrow	**Three Things Every Boardroom Wants to Know** BC-T12S ***Jonathan Goldberger**, VP and General Manager, Security Solutions, Unisys*
4:40 PM	TITANIA	**The Nightmare on Cyber-Hygiene Street** BC-T13S ***Nicola Whiting**, Chief Strategy Officer, Titania*
5:10 PM	onapsis	**Dissecting ERP Breaches: They're More Common Than You Know** BC-T14S ***Juan Pablo Perez-Etchegoyen**, CTO, Onapsis*

WEDNESDAY, MARCH 6

North Expo

All Briefing Center sessions in the North Expo are 30 minutes long.

10:30 AM	BeyondTrust	**Building Effective Cyber-Defense Strategies against Privileged Attacks** BC-W1N ***Tal Guest**, Director of Product Management, BeyondTrust*
11:10 AM	RAPID7	**Preparing Your Organization for Security Orchestration and Automation** BC-W2N ***Jadon Cruz Montero**, Senior Product Manager, Rapid7*
12:00 PM	opentext™	**Continuous Endpoint Monitoring at Scale for the Global Enterprise** BC-W3N ***Anthony Di Bello**, VP, Strategic Development, OpenText*
12:40 PM	SYNOPSYS®	**Creating a Modern AppSec Toolchain to Quantify Service Risks** BC-W4N ***Tim Mackey**, Senior Technology Evangelist, Synopsys*
1:20 PM	Malwarebytes	**One Person Can Change the World: The Story Behind GDPR** BC-W5N ***Helge Husemann**, Global Technical Evangelist, Malwarebytes*
2:00 PM	Cyxtera	**A New Paradigm for Security** BC-W6N ***Jason Garbis**, VP, Products, Cyxtera*
2:40 PM	DIGITAL GUARDIAN®	**Got Breached? Determining the Extent of Your Intrusion** BC-W7N ***Tim Bandos**, Vice President, Cybersecurity, Digital Guardian*
3:20 PM	VARONIS	**What a Cyberattack Looks Like When You're Watching Your Data** BC-W8N ***Brian Vecci**, Technical Evangelist, Varonis*
4:00 PM	Spirent Promise. Assured.	**Red vs. Blue? Why Not Purple? Doing Good While Knowing Evil.** BC-W9N ***David DeSanto**, Director, Products and Threat Research, Spirent*

South Expo

All Briefing Center sessions in the South Expo are 20 minutes long.

10:40 AM	CROWDSTRIKE	**The Art of Remediation** BC-W1S ***Austin Murphy**, Vice President, Managed Services, CrowdStrike*
11:10 AM	sas	**There's No Intelligence in AI without Security Data Management** BC-W2S ***Scott Mongeau**, Cybersecurity Data Scientist, SAS Institute, Inc.*
11:40 AM	MobileIron	**Security for a Zero-Trust World** BC-W3S ***Jay Bhansali**, Product Marketing Engineer (Director), MobileIron*
12:10 PM	ONE IDENTITY™	**Hybrid Security for Your Hybrid Enterprise** BC-W4S ***Todd Peterson**, IAM Evangelist, One Identity*
12:40 PM	FORGEROCK	**Simplexity: Access Management and the Future of Dynamic Authorization** BC-W5S ***Eve Maler**, VP of Innovation and Emerging Technology, ForgeRock*

BRIEFING CENTER SCHEDULE

1:10 PM	illumio	**Secure Your Digital Crown Jewels with Micro-Segmentation** BC-W6S ***Faraz Aladin**, Head of Technical Product Marketing, Illumio*
1:40 PM	KENNA Security	**Applied Prediction: Using Forecasts to Get Proactive about Security** BC-W7S ***Ed Bellis**, Chief Technology Officer, Kenna Security*
2:10 PM	Flexera	**Seven Hells! We Need One Language to Communicate about IT Assets** BC-W8S ***Alejando Lavie**, Director, Strategy, Flexera*
2:40 PM	OWL Cyber Defense	**Unhackable: Why Businesses Are Turning to Hardware-Enforced Cybersecurity** BC-W9S ***Dennis Lanahan**, Director of Sales, Owl Cyber Defense Solutions*
3:10 PM	acunetix	**TLS Redirection: How to Make MitM on HTTPS Possible** BC-W10S ***Aleksei Tiurin**, Senior Security Researcher, Acutenix*
3:40 PM	SPIRION	**GDPR Security Post-Mortems: Lessons Learned from Facebook, Uber and Others** BC-W11S ***Scott M. Giordano**, Esq., VP, Data Protection, Spirion*
4:10 PM	Security Mentor	**As Cyber Criminals Raise Their Game, So Should Security Awareness Programs** BC-W12S ***Craig Kunitani**, COO, Security Mentor; **Marie White**, CEO, Security Mentor*

THURSDAY, MARCH 7

North Expo

All Briefing Center sessions in the North Expo are 30 minutes long.

10:30 AM	thycotic	**Don't Let the Lights Go Out: Inside the Mind of a Power Hacker** BC-R1N ***Joseph Carson**, Chief Security Scientist and Advisory CISO, Thycotic*
11:10 AM	VENAFI	**Identity Iceberg Ahead: Machine Identities and Their Need for Protection** BC-R2N ***Michael Thelander**, Director, Product Marketing, Venafi*
12:00 PM	tufin	**Managing Effective Security Policies in a Hybrid Enterprise Network** BC-R3N ***Reuven Harrison**, Chief Technology Officer, Tufin*
12:40 PM	avast	**From Endpoint to Any Point: Defending the New Perimeter with Cloud Security** BC-R4N ***Gill Langston**, Senior Product Manager, Avast*

South Expo

All Briefing Center sessions in the South Expo are 20 minutes long.

10:30 AM	zix	**Resolve and Evolve: Machine Learning for Email Threat Protection** BC-R1S ***Dena Bauckman**, CISSP, VP, Product Management, Zix*

(ISC)² — S 164

(ISC)² is an international nonprofit membership association focused on inspiring a safe and secure cyber-world. Best known for the acclaimed Certified Information Systems Security Professional (CISSP®) certification, (ISC)² offers a portfolio of credentials that are part of a holistic, programmatic approach to security.

www.isc2.org

1E, Inc. ★ — S 3241

Critical infrastructure, software code vulnerability analysis, risk management, risk & vulnerability assessment, patch management, infrastructure security, incident response, hackers & threats, governance risk & compliance, endpoint security

It's never been more important to be able to properly manage your endpoints. Today, one breach could destroy your organization's reputation and cost millions of dollars. You need to ensure all your organization's software is patched and up-to-date, including the OS. 1E gives you unprecedented control and visibility over your entire IT estate, delivered at speed and at scale.

www.1E.com

1Password — S 2456

Cloud security, security services, password management, network security, mobile security, managed security services, infrastructure security, hackers & threats, data security, critical infrastructure.

The best way to keep you and your family, team and business safe online. Go ahead. Forget your passwords.

https://1password.com

360ESG — S 1061

BYOD, zero trust, threat intelligence, security analytics, endpoint security, cloud security, behavioral analytics, authentication, artificial intelligence/machine learning, SIEM

360ESG is the leader in cybersecurity market in China. The mission is to protect the security of the era of big data, and data-driven security as the technological idea. It has created a new generation of collaborative defense systems that comprehensively cover big data security analysis, gateway, endpoint, web and mobile security products and solutions to over one million enterprise customers.

802 Secure, Inc. ★ — S 2444

Internet of Things, security intelligence, risk management, risk & vulnerability assessment, operational technology (OT Security), network security, intrusion prevention/detection, infrastructure security, hackers & threats, PII

NEW PRODUCT 802 Secure is the leader in cyber-physical security, bridging the convergence gap between cyber and physical systems. AirShield protects companies from risks stemming from the growing number of IoT, IIoT and OT devices and networks. This wireless visibility and deep intelligence goes beyond the traditional network to remove network blindspots, prevent nefarious activities and mitigate data loss.

www.802Secure.com

A10 Networks — S 1653

Application security, threat intelligence, software defined networking, security intelligence, security architecture, network security, hackers & threats, firewalls, denial of service, cloud security

A10 Networks (NYSE: ATEN) is a provider of intelligent and automated cybersecurity solutions, providing a portfolio of high-performance secure application solutions that enable intelligent automation with machine learning to ensure business critical applications are secure and always available.

www.a10networks.com

AAEON — S 2355

BYOD, network security, intrusion prevention/detection, firewalls, endpoint security, cryptography, cloud security, application security, access control, Internet of Things

NEW PRODUCT Network appliances for SD-WAN, NFV, Firewall, UTM, VPN, load balancing, bandwidth management, Gateway security, WAN acceleration solutions. AAEON's team of experienced network engineers has helped dozens of companies deploy reliable network appliances around the globe based on state-of-the-art hardware platforms, unmatched service quality and long-term support.

www.aaeon.com

AC Global Risk ★ — S 3136

Acalvio Technologies — N 4511

www.acalvio.com

Active Countermeasures ★ — S 3116

Internet of Things, threat management, security analytics, security & threat visualization, network security, intrusion prevention/detection, hackers & threats, endpoint security, behavioral analytics, artificial intelligence/machine learning

Take the Fight to the Enemy with AI-Hunter™. Active Countermeasures offers AI-Hunter, a cybersecurity threat-hunting solution that identifies compromised hosts on a network and IoT devices regardless of the operating system or hardware. The simple-to-use interface is focused on enabling threat-hunting success for everyone from junior analyst to seasoned pros. Visit us at booth 3116 to learn more.

www.acm.re

Acunetix — N 6552

Application security, zero-day vulnerability, web services security, risk & vulnerability assessment, penetration testing, hackers & threats, governance risk & compliance, exploit of vulnerability, data security, cloud security

Acunetix is an industry-leading solution used by many governments and Fortune 500 firms to identify flaws in web code. It automatically and comprehensively scans html5, javaskript and single-page applications, audits complex, authenticated webapps and reports on a wide range of web vulnerabilities, including sqli, xss and out-of-band vulnerabilities.

www.acunetix.com

Adaptiva — S 3238

Endpoint security, zero day vulnerability, threat management, security operations, risk & vulnerability assessment, policy management, patch management, orchestration & automation, incident response, exploit of vulnerability

Adaptiva is a leading global provider of endpoint management and security solutions. The company's peer-to-peer technology products empower enterprise IT teams to secure endpoints with unparalleled speed and at massive scale. Leading Fortune 1000 organizations, including T-Mobile, HSBC, Walgreens and the US Army, use Adaptiva products to automate countless endpoint management tasks.

www.adaptiva.com

Aewin Tech Inc. ★ — N 4405

Anti-malware, software defined networking, network security, identity management & governance, firewalls, data security, cloud security, big data analytics, artificial intelligence/machine learning, anti-spam

NEW PRODUCT AEWIN was founded in 2000 and is headquartered in Taipei, Taiwan. With ISO-9001 and 14001 certified Intelligent PC ODM solution provider. AEWIN has developed the strong technical experience and ability to create a different platform in the network, server, embedded and gaming solution.

www.aewinusa.com

EXHIBITING COMPANIES

Agari
N 6459, S 1353

Artificial intelligence/machine learning, zero day vulnerability, threat intelligence, social engineering, phishing, insider threats, incident response, identity theft, hackers & threats, cloud security

Agari is transforming the legacy Secure Email Gateway with its next-generation Secure Email Cloud™ powered by predictive AI. Leveraging data science and real-time intelligence from trillions of emails, the Agari Identity Graph™ detects, defends, and deters business email compromise, spear phishing and account takeover. Learn more at:

www.agari.com

AIC
S 1868

AIC is a leading provider of both standard OTS (off-the-shelf) and OEM/ODM server and storage solutions. With expert in-house design, manufacturing and validation capabilities, AIC's products are highly flexible and configurable to any form factor, standard or custom. AIC leads the industry with 20+ years of experience in mechanical, electronic and system-level engineering.

www.aicipc.com

Akamai Technologies
N 6153

Access control, zero trust, zero-day vulnerability, malware, firewalls, exploit of vulnerability, denial of service, cloud security, botnets, application security

Akamai provides a global cloud platform to stop attacks at the edge before they reach your apps, infrastructure and people. We harness visibility into more traffic (1 trillion DNS requests, 1.3 billion devices and 100 million IP addresses daily) and more attacks (178 billion WAF rule triggers daily) to stay ahead of the latest DDoS and web application attacks, evolving automated threats, and advanced targeted threats—including responding to the latest zero-day vulnerabilities. Akamai's managed security services, backed by 24/7/365 security operations centers, give you the choice to offload security management, monitoring and threat mitigation to Akamai security experts.

www.akamai.com

Alert Logic
S 265, S 1627

Cloud security, threat management, threat intelligence, security services, security operations, security intelligence, security analytics, log management, hackers & threats, endpoint security

Alert Logic seamlessly connects an award-winning security platform, cutting-edge threat intelligence, and expert defenders—to provide security and peace of mind 24/7. More than 4,000 organizations rely on Alert Logic SIEMless™ Threat Management to provide the right level of security and compliance at a lower cost

www.alertlogic.com

AlgoSec
S 2045

www.algosec.com

Alibaba
S 1365

GDPR, security & threat visualization, network security, managed security services, infrastructure security, hackers & threats, exploit of vulnerability, data security, cloud security, big data analytics

https://bit.ly/2FK0RDd

AlienVault
S 1235

SIEM, threat intelligence, security analytics, orchestration & automation, network security, managed security services, incident response, hackers & threats, cloud security, artificial intelligence/machine learning

AT&T Cybersecurity's edge-to-edge technologies provide phenomenal threat intelligence, collaborative defense, security without the seams, and solutions that fit your business. Our unique, collaborative approach integrates best-of-breed technologies with unrivaled network visibility and actionable threat intelligence from Alien Labs researchers, Security Operations Center analysts, and machine learning—helping to enable our customers around the globe to anticipate and act on threats to protect their business.

www.alienvault.com

Allegro Software
N 4614

Internet of Things, security architecture, operational technology (OT Security), network security, mobile security, key management, endpoint security, data security, cryptography

Secure Software for the Internet of Things. Allegro Software is a leading provider of embedded Internet software toolkits to OEMs worldwide. Field proven in 250,000,000+ devices, our solutions enable OEMs (medical, military, energy, more) to create connected secure devices using TLS, Suite B, FIPS 140-2 capabilities and more.

www.allegrosoft.com

Alta Associates
N 6474

Cloud security, threat management, threat intelligence, security operations, security consulting, security architecture, risk management, risk & vulnerability assessment, identity management & governance, governance risk & compliance

Alta Associates is the most prominent boutique executive search firm specializing in information security, IT risk management, GRC and privacy. Alta is known for placing "C-level" executives and building the teams that support them. Alta has unique access to the women in our field through the EWF on Information Security, Risk Management and Privacy founded by Alta's CEO Joyce Brocaglia.

www.altaassociates.com

AMAX
N 4618

Application security, supply chain, security services, security operations, infrastructure security, critical infrastructure, cloud security, business continuity & disaster recovery, big data analytics, artificial intelligence/machine learning

Leveraging decades of engineering expertise, AMAX builds cutting-edge server appliances for today's leading security experts. With a strong focus on custom system design, rigorous quality testing and a global manufacturing and logistics footprint, AMAX provides fully scalable support for all your appliance needs. We are the hardware solution to your software innovation.

www.amax.com

Amazon Web Services, Inc.
S 1227

DevSecOps, security & threat visualization, intrusion prevention/detection, infrastructure security, identity management & governance, data security, cryptography, cloud security, application security, access control

For over 12 years, Amazon Web Services has been the most comprehensive and broadly adopted cloud platform. AWS offers services for compute, storage, databases, networking, analytics, robotics, machine learning, AI, IoT, mobile, security, hybrid, virtual reality, application development and management. AWS services are trusted by customers to power infrastructure, make them agile and lower cost.

http://aws.amazon.com/security

Anitian Corporation ★ S 3328

Cloud security, threat intelligence, security architecture, risk & vulnerability assessment, network security, managed security services, incident response, governance risk & compliance, endpoint security, data security

At Anitian, we believe security is a force for good. We fulfill our mission to make security and compliance easy with a complete suite of security solutions and services. Our flagship Sherlock Platform dramatically reduces the complexity and cost of security and compliance in the cloud. As the oldest information security firm in the nation, Anitian is honored to serve globally recognized brands.

www.anitian.com

Anomali S 2033

Cloud security, zero-day vulnerability, threat management, threat intelligence, security intelligence, security awareness, network security, data security

Anomali detects adversaries and tells you who they are. Organizations rely on the Anomali Threat Platform to detect threats, understand the adversary and respond effectively. Anomali arms security teams with machine learning optimized threat intelligence and identifies hidden threats targeting their environments.

www.anomali.com

Antiy Labs N 4131

Ransomware, threat intelligence, security services, security & threat visualization, network security, mobile security, malware, endpoint security, critical infrastructure, anti-malware

Antiy is a dynamic cybersecurity vendor that leads the development of threat detection and defense capability. Antiy has developed a series of products (including IEP, PTF, PTD, ACS, PTA and TDS), building the safety cornerstone of endpoint protection, boundary protection, flow monitoring, diversion capture, in-depth analysis and emergency handling for customers.

www.antiy.cn

APCON S 3404

Audit, security analytics, security & threat visualization, risk & vulnerability assessment, network security, hackers & threats, data security, cloud security, cloud access security brokers (CASB), big data analytics

For more than 25 years, APCON consistently delivers smart, stable and scalable technology solutions that provide unmatched confidence to organizations seeking total visibility and security of physical, private and public cloud networks. With customers around the world, APCON assures superior network monitoring while supporting traffic analysis and streamlined network management and security.

www.apcon.com

Aporeto ★ S 3126

DevSecOps, zero trust, web services security, virtualization, containerization & segmentation, network security, firewalls, cloud security, authentication, application security

Aporeto is a zero-trust security solution for microservices, containers and the cloud. The Aporeto platform protects cloud applications from attack by authenticating and authorizing all communications with a cryptographically signed identity assigned to every workload. A distributed homogenous security policy is enforced per workload independent of network or infrastructure configuration.

www.aporeto.com

AppGuard S 2467

Internet of Things, zero trust, zero day vulnerability, mobile security, malware, endpoint security, data security, data loss prevention, application security, Ransomware

NEW PRODUCT AppGuard delivers simple, effective zero trust endpoint solutions to the complex security challenges that threaten the interests of organizations as well as those of their customers. These endpoints range from personal computers to servers, smartphones, tablets to IoT devices. AppGuard solutions prevent endpoint compromise.

www.appguard.us

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We Actually Do It

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Device Compliance

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EXHIBITING COMPANIES

AppViewX — S 256

AppViewX is revolutionizing the manner in which NetOps and SecOps teams deliver services to the rest of Enterprise IT. The AppViewX Platform is a modular, low-code software application that enables the automation and orchestration of network infrastructure using an intuitive, context-aware, visual workflow.

www.appviewx.com

Apricorn, Inc — N 4211

www.apricorn.com

Apriorit ★ — N 6386

Anti-malware, zero-day vulnerability, virtualization, containerization & segmentation, penetration testing, mobile security, endpoint security, data security, consulting & professional services, cloud security, blockchain & distributed ledger

Apriorit is an expert software research and development company focusing on cybersecurity solutions. We assist leading cybersecurity technology vendors with the most challenging research, prototyping, development and optimization tasks. Apriorit superhero teams include reverse engineers, driver developers, kernel and system programmers, database architects, platform builders and dedicated tech wizards.

www.apriorit.com

Aqua Security, Inc. — S 3117

DevSecOps, security operations, security architecture, network security

Aqua Security enables enterprises to secure their container and cloud-native applications from development to production, accelerating application deployment and bridging the gap between DevOps and IT security. Aqua's Container Security Platform provides full visibility into application activity, allowing organizations to detect and prevent suspicious activity and attacks in real time.

www.aquasec.com

Archimigo ★ — S 2361

Audit, security operations, security consulting, security architecture, risk & vulnerability assessment, penetration testing, orchestration & automation

NEW PRODUCT Archimigo—Simple, Collaborative solution for Security Automation. Archimigo automates security processes across architecture and design, security testing, risk management and SecOps.

https://archimigo.io

Arcon — S 140

Arctic Wolf Networks ★ — N 4507

SIEM, threat management, threat intelligence, security services, security operations, security & threat visualization, risk & vulnerability assessment, log management, cloud security, application security

Arctic Wolf delivers the industry-leading security operations center (SOC)-as-a-service that redefines the economics of cybersecurity. The AWN CyberSOC™ service is anchored by Concierge Security™ teams who provide custom threat hunting, alerting and reporting. Arctic Wolf's purpose-built, cloud-based service offers 24x7 monitoring, vulnerability assessment, threat detection and response.

www.arcticwolf.com

Aries Security ★ — S 161

Ariessecurity.com

Arista — N 4202

www.arista.com

AristotleInsight — S 3114

DevSecOps, threat management, security analytics, security & threat visualization, insider threats, hackers & threats, exploit of vulnerability, endpoint security, behavioral analytics, audit

AristotleInsight is an award-winning Cyber Diagnostics Platform based on Operation Eligible Receiver 97. The system utilizes revolutionary UDAPE® technology to continuously monitor configurations, validate patching of vulnerabilities, manage privileged user account activity, maintain an accurate asset inventory, and monitor for anomalous activity.

www.aristotleinsight.com

Armis — N 4525

Internet of Things, zero trust, risk & vulnerability assessment, operational technology (OT Security), network security, hackers & threats, endpoint security, behavioral analytics

Armis is the first agentless, enterprise-class security platform to address the new threat landscape of unmanaged and IoT devices. Fortune 1000 companies trust Armis' unique out-of-band sensing technology to discover and analyze all managed and unmanaged devices, analyze endpoint behavior to identify risks and attacks, and protect information and systems.

www.armis.com

Arrow ECS | immixGroup ★ — S 153

Arrow's Enterprise Computing Solutions business guides organizations in developing, powerful, practical and complete IT solutions to solve complex business challenges. Arrow brings security and other innovative technology solutions to market through intelligent channels to deliver the modern enterprise. immixGroup, an Arrow company, helps technology companies do business with the government.

www.immixgroup.com

Artifex — N 4224

BYOD, mobile security, digital rights management, data security, data loss prevention, application security, access control

Artifex is the maker of SmartOffice, securable mobile document editing. Get your mobile workforce up and running quickly while ensuring the security of your enterprise documents. When integrated into your company's mobile security platform, SmartOffice provides safe editing and creation of MS Office and PDF documents while on the go.

http://artifex.com

Aruba — S 253

www.arubanetworks.com

Arxan Technologies — N 6141

Application security, security analytics, mobile security, data security

NEW PRODUCT *www.arxan.com*

AT&T Business — N 5545

SIEM, threat intelligence, security analytics, orchestration & automation, network security, managed security services, incident response, hackers & threats, cloud security, artificial intelligence/machine learning

AT&T Cybersecurity's edge-to-edge technologies provide phenomenal threat intelligence, collaborative defense, security without the seams, and solutions that fit your business. Our unique, collaborative approach integrates best-of-breed technologies with unrivaled network visibility and actionable threat intelligence from Alien Labs researchers, Security Operations Center analysts, and machine learning—helping to enable our customers around the globe to anticipate and act on threats to protect their business.

www.business.att.com

*RSA Conference sponsors are indicated in **magenta**.* NEW PRODUCT *Presenting a new product at RSA® Conference 2019.* ★ *First-time exhibitor.*

ATAR Labs ★ S 3440

SIEM, threat intelligence, security operations, security analytics, security & threat visualization, orchestration & automation, network security, managed security services, incident response, audit

ATAR Labs has been founded by a group of cybersecurity veterans who have been working in the security operations centers (SOC) for more than a decade. ATAR Labs builds next-generation Security Orchestration, Automation, and Response (SOAR) platform ATAR. ATAR integrates with more than 100 technologies and helps SOC teams improve their efficiency in responding to attacks.

https://atarlabs.io

AttackIQ ★ N 4206

Hackers & threats, threat management, security awareness, security & threat visualization, risk management, risk & vulnerability assessment

AttackIQ, a leader in the emerging market of continuous security validation, built the industry's first platform that enables red and blue teams to test the effectiveness of their security controls and staff. Our platform supports the MITRE ATT&CK Matrix, a curated knowledge base and model for cyber-adversary behavior used for planning security improvements and verifying defenses work as expected.

www.attackiq.com

Attivo Networks S 455

Cloud security, network security, intrusion prevention/detection, insider threats, endpoint security, deception-based security

NEW PRODUCT Attivo Networks® ThreatDefend™ Deception and Response Platform provides accurate detection, analysis and automated incident response to in-network threats.

www.attivonetworks.com

Authentic8, Inc S 2368

http://authentic8.com

AuthLite N 6475

SSO, network security, government regulations, endpoint security, data security, authentication, application security, access control

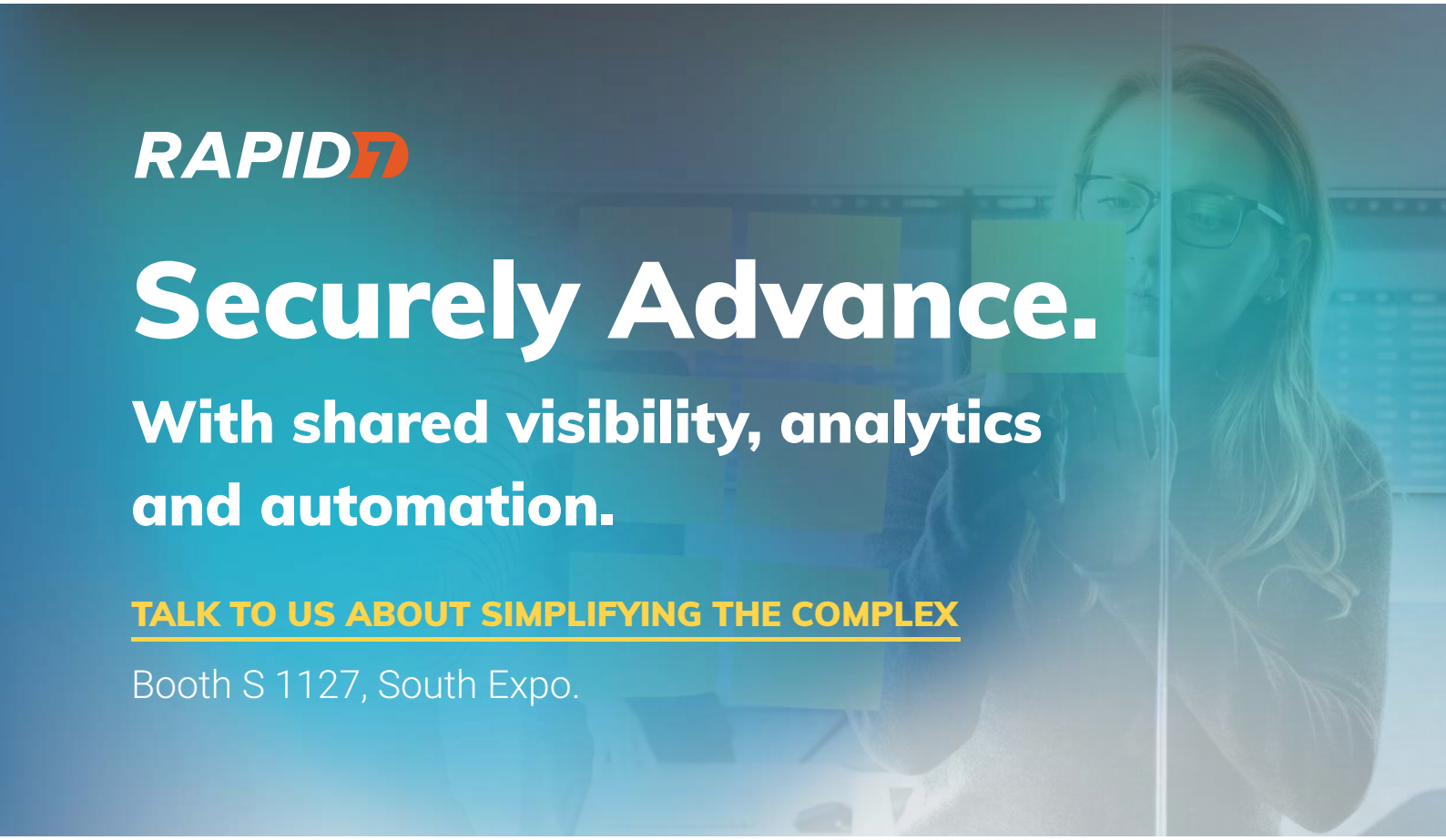
The AuthLite Two-Factor Authentication System secures your Active Directory enterprise authentication and stays in your budget! Unlike competing authentication solutions, the unique AuthLite technology teaches Active Directory to natively understand two-factor authentication. Keep using all your existing software, with added two-factor authentication security placed exactly where you need it.

www.authlite.com

Avanan S 1265

Ransomware, web services security, phishing, malware, insider threats, data loss prevention, cloud security, cloud access security brokers (CASB), anti-spam, anti-malware

Avanan protects cloud-based email and collaboration apps from phishing, malware and data breach using the most advanced technology from the industry's most trusted vendors.



www.avanan.com Avast — N 5771

Internet of Things, threat intelligence, privacy, phishing, network security, mobile security, managed security services, endpoint security, artificial intelligence/machine learning, anti-malware

Avast, the global leader in digital security products for consumers and small businesses, is dedicated to providing safety and privacy online for all. With more than 400 million global users, Avast offers products that protect people from threats on the Internet across PCs and mobile phones, as well as the evolving IoT landscape. The company's cloud-based threat detection network is among the most advanced in the world, using machine learning and artificial intelligence technologies to detect and block threats in real-time. Avast digital security products for Mobile, PC and Mac are top-ranked and certified by VB100, AV-Comparatives, AV-Test, OPSWAT, ICSA Labs, West Coast Labs and others.

www.avast.com

AvePoint — N 4629

GDPR, risk management, risk & vulnerability assessment, managed security services, infrastructure security, government regulations, governance risk & compliance, data security, data loss prevention, cloud security

AvePoint accelerates your digital transformation success. Over 16,000 companies and six million Office 365 users worldwide trust AvePoint software and services for their data migration, management and protection needs in the cloud, on-premises and hybrid environments.

www.avepoint.com

Avi Networks — S 2437

Application security

Avi Networks delivers multi-cloud application services including a software load balancer, intelligent web application firewall (iWAF) and elastic service mesh. The Avi Vantage Platform automates intelligence and elasticity across any cloud to ensure a fast, scalable and secure application experience. Customers enjoy 90 percent faster provisioning and 50 percent lower TCO.

www.avinetworks.com

AVL Mobile Security — N 4129

www.avlsec.com

Awake Security — N 4328

Internet of Things, security analytics, operational technology (OT Security), intrusion prevention/detection, insider threats, incident response, forensics & e-discovery, data lakes, behavioral analytics, artificial intelligence/machine learning

Awake Security is the only advanced network traffic analysis company that applies AI to bring expert skills to all customers, instantly analyzing billions of packets to immediately discover every device, user and application on the network. Through autonomous hunting and investigation, Awake uncovers mal-intent from insiders and external attackers.

https://awakesecurity.com

Ayehu Inc. — N 5480

SIEM, security operations, password management, orchestration & automation, infrastructure security, incident response, data security, critical infrastructure, artificial intelligence/machine learning

Ayehu's AI-powered Automation and Orchestration Platform is a force multiplier for IT and security operations. Our +200 large enterprise clients achieve major savings in costs while scaling their operations with flexibility. The codeless workflow designer enables rapid time-to-adoption and almost instant time-to-value. The platform acts as an integration hub, federating the enterprise architecture.

www.ayehu.com

BAE Systems — N 5877

Artificial intelligence/machine learning, threat management, threat intelligence, security operations, security consulting, security analytics, managed security services, incident response, fraud, behavioral analytics

We help nations, governments and businesses around the world defend themselves against cybercrime, reduce their risk in the connected world, comply with regulation and transform their operations. We do this using our unique set of solutions, systems, experience and processes—often collecting and analysing huge volumes of data. These, combined with our Cyber Special Forces—some of the most skilled people in the world, enable us to defend against cyberattacks, fraud and financial crime, enable intelligence-led policing and solve complex data problems. We employ over 4,000 people across 18 countries in the Americas, APAC, UK and EMEA.

www.baesystems.com/en/cybersecurity/home

Baffle, Inc. — S 2067

GDPR, insider threats, governance risk & compliance, encryption strategy & trends, data loss prevention, cryptography, application security

Baffle prevents data breaches by securing the end-to-end data access model for applications and databases. With its patented technology, Baffle is the only company that can enable encryption of data at rest, in use, in memory and in the search index without impacting the app using AES encryption and enables secure data processing on a commercial app and database to guarantee data protection.

http://baffle.io

Bandura Systems — S 3428

Ransomware, threat intelligence, security intelligence, phishing, network security, intrusion prevention/detection, hackers & threats, firewalls, cloud security, botnets

Our pioneering Bandura Threat Intelligence Gateway (Bandura TIG™), developed in part with the U.S. Department of Defense, blocks millions of known threats from entering and exiting company networks—serving as a first and last line of defense. The Bandura TIG reduces staff workload by automating manual workflows including threat feed management, firewall rule updates, and manual log analysis.

http://bandurasystems.com

baramundi software ★ — N 4117

Application security, zero-day vulnerability, risk & vulnerability assessment, patch management, network security, mobile security, malware, infrastructure security, hackers & threats, endpoint security

baramundi is a leading innovator in the field of unified endpoint management and provides companies and organizations with efficient, secure and cross-platform management of their workstation and mobile environments. Over 3,000 customers worldwide of all sizes and from every sector benefit from the German manufacturer's many years of experience and outstanding products.

www.baramundi.com

Bastille — S 3301

www.bastille.net

BehavioSec — N 5471

Anti-malware, social engineering, security services, intrusion prevention/detection, identity theft, fraud, behavioral analytics, application security

BehavioSec enables enterprises to continuously and transparently authenticate people across mobile and web apps by integrating its Behavioral Biometrics platform. BehavioSec pioneered behavioral biometrics, a unique method of authentication dramatically reducing fraud committed by both humans and malware. BehavioSec currently guards billions of transactions for some of the largest global companies.

www.behaviosec.com

Belgium – Flanders Science & Technology N 5479

Plans for Europe? We deliver specialized set up and expansion support for your business in Flanders, Belgium. We are an official government agency. Our services are completely free. We are a team of international experts. We can introduce you to other companies, banks and regulators. We organize real estate site visits. We assist with all legal aspects of setting up a business.

www.flandersinvestmentandtrade.com/en

Beyond Security N 5459

DevSecOps, zero-day vulnerability, software code vulnerability analysis, risk & vulnerability assessment, penetration testing, network security, exploit of vulnerability, data loss prevention, cloud security, application security

Our network and application security testing solutions accurately assess and help resolve security weaknesses in networks, web applications and software. beSECURE—network and web app vulnerability assessment; beSTORM—dynamic software, application and equipment testing; beSOURCE—source code security testing.

www.beyondsecurity.com

BeyondTrust N 6265

Access control, threat management, policy management, password management, network security, insider threats, identity management & governance, governance risk & compliance, endpoint security, audit

BeyondTrust is the worldwide leader in Privileged Access Management, offering the most seamless approach to preventing data breaches related to stolen credentials, misused privileges and compromised remote access. Our extensible platform empowers organizations to easily scale privilege security as threats evolve across endpoint, server, cloud, DevOps and network device environments. BeyondTrust gives organizations the visibility and control they need to reduce risk, achieve compliance objectives and boost operational performance. We are trusted by 20,000 customers, including half of the Fortune 100 and a global partner network. Learn more at:

www.beyondtrust.com

BI.ZONE S 2266

Application security, threat intelligence, penetration testing, network security, mobile security, infrastructure security, incident response, forensics & e-discovery, endpoint security, data security

Founded in 2016, BI.ZONE is disrupting the global cybersecurity industry with its visionary and innovative approach to protecting client's networks and assets. Headquartered in Moscow, the company currently employs 300 security experts, including experienced forensic criminalists, penetration testers, security solutions developers, load testing engineers and other highly qualified specialists.

www.bi.zone

Big Switch Networks N 4610

Application security, software defined networking, security intelligence, security architecture, security analytics, network security, managed security services, infrastructure security, data security, cloud security

Big Switch is the Cloud-First Networking company, bringing public cloud-style networking and hybrid cloud consistency by providing data center switching, monitoring, visibility and security solutions for on-premises enterprise cloud, public cloud and multi-cloud environments, enabling organizations to increase operational efficiency and business agility, while reducing networking costs.

www.bigswitch.com

EXHIBITING COMPANIES

BigID, Inc. — S 3129

GDPR, risk management, privacy, governance risk & compliance, data security, data loss prevention, big data analytics, PII

Today, enterprises lack dedicated purpose built technology to help them track and govern their customer data at scale. By bringing data science to data privacy, BigID aims to give enterprises the ability to understand, safeguard and steward the most important asset organizations manage: their customer data. BigID was named "Most Innovative Startup" at the 2018 RSAC Innovation Sandbox contest.

bigid.com

Binary Defense ★ — S 3325

Binary Defense is your managed security partner—real people, detecting real threats, in real time. We manage every aspect of endpoint security to identify and isolate all endpoint threats. Experience advanced endpoint solutions that will predict, prevent, detect, deceive and respond to keep your company ahead of all next-generation attacks.

www.binarydefense.com

BioCatch — N 5350

www.biocatch.com

Bitdefender — S 2051

Internet of Things, threat management, threat intelligence, patch management, network security, incident response, endpoint security, cloud security, anti-malware, Ransomware

Bitdefender is a global cybersecurity leader protecting over 500 million systems in more than 150 countries. Since 2001, Bitdefender innovation has consistently delivered award-winning security products and threat intelligence for the smart connected home, mobile users, modern businesses and their networks, devices, data centers and cloud infrastructure.

www.bitdefender.com

Bitglass — N 4235

BYOD, zero-day vulnerability, data loss prevention, cloud security, cloud access security brokers (CASB), SSO

Bitglass the Next-Gen CASB company is based in Silicon Valley. The company's solutions deliver zero-day, agentless data and threat protection for any app, any device, anywhere. Bitglass is backed by Tier 1 investors and was founded in 2013 by industry veterans with a track record of innovation.

www.bitglass.com

BitSight Technologies — S 3434

Critical infrastructure, security intelligence, risk management, risk & vulnerability assessment, network security, infrastructure security, hackers & threats, governance risk & compliance, data security, cyber-insurance

NEW PRODUCT BitSight's Security Ratings Platform continuously analyzes vast amounts of external data on security issues and behaviors to help organizations manage third-party risk, underwrite cyber-insurance policies, benchmark performance, conduct M&A due diligence and assess aggregate risk.

www.bitsight.com

Bloombase — N 5365

GDPR, virtualization, containerization & segmentation, infrastructure security, governance risk & compliance, encryption strategy & trends, data loss prevention, data lakes, cryptography, cloud security, artificial intelligence/machine learning

NEW PRODUCT Bloombase is the Intelligent Storage Firewall company providing turnkey, agentless, nondisruptive, application-transparent data-at-rest encryption security from physical and virtual data centers, through hyperconverged infrastructure, to the cloud, enabling organizations to lock down their crown jewels, mitigate data exfiltration threats, and help meet regulatory compliance requirements easily and cost-effectively.

www.bloombase.com

Blue Hexagon ★ — N 4204

intrusion prevention/detection, threat management, threat intelligence, network security, malware

Blue Hexagon is an advanced deep learning company focused on protecting organizations from cyberattacks. Our real-time Deep Learning Platform uses a proprietary architecture of artificial neural networks to detect known and unknown network and email threats in subseconds. Headquartered in Sunnyvale, CA, we are backed by Benchmark & Altimeter Capital. Follow us *@bluehexagonai* and:

www.bluehexagon.ai

Blueliv — S 2345

Botnets, threat management, threat intelligence, security operations, security intelligence, risk management, risk & vulnerability assessment, phishing, malware, hackers & threats

Blueliv is an award-winning cyberthreat intelligence provider from Barcelona, Spain. We scour the open, deep and dark web to deliver fresh, automated and actionable threat intelligence to organizations, backed up by a world-class analyst team. We collaborate with cybersecurity teams of all sizes, accelerating security and business performance with our modular, pay-as-you-need solutions.

www.blueliv.com

Boldon James — S 246

BYOD, security awareness, insider threats, government regulations, governance risk & compliance, data security, data loss prevention, cloud security, PII, GDPR

Boldon James is an industry specialist, delivering globally recognized innovation, service excellence and technology solutions that work. Part of the QinetiQ group, a major UK plc and FTSE 250 company, we integrate with powerful data security and governance ecosystems to enable customers to effectively manage data, streamline operations and proactively respond to regulatory change.

www.boldonjames.com

Bricata — N 4139

Bricata provides comprehensive network protection through unparalleled network visibility, full-spectrum threat detection, true threat hunting and post-detection actions in a single, self-managing system. Its automated detection and workflow-driven GUIs make it easy-to-use, while its fine-grained controls, extensive metadata and SmartPCAPs give experts the power they demand.

www.bricata.com

Brivo ★ — S 3204

Access control, security operations, security intelligence, physical security, mobile security, log management, identity management & governance, cloud security, biometrics, authentication

Brivo is the original innovator of cloud-based physical security solutions for commercial buildings. Currently serving over 10M users, Brivo offers a unified security platform including access control, mobile credentials, video surveillance, identity federation, visitor management and elevator control through a subscription-based service that is reliable, scalable, cyber-hardened technology.

www.brivo.com

BSI Group ★ — N 6472

BSI is a leading provider of business improvement solutions. Comprised of management system certifications, compliance software, training programs, advisory services and supply chain solutions, BSI helps organizations manage risk, performance and sustainability activities that transform best practice into habits of excellence.

www.bsigroup.com/en-us

EXHIBITING COMPANIES

BUFFERZONE — N 4301

Anti-malware, zero trust, virtualization, containerization & segmentation, malware, intrusion prevention/detection, endpoint security

BUFFERZONE is an exciting concept of security, allowing users to do more without risking their business. It is a virtual container operating on real and virtual desktops. BUFFERZONE protects against all malicious exploits. The advantage of this is clear: When malware strikes, no matter how new it is and what evasion techniques it implements—it cannot cause any damage to the organizational.

www.bufferzonesecurity.com

C2SEC ★ — N 6572

Artificial intelligence/machine learning, supply chain, security awareness, security analytics, risk management, risk & vulnerability assessment, governance risk & compliance, cyber-insurance, cloud security, big data analytics

C2SEC provides an innovative analytics (SaaS) platform that assesses and quantifies the cyber-risks in financial terms for all-sized enterprises and cyber-insurance industry as well, based on combining patented big data, AI and cybersecurity technologies. We make the cyber-risk assessment as simple as the online search. For more details, please visit www.c2sec.com or email to *info@c2sec.com*.

www.c2sec.com

Capgemini — N 6365

GDPR, threat intelligence, security services, security operations, managed security services, identity management & governance, endpoint security, consulting & professional services, cloud security, Internet of Things

A global leader in consulting, technology services and digital transformation, Capgemini is at the forefront of innovation to address the entire breadth of clients' opportunities in the evolving digital world. We offer a complete range of cybersecurity services to guide and secure the digital transformation of companies and administrations. We help clients transforming security into a source of strength, value and competitive advantage.

www.capgemini.com

Carbon Black — N 5663

Cloud security, security awareness, hackers & threats, endpoint security

Carbon Black is a leading provider of next-generation endpoint security. Leveraging its big data and analytics cloud platform—the CB Predictive Security Cloud—Carbon Black consolidates prevention, detection, response, threat-hunting and managed services into a single platform, making it easier for organizations to consolidate security stacks and achieve better protection. Carbon Black has pioneered multiple endpoint security categories, including application control, endpoint detection and response (EDR), and next-generation antivirus (NGAV) enabling customers to defend against the most advanced threats. More than 4,600 global customers, including 34 of the Fortune 100, trust Carbon Black to keep their organizations safe.

www.carbonblack.com

EXHIBITING COMPANIES

CASwell Americas, Inc. ★ S 2461

Internet of Things, software defined networking, security operations, security architecture, orchestration & automation, network security, infrastructure security, firewalls, cloud security

NEW PRODUCT CASwell, Inc. was founded in 2007 to create dynamic system solutions for embedded applications. While CASwell is a young company, it became part of the Ennoconn and Foxconn Groups in 2014 and has proved to deliver with advanced technology, professional service and superior design and manufacturing capability by offering a great portfolio of network devices for NFV, SD-WAN and similar solutions.

www.cas-well.com

Cavirin N 4210

DevSecOps, risk & vulnerability assessment, governance risk & compliance, cyber-insurance, cloud security, artificial intelligence/machine learning, GDPR

Cavirin is a global provider of risk, cybersecurity and compliance posture intelligence for the enterprise hybrid cloud. Cavirin is the only organization that delivers machine learning driven CyberPosture intelligence for the hybrid cloud by providing real-time risk and cybersecurity posture management and continuous compliance, while further integrating security into DevOps.

www.cavirin.com

CDW N 4126

CDW is a leading multibrand technology solutions provider to business, government, education and healthcare organizations in the United States, Canada and the United Kingdom. A Fortune 500 company with multinational capabilities, CDW was founded in 1984 and employs more than 8,600 coworkers. For more information about CDW, please visit:

www.cdwg.com

Centrify N 6445

DevSecOps, zero trust, password management, insider threats, infrastructure security, identity management & governance, behavioral analytics, artificial intelligence/machine learning, access control

Centrify is redefining the legacy approach to privileged access management by delivering cloud-ready Zero Trust Privilege to secure modern enterprise use cases. Centrify Zero Trust Privilege helps customers grant least privilege access based on verifying who is requesting access, the context of the request and the risk of the access environment. By implementing least privilege access, Centrify minimizes the attack surface, improves audit and compliance visibility, and reduces risk, complexity and costs for the modern, hybrid enterprise. Over half of the Fortune 100, all trust Centrify to stop the leading cause of breaches—privileged credential abuse.

www.centrify.com

CenturyLink S 1927

Artificial intelligence/machine learning, threat management, security analytics, orchestration & automation, network security, managed security services, log management, denial of service, cloud security, botnets

The more you see, the more you can stop. CenturyLink's expansive global network delivers the threat visibility and cloud-based security you need to protect critical business data and applications. We are transforming the network into a threat sensor and active defense platform to prevent, detect and block threats before they become business impacting events. Visit CenturyLink, South Expo booth S 1927.

www.centurylink.com/business.html

CERT Division at Software Engineering Institute, Carnegie Mellon University S 2227

DevSecOps, software code vulnerability analysis, secure coding, risk management, insider threats, governance risk & compliance, forensics & e-discovery, critical infrastructure, business continuity & disaster recovery, artificial intelligence/machine learning

CERT® helps ensure that appropriate technology and systems management practices are used to resist attacks on networked systems, limit damage and ensure continuity of critical services in spite of attacks. The CERT Division and the CERT Coordination Center has built partnerships worldwide to increase internet security awareness, responsiveness and education/training.

www.sei.cmu.edu

Check Point Software Technologies Ltd. N 4519, N 6079

Ransomware, network security, mobile security, intrusion prevention/detection, infrastructure security, endpoint security, data security, data loss prevention, cloud security, anti-malware

Check Point Software Technologies Ltd. *(www.checkpoint.com)* is a leading provider of cybersecurity solutions to corporate enterprises and governments globally. Its solutions protect customers from fifth-generation cyberattacks with an industry-leading catch rate of malware, ransomware and other targeted attacks. Check Point offers a multilevel security architecture with our new Gen V advanced threat prevention that protects all networks, cloud and mobile operations of a business against all known attacks combined with the industry's most comprehensive and intuitive single point of control management system. Check Point protects over 100,000 organizations of all sizes.

www.checkpoint.com

Checkmarx S 1453

DevSecOps, software code vulnerability analysis, secure coding, risk & vulnerability assessment, application security

Checkmarx is the Software Exposure Platform for the enterprise. 1,400+ organizations rely on Checkmarx to manage software security risk at the speed of DevOps. Checkmarx serves five of the world's top 10 software vendors, four of the top American banks, and many government organizations and Fortune 500 enterprises. Visit:

www.checkmarx.com

Chronicle ★ S 2251

Artificial intelligence/machine learning, threat intelligence, security intelligence, security awareness, security & threat visualization, malware, incident response, hackers & threats, cloud security, big data analytics

Chronicle was born in 2016 as a project within X, Alphabet's moonshot factory. We aim to give enterprises, and the people within them, tools to win the fight against cybercrime. Our cybersecurity intelligence platform can help organizations better manage and understand their own data, provide greater insights into areas of likely vulnerability, and give security teams time to protect themselves.

http://chronicle.security

CipherCloud N 4503

CipherCloud, a leader in cloud security, provides end-to-end protection for data resident in the cloud. Our cloud access security broker (CASB+) delivers comprehensive visibility, data security, threat protection and compliance for cloud-based assets.

www.ciphercloud.com

EXHIBITING COMPANIES

Circadence ★ N 6583

Artificial intelligence/machine learning, security & threat visualization, penetration testing, hackers & threats

Circadence® is a leader in next-generation cybersecurity education and training. Circadence provides a fully immersive, AI-powered cybersecurity training and assessment platform for government and enterprise organizations. Circadence's solutions modernize cybersecurity training with an advanced online gaming platform that delivers persistent, immersive and real-to-life experiences.

www.circadence.com

Cisco Systems N 6045

Ransomware, threat intelligence, intrusion prevention/detection, incident response, hackers & threats, firewalls, endpoint security, cloud security, big data analytics, access control

Cisco (NASDAQ: CSCO) is the worldwide technology leader that has been making the Internet work since 1984. Our people, products and partners help society securely connect and seize tomorrow's digital opportunity today. Cisco integrates security across the network, endpoint, cloud, Internet and email for a more effective security posture that sees a threat once and protects against it everywhere. With a portfolio of products designed to fit and work together we keep organizations safer, respond faster and deliver automation for a force multiplier effect for IT teams so IT resources go farther. The Talos Group, Cisco's elite Threat Intelligence and Research Group, detects and correlates threats in real time using the world's largest threat detection network, protecting against known and emerging cybersecurity threats to better protect the Internet.

www.cisco.com/go/security

Cisco Umbrella S 1027

Ransomware, threat intelligence, security intelligence, policy management, managed security services, incident response, endpoint security, cloud security, cloud access security brokers (CASB), anti-malware

Cisco Umbrella is a cloud security platform that provides the first line of defense against threats on the Internet wherever users go. And because it's built into the foundation of the Internet and delivered from the cloud, Umbrella is the simplest security product to deploy and delivers powerful, effective protection.

https://umbrella.cisco.com

Citrix S 961

Citrix aims to power a world where people, organizations and things are securely connected and accessible to make the extraordinary possible. We help customers reimagine the future of work by providing the most comprehensive secure digital workspace that unifies the apps, data and services people need to be productive, and simplifies IT's ability to adopt and manage complex cloud environments.

www.citrix.com

Cleafy Srl N 4311

Anti-malware, web services security, threat intelligence, security analytics, mobile security, malware, hackers & threats, governance risk & compliance, botnets, behavioral analytics

NEW PRODUCT Cleafy protects online services against advanced attacks from unmanaged endpoints, by delivering real-time threat detection and adaptive protection based on patented deterministic malware detection and behavioral analysis without any change to managed applications. Cleafy has been successfully adopted by leading corporate and retail banks for preventing frauds while minimizing false positives.

www.cleafy.com

Only Digital Guardian gives the 1-2 punch of **EDR** and **DLP** to knock out threat actors

"Leader"
Magic Quadrant
Enterprise DLP
Gartner

"Leader"
Forrester Wave™
EDR
FORRESTER®

Visit us at booth S 743 in the South Expo

DIGITALGUARDIAN®

EXHIBITING COMPANIES

Clearswift — N 4631

GDPR, insider threats, hackers & threats, governance risk & compliance, endpoint security, encryption strategy & trends, data security, data loss prevention, data lakes, PII

Clearswift is trusted by organizations globally to protect critical information. Our unique technology supports a straightforward and "adaptive" data loss prevention solution that avoids the risk of business interruption and enables organizations to gain visibility and control of critical information flowing through digital collaboration channels.

www.clearswift.com

Cloud Security Alliance — S 1535

www.cloudsecurityalliance.org

Code42 — S 1359

Data security, incident response, forensics & e-discovery, endpoint security

Code42 is the leader in data loss protection, visibility and recovery solutions. Native to the cloud, the Code42 Next-Gen Data Loss Protection solution rapidly detects insider threats, helps satisfy regulatory compliance requirements and speeds incident response—all without lengthy deployments, complex policy management or blocks on user productivity. For more information, visit:

www.code42.com

Cofense — N 4436 , S 1243

Anti-malware, threat intelligence, social engineering, security awareness, phishing, managed security services, malware, incident response, consulting & professional services, anti-spam

Cofense, formerly PhishMe, is the leading provider of human-driven phishing defense solutions worldwide. Our collective defense suite combines best-in class incident response technologies with timely attack intelligence sourced from employees. Cofense enables thousands of global organizations to stop attacks in progress faster and stay ahead of breaches. Learn more at:

www.cofense.com

Comcast Business — N 4320

www.business.comcast.com

Comodo Cybersecurity — S 1727

SIEM, threat intelligence, orchestration & automation, managed security services, endpoint security, cloud security, artificial intelligence/machine learning, application security, anti-spam, anti-malware

NEW PRODUCT Where preventing all cyberattacks is impossible, Comodo Cybersecurity delivers innovative solutions to protect organizations on endpoints and LANs, across the web and cloud. Comodo secures customer systems and data against all types of threats, including zero-day attacks. For over 20 years Comodo spans 193 countries, protects 100 million endpoints and serves 200,000 customers and businesses worldwide.

www.enterprise.comodo.com/partners

CompTIA — S 3206

Cryptography, security operations, security architecture, security analytics, risk management, risk & vulnerability assessment, penetration testing, network security, incident response, exploit of vulnerability

NEW PRODUCT CompTIA is the world's leading not-for-profit technology association. CompTIA provides networking, education, thought leadership, certifications and is an advocate for technology companies and IT professionals. CompTIA's programs foster workforce skills development and generate critical knowledge and insight—building the foundation for technology's future.

www.comptia.org

Contrast Security — N 6578

DevSecOps, cloud security, application security

Contrast Security enables applications to automatically detect and fix vulnerabilities, identify attacks, and defend themselves. Contrast employs security instrumentation to strengthen applications before they deploy, protect in production and provide visibility throughout the application lifecycle. More information can be found at:

www.contrastsecurity.com

Corelight — N 4308

Network security, threat intelligence

Corelight is the most powerful network visibility solution that helps information security professionals better understand their network traffic and detect and stop cyber attacks.The Corelight Sensor appliance provides organizations with an easy-to-deploy, enterprise-grade version of Zeek (formerly Bro), the powerful open source framework that generates rich, real-time logs of all network traffic.

www.corelight.com

Corero Network Security — S 1853

Cyberterrorism, network security, managed security services, hackers & threats, denial of service

Corero Network Security is a leader in real-time, high-performance DDoS defense solutions. Organizations rely on Corero's award-winning technology to eliminate the DDoS threat through automatic detection and mitigation, coupled with complete network visibility, analytics and reporting. This industry-leading technology provides cost-effective and scalable protection against DDoS attacks.

www.corero.com

Coronet Cyber Security ★ — S 147

www.coro.net

Corsa ★ — S 2454

Cloud security, threat intelligence, software defined networking, security operations, security architecture, security analytics, network security, intrusion prevention/detection, infrastructure security, encryption strategy & trends

Corsa is the leading provider of security service load balancers for service chaining physical and virtual network security functions. This lets networks scale their inspection to 100 percent traffic visibility without impacting network throughput performance. Even with SSL/TLS encrypted traffic, Corsa platforms work with existing security functions to give security architects 100 percent traffic inspection.

www.corsa.com

CoSoSys — N 5477

GDPR, privacy, legislation, insider threats, government regulations, governance risk & compliance, endpoint security, data loss prevention, audit, access control

Endpoint Protector is an advanced all-in-one data loss prevention solution for Windows, macOS and Linux, that puts an end to data leaks and data theft and offers seamless control of portable storage devices. Its content filtering capabilities for data at rest and in motion range from file type to predefined content based on dictionaries, regular expressions or regulations such as GDPR, HIPAA, etc.

http://endpointprotector.com

EXHIBITING COMPANIES

CounterCraft — S 3342

Data loss prevention, threat management, threat intelligence, security intelligence, network security, intrusion prevention/detection, insider threats, incident response, hackers & threats, deception-based security

NEW PRODUCT CounterCraft empowers organizations to strengthen their security posture more efficiently. The Cyber Deception Platform facilitates threat hunting and early threat detection, accelerates incident response, and significantly reduces security spend. Our award-winning solution provides detailed insights in to lateral movements and enables users to understand their adversaries' motivations and mindset.

www.countercraft.eu

cPacket Networks — S 3210

Cloud security, software defined networking, security architecture, security analytics, orchestration & automation, network security, incident response, firewalls, critical infrastructure

NEW PRODUCT cPacket's network packet brokering solution for security tools, is network visibility you can trust. Only cPacket inspects, filters and reports on all the packets delivering reliable real-time data to security tools without packet drops. cPacket delivers the relevant data to security tools with guaranteed performance, reducing tool overload and cost, helping decrease time to threat identification.

www.cpacket.com

Cradlepoint — N 4319

Internet of Things, software defined networking, network security, managed security services

NEW PRODUCT Cradlepoint is the global leader in software-defined 4G LTE network solutions for always-on connectivity for people, places, and things—anywhere. Cradlepoint's cloud-based platform combines software-defined networking and radio technologies with virtualized services to deliver 4G LTE and overlay networks that are secure, end-to-end, agile to deploy, and ultra-reliable.

www.cradlepoint.com

Crossmatch (part of HID Global) — N 5461

SSO, password management, insider threats, identity theft, identity management & governance, fraud, biometrics, behavioral analytics, authentication, access control

Crossmatch helps organizations solve identity management challenges through advanced authentication solutions. DigitalPersona provides the broadest set of risk-based authentication options allowing IT administrators to create the right security posture for each user, each application and each device.

www.crossmatch.com

CrowdStrike — N 5458, S 1435

Artificial intelligence/machine learning, threat intelligence, security services, security intelligence, mobile security, incident response, endpoint security, consulting & professional services, cloud security, behavioral analytics

CrowdStrike is the leader in cloud-delivered endpoint protection. Leveraging artificial intelligence, the CrowdStrike Falcon® platform offers instant visibility and protection across the enterprise and prevents attacks on endpoints on or off the network. It seamlessly unifies next-gen AV with best-in-class endpoint detection and response, backed by 24/7 managed hunting. Powered by the CrowdStrike Threat Graph™, Falcon instantly correlates over one trillion security events per week from across the globe to immediately prevent and detect threats.

www.crowdstrike.com

opentext™ | Security

OpenText™ EnCase™ | OpenText™ Magellan™ | OpenText™ Covisint

Predictive detection and response for demanding security environments

Continuous monitoring | Advanced detection | Forensic-grade response

RSA Conference2019

San Francisco | March 4–8 | Moscone Center

Booth N 6353 North Expo

EXHIBITING COMPANIES

Cryptsoft — S 2457

PII, standards, key management, encryption strategy & trends, data security, cryptography, critical infrastructure, cloud security, application security

Cryptsoft is an Australian OEM supplier that delivers key management interoperability protocol (KMIP) and P11 technology, services and designs for simplified, lower-cost, trusted vendor-agnostic cryptographic and interoperable key management security solutions to global enterprises for their storage, security and cloud products. Cryptsoft is an OASIS Foundational Sponsor and FIDO alliance member.

www.cryptsoft.com

CSPi — N 6480

DevSecOps, network security, government regulations, governance risk & compliance, data security, data loss prevention, cryptography, application security, PII, GDPR

Organizations trust CSPi to secure critical assets from breach. Our award-winning ARIA SDS solution works on-prem and in the cloud to protect PII data—no matter how it's accessed or used. ARIA secures DevOps applications and provides visibility into all network traffic to automatically verify and stop threats, while applying infosec policies to increase security posture. Visit:

www.cspi.com/security

CyberArk — N 6253

DevSecOps, security operations, password management, insider threats, endpoint security, cloud security, authentication, audit, application security, access control

CyberArk, the #1 provider of privileged access security, provides a critical layer of IT security to protect data, infrastructure and assets across the enterprise, in the cloud and throughout the DevOps pipeline. CyberArk delivers the most complete solution to reduce risk created by privileged credentials and secrets. The company is trusted by the world's leading organizations, including more than 50 percent of the Fortune 100, to protect against external attackers and malicious insiders, and address audit and compliance requirements. CyberArk is the only public company 100 percent focused on privileged-access security, delivering innovative solutions to stay one step ahead of attackers.

www.cyberark.com

Cyberbit — S 449

Critical infrastructure, security operations, risk management, risk & vulnerability assessment, professional development & workforce, orchestration & automation, operational technology (OT Security), infrastructure security, incident response, endpoint security

A world-leading provider of cyber-ranges for cybersecurity training and simulation. Cyberbit offers a unique platform provides consolidated detection and response protecting an organization's entire attack surface across IT, OT and IoT networks. Cyberbit's investors include Elbit Systems (NASDAQ: ESLT) and Claridge Israel with offices in Israel, US, Europe and Asia.

www.cyberbit.com

Cybereason — S 327

Ransomware, security services, malware, incident response, endpoint security, data lakes, behavioral analytics, artificial intelligence/machine learning, anti-malware

Cybereason, creators of the leading AI threat-hunting platform, gives the advantage back to the defender through a completely new approach to cybersecurity. Cybereason offers endpoint detection and response (EDR), next-generation antivirus (NGAV) and active monitoring services, all powered by its proprietary data analytics platform.

www.cybereason.com

CyberGRX — S 3424

Data security, supply chain, risk management, risk & vulnerability assessment, hackers & threats

CyberGRX provides organizations and their third parties with the most cost-effective and scalable approach to third-party cyber-risk management today. Built on the market's first global cyber-risk exchange, CyberGRX arms organizations with a dynamic stream of third-party data and advanced analytics so they can efficiently and collaboratively manage risk in their shared ecosystems.

www.cybergrx.com

Cyberinc ★ — S 2362

Ransomware, zero trust, zero day vulnerability, web services security, phishing, malware, endpoint security, anti-malware

Cyberinc helps you experience a safer internet by proactively stopping web, email, and document-based threats. Cyberinc's Isla platform uses cutting-edge isolation technology to neutralize threats and prevent them before they have a chance to act, simplifying the security strategy and delivering immediate protection. Cyberinc is trusted by businesses of all sizes and governments around the world.

www.cyberinc.com

CyberInt — S 355

SIEM, threat intelligence, security services, penetration testing, managed security services, insider threats, incident response, hackers & threats, fraud, forensics & e-discovery

CyberInt provides managed detection and response services to digital businesses in retail, gaming and financial industries. Leveraging Argos™ Digital Risk Protection Platform, a global cyber-analyst team, managed SOC, threat hunting, deep investigations, real-time incident response and cyber readiness assessments, CyberInt provides holistic end-to-end protection to digital enterprises.

www.cyberint.com

CyberVista — S 3205

Governance risk & compliance, professional development & workforce

CyberVista provides cybersecurity training, education and workforce development. With a mission is to arm organizations and individuals with the knowledge and skills they need to defend against ever-evolving cyberthreats, we offer cybersecurity training for the boardroom, the SOC and everywhere in between.

www.cybervista.net

Cygna Labs Corp — S 3329;

GDPR, identity management & governance, governance risk & compliance, cloud security, audit

Cygna Labs is a leading provider of compliance solutions that grant unparalleled visibility across Microsoft-hybrid IT infrastructures. Built from the ground up to protect data regardless of its location, Cygna Auditor delivers insight into user behavior, system configuration and data sensitivity. For more information, visit:

www.cygnalabs.com

EXHIBITING COMPANIES

Cylance — N 6145

Internet of Things, zero-day vulnerability, threat management, threat intelligence, security & threat visualization, forensics & e-discovery, endpoint security, consulting & professional services, artificial intelligence/machine learning, anti-malware

Cylance® develops artificial intelligence to deliver prevention-first, predictive security products and smart, simple, secure solutions that change how organizations approach endpoint security. Cylance provides full-spectrum predictive threat prevention and visibility across the enterprise to combat the most notorious and advanced cybersecurity attacks, fortifying endpoints to promote security hygiene in the security operations center, throughout global networks, and even on employees' home networks. With AI-based malware prevention, threat-hunting, automated detection and response, and expert security services, Cylance protects the endpoint without increasing staff workload or costs. We call it the Science of Safe.

www.cylance.com

Cymmetria — S 3310

www.cymmetria.com

Cyxtera — N 5883

Cyxtera Technologies combines a worldwide footprint of 57 best-in-class data centers with a portfolio of modern, cloud- and hybrid-ready security and analytics offerings—providing more than 3,500 enterprises, government agencies and service providers an integrated, secure and resilient infrastructure platform for critical applications and systems.

www.cyxtera.com

D3 Security — N 6342

www.d3security.com

DarkOwl — N 4414

Data lakes, threat intelligence, security intelligence, security awareness, risk management, identity theft, identity management & governance, hackers & threats, governance risk & compliance, fraud

DarkOwl is the leading provider of darknet data intelligence. Companies and government agencies partner with DarkOwl to access the largest, most up-to-date, criminally relevant darknet database available.

www.darkowl.com

DataLocker Inc. — N 4325

BYOD, secure payments & cryptocurrencies, policy management, government regulations, endpoint security, encryption strategy & trends, data security, cloud security, application security, GDPR

NEW PRODUCT DataLocker is an innovative provider of encryption solutions. DataLocker offers encryption products such as external storage, cloud encryption gateways and central management services for governments, military and enterprises worldwide. Headquartered in Overland Park, Kansas, DataLocker products combine superior convenience and usability with state-of-the-art security.

datalocker.com

DataPassports — N 4606

www.datapassports.com

EXHIBITING COMPANIES

DataSunrise Database Security — N 6558

GDPR, privacy, infrastructure security, governance risk & compliance, firewalls, data security, cloud security, audit, application security, PII

NEW PRODUCT DataSunrise Data and Database Security is data-centric high-performance security software for real-time sensitive and private data protection, auditing, discovery, compliance with privacy law, SOX, HIPAA, ISO27001, PCI, GDPR. Includes Database Firewall, Data Masking (Dynamic and Static), Data Auditing / Database Activity Monitoring, Data Discovery. In cloud AWS, Azure, Google or on-prem. Compliance automation.

www.datasunrise.com

DBAPPSecurity — S 1964

Internet of Things, zero-day vulnerability, threat intelligence, security awareness, firewalls, cloud security, big data analytics, audit, artificial intelligence/machine learning, application security

DBAPPSecurity is a pioneering information security products, service and solution provider in China. Being an industry leader dedicated to cloud security, application security, big data security, smart city security and other cutting-edge sectors, DBAPPSecurity was selected to the Cybersecurity Ventures 500 List in 2015, and remained in the leading position among Chinese vendors ever since then.

www.dbappsecurity.com

Deep Secure — N 5352

GDPR, zero day vulnerability, malware, intrusion prevention/detection, insider threats, data loss prevention, cloud security, anti-spam, anti-malware, Ransomware

Deep Secure's technology is unsurpassed, addressing a significant gap in the market for being able to defeat all content threats without the need to examine or isolate traffic. Deep Secure's "Content Threat Removal" protects information systems, enabling organisations to Click, Share and Transact in perfect safety. Deep Secure is a UK company, with offices in Worcestershire and Central London.

www.Deep-Secure.com

Dell Technologies — N 4535

Ransomware, security services, security consulting, data security, consulting & professional services

Dell Technologies is a unique family of businesses that provides the essential infrastructure for organizations to build their digital future.

www.delltechnologies.com

Deloitte — S 1747

DevSecOps, intrusion prevention/detection, incident response, governance risk & compliance, data security, data loss prevention, cyber-warfare & cyber-weapons, critical infrastructure, cloud security, GDPR

Investments in security are at an all-time high. Yet, cyberattacks are still on the rise—both in number and sophistication. Technology innovation can vastly accelerate performance but also open new doors for cybercriminals. We can help you lead, navigate and disrupt in a complex cyber-landscape to emerge stronger and more secure than ever.

www.deloitte.com/us/cyber

Demisto — N 4515

Artificial intelligence/machine learning, threat management, security operations, phishing, orchestration & automation, managed security services, incident response, cloud security

Demisto is the only Security Orchestration, Automation and Response (SOAR) Platform that combines orchestration, incident management and interactive investigation into a seamless experience. By using Demisto, security teams can build future-proof security operations to reduce MTTR, create consistent incident management processes and increase analyst productivity.

www.demisto.com

Denim Group — N 6184

DevSecOps, software code vulnerability analysis, penetration testing, network security, mobile security, managed security services, consulting & professional services, cloud security, application security, Internet of Things

Denim Group is focused on building a world where technology is trusted. Our software development background helps us bridge the gap between security and software development. ThreadFix, our flagship product, builds on our extensive history of application and information security consulting to accelerate the process of vulnerability remediation.

www.denimgroup.com

Department for International Trade — S 1847

Department for International Trade helps UK cybersecurity organizations do more business internationally. We help UK companies to increase their presence in overseas markets, overcome difficulties in getting into markets, develop supply chain opportunities, partner internationally in technology development, promote opportunities arising from prime contractor's supply chains.

Participating companies:

- Cambridge Quantum Computing
- Department for International Trade
- Deteque, a division of Spamhaus
- Invest Northern Ireland
- LORCA
- Pen Test Partners
- Privitar
- Spherical Defence
- UM-Labs

www.trade.gov.uk

Department of Homeland Security, Cybersecurity & Communications — S 1249

www.dhs.gov/cybersecurity

Department of Homeland Security, Science & Technology — S 1565

www.dhs.gov/cyber-research

Devo ★ — S 2445

Artificial intelligence/machine learning, threat management, security operations, security intelligence, security analytics, security & threat visualization, log management, incident response, cloud security, behavioral analytics

Devo Technology is the data engine of digitally driven, security-aware enterprises. The Devo Data Operations Platform helps security, IT and business teams at the world's largest organizations monitor and analyze real-time data while leveraging historical context for incident response, threat hunting and forensic analysis in a single, integrated platform.

www.devo.com

DFLabs ★ — S 3104

GDPR, threat management, threat intelligence, security operations, orchestration & automation, intrusion prevention/detection, infrastructure security, incident response, hackers & threats, artificial intelligence/machine learning

DFLabs is an award-winning and recognized global leader in security orchestration, automation and response (SOAR) technology. Its flagship product, IncMan SOAR, has been adopted by Fortune 500 and Global 2000 organizations worldwide. DFLabs has operations in Europe, North America and EMEA. For more information, connect on Twitter *@DFLabs* or visit:

www.dflabs.com

EXHIBITING COMPANIES

DH2i ★ S 3139

Application security, zero trust, virtualization, containerization & segmentation, software defined networking, network security, infrastructure security, hackers & threats, data security, cloud security, business continuity & disaster recovery

DH2i Company is an enterprise software company dedicated to enabling customers to create an IT infrastructure that is "always-secure and always-on" with our multi-platform Software Defined Perimeter and Smart Availability™ solutions. We enable enterprise applications to connect securely and move freely among on-premises and cloud environments with our flagship software, DxEnterprise and DxOdyssey.

http://dh2i.com

DigiCert S 335

www.digicert.com

Digital Defense, Inc. N 6478

Cloud security, threat intelligence, social engineering, security awareness, risk & vulnerability assessment, penetration testing, network security, managed security services, exploit of vulnerability, endpoint security

Serving clients since 1999, Digital Defense's Frontline. Cloud, the original Security SaaS platform, delivers accuracy and efficiencies through multiple systems including Frontline Vulnerability Manager™, Frontline Web Application Scanning™, Frontline Active Threat Sweep™ and Frontline Pen Test™, while SecurED®, the company's security awareness training, promotes employees' security-minded behavior.

www.digitaldefense.com

Digital Guardian S 743

GDPR, threat management, security awareness, insider threats, incident response, forensics & e-discovery, endpoint security, data security, data loss prevention

Digital Guardian provides the industry's only data protection platform that is purpose built to stop data theft from both insider threats and external adversaries. The Digital Guardian platform performs across the corporate network, endpoints and cloud applications and is buttressed by a big data security analytics cloud service, to make it easier to see and block all threats to sensitive information. This platform is recognized as a "Leader" in the Gartner Magic Quadrant for Enterprise Data Loss Prevention as well as a "Leader" in the Forrester Wave for Endpoint Detection and Response.

www.digitalguardian.com

Digital Pocket LLC N 5558

www.digitalpocket.com

Digital Shadows N 4421

Hackers & threats, threat intelligence

NEW PRODUCT Digital Shadows protects organizations from digital risks across the widest range of data sources within the open, deep and dark web including data loss detection, online brand security and attack surface reduction. Visit www.digitalshadows.com for a free seven-day test drive, giving you access to the SearchLight service, named "The Leader" in 2018 Forrester New Wave for Digital Risk Protection.

www.digitalshadows.com

SYNOPSYS®

Build secure, high-quality software faster

Visit Synopsys at Booth S 1135

EXHIBITING COMPANIES

Distil Networks — N 4605

Distil Networks, the global leader in bot mitigation, protects websites, mobile apps, and APIs from automated threats. Distil's approach provides the vigilant service, superior technology, and industry expertise needed for full visibility and control over this abusive traffic. With Distil, there is finally a defense against automated attacks that is as adaptable and vigilant as the threat itself.

www.distilnetworks.com

DivvyCloud Corporation ★ — N 4207

DevSecOps, risk management, risk & vulnerability assessment, policy management, orchestration & automation, infrastructure security, governance risk & compliance, exploit of vulnerability, cloud security, GDPR

DivvyCloud minimizes security and compliance risk by providing virtual guardrails for security, compliance, and governance to customers like General Electric, Discovery Communications and Fannie Mae who embrace the dynamic, self-service nature of public cloud and container infrastructure (AWS, Azure, GCP, Alibaba and Kubernetes).

www.divvycloud.com

DNIF — N 4300

SIEM, security operations, security analytics, orchestration & automation, insider threats, incident response, governance risk & compliance, data lakes, big data analytics, artificial intelligence/machine learning

DNIF is a first of its kind next gen SIEM with advanced security analytics and response automation that's built on big data analytics platform for real-time threat detection and response. It provides SOAR, UEBA, security analytics, threat hunting and security data lake solutions on a single platform to bring in process efficiency, better manageability and reduced risks.

www.dnif.it

DomainTools — S 127

Artificial intelligence/machine learning, threat intelligence, phishing, orchestration & automation, network security, incident response, fraud

DomainTools helps security analysts turn threat data into threat intelligence. We take indicators from your network and connect them with nearly every active domain on the Internet. Fortune 1000 companies, global government agencies, and leading security solution vendors use the DomainTools platform as a critical ingredient in their threat investigation and mitigation work.

www.domaintools.com

Duo Security — S 1835

BYOD, zero trust, network security, mobile security, endpoint security, data security, cloud security, authentication, application security, access control

Duo Security, now part of Cisco, is the leading provider of Trusted Access security and multi-factor authentication. Duo is a trusted partner to more than 14,000 customers globally, including Dresser-Rand, Etsy, Facebook, Paramount Pictures, Random House, Zillow and more. Visit duo.com to find out more.

www.duo.com

Echosec — S 566

EclecticIQ ★ — S 3125

SIEM, threat management, threat intelligence, security operations, security & threat visualization, risk management, risk & vulnerability assessment, orchestration & automation, incident response, hackers & threats

EclecticIQ enables intelligence-powered cybersecurity for government organizations and commercial enterprises. We develop analyst-centric products that align our clients' cybersecurity focus with their threat reality. And we tightly integrate our solutions with our customers' IT security controls and systems. The result is intelligence-led security, improved detection, prevention and response.

www.eclecticiq.com

edgescan — S 3224

DevSecOps, web services security, security intelligence, security consulting, security analytics, network security, metrics, infrastructure security, cloud security, application security

NEW PRODUCT edgescan provides fullstack vulnerability intelligence via a cloud-based SaaS platform. All vulnerabilities are validated by security experts resulting in provision of virtually false positive free vulnerability management.

www.edgescan.com

Edgewise Networks — S 3332

Artificial intelligence/machine learning, zero trust, security intelligence, hackers & threats, data loss prevention, cloud security

Edgewise is the industry's first zero trust platform that stops breaches in the data center and cloud. It protects workloads and prevents attackers' lateral movements by allowing only verified software to communicate. Using machine learning, Edgewise recommends adaptive policies that eliminate 98% of the network attack surface and protect the rest.

www.edgewise.net

Egis Technology — S 3326

www.egistec.com

Egnyte ★ — S 2267

GDPR, infrastructure security, governance risk & compliance, data security, data loss prevention, cloud security

Egnyte delivers secure content collaboration, compliant data protection and simple infrastructure modernization, all through a single SaaS solution.

www.egnyte.com

Egress ★ — N 4134

GDPR, risk management, privacy, insider threats, government regulations, governance risk & compliance, data security, data loss prevention, artificial intelligence/machine learning, PII

Egress helps enterprises protect unstructured data to meet compliance requirements and drive business productivity. The company's AI-powered platform enables users to control and secure the data they share. The award-winning solution provides email and document classification, accidental send prevention, email and file protection, secure online collaboration, and audit and compliance reporting.

www.egress.com

Elasticsearch, Inc. — S 2453

eLearnSecurity — N 4226

Application security, threat intelligence, professional development & workforce, penetration testing, mobile security, intrusion prevention/detection, incident response, forensics & e-discovery, exploit of vulnerability, endpoint security

NEW PRODUCT eLearnSecurity has proven to be a leading innovator in the field of practical security training. Best of breed virtualization technology, in-house projects such as Coliseum Web Application Security Framework and Hera Network Security Lab have changed the way students learn and practice new skills.

www.elearnsecurity.com

Endgame — S 1827

Ransomware, threat management, threat intelligence, phishing, network security, malware, incident response, endpoint security, anti-malware

Endgame's endpoint protection platform brings certainty to security with the most powerful scope of protections and simplest user experience, ensuring analysts of any skill level can stop targeted attacks before information theft. For more information visit:

www.endgame.com

EXHIBITING COMPANIES

Engage Black — N 4228

Internet of Things, secure coding, physical security, network security, key management, encryption strategy & trends, cryptography, authentication, application security, PII

Engage Black is a manufacturer of FIPS-140-2 Level 3 HSMs and CAs that secure critical infrastructures and encrypt data assets by keeping cryptographic keys and digital identities safe. Our recently expanded BlackVault line of HSMs are integral to tactical military and commercial deployments such as PKI, key management, code/document signing, IIoT, network security, and identity and access management.

www.engageblack.com

enSilo ★ — S 2245

GDPR, orchestration & automation, managed security services, malware, incident response, endpoint security, data security, anti-malware, Ransomware

enSilo's single lightweight security agent gives customers comprehensive pre-infection next generation antivirus (NGAV) as a first line of defense and post-infection automated, blocking-enabled EDR as a last line of defense, enabling security teams to contain attacks, prevent data leakage and block malware communications in real time to stop post-infection impact.

www.ensilo.com

Envieta ★ — N 6586

Quantum computing, security consulting, security architecture, network security, key management, infrastructure security, digital rights management, cryptography, critical infrastructure, cloud security

Envieta's mission is to secure our clients systems by employing hard-earned hardware, software and cryptographic expertise. Through our world-class hardware security modules (HSMs) and tailored service offerings, Envieta empowers organizations to achieve lasting digital security.

www.envieta.com

Equinix — S 3305

Business continuity & disaster recovery, software defined networking, physical security, managed security services, key management, infrastructure security, encryption strategy & trends, denial of service, data security, cloud security

Equinix, Inc. connects the world's leading businesses to their customers, employees and partners inside the most-interconnected data centers. In 52 markets across five continents, Equinix brings companies together safely and securely, in today's digital economy where interconnection is essential to success, to realize new opportunities and accelerate their business, IT and cloud strategies.

www.equinix.com

Ericom — N 6574

Anti-malware, web services security, social engineering, phishing, network security, endpoint security, application security

NEW PRODUCT Ericom secures and connects the digital workspace with innovative solutions that protect endpoints and networks from even unknown threats and increase enterprise productivity by optimizing desktop and application delivery. Ericom is a recognized pioneer in browser isolation, secure remote access and zero-trust browsing.

www.ericomshield.com

eSentire, Inc. — S 1547

GDPR, threat intelligence, security operations, network security, managed security services, incident response, governance risk & compliance, endpoint security, cloud security, artificial intelligence/machine learning

NEW PRODUCT eSentire® is the largest pure-play managed detection and response (MDR) service provider, keeping organizations safe from constantly evolving cyberattacks that technology alone cannot prevent. Protecting more than $5 trillion in corporate assets, eSentire absorbs the complexity of cybersecurity, delivering enterprise-grade protection and the ability to comply with growing regulatory requirements.

www.esentire.com

avast

Protecting people and businesses around the world from cyberattacks.

Wherever you connect to the internet, Avast keeps you safe online with the largest AI-enhanced threat detection network in the world.

Visit us at booth N 5771 in the North Expo

And join Ondrej Vlcek, CTO at Avast, who will speak on "The Risks of Shadow IoT in the Corporate Environment" on Wednesday, March 6 at 9 am at the Marriott Hotel.

EXHIBITING COMPANIES

ESET — N 5345

GDPR, security services, managed security services, malware, incident response, exploit of vulnerability, endpoint security, data security, artificial intelligence/machine learning, Ransomware

For 30 years, ESET® has been developing industry-leading IT security software and services for businesses and consumers worldwide. With solutions ranging from endpoint and mobile security, to encryption and two-factor authentication, ESET's high-performing, easy-to-use products give consumers and businesses the peace of mind to enjoy the full potential of their technology. ESET unobtrusively protects and monitors 24/7, updating defenses in real-time to keep users safe and businesses running without interruption. Backed by R&D centers worldwide, ESET becomes the first IT security company to earn 100 Virus Bulletin VB100 awards, identifying every single "in-the-wild" malware without interruption since 2003.

www.eset.com

EventTracker by Netsurion — S 1167

Ransomware, threat intelligence, security & threat visualization, risk management, network security, managed security services, log management, endpoint security, data security, SIEM

EventTracker, a Netsurion company, empowers organizations to successfully predict, prevent, detect and respond to cybersecurity threats. The EventTracker SIEM platform unifies machine learning, behavior analytics and security orchestration, and has been recognized by Gartner on the Magic Quadrant for SIEM. EventTracker offers a suite of SIEM solutions built for any size company or budget.

www.eventtracker.com

Everbridge ★ — S 2433

Incident response, orchestration & automation

www.everbridge.com

Evident ID ★ — S 143

GDPR, policy management, identity theft, identity management & governance, hackers & threats, government regulations, data security, data loss prevention, blockchain & distributed ledger, PII

Evident provides a simple, secure platform that lets businesses confidently know who they're dealing with, without the risk and expense of handling sensitive personal data. From identity and credential verifications to background checks and everything in between, businesses of all sizes can get the answers they need—easily and securely. Join us at RSA 2019 to start running verifications today!

Exabeam — S 1261

SIEM, threat intelligence, security operations, security intelligence, log management, insider threats, data loss prevention, data lakes, behavioral analytics, artificial intelligence/machine learning

www.exabeam.com

Exosphere Inc. — N 4334

Anti-malware, zero-day vulnerability, security intelligence, patch management, malware, hackers & threats, data security, data loss prevention, cyberterrorism

Exosphere is the first UTM endpoint protection solution for SMBs. It offers unmatched breadth and depth of unified endpoint protection for both PCs and data, managed through a simple console. Exosphere combines the most complete layers of protection including PC healthcheck, web control, DLP, and data backup and restore with broad protection against all critical attack vectors including malware, ransomware, phishing and insider threats.

www.exospheresecurity.com

ExtraHop Networks — S 1427

Artificial intelligence/machine learning, security operations, security architecture, security analytics, network security, incident response, encryption strategy & trends, cloud security

ExtraHop provides enterprise cyber-analytics that deliver security and performance from the inside out. Whether you're investigating threats, ensuring delivery of critical applications or securing your cloud investment, ExtraHop's breakthrough approach helps you rise above the noise so you can protect and accelerate your business.

www.extrahop.com

F5 Networks — S 643

DevSecOps, threat intelligence, phishing, network security, mobile security, hackers & threats, governance risk & compliance, firewalls, cloud security, application security

F5 (NASDAQ: FFIV) gives the world's largest businesses, service providers, governments and consumer brands the freedom to securely deliver every app, anywhere—with confidence. F5 delivers cloud and security application services that enable organizations to embrace the infrastructure they choose without sacrificing speed and control. For more information, go to *f5.com*. You can also follow *@f5networks* on Twitter or visit us on Linkedin and Facebook for more information about F5, its partners and technologies.

www.f5.com

Farsight Security — S 3343

Farsight Security provides domain and IP intelligence and a host of other DNS intelligence data. Our flagship, DNSDB, is used by security teams to qualify, enrich and correlate cyberattack data to save time during an investigation and remediation. Our solutions expose cybercriminals by illuminating their infrastructure. We observe DNS resolutions worldwide.

www.farsightsecurity.com

Fasoo — S 955

GDPR, risk management, insider threats, hackers & threats, government regulations, governance risk & compliance, digital rights management, data security, Ransomware, PII

Fasoo provides unstructured data security and enterprise document platforms that enable customers to protect, control, trace and analyze critical business information while enhancing productivity. Fasoo's market-leading unstructured data security solutions have been deployed enterprise-wide to more than 1,300 organizations globally, securing more than 2.5 million users.

www.fasoo.com

Federal Bureau of Investigation — S 3400

www.fbi.gov

Feitian — S 2127

Access control, secure payments & cryptocurrencies, password management, network security, mobile security, key management, infrastructure security, identity management & governance, blockchain & distributed ledger, authentication

Feitian Technologies is a public company with product lines featuring smart cards, EMV chip cards, payment terminals and user authentication solutions for secure online banking and transaction security. Our end-to-end turnkey solutions include secure hardware, operating systems, middleware, software application and services such as personalization and remote lifecycle management.

www.ftsafe.com

EXHIBITING COMPANIES

Fidelis Cybersecurity — S 1441

Data loss prevention, threat management, security operations, network security, managed security services, incident response, hackers & threats, endpoint security, deception-based security, data security

Fidelis Cybersecurity is a leading provider of threat detection, hunting and response solutions. We combat cybercrime, data theft and espionage by providing full visibility across hybrid cloud/on-prem environments, automating threat and data theft detection, empowering threat hunting and optimizing incident response with context, speed and accuracy. Visit us at:

www.fidelissecurity.com

FIDO Alliance, Inc. — S 3319

The 250+ member, cross-industry FIDO Alliance provides specifications and certifications to enable an interoperable ecosystem of on-device authenticators that can be used for simpler, stronger authentication to many compliant mobile apps and websites.

https://fidoalliance.org/about/overview

FireEye — N 5959

SIEM, threat intelligence, network security, managed security services, incident response, endpoint security, data security, consulting & professional services, cloud security

FireEye is the only cyber security company that combines the automation of world-class technology with the power of unparalleled frontline human expertise, including industry-recognized services and nation-state grade threat intelligence. We put it all at your fingertips in a unified security operations platform that integrates and analyzes data from your security assets in order to give you real answers about the threats that matter. Best of all, you are not alone. Our experts can function as an extension of your security team—on a click, by phone, or in your corner when you need them most.

www.fireeye.com

FireMon — S 443

Access control, security architecture, security analytics, security & threat visualization, risk & vulnerability assessment, policy management, orchestration & automation, network security, firewalls, cloud security

FireMon delivers continuous security for hybrid enterprises through a fusion of vulnerability management, continuous compliance and orchestration. Since creating the first-ever network security management solution 15 years ago, FireMon solutions have delivered visibility into and control over complex network security infrastructure, policies and risk for more than 1,500 customers worldwide.

www.firemon.com

Flashpoint ★ — S 1759

Consulting & professional services, threat intelligence, social engineering, risk management, risk & vulnerability assessment, physical security, insider threats, incident response, hackers & threats, fraud

Flashpoint delivers business risk intelligence (BRI) that empowers organizations to combat threats and adversaries. The company's sophisticated technology, advanced data collections, and human-powered analysis enable enterprises and the public sector to bolster cybersecurity, fight fraud, confront insider threats, enhance physical security, and address vendor risk and supply chain integrity.

www.flashpoint-intel.com

Flexera — N 4524

Flexera is reimagining the way software is bought, sold, managed and secured. We view the software industry as a supply chain, and make the business of buying and supplying software and technology asset data more profitable, secure and effective. Visit us at *www.flexera.com*.

www.flexerasoftware.com

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Ensure Continuous Compliance with Security Standards

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EXHIBITING COMPANIES

Flowmon Networks — S 154

Behavioral analytics, threat management, security operations, security analytics, security & threat visualization, network security, insider threats, infrastructure security, denial of service, cloud security

Flowmon Networks empowers businesses to manage and secure their computer networks confidently. Through our high performance network monitoring technology and lean-forward behavior analytics, IT pros worldwide benefit from absolute network traffic visibility to enhance network and application performance and deal with modern cyberthreats.

wwww.flowmon.com

Fluency Corp. — N 4529

GDPR, threat intelligence, security analytics, risk & vulnerability assessment, privacy, orchestration & automation, cloud security, behavioral analytics, artificial intelligence/machine learning, PII

Fluency is an advanced central log management and analytics cloud solution that meets privacy and compliance requirements delivering unmatched speed, scalability, data retention and storage capacity not available through SIEMs. Fluency's patented database, correlation and risk scoring technology is the only fully industry compliant offering that achieves privacy regulations through our pseudonym model.

https://fluencysecurity.com

Forcepoint — N 5969

GDPR, security analytics, network security, insider threats, firewalls, data security, data loss prevention, critical infrastructure, cloud security, behavioral analytics

Forcepoint is transforming cybersecurity by focusing on what matters most—people's behavior as they interact with critical data and systems. This human-centric approach frees employees to innovate by understanding the normal rhythm of user behavior and the flow of data in and out of an organization and only enforces security policies when elevated risk is detected at an individual level. Forcepoint's behavior-based solutions provide risk-adaptive security to protect network users and cloud access, prevent confidential data from leaving the corporate network, and eliminate breaches caused by insiders. Based in Austin, Texas, Forcepoint helps secure thousands of enterprise and government customers in more than 150 countries.

www.forcepoint.com

ForceShield — N 4114

Internet of Things, zero-day vulnerability, threat management, intrusion prevention/detection, hackers & threats, fraud, denial of service, cloud security, botnets, application security

NEW PRODUCT The dynamic application guardian for web/mobile and IoT. The traditional signature-based security technologies were failing in the face of evermore frequent and sophisticated automated attacks. ForceShield developed new bot management technology—Dynamic Transformation—that shifted the security approach from reactive to proactive protection while increasing complexity and cost for attackers.

www.forceshield.com

ForeScout — N 5983

ForeScout Technologies is transforming security through visibility, providing Global 2000 enterprises and government agencies with agentless visibility and control of traditional endpoints, IoT devices and operational technologies the instant they connect to the network. Our technology continuously assesses, remediates and monitors devices and works with disparate security tools to help accelerate incident response, break down silos, automate work ows and optimize existing investments. As of March 31, 2018, more than 2,800 customers in over 80 countries improve their network security and compliance posture with ForeScout solutions. See devices. Control them. Orchestrate system-wide threat response. Learn how at:

www.forescout.com

ForgeRock — N 5576

DevSecOps, privacy, password management, identity management & governance, authentication, access control, SSO, Internet of Things, GDPR

ForgeRock® is the Digital Identity Management company transforming the way organizations build trust and securely interact with customers, employees, devices and things. Organizations adopt ForgeRock to monetize customer relationships, address stringent regulations for privacy and consent (GDPR, HIPAA, open banking, etc.), and leverage the IoT. We serve hundreds of brands, including Morningstar, Vodafone, GEICO and Toyota, and governments worldwide. Follow us at *@ForgeRock and:*

www.forgerock.com

Fortanix — N 4518

Application security, virtualization, containerization & segmentation, policy management, operational technology (OT Security), key management, governance risk & compliance, data security, cryptography, cloud security, blockchain & distributed ledger

NEW PRODUCT Fortanix, the Runtime Encryption® company, introduced the first commercial solutions utilizing Intel SGX. RTE: The industry's first data-in-use encryption solution, running both as a cloud service (IBM Data Shield) and on-prem. SDKMS: A distributed, cloud-scale, integrated key management, tokenization and HSM platform. Scales automatically, easy to use and featuring the lowest TCO in the industry.

www.fortanix.com

Fortinet, Inc. — N 5869

www.fortinet.com

Fudo Security — N 6442

GDPR, password management, key management, insider threats, identity theft, identity management & governance, data security, authentication, artificial intelligence/machine learning, access control

Fudo Security is a leading privileged access management solutions firm, one of a select few in the world situated at the highest echelons of the industry. Our global customers include financial institutions, energy companies as well as the public sector. Our distribution channel covers a network of 80 partners across 30 countries, with the HQ located in Bay Area (Newark, CA).

www.fudosecurity.com

Futurex — S 343

Internet of Things, security architecture, secure payments & cryptocurrencies, key management, endpoint security, encryption strategy & trends, data security, cryptography, cloud security, application security

For over 35 years, Futurex has been a globally recognized provider of hardened, enterprise-class data security solutions. Over 15,000 customers worldwide have trusted Futurex's innovative Hardened Enterprise Security Platform and the VirtuCrypt Hardened Enterprise Security Cloud to provide market-leading solutions for the encryption, storage, transmission and certification of sensitive data.

www.futurex.com

G2 Crowd ★ — S 134

Internet of Things, supply chain, standards, social networking, security awareness, infrastructure security, consulting & professional services

Until recently, selecting business solutions was hard, risky and inherently biased. G2 Crowd empowers business buying decisions by highlighting the voice of the customer. Our review platform leverages more than 500,000 independent and authenticated user reviews read by more than 2 million buyers each month. Our model brings transparency to B2B buying—changing the way decisions are made.

www.g2.com

Garner Products — S 2063

GDPR, zero trust, risk management, policy management, network security, government regulations, data security, cloud security, audit

Garner Products is the trusted world-leading innovator in designing, manufacturing and selling of data elimination equipment and data destruction services. Our products ensure your data is unrecoverable and data theft protected! Protect your data from security breaches from stored, stockpiled,discarded, and recycled magnetic and solid-state media that you thought was erased.

https://garnerproducts.com

Garrison ★ — N 4304

Ransomware, phishing, malware, endpoint security, data loss prevention, anti-malware

Garrison has pioneered an innovative security platform to counter the threat of persistent and targeted attacks which exploit corporate Internet connectivity. Garrison's approach to secure browsing uses hardware to provide risk-free web access that is commercially affordable, highly secure, and delivers a great user experience at scale.

www.garrison.com

Gemalto — N 5564

Internet of Things, secure payments & cryptocurrencies, key management, identity management & governance, encryption strategy & trends, data security, cryptography, cloud security, authentication, SSO

Gemalto is the global leader in digital security, with 2017 annual revenues of €3 billion and customers in over 180 countries. We bring trust to an increasingly connected world. From secure software to biometrics and encryption, our technologies and services enable businesses and governments to authenticate identities and protect data so they stay safe and enable services in personal devices, connected objects, the cloud and in between. Our solutions authenticate people, transactions and objects, encrypt data and create value for software.

https://safenet.gemalto.com

General Dynamics Mission System ★ — S 131

Genians — N 6564

BYOD, risk & vulnerability assessment, policy management, patch management, orchestration & automation, network security, managed security services, endpoint security, access control, Internet of Things

Genians provides next-gen Network Access Control (NAC) through its Device Platform Intelligence (DPI) technology, ensuring full visibility of all IP-enabled devices and the highest levels of security and compliance without disrupting existing infrastructure. Genians provides on-premise and cloud-based deployment options, as well as a dedicated solution for MSSPs.

www.genians.com

Georgia, USA — S 1665

Internet of Things, professional development & workforce, government regulations, consulting & professional services

NEW PRODUCT With more than 115 cybersecurity companies generating over $4.7 billion annually, Georgia serves as one of America's elite cyber-hubs, ranking No. 3 in the nation for info security. Georgia is home to US Army Cyber Command, Facebook's $42 billion data center, and six of the 10 largest payment processing firms in the nation. For more info visit booth 1665, or:

www.georgia.org/industries/technology

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German Pavilion / TeleTrusT — N 5671

GDPR, security analytics, network security, mobile security, identity management & governance, government regulations, endpoint security, cryptography, application security, Internet of Things

Germany participates with a "German Pavilion" offering a professional brokerage service to help to establish contacts with German companies and comprehensive information on Germany as an important business location.

1) Presented by: Federal Ministry for Economic Affairs and Energy (BMWi) – *www.bmwi.de*
2) in cooperation with: AUMA_Association of the German Trade Fair Industry – *www.auma.de*
3) supported by: IT Security Association Germany (TeleTrusT) – *www.teletrust.de*
4) organized by: DEGA Expoteam – *www.dega-expoteam.de*

TeleTrusT embodies the largest competence network for IT security in Germany and Europe.

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- Bundesamt für Sicherheit in der Informationstechnik
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- CV Cryptovision GmbH
- DETACK GmbH
- eco Verband der Internetwirtschaft e.V.
- Hornetsecurity GmbH
- ITConcepts Professional GmbH
- itWatch GmbH
- Matrix 42 AG
- MB connect line GmbH
- MTG AG
- NCP engineering
- QGroup GmbH
- QuoScient GmbH
- Search Guard
- Secomba GmbH
- secunet Security Networks AG
- TÜV Informationstechnik GmbH.

www.teletrust.de
www.rsac.german-pavilion.com

Gigamon — S 1447

PII, zero-day vulnerability, software defined networking, security awareness, network security, infrastructure security, incident response, governance risk & compliance, critical infrastructure, business continuity & disaster recovery

Gigamon, the recognized leader in network visibility solutions, delivers the powerful insights needed to see, secure and empower enterprise networks. Our solutions accelerate threat detection and incident response while empowering customers to maximize infrastructure performance. Global customers include over 80 percent of the Fortune 100, 2,800+ NetOps and SecOps teams and leading service providers.

www.gigamon.com

Global Learning Systems — S 3304

GDPR, security awareness, phishing, Ransomware

NEW PRODUCT Global Learning Systems provides security awareness and compliance training programs for employees that effectively promote behavior change, protect your organization and Strengthen Your Human Firewall®. In addition to carefully tailoring program materials to client needs, we offer an online learning platform, phishing simulation tool, courseware customization and high-touch customer service.

www.globallearningsystems.com

GlobalSign — S 1941

BYOD, secure coding, mobile security, key management, identity management & governance, endpoint security, authentication, access control, Internet of Things, DevSecOps

NEW PRODUCT GlobalSign is the leading certificate authority provider of high-scale PKI automation for mixed endpoint environments and trusted identity solutions supporting the billions of services, devices, people and things comprising the Internet of Everything (IoE). The company has offices in the Americas, Europe and Asia. For more information, visit:

www.globalsign.com

GoAnywhere MFT — S 150

GDPR, security analytics, orchestration & automation, log management, key management, governance risk & compliance, encryption strategy & trends, data security, data loss prevention, PII

GoAnywhere MFT streamlines and automates file movement through a centralized, user-friendly interface. The software allows organizations to connect to internal and external systems and exchange secured data using industry standard protocols and encryption (e.g. FTPS, SFTP, HTTPS, AS2). Learn more at:

www.goanywhere.com

GoSecure CounterTack Inc. — S 1049

Anti-malware, threat management, managed security services, endpoint security, consulting & professional services, behavioral analytics

GoSecure leverages its CounterTack EndPoint Protection Platform (EPP) as well as its unique expertise in behaviorally based threat detection, binary analysis and malware forensics to deliver a full suite of managed detection and response (MDR), incident response (IR), advisory and assessment services. The CounterTack platform also powers the MDR offerings of several market leading global MSSPs.

www.countertack.com

GrammaTech — N 4127

GrammaTech is a leading developer of software-assurance tools and advanced cybersecurity solutions. GrammaTech helps organizations develop and release high quality software, free of harmful defects that cause system failures, enable data breaches and increase corporate liabilities in today's connected world. GrammaTech's CodeSonar is used by embedded developers worldwide.

www.grammatech.com

GreatHorn — N 4200

Ransomware, zero-day vulnerability, threat intelligence, security awareness, phishing, malware, incident response, hackers & threats, anti-malware

GreatHorn simplifies email security by automating the cycle of email security—through continuous threat detection, defense and incident response. Office 365 and G Suite customers not only gain enterprise-class protection against both sophisticated phishing attacks and traditional threats, they also reduce complexity, manual remediation time and negative impact on business operations.

www.greathorn.com

GreeNet — S 149

Internet of Things, software defined networking, phishing, network security, governance risk & compliance, denial of service, botnets, big data analytics, anti-malware, access control

Wuhan GreeNet Information Service Co., Ltd., specializes in the communication network traffic processing field, mainly engaged in DPI (Deep Packet Inspection) series products, including two product lines: fixed-line DPI and mobile network DPI, providing various solutions for communication operators, information security systems, etc.

www.greenet.net.cn

RSA® Business-Driven Security™ solutions provide a unified approach to managing digital risk that hinges on integrated visibility, automated insights and coordinated actions. With capabilities for rapid detection and response, user access control, consumer fraud protection, and integrated risk management, RSA customers can thrive and continuously adapt to transformational change.

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