出國報告（出國類別：開會及考察）

推動網路教學技術與應用發展趨勢

服務機關：中華電信訓練所
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出國期間：93/12/1-93/12/11
報告日期：94/3/4

行政院及所屬各機關出國報告提要

出國報告名稱：推動網路教學技術與應用發展趨勢 　　　　　　頁數共 76 頁(含封面目錄及附錄)　含附件：■是	
出國計畫主辦機關/聯絡人/電話	
出國人員姓名/服務機關/單位/職稱/電話 何瑛華/中華電信訓練所/網路教學中心/講師/02-29639382	
出國類別：□1 考察□2 進修□3 研究□4 實習■5 其他-開會	
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分類號/目

關鍵詞：
人力資源管理，網路教學，課程設計，CISCO，ORACLE，網格技術，Grid Computing，RLO，eLearning Developing Architecture

內容摘要：(二百至三百字)

　本所於 93 年度開始使用網路教學平台(採用 Oracle 公司 iLearning 系統)，累積一年使用經驗，透過參加本次研討會所安排多場與線上學習、人力資源發展(Human Resource)、後端相關資訊系統開發技術議程等以協助進行應用深化及後續規劃方向參考，並順道赴 cisco 公司觀摩,吸取大型企業多年來在推動使用網路學習應用經驗,提供對於辦理推動網路學習策略以及如何有效結合人力資源管理借鏡。

心得與建議
- 企業應追求：落實培訓工作與公司目標的一致性，讓人員培訓計畫在公司關鍵及核心業務領域提高人員績效。
- 學習管理必須與公司人力資源管理有更緊密的結合
- 培訓計畫和核心業務流程有更緊密的結合。
- 確保培訓計畫與企業目標相一致
- 追求訓練績效與員工潛力開發
- 提供多樣化學習、討論、互動、Web 會議和其他虛擬教室功能。

訓練機構面臨挑戰：
協助公司將培訓管理工作從「成本消費中心」轉變成「有回報的重要投資行為」

本文電子檔已上傳至出國報告資訊網（http://report.nat.gov.tw）

目錄

壹、 目的及緣起

中華電信訓練所(以下簡稱本所)已推動網路學習數年，並於92年底完成網路教學系統平台建置，於93年初開放提供中華電信全公司全面使用。由於該平台係採用Oracle iLearning 網路學習管理系統，歷經一年推動使用，獲致初步成果；在93年度中總計提供8類174門，總計超過500小時以上之網路學習資源，提供全區員工透過公司企業網路上網研習，其中包括提供知識分享之vod以及提供學員自行上網研習自學課程；為能繼續就本公司後續如何加強推動網路學習以及落實結合人力資源管理的策略規劃，特安排參加Oracle之技術與應用研討會，選擇與線上學習及人力資源發展(Human Resource) 有關議題參與研討，同時順道赴CISCO公司觀摩以了解大型國際企業發展網路教學之實務做法及發展策略。

貳、 過程

一、行程

本案行程共計十天，執行經過如下：

12/1：行程，搭乘華航CI006，於夜間18:30抵達舊金山機場，夜宿舊金山。

12/2-12/3：至CISCO公司總部參訪其網路教學發展：
        12/2 上午 9:00由舊金山搭程CalTrain，赴灣區San Jose
        12/2-12/3 赴 CISCO公司總部參訪其網路教學發展。

12/4：行程，搭乘CalTrain返回舊金山，整理行李與參訪資料、辦理研討會報名及註冊事宜，並搭乘公車赴研討會場實地了解會場位置及往返住宿與交通路線。

12/5-12/9：參加Oracle Open World 研討會

12/10-12/11 返程

二、參訪CISCO

1. 參訪內容

參訪對象為世界知名網路設備重要廠商CISCO公司，於12/2-12/3二日時間，會見該公司客戶及合作夥伴學習服務部門行銷經理(Marketing Manger of Partner & Customer Learning Services) Christian Grosmann以及專業經銷商及合作夥伴業務部門經理Channel and Partner Readiness Manager Leslee Mesicksm，此二位經理負責與客戶及合作夥伴有關之網路學習服務規劃工作。會面中請教議題除了環繞Cisco 公司在Partner elearning connection team對於如何處理與規劃協力廠商訓練機制外，另外還就 CISCO 如何規劃辦理公司內部員工訓練、所投入人力資源、預

算如何編列與執行、公司發展網路學習之歷程、Cisco 如何選擇合作廠商進行網路學習課程、開發網路專業認證訓練課程、製作網路節目方式、是否向 Business Unit 收費等議題，提出請教及意見交換討論。

2. 製作節目施攝影棚

其間並實地參訪其影音製作節目攝影棚，基本上公司經營層發表談話、產品說明、專家說明等簡易影音節目都在該攝影棚錄製，尚未使用特殊或特別先進設備。

3. 觀摩 Cisco 學習網站

現場並同時展示 Cisco 學習網站 http://Cisco Learning Connection(如下圖)。該網站提供所有關於 Cisco 公司的產品以及相關技術資料，內容包括一系列由 Cisco 公司專家現身說法影片、深度且互動網路學習課程、系列語音說明、線上檢核測試等，並且提供個人或機構以年為單位訂購使用。

4. 觀摩課程設計

http://www.cisco.com/warp/public/474/index.shtml
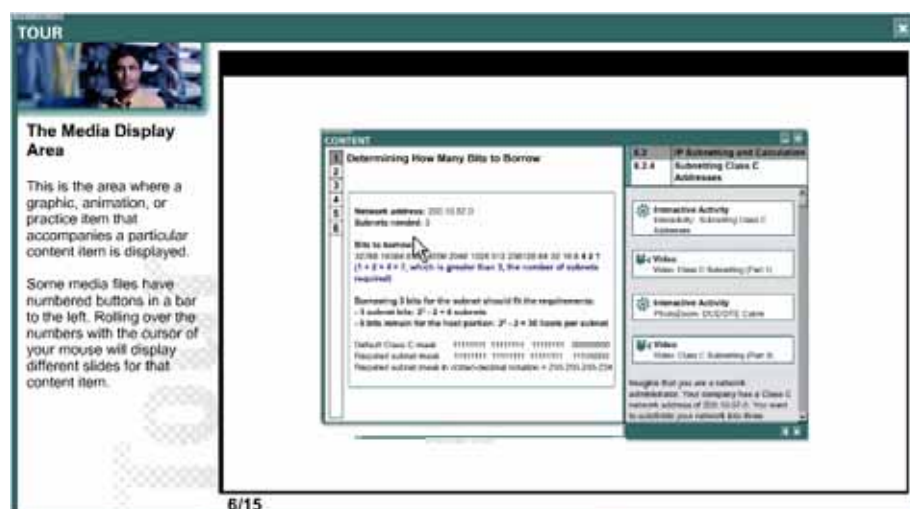
Cisco E-Learning 目前開放一門線上學習網路課程(Cisco Rourt Security 1.0)提供免費使用，我們參照上述網址可以上網觀摩並實作練習，體驗其網路專業課程之

設計規劃。對於本所同仁而言，訓練所老師們以及擔任課程製作工作相關同仁可以藉以對照印證所謂「課程目標規劃、課程章節及單元規劃、課程內容規劃設計與課程製作、課程內容引導、操作、互動練習、線上模擬 eLAB、線上影音、線上測試、輔助資料、字彙索引、線上導覽等之展現。該課程網址業已推薦給本所及中高分所相關主管同仁參考。

5. 專業網路課程製作

參訪過程中並曾探詢專業網路課程相關製作經費規劃等事項，關於網路專業訓練系列課程，係CISCO公司提供題材及內容，組成相關領域專家(sme)並以專案方式委託其他專業公司設計製作；由於CISCO公司的核心專業集中於網路設備，經過多年經驗累積而結集成現在的豐碩成果；CISCO 在 eLearning 的領域起步很早，並且非常熱心參與網路教學發展相關公共事務，如ASTD、IMS、AICC、IEEE等組織，有關於網路學習課程架構設計與技術規範等小組均可見到 Cisco 公司參與身影。同時 Cisco 亦積極訂定其網路課程架構模式與實施策略白皮書 (Cisco RLO Architecture)[詳參Cisco網站]，目前最新版本為2003所發布之5.0，自最早1998年第一版，短短六年間逐年持續修訂，顯見其投入於網路學習領域相關人力物力資源與規模之深厚。

訪談中亦曾提出如何選擇最適當之廠商與製作成本等問題，據告知此類網路課程一門課程約 30 小時，其製作費用預算約 30-50 萬美金，平均每小時約 1 萬－1.7 萬美金，而 CBT/WBT 等類型課程，內容約 2 小時課程，其製作費用約 2 萬美金。反觀本所目前所擁有之預算、人力、經驗等相形比較之下實在單薄太多。

同時各產品開發及行銷部門會依據需要提出相關系列網路課程規劃製作計畫並預先編列預算進行相關課程製作。

參訪資料等相關資料提供於附件一、二。

三、 參加 ORACLE Open World 研討會

1. 研討會宗旨

甲骨文全球技術與應用大會於 93/12/5-12/9 美國舊金山市中心 Moscone Center 舉辦，前後爲期五日，12/5 爲開幕日，12 月 9 日結束。今年甲骨文公司首次把定期舉辦的兩個全球大會「甲骨文應用大會 (Oracle Apps World)」和「甲骨文技術大會 (Oracle World)」合併在一起舉行，在同一個地點全面展示其產品和技術，讓與會者瞭解 Oracle 軟體怎樣相互組合，形成一個基於標準、開放且集成的平臺。讓用戶可以在此平臺上運行即時商務，因而成爲一個全球性商務管理與技術盛會。

2. 研討會規模

此次大會共吸引 2.5 萬名來自世界各地的到場與會者和 2500 家合作夥伴。主題演講及小型講座達 600 場，參展現場也達到 150 個，這些講座和展示內容爲各行業、企業和 IT 專業人士提供重要資訊和策略指導，以協助改進流程和管理關鍵資訊資產。

3. 主要策略聯盟廠商及重要策略演講

12/6,12/7,12/8,12/9 上下午分別安排來自戴爾、EMC、惠普、英代爾、Sun 和甲骨文等公司的業界領袖進行一系列重要發展策略演講。參與重要演講的業界領袖包括：甲骨文公司首席執行長賴瑞-艾理森（Larry Ellison）、甲骨文公司總裁菲利浦斯（Charles Phillips）、惠普公司董事長兼首席執行長 Carly Fiorina (註,已於最近離職)、戴爾公司董事長 Michael Dell、Sun Micro System 公司董事長兼首席執行長 Scott McNealy、EMC 公司總裁兼首席執行長 Joe Tucci、英代爾公司軟體與解決方案部聯合總經理 Richard Wirt 和 William A. Swope 等。這些演講還當時還提供現場直播方式於 Open World 網站提供全球觀看，會期間並提供 VOD 點閱，不過會期結束後這些服務也隨之停止，但也製作爲 DVD，提供研討會參加成員於事後下載，亦提供網路下單購買相關研討會資料及各類及技術說明文件。

4. 展覽內容

由於本次研討會係首次結合應用與技術領域，參加人員共達 25000 名，因此動用到的會場很多，展覽廳提供所有 150 參展廠商展示各式各類商務應用，包括網格計算、商業智慧、開發環境、資料庫最新版本、整合客服、管理、決策應用、人資管理整合應用等。

展覽會場現場另外還在研討會期間提供 360 度空間展示，透過安置於會場各處上方之攝影機連線提供與會成員自行透過網路觀看展示會場之活動，這項功能安排可以算是一項貼心的服務，因爲研討主題豐富，展示會場內容也非常多，提供這項功能確實有助於與會者在疲憊不堪之虞，仍然可以透過網路與攝影鏡頭之操控掌握到精采展示的活動，這項功能也僅在會期間提供，結束後就停止服務。

5. 會場服務

此等大型規模研討會集數萬專業人員於一堂，對於各類資訊提供亦非常充足，除了網站隨時發布最新消息、每日發行當日/次日主題與最新變動資訊、整個會場亦提供無線上網服務、連線專區、辦理專業認證更新考試及開放實務研討交流時間，讓全球Oracle 產品及 DB 領域之專業人員可以與各產業專家交流會面與交換心得，本次並在Open World 網站上開闢 Blog 個人日記(亦稱網誌或部落格)，提供各技術領域專家發表心得與意見。

6. 研討會主題分類

本次甲骨文全球技術與應用大會以各行業客戶和合作夥伴採用 Oracle 軟體為中心議題，會議的關鍵議題涵蓋：Oracle 應用產品(Oracle Applications)、企業網格計算(Enterprise Grid Computing)、商務智慧(Business Intelligence)、企業資料管理(Integration and Enterprise Content Management)等主題。

所有研討議題依產業別(Industry)、技術類(Technology)、商業應用類(Business)、解決方案等區分。由於議題很多，有許多時段同時有數場研討進行，筆者會前先透過Oracle 研討會官方網站所提供之排程功能，選擇有興趣以 人力資源管理以及學習管理有關主題安排並事先規劃路線，方能在多個研討會場順利穿梭。

(1). 產業(Industry) 別研討議題

航通及國防、自動化、通信、消費產品、教育及研發、工程建築、財金服務、健康醫療、高科技、工業製造、保險、專業服務、公共服務、仲介服務、交通旅遊。

(2). 技術(Technology) 研討議題

Oracle DataBase 10g、Oracle Application Server 10g、Oracle Business Intelligent and Data Warehousing、Oracle Collaboration Suite

(3). 商業應用(Business) 研討議題

Application Technology、Product Life Cycle Management、Cooperate Performance Management、Custom Data Management、Sales and Marketing、Service、Financials、Fullfilment、Human Resources、Maintenance、Manufacturing、Pricument、Projects、Suppply Chain Planning。

(4). 解決方案(Solution)專案服務研討議題

(5). 中小企業、On Demand、Oracle Services

7. 研討會重點摘要

以下就本次研討會所發布重要技術或重要趨勢摘要於下。

(1). 巨大網格計劃 (Project MegaGrid)

本次研討會中一項令全球資訊界及網路業界矚目之重要訊息為戴爾、EMC、英特爾、與甲骨文等四家知名公司於 12/9 共同宣布聯合成立一項「巨大網格計劃（Project MegaGrid）」，宣示合作開發標準規格以建立與佈署企業網格運算〈Grid Computing〉基礎架構。這四家公司結合若干核心科技與技術資源，並且開發出一項完備的企業網格運算解決方案，以降低對於整合的負擔，企業網格運算的功能超越傳統的對稱多處理〈SMP〉，而價格卻只有 SMP 的一小部份。

巨大網格計劃（Project MegaGrid）初期專注於設計、測試、與將產業標準文件化的最佳實務，以有效地建立符合成本及效能需求的企業網格運算基礎架構。這些最佳實務也包含對全面性資料庫、伺服器與網路儲存配置的可擴充性、效能及可管理性進行一系列的測試。該實驗性的基礎架構在甲骨文的全球資訊技術資料中心〈Oracle Global IT Data Center〉進行架構、配置與驗證。 計畫相關內容請參考附件三 巨大網格計劃(Project MegaGrid)簡介，其他更詳細的 FAQ 以及相關技術文件，如：PROJECT MEGAGRID:FAQ、PROJECT MEGAGRID :Practical Guidance for Deploying Large Clusters、PROJECT MEGAGRID: Performance Collection and Analysis in Large Scale Clusters、PROJECT MEGAGRID: Capacity planning for Large commodity Clusters 等均可以由 Oracle 等公司網站找到。

(2). 其他技術研討專題

其他技術研討專題涵蓋：資料庫 10g(參閱附件四 DB10g 簡報)、應用伺服器（ Application Server)、企業管理器(Enterprise Manager)、電子商務套件（ Business Suite)、軟體開發工具 JDeveloper、資料庫課程和認證計畫更新、協作套件軟體(Collaboration Suite)、企業級內容管理工具(Enterprise Content Manager)。

(3). 學習管理軟體

學習管理軟體「學習管理軟體」強調：唯有透過在全企業範圍內實現「培訓工作與公司目標的一致性」，讓人員培訓計畫在公司「關鍵及核心業務」領域提高人員績效，才能協助縮短獲得投資回報的時間。

學習管理軟體的核心主軸為:(1)協助企業更好地實現培訓計畫與企業核心目標的一致，(2)讓人員培訓與業務流程整合，(3)協助公司將其培訓管理工作從「成本消費中心」轉變成「有回報的重要投資行為」。

Oracle 學習管理軟體提供「建立學習計畫」功能，員工和主管能夠以一個更宏觀的目標來衡量學習者取得的進步。「學習計畫」提供一組特定課程，以特定群組為目標，協助員工們根據公司的關鍵計畫來使用培訓費用。學習計畫可根據各種

目標靈活組合學習課程，例如：基於角色(Role Based)的學習、績效提高(Performance oriented)、職業發展(Careed Development)等。
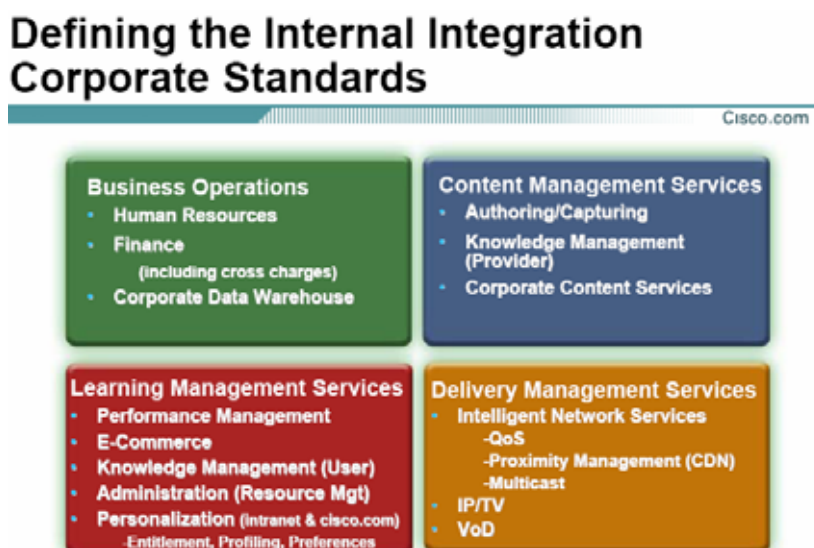
參、　　心得

一、　網路教學發展策略

綜觀 Cisco 與 Oracle 公司均屬於大型知名國際企業，在動態的經營環境中仍然不斷求新求變，均非常積極的運用資訊科技與網路技術於公司業務發展，訂定非常清楚目標與發展方向,落實將人員培育訓練與業務發展緊密結合並且追逐成效。

1. Cisco E-Learning發展策略

Cisco以公司整體企業角度提出eLedarning 資訊架構

2. Cisco E-Learning Solution 架構

- ■ 範圍涵蓋Cisco、營運服務、合作夥伴、客戶
- ■ 引導 Cisco 集中目標發展出滿足公司需要的「全方位」、「全球適用」之網路學習發展策略
- ■ 系統規劃層面涵蓋公司營運服務、內容管理服務、內容遞送服務、學習管理服務
- ■ 系統服務與功能建置則分階段逐步實施

Cisco E-Learning Solutions Architecture

3. Cisco 網路學習服務逐步整合

Delivery Management Services (DMS) 3rd Party Integrations - Today
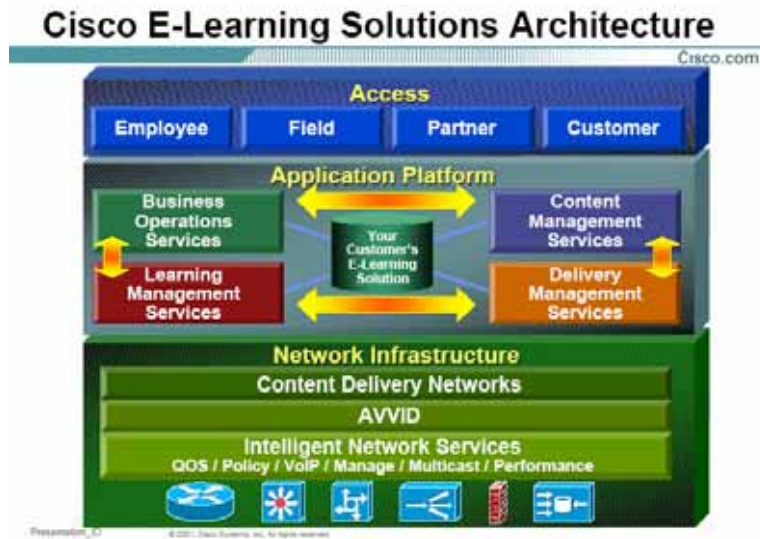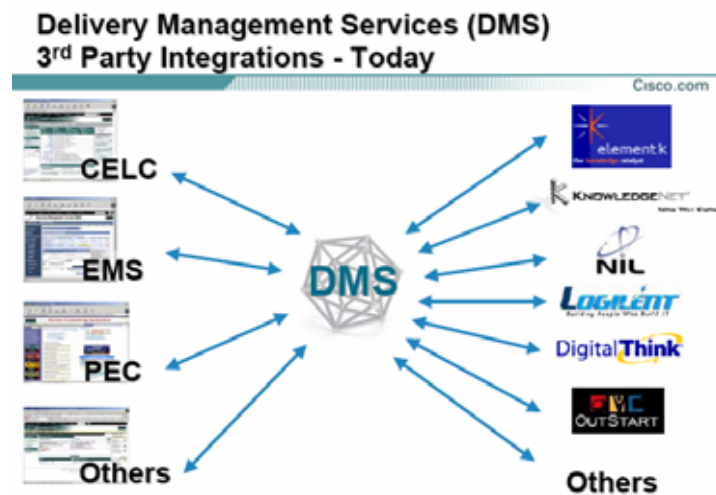
Cisco 推動網路學習應用發展多年，早先同樣發生各單位各自依據業務需要而自行發展與運用各式網路學習資源，各類內容與資源散佈各處，後來再經歷辛苦整合過程，並透過 DMS 提供遞送管理服務。

二、 網路教學應用趨勢

隨著企業發展全球化以及經營環境挑戰加劇，將資訊科技、網路科技運用在經營管理與業務發展的能力已成為知支撐企業永續經營發展的關鍵因素之一，另外更重要的一環是明確追求企業發展的具體成效。Oracle「人力資源發展與管理」另發表關產品策略說明(白皮書)，已彙整列於附件。

ORACLE HRMS (人力資源管理系統)

本研討會中 ORACLE 發表 Oracle HRMS(人力資源管理系統)新版本，相關資料請參考五(打造優秀員工白皮書(ACHIEVING WORKFORCE EXCELLENCE)、附件六 Oracle HRMS (人力資源管理系統)架構、附件七為甲骨文中國公司在今年一月份針對人力資源管理系統在中國大陸所發表發展策略。

彙總本次研討會以及相關資料，深刻了解：在各種關於人力資源發展及管理的評估報告顯示，各企業都認同「人才」是公司最珍貴的資產。依據過去 20 年來的統計數據顯示，各企業的平均用人成本高達 60%，因此近年來在歐美各廠商以及顧問公司針對 HR 領域發展，已明顯出現將「提升工作效能、工作效益、工作生產力」等精神以及相關管理功能列入 HR 新模式的趨勢，同時系統導入過程中也必須將相關觀念帶入並與作業流程一併引進。

Oracle 公司稱其發展之 HRMS 系統為「打造優秀員工(Achieving Workforce Excellence)」的模式，最重要的特點是將人才管理模式由「一般的行政管理」轉向「打造優秀員工(Workforce Excellence)」。新的 HRMS 模式清楚指出 HR 努力的方向與目標，這是一個持續不斷漸進的過程，更是進行開發員工潛能提升人力資源的持續性性過程，就整個企業需就：角色、工作分析、工作評量、評量指標等進行非常周延規劃與準備，深入研議人力資源運用與改善。

Oracle 搭配 HRMS，尚另外有一個「學習管理軟體」支援三種類型的學習計畫，本所目前已經發展出完全客製化的專屬訓練管理資訊系統，其作業內容主要在於提供現行體制下的資訊作業處理。

以下幾點是訓練所值得注並且納入未來系統規劃方向：
- 訓練管理資訊系統-與公司人力資源管理有更緊密的結合
- 讓培訓計畫和核心業務流程有更緊密的結合。
- 確保人員培訓計畫與企業目標相一致

三、 網路教學技術發展

站在全公司的立場，本公司為電信產業龍頭，更是主要的網路服務提供者，必須以更前瞻與寬廣的眼光來看待網路教學的發展。目前訓練所積極發展網路教學並會同總公司人資處推動員工網路學習，重點放在課程內容規劃與發展，並提供員工網路學習平台；然而隨著網路學習普及化以及公司各領域各類工作推動之需要，對於網路學習方式將更為多樣化，無論是對課程品質、展現方式、教學訓練即時性、更為方便與更高品質的網路學習環境、更為便捷的網路互動溝通等，隨著員工年齡層年輕化與使用網路使用年資差異化，將會擴大上網學習者對於網路學習服務更多樣化與差異化的需求。明顯事實：公司員工在逐步引進新血過程中，年輕的員工從小就習慣於使用網路，

也就是一般所稱「網路原住民」，擁有豐富網路經驗與全新的溝通習慣，因此在未來規劃方向必須將這些因素納入考慮，將相關必要環境在適當時機規劃納入，才能因應未來需求。

肆、　　建議事項

國外各知名公司均已大幅運用網路學習機制作爲協助推展公司推動業務部不或缺的工具，運作機制亦已純熟。業務發展全球化的公司透過這些純熟機制的協助公司經營管理仍然步履輕盈，任何政策佈達與制度推展可以在最短期推動全球所有分支機構所有員工了解並確認員工已充分知曉。

本公司經過各資訊單位多年的努力，目前已有相當完備的基礎建設，無論是企業網路、網路頻寬、員工目錄服務與管理機制、員工身分辨識機制、員工電子簽章、資訊安全管制、企業資訊入口網站、電子郵件管理系統、公司企業網站等各項重要建設以及相關資訊管理系統等都已逐一備齊。

網路學習平台亦已於 93 年度開始啓用，歷經一年推廣使用，全公司同仁已經有 90%同仁建立網路學習經驗以及體驗，93 年度推展結果，關於提供員工「資訊的完整性與及時性」方面已有相當績效。本所 93 年度與總公司人資處、資訊處、總務處、企客處等充分配合並建立標準作業模式，遇有屬於政策推動、業務推動、制度宣導、新技術等類型之研討會與演講，在辦理相關研討會之同時即配合同步製作 VOD 節目，提供於網路學習管理平台開放給全公司員工或是特定對象，讓全區及偏遠地區同仁或是特定群組成員能夠隨即透過本公司企業網路讀取，在最短期間掌握政策及業務推動重點，已具體發揮「資訊傳遞與分享」效益，年度中本公司有多項重要政策、制度推動與業務推展，如：民營化說明、重要資訊系統推動全區上線、重點業務推展等均已廣加運用。在現有基礎上可以更進一步推動應用的方式與方向，茲整理如下：

1．建立機制協助經營管理落實制度推動

「個人資料保護」、「客戶資料保密」、「營業秘密」、「內部控制與稽核」、「資訊安全」等議題均屬本公司近期管理方面重要項目，各類問題要防範於未然，除了研訂相關辦法發布實施外，執行成果的關鍵因素在於能否徹底落實「每一位員工都能夠持續且充分了解規定內容以及後果，從而在行爲上能夠落實規範或規定執行」。

在此建議各主管單位多加利用「網路學習」爲工具並建立必要管理機制，來協助各項制度的「落實執行」。例如：公司行爲準則、內部控制與稽核管理、資訊安全通識、個人資料保護、營業秘密、勞安規範、…等議題都是值得在今年度中規劃成網路課程並且可以很快配合實施推動全區員工學習了解的項目。

以下提供實施建議方案供各業務主管單位參考：

1. 落實方式：規劃設計各議題相關之網路課程，透過網路學習引導員工認識並充分了解；網路課程宜精簡，時間不宜太長，最多 30 分鐘；網路課程並提供線上測試以檢驗是否了解。

2. 挑選重要議題優先辦理，此類課程種類適當就好。

3. 持續性：為確保重要管理制度或規定能確實被知悉與遵守，參考其他公司做法，可篩選特定項目，透過行政措施設計定期上網研習的週期，例如：「資訊安全意識提升」、「公司行為準則」、「個人資料保護及營業秘密保密」，全體員工每年必須依指定期間上網完成學習，當生澀的新觀念變成非常熟悉的概念，就會成為習慣而在行為上表現出來。

2．運用「網路學習」協助員工個人學習成長

為協助員工個人學習成長方面，建議自現在開始應在方面提供較為寬裕經費預算，以便能以外購教材方式選取適合員工學習的網路課程，豐富網路學習資源，例如：網路專業技術、管理類、一般 PC 套裝軟體、語言訓練，其費用可以依課程性質考慮「員工自行負擔」或是「公司部分補助」、「公司全額補助」。

3．將相關業務介紹製作網路課程列為產品行銷必要工作項目

以 CISCO 公司為例，CISCO 在系列產品推出前後，針對銷售人員、服務人員、維護人員、合作夥伴、公司客戶等角色人員之訓練與支援、訓練、技術文件、流程等已發展出相當成熟與完整的系統與制度來協助，並已成為業務推展不可或缺的一環，其運作模式值得借鏡，建議總公司考慮列為研究專題，作更為深入的了解與規劃。

由於現實環境本公司各類產品上線作業準備時間愈見壓縮，而產品上線所需要的各樣準備工作、配套措施與相關教育訓練(包括：銷售、服務、維護、管理等)絲毫未減，在可用時間被不斷壓縮的情況下,各產品公司已開始規劃進行提供網路學習課程作為行銷準備訓練之用。為降低整體成本並達到最佳成效，建議此類相關課程規劃時應將下列因素作整體考量：(1)所有可能對象，包含：銷售、服務、維護、管理、合作夥伴、公司客戶等角色人員,(2)應提供及涵蓋內容及項次,(3)各類對象可存取存項目,並據以規劃整套課程，循序提供。

目前總公司企客處業已規劃完成「行業別解決方案產品資訊網路教學說明大綱」，提供本公司各產業別產品經理共同依循，本公司其他重點業務或加值服務之「產品資訊網路教學說明及業務介紹」未來亦可參照該大綱所提供之內容項次，就技術面、業務面、行銷、案例、其他等提供一致性規劃。

4. 以更寬廣視野規劃本公司 eLeaning 策略架構及中長期藍圖

本公司對於 eLearning 的應用，93 年度著力於普遍性推廣，員工已大致擁有網路學習的初步經驗，除了本公司各項重點業務以及主管儲訓計畫基礎課程學習外，總公司其他各主管處亦已開始推動運用「網路學習」作爲推動業務的輔佐工具。參考 CISCO, Oracle 等公司現在的應用成效，本公司 eLearning 長期發展策略應將目標設定在與公司業務發展作更緊密結合，也就是在業務發展需求中找出需要藉用網路學習作爲助力的關鍵點，訂定明確的目標與應用方向並集中資源全力發展。

5. 系統架構維持繼續發展

本公司內部使用之學習管理平台運用 Oracle AP Server、DB 以及學習管理系統，歷經年來推動使用，學員上網相當頻繁，有不少課程提供線上測試以評量學習效果，一年來資料庫累積極爲龐大的資料量，並且與日俱增；綜觀 93 全年度全公司員工之學習狀況，學習成長曲線由年初每月 17,000 人次/470 小時，至年底時成長爲 178,000 人次/9200 小時。爲因應各單位陸續提出之新增應用需求與大量資料統計分析並持續維持後端系統平台作業務服品質，須針對資料庫管理、系統效能、應用開發環境、系統維護管理等方面進行必要系統升版規劃。

附件一 The Cisco Partner E-Learning Connection

參訪 Cisco 公司簡報資料

The Cisco Partner E-Learning Connection

Internet Learning Solutions Group

Executive Presentation

http://cisco.partnerelearning.com

1

Agenda

- **The Learning Challenge**

- **Partner E-Learning Connection**

- **Benefits and Business Impact**

2

The Learning Challenge

Every executive must ask sooner or later, "Can my employees keep up with the pace of change"

- Declining training and travel budgets
- Growing skill requirements
- Global shortage of skilled IT workers

- Rapid technological development
- Globalization pressures
- Hundreds of training sources

The Learning Challenge - Cisco

- Training required for Channel Certification not readily available
- High turn over in channel base
- Cisco SE's spending high % of time delivering training
- Reached less than 5% of partner base
- Hundreds of different sources for information
- Declining partner satisfaction with Cisco
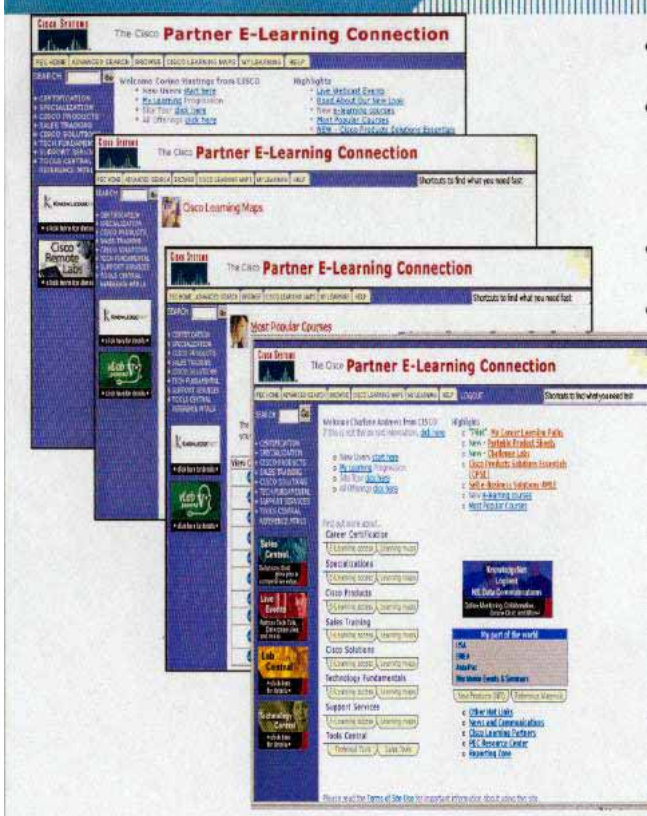
4

The Cisco Learning Solution

E-Learning...not just E-Training

It is information, communication, collaboration, and training.

http://www.ff.co.uk/PEC_Promo/

The Partner E-Learning Connection
E-Learning for Channel Sales Readiness

- **Launched in March 2000**

- **Provides +2500 hours of certification, specialization, and product technology training and remote labs**

- **80,000+ distinct logon sessions**

- **Averaging 800+ new partner logins per day**
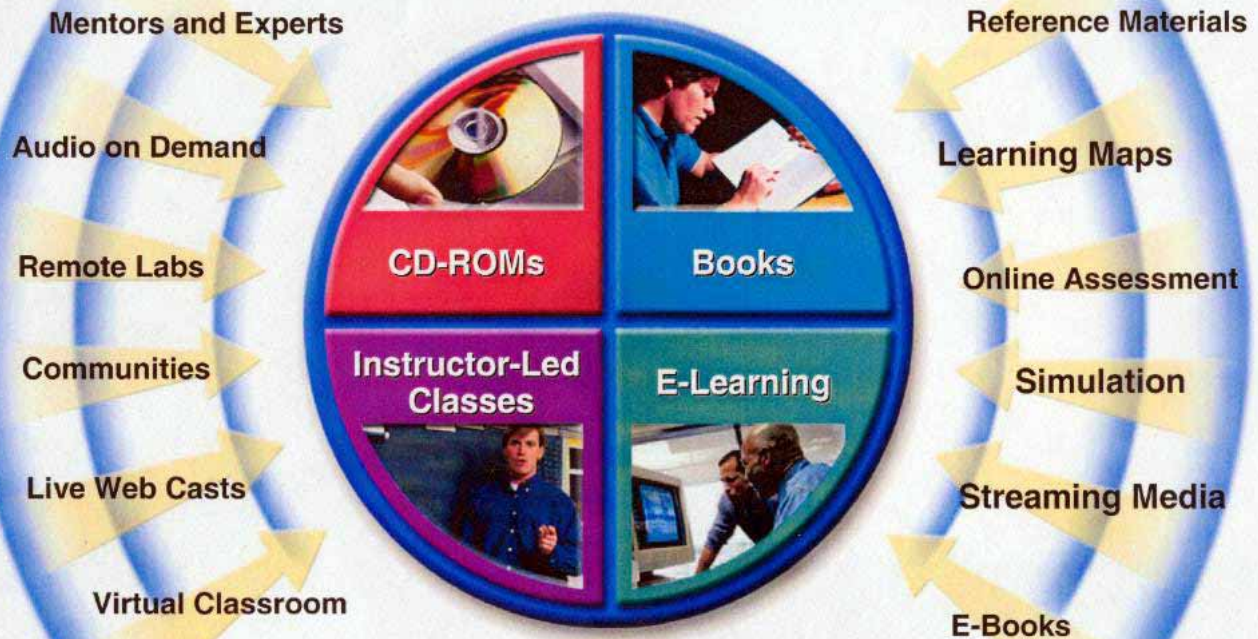
132 countries represented, 50 local language courses

PEC Usage by Theatre

Americas	**9.7%**
Asia Pac	**15.9%**
EMEA	**27.2%**
Japan	**1.2%**
US	**46.0%**

6

The Partner E-Learning Connection

Mentors and Experts

Audio on Demand

Remote Labs

Communities

Live Web Casts

Virtual Classroom

CD-ROMs

Instructor-Led Classes

Books

E-Learning

Reference Materials

Learning Maps

Online Assessment

Simulation

Streaming Media

E-Books

The Partner E-Learning Connection Benefits

- Accelerates business transformation
- Raises employee satisfaction
- Increases worker's employability
- Speed to competence
- Sharpens competitiveness

- Lower cost of delivery
- Increased accessibility
- Learner accountability
- Timeliness
- Scalability
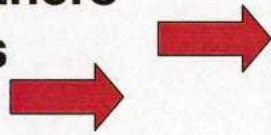- Personalization
- Convenience

Benefits for Cisco and Channel Partner Sales

- **Decrease time to competencies**

- **Knowledgeable partners**
  Satisfied customers
  Loyal customers

  increases productivity and decreases cost

- **Increase number of certifications**

- **Increase number of partners specialized**

9

PEC Business Impact

The PEC has helped Cisco Partners *increase* their revenue, productivity, and cost savings by between 35% and 58%

58%	53%	53%	35%	46%
Helped Save Training Expenses	Helped Accellerate Ability to Sell Cisco	Helped Increase Productivity	Helped Increase Revenue	Helped Increase Customer Sat With Cisco
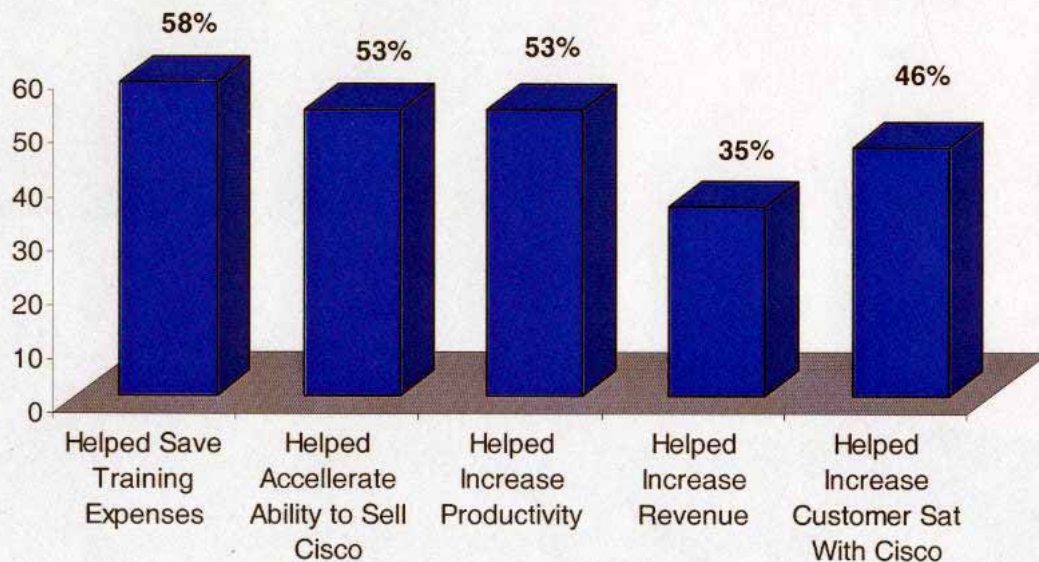
Percentages indicate average responses

Source: Walker Survey July 2003

10

Business Impact
What Our Partners are Saying….

"PEC provides an opportunity for us to learn and immediately incorporate the new information into sales efforts…" NorConsult, Zambia

"The PEC enables the company to keep its workforce abreast of the latest Cisco technology in a flexible manner, without impacting day to day commitments and (enables) a consistent approach/delivery in presenting a unified 'story' to clients." **Getronics, UK**

"The PEC fits in well with our business initiatives. I am able to learn and understand new technologies quickly and am better prepared to sell these new ways of doing business to our customers. It allows me to be more confident in front of clients and I am able to converse with them in a more learned manner. This in turn results in better sales and higher revenues." **RAM Group, Canada**

11

Summary

- **Questions to ask of your organization**

  Are training expenses impacting our bottom line and impeding the sales team's productivity?

  If we could shorten time to competency, could we bring emerging technology products to market faster?

  Is there a correlation between our expert-level technical skills and increased customer satisfaction scores?

  Are we missing out on potential sales opportunities because of lack of knowledge?

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PEC Site Demo
http://cisco.partnerelearning.com

附件二 Partner e-Learning Connection Value and Survey Summary

附件資料爲參訪 Cisco 公司所提供有關與全球合作夥伴及專業經銷商間運用
eLearning 協助進行訓練專案之簡報資料

Partner E-Learning Connection Value and Survey Summary

Leslee Mesick & Christian Grossmann

MAY 10, 2004

Partner Development Impact – To Date

cisco.partnerelearning.com

Partner SE Skill Level

To Date

Partner E-Learning Introduced

SE's Partner Dev. added (20 per year) →

Year	Value
1997	3.74
1998	3.76
1999	3.78
2000	3.89
2001	4.12
2002	4.27
2003	4.34
2004	4.43

- On average, PEC users report increased sales of $9.7K/per person/month
- $877M Partner savings in Training $$
- 108 hours / person / year time savings
- $40M in avoided costs with web delivery
- $1 Cisco investment delivers $98 training
- Cisco's investment reduced partner operating expenses for Gold/Silver/Premier
  - $292K avg. per partner (excluding travel)
  - $584K avg. per partner (including travel)
- 50% reduction in time to course completion

Sources: *Walkerinformation*, 23 January 2003 & PEC Survey July 2003

Partner E-Learning Connection

- **Business Impact**

  For every dollar Cisco spent on PEC in FY03, the company received $16 in value*

- **Process and best Practices**

  -Focused delivery of learning to partners

  -7000 learning assets thru Cisco's Learning Content Management Service

- **Collaboration**

  -Channels, Sales and BUs

- **Thought Leadership**

  - An industry benchmark

* (costs avoided + profits on incremental sales reported by resellers
- expenses to operate and provide content for PEC = VALUE)

Partner E-Learning Connection (PEC)

- **$66M Value of Time Saved with PEC Training**

  The value of the time saved by PEC users in selling, supporting and/or servicing Cisco products

- **$877M Reported Savings**

  The savings by PEC users on training costs

- **$1.2B Increased Sales Due to PEC Training**

  Partner increases in sales due to PEC

- **$65M Cisco avoided costs in FY'02 and FY'03**

  $25 million in FY'02 and $40 million in FY'03 by using the PEC in lieu of instructor-led training by the Cisco sales force, road shows, labs, and other methods that would have been required to deliver similar amounts of training if PEC did not exist

Cisco.com

CISCO SYSTEMS

Cisco.com
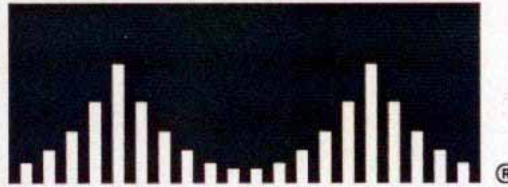
Cisco Partner E-Learning Connection (PEC) Site Survey Summary

July 2003

PEC Site Survey - Demographics

- July 8 – 21, 2003
- 3,600 Responses
- Responses received from over 107 Countries
- Theatre Response:
  US 33%, EMEA 32%, APAC 17%, AI 14%
- Survey Respondents (similar to previous Survey):
  - 20% Sales
  - 58% Technical
  - 8% Executive
  - 14% Other
- 76% of the Respondents were new to the survey and 24% had
previously taken a site survey regarding the PEC

July-2003

7

PEC Site Satisfaction

Overall Site Satisfaction   79.1%
Rated Satisfied or Very Satisfied (versus 74.4% prior)

Navigation   78.3%
Rated Satisfied or Very Satisfied (versus 73.9% prior)

Content   83.3%
Rated Satisfied or Very Satisfied (versus 79.2% prior)

Site Performance   94.6%
Said PEC performed same or better vs other web sites
(versus 93.6% prior)

July . 2003

8

PEC Business Impact

Cisco.com

The PEC has helped Cisco Partners *increase* their revenue, productivity, and cost savings by between 35% and 58%

Percentages indicate average responses

July 2003

9

Why Partners Come to the PEC

Cisco.com

Percent

July 2003

10
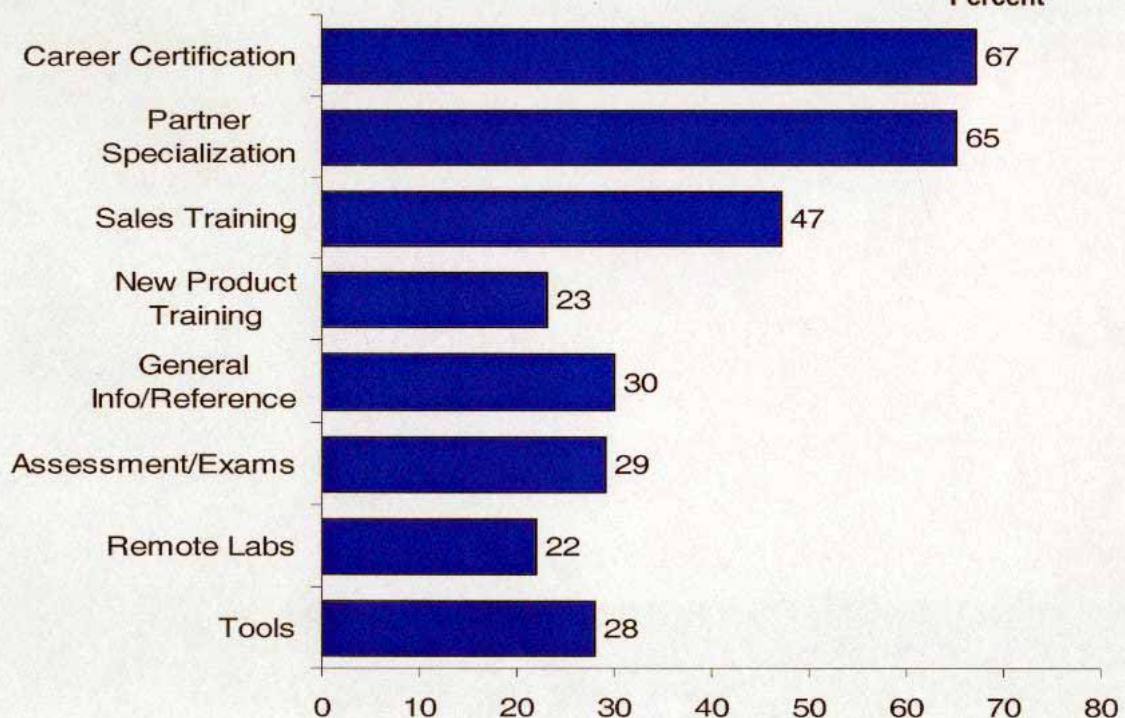
Comments from Partners

"One of the better websites, definitely…" HP, Germany

"I've found what I needed, labs are great. It's amazing how much information I can get there it seems unbelievable. All of my employees are using it. Thank you." MC Electronica, Costa Rica

"In this job I need to get information that's right for me and the web is perfect in this way." DotCom Solutions AB, Sweden

" The amount of course options available are very helpful in expanding knowledge" Logical Networks, US

" I am learning a large amount regarding the Cisco products and enjoy the courses as preparation for the actual work carried out. Logical Networks Limited, US

Additional Data Points

- **Overall Satisfaction Score out of 5 is 3.95 (3,600 respondents) versus the last survey score which was 3.84 (4000 respondents)**

- **Noteworthy Improvement in Learning Maps, Remote labs, technical and Sales Focus**

- **Hours saved over all per month by using the PEC ---approximately 10 hours**

附件三 MEGAGRID計畫簡介

戴爾、EMC、英特爾、與甲骨文攜手宣佈
MEGAGRID 巨大網格計劃以發展企業網格運算的最佳實務

資訊業界領導廠商結合技術資源與專業，

以因應業界對於企業網格運算獲得測試及驗證方法的需求

為了開發標準規格以建立與佈署企業網格運算〈Grid Computing〉基礎架構，戴爾、EMC、英特爾、與甲骨文今天宣布聯合成立一項巨大網格計劃（Project MegaGrid）。這四家公司正結合若干核心科技與技術資源，以降低他們對於顧客整合的負擔，並且開發出一項完備的企業網格運算解決方案，其功能超越傳統的對稱多處理〈SMP〉，而價格卻只有 SMP 的一小部份。

巨大網格計劃(Project MegaGrid)初期專注於設計、測試、與將產業標準文件化的最佳實務，以有效地建立符合成本及效能需求的企業網格運算基礎架構。這些最佳實務也包含對全面性資料庫、伺服器與網路儲存配置的可擴充性、效能及可管理性進行一系列的測試。該實驗性的基礎架構是在甲骨文的全球資訊技術資料中心〈Oracle Global IT Data Center〉進行架構、配置與驗證。

對於提供企業網格運算最佳實務的投資，巨大網格計劃(Project MegaGrid)的每一家贊助廠商都投資了技術資源以開發、測試、與驗證企業網格運算最佳實務。

具體而言：

- 戴爾 - 提供一套完備的企業級的網路伺服器基礎架構，由 dual IntelR Xeon 及 4-way Intel Itanium 處理器的 PowerEdge 伺服器、與相關的輸入/輸出技術所組成。

- EMC - 提供一套完備的網路儲存基礎架構，由 EMC CLARiiON CX 及 EMC Symmetrix DMX 網路儲存系統、EMC Celerra NS Series/Gateway Network Attached Storage (NAS)系統、EMC ControlCenter 與 EMC Navisphere 資訊管理軟體所組成。

- 英特爾 - 貢獻該公司於 Intel Xeon 及 Intel Itanium 處理器與伺服器管理上的專業、最適化工具、以及其它的資源以促使順利的設計整合；及

- 甲骨文 - 提供該公司的 Oracle 10g 技術基礎架構 (Oracle Application Server 10g、Oracle Database 10g、Oracle Real Application

Clusters 10g、 Oracle Enterprise Manager 10g)，及正在該公司的全球資訊技術資料中心主持巨大網格計劃(Project MegaGrid)的開發中心。

- 除了由這四家公司所提供的技術之外，Cramer 與 F5 Networks 此兩家公司對於巨大網格計劃(Project MegaGrid)也提供相當程度的貢獻。Cramer 是一家電信企業應用軟體開發商，提供具高度擴充性的商業應用軟體予巨大網格計劃(Project MegaGrid)，其特性為全面性的資料組與具實務的商業交易處理。F5 Networks 則提供 BIG-IP 轉換器予巨大網格計劃(Project MegaGrid)，以確保應用程式的可用性與加速應用的效能。

企業網格運算提供更高的服務層級

巨大網格計劃(Project MegaGrid)旨在使所有垂直式產業中的商業與企業機構能夠善用企業網格運算。藉由聚集不同而能自動提供隨選服務的 IT 資源，企業機構得以善用企業網格以改善他們的應用服務層級、將系統管理的更好、而且降低資訊系統的成本。

商業及企業機構可以藉由以下的方式，以最低的投資與干擾來採用網格技術：

- 使用以 Intel 處理器為基礎的平台、Linux、及智慧層網路化的儲存方法，在具成本效益的伺服器及儲存基礎架構上進行標準化。

- 把資料庫、應用程式、伺服器及儲存合併到一個共同的平台。

- 自動化進行日常工作管理，俾使一名管理員即可同時管理數百台的伺服器與高達數兆位元的儲存資料。

Overstock.com 所佈署的網格獲得巨大網格計劃(Project MegaGrid)贊助廠商的支持

商業與企業機構現在即能善用巨大網格計劃(Project MegaGrid)的最佳實務與服務。網路零售商 Overstock.com 正與這四家公司合作建造一個企業網格運算的基礎架構。Overstock.com 技術副總裁 Shawn Schwegman 表示：「Overstock 的資訊基礎架構植基於 EMC、甲骨文、戴爾與英特爾公司。身為全世界網路零售業的領導廠商，我們致力於尋求降低基礎架構成本的方法，並同時維持高品質的服務。Oracle Real Application Clusters 10g 是以 Linux 運行於 Dell 伺服器，附加 EMC 網路儲存解決方案，以促使低成本、具彈性、以及能隨業務成長而擴充的網格運算基礎架構。此四家策略聯盟夥伴的工作是藉由巨大網格計劃(Project MegaGrid)伺服器進行的，俾能佈署更為簡化及快速而且提供可以公開獲得的最佳實務，從而簡化網格運算的環境」。

巨大網格計劃 (Project MegaGrid) 本週將在舊金山 Moscone Conference Center 的 Oracle OpenWorld 展示。技術性展示將於展覽廳中各個贊助廠商的攤位中提供：

- 戴爾與 EMC - 展覽攤位分別為 1602 及 1402。每天持續的現場實機展示項目包含有擴充、供應、與巨大網格計劃 (Project MegaGrid) 基礎架構的管理。
- 英特爾 - 英特爾將在 916 展覽攤位持續地展示巨大網格計劃 (Project MegaGrid) 第一階段的成果及其配置的細節。
- 甲骨文 - 在 Oracle DEMOgrounds 有三個巨大網格計劃 (Project MegaGrid) 的展覽攤位：E16、E17 與 E21，將分別強調管理容易度、資料庫網格及儲存網格。

若欲了解巨大網格計劃 (Project MegaGrid) 的詳細資訊，請參閱下列網站：

- http://www.dell.com/megagrid v
- http://www.emc.com/megagrid
- http://www.oracle.com/megagrid

附件四 Oracle 資料庫 DB 10g 簡介

附件資料為研討會關於 Oracle DB10g 簡介，相關技術文件可以在許多網站找到。

"Simply put, Oracle 10g is by far the most sophisticated database on the market today"

- Mario Morejon, Computer Reseller News

ORACLE

Oracle Database 10g

ORACLE

William Hardie
Senior Director
Database Product Marketing
Oracle Corporation

Mark Townsend
Senior Director
Database Server Technologies
Oracle Corporation

ORACLE

Oracle Database 10g

- Enables grid computing
- Offers highest quality of service
  - Performance
  - Scalability
  - Availability
- 50% or more reduction in administration costs
- Most complete and integrated database

ORACLE

Oracle Database 10g Editions

Average Connected Users

Standard Edition One
(2 processor max)

Standard Edition
(4 processor max)

Enterprise Edition
(Unlimited processors)
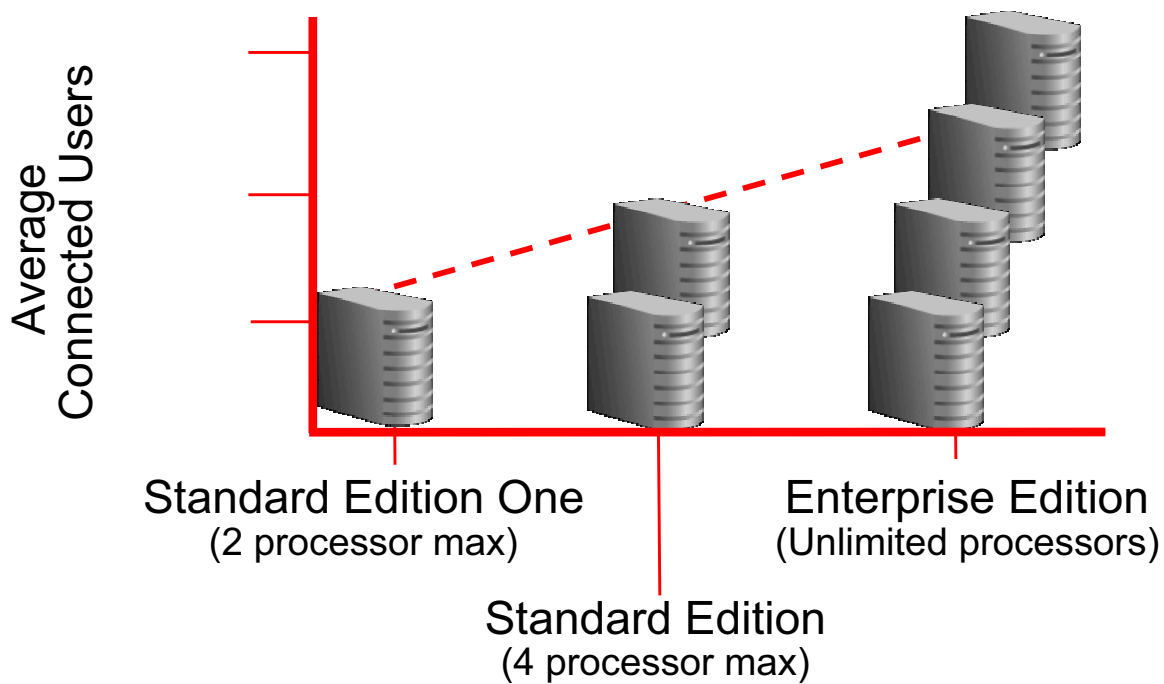
Database Server Grid

ERP

SCM

CRM
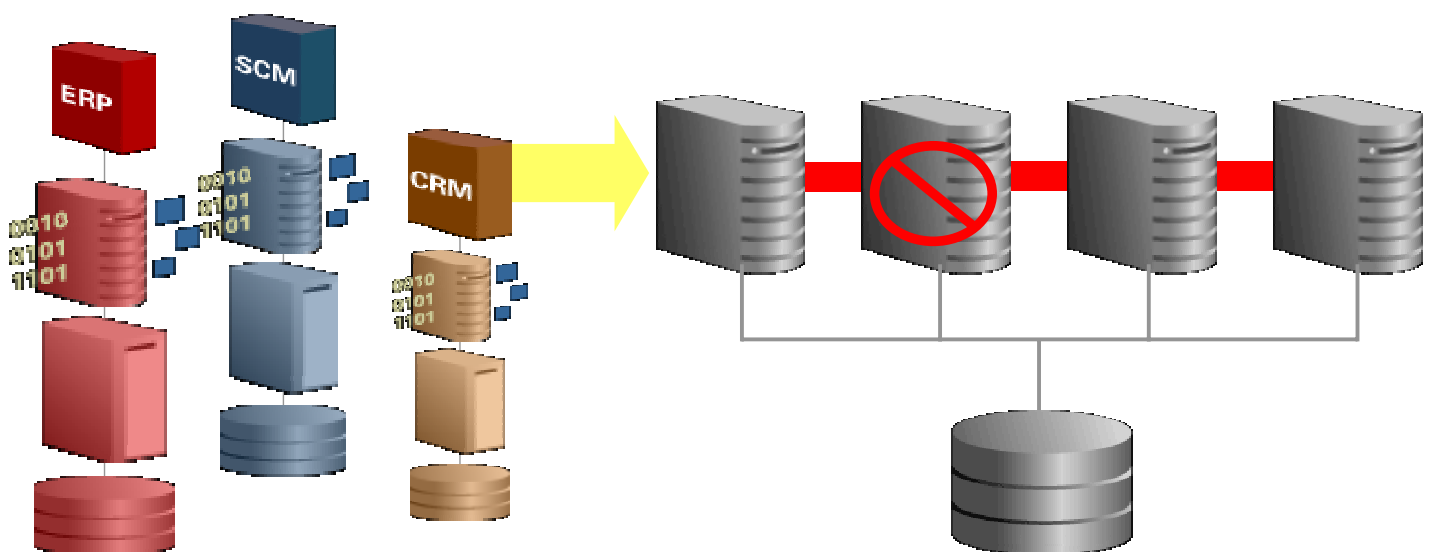
Oracle Real Application Clusters

Oracle Storage Grid

ASM Mirroring

Flash Recovery

Flashback

Data Guard

Storage Protection

Corruption Protection

Human Error Protection
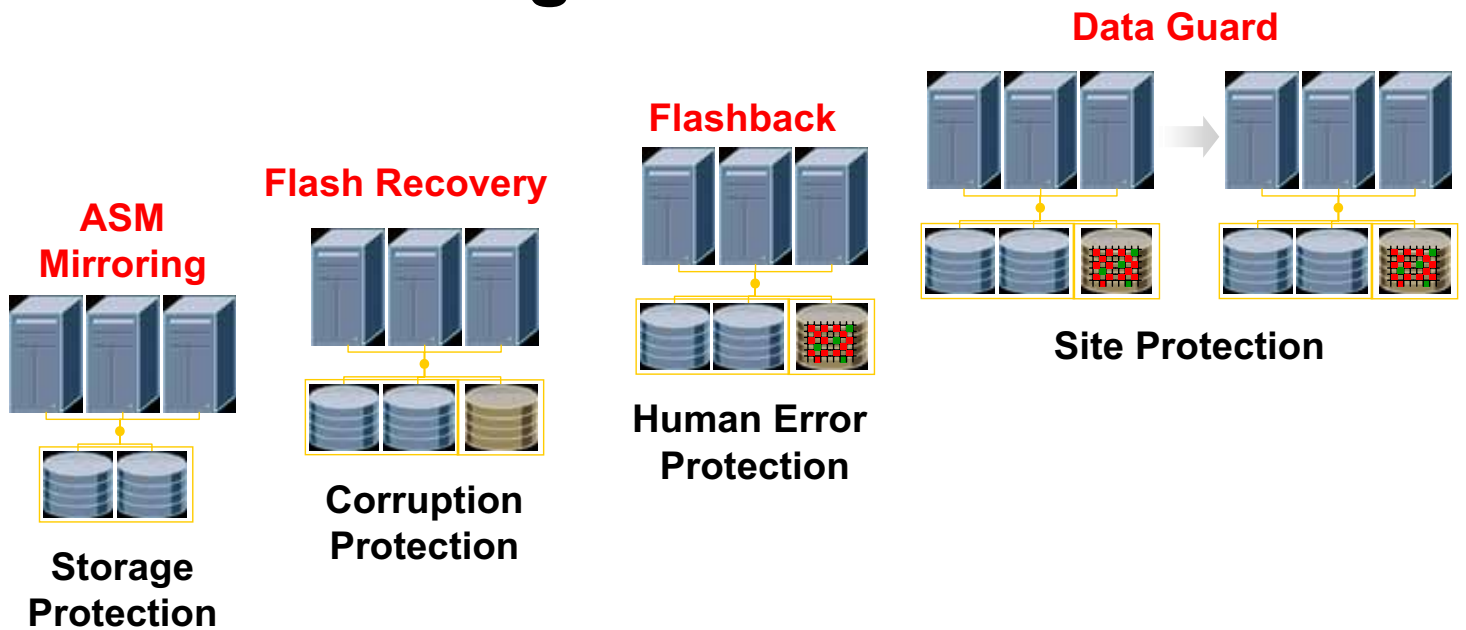
Site Protection

Highest Data Protection for Lowest Cost

#1 for OLTP Performance

Oracle Database 10g Enterprise Edition

- ✓ #1 tpc-C on Linux 16 x 4-proc cluster
- ✓ #1 tpc-C on Linux 32-proc

Oracle Database 10g Standard Edition

- ✓ #1 tpc-C on Linux 4-proc

Oracle Database 10g Standard Edition One

- ✓ #1 tpcC on 2-proc linux

Source: www.tpc.org

#1 for Data Warehousing

9% 8%

44%

18%

21%

- ■ Oracle
- ■ Microsoft
- ■ IBM
- ■ Teradata
- ■ Others
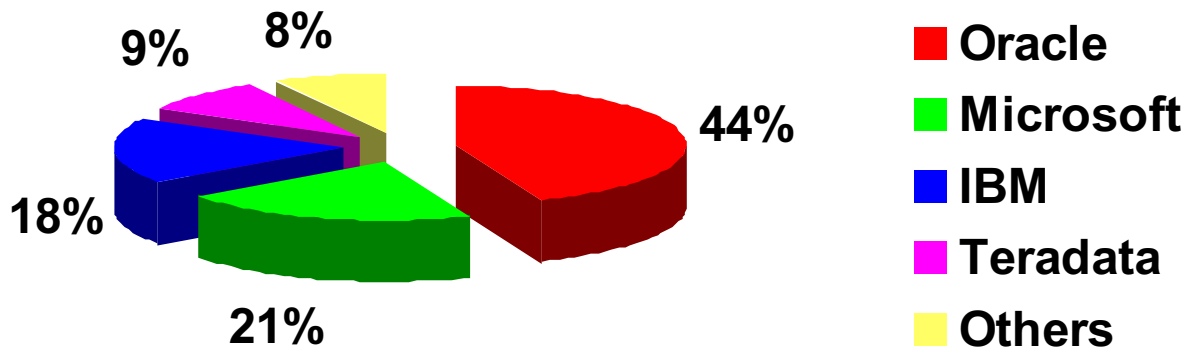
"Oracle has earned bragging rights through being early to market, building for the long term, and accommodating multiple data management scenarios."

Source: TDWI Forrester Quarterly Data Warehousing Survey, August 2004

ORACLE

#1 for VLDB Performance

Transaction Processing Council
Terabyte Scale TPC-H Performance

Queries Per Hour QphH (000's)

	1Tb	3Tb	10Tb
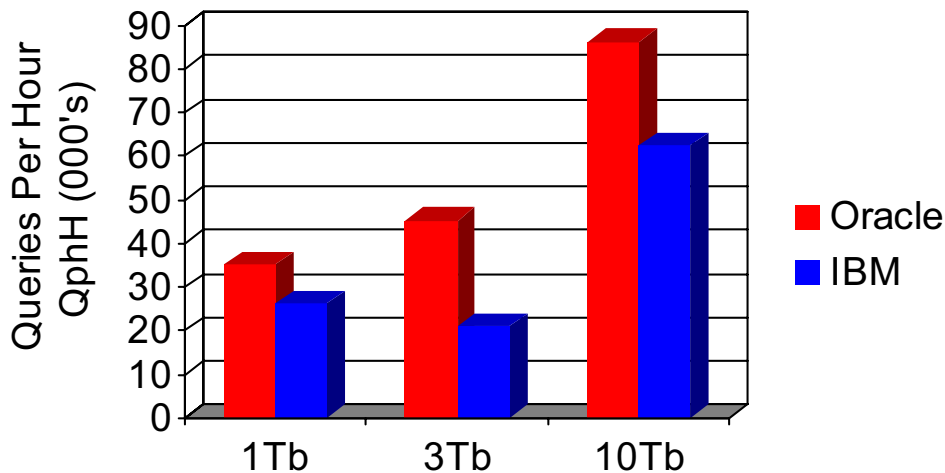
- ■ Oracle
- ■ IBM

Source: Transaction Processing Council Top Ten TPC-H by Performance, www.tpc.org

ORACLE

Reducing Management Costs

- **Self-Managing Database**
- **Grid Control**

| ERP | EMAIL | DW |
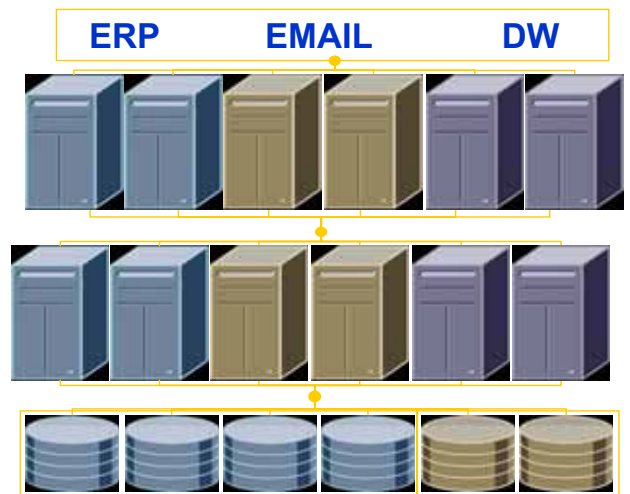
ORACLE

Oracle Database 10g: Easiest To Manage

- **46%** less DBA time than DB2 UDB 8.2

- **30%** less DBA time than Microsoft SQL Server

- Saves up to **$50,000** per year per DBA

Source: The Edison Group

ORACLE

Oracle Database 10g

Customers

- Chicago Stock Exchange
- Talk America
- Ohio Savings Bank
- Starwood Hotels
- Deutsche Post
- Roman Inc.
- Qualcomm…

Partners

- Cisco
- Dell Computers
- BearingPoint
- Core Services
- Retek
- Tomax
- TUSC…

www.oracle.com/customers

ORACLE

Next Steps

Oracle Database 10g

– www.oracle.com/database

OpenWorld Online

– www.oracle.com/openworld/online

ORACLE

ORACLE®

附件五 Oracle 人力資源管理系統白皮書：打造優秀員工

附件資料為 Oracle HRMSW White Paper: (ACHIEVING WORKFORCE EXCELLENCE)

Oracle White Paper—Achieving Workforce Excellence

ORACLE WHITE PAPER—
ACHIEVING WORKFORCE EXCELLENCE

For the last two decades, businesses have paid increased attention to the contribution made by their workers. In fact, annual reports of late are filled with the phrase, "Our people are our most important asset." With people-related costs averaging over 60 percent of total corporate expenditures, leading firms have begun to move beyond merely paying lip service to this concept by developing a new model for HR, including programs to improve the efficiency, effectiveness, and productivity of the workforce. To be fully effective, these programs require new processes, supported by leading technologies. Oracle calls this model "workforce excellence," and believes it is the ultimate goal of the HR function, regardless of company size, industry segment, or geography.

BUSINESS DRIVERS FOR WORKFORCE EXCELLENCE

The bottom line for the enterprise is to achieve stated organizational objectives. In the private sector, enterprises try to grow revenues and return maximum profit to stakeholders, whereas public sector and nonprofit organizations seek to meet the needs of constituents as efficiently as possible. Regardless of the macro objective of the organization, a set of more specific HR challenges is driving firms in multiple business segments to adopt the workforce excellence model:

- **Cutting Costs—**Uncertain market conditions and a shaky economic recovery have resulted in a continuation of the relentless focus on cost control that characterized the economic downturn of 2001–2003. HR is expected to develop and deliver programs as efficiently as possible, providing the same or greater quality at a lower unit cost.

- **Adapting to Changing Business Conditions—**The recent economic environment has forced firms to become more nimble and responsive. The time to evaluate and respond has decreased dramatically; organizations now have months or quarters instead of years to modify and execute business plans to take advantage of opportunities. Increasing workforce flexibility and responsiveness is a key objective for HR in leading companies.

- **Improving Information Access and Impact—**With such short time frames for response, stakeholders throughout the enterprise are demanding more frequent access to timely, actionable information that can help all levels of leadership make better business decisions. These information needs are complicated by the differing requirements of various organizational roles (e.g., line manager, CEO, CFO, head of HR) and the siloed nature of workforce data in most firms.

- **Assuring Business Compliance, Security, and Availability—**The expanded use of internet technologies has supported the dramatically increased global presence of many firms. The need to do business 24x7 across multiple geographies has all kinds of HR implications for organizations, ranging from the difficulties of complying with unique regulations to structuring the workforce for "always on" availability, protecting corporate and customer data from unwanted intrusion, and ensuring the workforce has a good grasp of business practices, policies, and ethics. For the last two decades, businesses have paid increasing attention to the contribution made by their workers. In fact, annual reports of late are filled with the phrase, "Our people are our most important asset." With people-related costs averaging over 60 percent of total corporate expenditures, leading firms have begun to move beyond merely paying lip service to this concept to developing a new model for HR, including programs to improve the efficiency, effectiveness, and productivity of the workforce. To be fully effective, these programs require new processes, supported by leading technologies. Oracle calls this model "workforce excellence," and believes it is the ultimate goal of the HR function, regardless of company size, industry segment, or geography (see Figure 1).
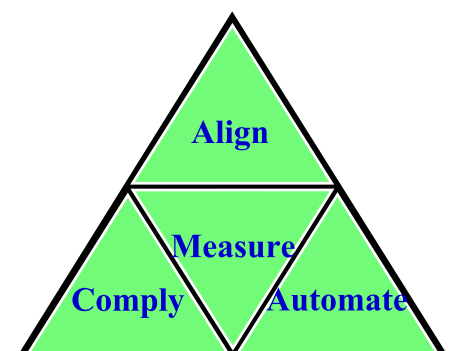
Figure 1 - The Workforce Excellence Model

These four drivers exist to some degree in all firms, although the degree of emphasis placed on each varies due to unique characteristics and environmental factors. In attempting to respond to these drivers, HR departments have adopted four main goals:

- **Align the workforce to business objectives**, including processes for leveraging worker skills across the enterprise and growing/rewarding/retaining talent
- **Control labor and administrative costs** by automating workforce management processes and addressing labor cost "hot spots"
- **Manage workforce risk** by complying with statutory, regulatory, and industry requirements while training and monitoring the workforce
- **Manage a globally integrated workforce** by analyzing key metrics, making smarter decisions, and connecting with many languages and cultures

However, in many organizations, HR's ability to reach these goals is hampered by a number of issues:

- Internal customer and worker dissatisfaction with HR processes
- Lengthy transaction cycle times and approval bottlenecks
- Costly HR-related transactions
- Inaccurate, hard to use workforce information
- High total cost of ownership (TCO) for multiple HR systems tied together with expensive integration
- Expanding global workforces that stretch the capabilities of existing applications
- Numerous inefficient (manual or semimanual) HR processes

Key to responding to these overarching business drivers and meeting HR management goals is for HR to deploy process and system changes that address the above issues, transforming from an administratively focused function to an entity in which the principal goal is to develop and deliver programs to improve the contribution of the workforce. HR must respond to this challenge in order to positively impact the success of the enterprise, or face an increasingly diminished future.

WORKFORCE EXCELLENCE CHARACTERISTICS

If workforce excellence is the goal, then what does an excellent workforce look like? While there are many ways to describe workforce excellence, we believe the following characteristics are paramount:

Suitable for the work

Leading firms realize that improving the match of workers to job requirements is a critical component to improving workforce excellence. Organizations with excellent workforces have invested significantly in assessment activities to ensure jobs are being performed with "best fit" workers. These assessments often commence during the hiring process, and may be performed by many roles, including HR, line management, executives, and the workers themselves, with the goal of identifying gaps between position requirements and worker skills. The strategy for addressing these suitability gaps is usually focused on using development events, such as company-sponsored online or classroom learning, outside education, mentoring by an appropriate executive, or various on-the-job assignments. Performance management, when conducted regularly throughout the year (as opposed to annual review cycles), has the potential to continuously fine-tune the alignment between worker skills and job requirements. Improving worker suitability has significant downstream impact on worker engagement, flexibility, and productivity.

Engaged/committed

A skilled worker that matches job requirements is only one piece of the puzzle; if the worker is not motivated to perform at peak levels, results will likely not meet expectations. Firms with excellent workforces have found a way to clearly communicate business objectives, and engage workers at all levels of the organization to meet (and at times beat) those goals. Leading organizations employ a four-pronged strategy for increasing engagement: First, they utilize multiple communication vehicles to ensure that key messages are received, understood, and internalized by the workforce. Second, they deploy effective performance management and reward programs (e.g. compensation and benefits) to assess and reward results. Third, they monitor engagement (usually by various forms of opinion survey) on an ongoing basis in order to quickly highlight issues or trouble spots throughout the organization (e.g., leadership ethics lapses, dissatisfaction in a specific job category). Finally, they develop and deliver programs to address engagement issues (e.g., leadership education, supervisor communication training, collaborative events) to increase worker engagement. Worker engagement should not be confused with loyalty to the organization, a concept that has been almost completely shredded by the past two decades of restructuring, re-engineering, downsizing, and layoffs. Successful engagement efforts today focus instead on the mission of the organization, the work being performed, and/or positive aspects of the work environment.

Flexible/adaptive

Organizations are constantly faced with changing economic and regulatory conditions, as well as exciting new opportunities. Most enterprises struggle to respond quickly to these issues, especially when the solutions involve organizational restructuring or significantly changing job duties for a portion of the workforce. Firms with excellent workforces often have an in-depth view of worker skills and competencies, and can thus more easily reallocate resources in response to changing conditions. In doing so, they often avoid expensive layoff/rehire cycles that sap morale, productivity, and profits.

Productive

Leaders of organizations throughout the world continually ask the question, "How can we increase productivity?" For example, the economic recovery of 2003 in the US was principally accomplished by focusing on productivity, not adding jobs. Getting more out of the existing workforce will continue to be a critical goal for the foreseeable future. Excellent workforces leverage their skills, commitment, and flexibility to achieve and exceed productivity goals set by executive management.

Historically, the HR function has focused predominantly on basic administrative, record-keeping, and compliance duties; however, that is not enough to meet the needs of today's organizations. Instead, HR must shift its primary focus to the development and delivery of cost-effective programs that address all characteristics that impact workforce excellence. In doing so, HR will be in a position to significantly impact bottom-line results for the enterprise. That is not to say that basic HR activities can be ignored; while not necessarily strategic, they are critical to the basic functioning of the organization. HR must strive to perform basic HR activities flawlessly in order to gain the credibility needed to successfully deliver the more strategic workforce excellence programs.

PHASES IN THE WORKFORCE EXCELLENCE JOURNEY

Workforce excellence is never achieved by accident; rather, it is a result of thoughtful assessment, careful planning, and collaborative execution by HR, senior leadership, and line management. HR's goal is to improve both process efficiency ("doing things right") and process alignment ("doing the right things"); the Hackett Group uses this concept in its Worldwide HR Benchmarking database, where "world-class" HR functions achieve high marks in both areas. It is important to note that while efficient HR processes by themselves do not contribute directly to workforce excellence, doing the administrative work cost-effectively means that a larger percentage of the HR budget can be devoted to activities that directly impact workforce performance. In addition, the HR function that is performing at top efficiency usually has gained the organizational credibility to engage in more strategic activities. There is a range of workforce excellence achievement that encompasses all organizations, and every firm is at a different point in this continuum. Oracle believes that the HR functions and processes that support workforce excellence can be grouped into four main phases: Comply, Automate, Measure, and Align.

Comply

This category contains many of the basic HR processes that most firms recognize as fundamental to their continued existence. While often mundane and administrative in nature, these basics tend to be "dissatisfiers" — stakeholders expect flawless execution, and any mistakes are visible and can quickly damage HR's credibility. The following are significant subprocesses in this phase that require substantial system and process support:

Core data management
Firms must track many discrete HR-related data elements in order to function properly. Managing the organizational structure requires instantiation of reporting relationships and various grouping entities (e.g., region, division, department, team), extending down to the individual position for some industry segments. Job information (including skill and competency requirements) is critical to other workforce excellence phases and forms the foundation for many compliance activities. In addition, tracking of worker demographic and employment data is also an essential component. It is important to note that core data management processes have expanded of late to include not only traditional employee categories (e.g., regular, full-time, part-time), but also various types of contingent workers (e.g., contractors, temporaries, interns), as organizations try to get a complete picture of who is doing what work and where.

Payroll

What could be more fundamental than paying workers on an accurate and timely basis? Regardless of the actual reporting relationship of the function, payroll delivers the reward to the worker, and thus is at the receiving end of many other HR processes. Critical activities include managing various payroll inputs (e.g., earnings, deductions, time and labor, flexible work rules, taxation), gross-to-net pay calculation, and distributing payroll information (e.g., pay slips, taxes, earnings and deduction reports). Other onerous tasks in this category (depending on the country) include wage attachments, employment verification processing, FLSA compliance, and keeping up with the constant stream of jurisdictional tax rate changes.

Benefits

The breadth and scope of benefits activities varies dramatically by country, depending on the extent of nationalized health insurance, but is most comprehensive in the US due to the private payor system. Typical activities include managing health and welfare plans (medical, dental and vision insurance), income replacement plans (life, long-term disability, accidental death and dismemberment, qualified retirement plans (401k, 403b, pension), flexible spending accounts (medical, dependent care, legal), and various optional benefits. Furthermore, each plan generally requires data tracking and reporting to third-party carriers and legislative/regulatory bodies, and benefit plan complexity may be dramatically affected by the presence of workers' councils and/or union bargaining units.

Compensation

Determining the appropriate wages for work performed on behalf of the organization is another fundamental HR component. Typical duties include evaluating and pricing jobs based on multiple salary surveys, building base and variable pay structures, and reporting. Compensation practice varies widely by country (e.g., thirteenth month pay in many EU countries, housing and car allowances), and the presence of bargaining units also adds complexity (e.g., grade/step progression, specialized work rules).

Legal/regulatory compliance

A myriad of government regulations must be monitored and addressed by the enterprise, and many include severe penalties for noncompliance. Statutes vary dramatically by country; some examples include EEO/Affirmative Action and Worker's Compensation in the US, Statutory Sick Pay in the UK, Minimum Training Hours in France, and Working Time Directives in the European Union. Of growing concern for global firms is the increased activity in the area of data privacy legislation, which attempts to ensure sensitive worker data is protected, with access based on worker permission and organizational need. In addition, organizations are paying increased attention to risk management and corporate governance due to a number of high-profile scandals and resulting legislation, and there is substantial benefit to properly managing risk and avoiding litigation.

It is important to note that there are multiple levels of achievement within the Comply phase itself. Growing organizations focus on basic data management and regulatory compliance, often getting the job done with a mix of specialty applications, spreadsheets, and manual processes. As firms grow in size and complexity, they become subject to more regulations, and deploy increasingly sophisticated applications (such as a core HRMS) to provide an integrated platform to ease the burden of compliance. At the high end of the continuum are companies that have put processes in place to satisfy the recent compliance requirements such as Sarbanes-Oxley (SOX) Section 404 and HIPAA in the US, and Basel II in Europe. According to "Workforce Management Trends 2004," META Group research published in April 2004, "Section 404 requires that any process generating a financial transaction must be documented back to the source; since most (if not all) HR transactions ultimately impact financials, this means that HR processes will need to be included in Section 404 projects." The need to provide clear audit trails for transactions and documentation that the workforce has received compliance training are additional requirements that also impact HR systems and processes.

Automate

Having deployed systems and processes to perform basic HR activities in the Comply phase, firms are usually faced with the need to accommodate growth in company size, complexity, and geographic distribution. The primary response of most organizations is to increase the level of HR automation to reduce the cost and cycle time of HR processes while maintaining or improving user satisfaction. The following are key components organizations are deploying to automate HR processes:

Employee self-service (ESS)

The concept of pushing access to HR information and transactions out to workers first began to appear in HR systems in the mid-1980s with the deployment of interactive voice response (IVR) systems, and progressed through Windows-based kiosks to the delivery of initial Web-based ESS modules in 1996 and 1997. Eight years later, ESS is a mature product offering for most core HRMS applications (Oracle's ESS is on its seventh iteration). The benefits of ESS are well documented; The Cedar Group's "2003 Workforce Technologies Survey" indicates 50 percent improvement in employee satisfaction and the number of inquiries to traditional HR service centers, and 62 percent reduction in transaction cycle time. Adoption is steadily increasing, spreading from the Global 2000 (e.g., $1 billion revenues and above) to midsized companies. ESS activity was initially focused on providing access to HR policies and procedures, but now sophisticated self-service transactions are commonplace. For example, the most popular ESS application in META Group's "The State of Workforce Management Solutions 2004" survey was benefits enrollment, utilized by 65 percent of respondents. Despite the relatively long tenure of this technology in the marketplace, increasing the depth and breadth of ESS functionality remains a primary goal for many firms; participants in the META Group study listed ESS as the area of strongest interest for investment over the next three years, particularly in medium and medium-large organizations.

Manager self-service (MSS)

This technology is the current "next frontier" for many organizations, according to the META study ranking close to ESS in terms of anticipated investment over the next three years. MSS includes multiple components, which are often deployed in phases. Phase one deployments often include access to standard and ad hoc reports, as well as the ability to view subordinate worker data and organizational hierarchy information. Later MSS phases may include online compensation planning and performance reviews (sometimes including guidance on how to accurately and consistently describe levels of performance). Leading-edge organizations use MSS to enable the manager to perform work events online (e.g., transfers, promotions, hires, terminations). According to the Cedar survey, use of MSS is positively linked to business results; firms with these applications reported $15 million in earnings growth, compared to a loss of $500 million for

Shared services centers

A strong trend in recent years among organizations operating across multiple business units and geographies has been to consolidate basic HR processes into shared services centers. The goal of the shared services center is to leverage a critical mass of HR support staff to perform core HR data management, payroll, benefits administration, and call center support for the workforce. Early services centers primarily used the ubiquitous telephone to handle worker requests, but growth in internet-based self-service usage has caused ESS and MSS to be tightly integrated into the shared services infrastructure of many firms. In these organizations, self-service serves as the first services center tier, and takes care of a significant percentage of inquiries without needing to involve the services center representative. HR services centers of this type can be run more cost-effectively and with smaller staff concentrations than those without an integrated ESS/MSS services tier. Shared services centers help provide process consistency and standardization across the enterprise, as well as reducing costs and improving service quality compared to formerly decentralized operations. Some firms have even implemented HR shared services as a preliminary step to full-scale outsourcing at a later date. A recent Watson Wyatt study, "Trends in HR Service Center Administration," indicates that over 92 percent of companies with internal HR services centers achieved their goals to increase customer service and productivity; over 86 percent met their key goals to improve transaction accuracy and reduce cost. Given this success rate, the HR shared services center concept will clearly continue to be important in HR process automation efforts for the foreseeable future.

Workflow

A critical enabling technology for HR process automation, workflow removes the need for traditional paper-based approvals by replacing paper forms with electronic notification, routing, and approval. Leading-edge workflow includes provision for both predetermined and ad hoc routing, reminders and escalation to alternate approvers after preset time periods, and comprehensive configuration of notification, routing, and approval parameters. Robust workflow serves as the foundation for HR process improvement, as it delivers substantial cycle-time reduction and enables the linking together of multiple applications into a cohesive set of capabilities. Core HRMS providers have made the most progress in enabling workflow across their entire scope of application functionality, including ESS, MSS, and HR services center support.

HR outsourcing

This tactic has been used by organizations for decades in an attempt to increase the level of process automation, reduce costs, improve service quality and delivery, and free up internal HR resources to focus on more strategic tasks. According to META Group research ("HR Outsourcing Models Part 1," April 2003), HR outsourcing can be divided up into three major categories: Application hosting, where internal staff perform the business functions and operate supporting software, while application is hosted by the HRO vendor; discrete HRO, where a third-party provider performs one or more business processes (or significant portions thereof); and enterprise HRO (also know as HR BPO), where one provider assumes responsibility for most of the firm's HR function, including administrative and strategic processes. All forms of HR outsourcing are projected to achieve strong growth over the next five years, and most firms will continue to work with outside providers to perform specialty HR functions where they lack expertise (e.g., payroll, COBRA, relocation, employment verification, employee assistance) or can leverage vendor critical mass (e.g., benefit administration, tax filing). A much smaller number will engage with enterprise HRO providers for total HR outsourcing;

there have been less than 50 deals since 1999, and 10–15 percent of the Global 2000 are likely to utilize this tactic by 2008, according to META Group research.

Staffing alternatives

Firms are constantly searching for the most cost-effective way to achieve organizational objectives. Some have pursued the use of offshore resources to take advantage of labor arbitrage (the difference in prevailing wage rates between countries or regions). In other cases, this results in employment relationships that differ considerably from that of the traditional regular employee. Contingent labor (e.g., contractors, temporaries, consultants) is being increasingly utilized to satisfy short-term needs without the expense of hiring regular employees, and to increase workforce flexibility. HR must often manage relationships with contingent labor providers, staffing agencies, and PEOs (professional employee organizations). Depending on the industry segment, between 17 and 30 percent of workers in the US are contingent, based on Department of Labor estimates, and this figure is expected to grow steadily over the next ten years. Use of these staffing alternatives adds complexity to HR processes and systems, as these workers present a host of issues (e.g., accurately accounting for contingent headcount and labor expenses, system access and security, use of HR self-service functionality, co-employment risk management, justifying the use of offshore resources in the politically charged environment of a US election). HR applications must recognize alternative worker types as bona fide resources that may need to use systems and be tracked by measurement systems.

Measure

There has been dramatically increased awareness of the importance of HR metrics and measurement over the past three years, yet many firms have just begun to explore this area. Traditionally, HR's effectiveness within the organization has been (and still is by many firms) measured by the ratio of HR staff to total employees of the organization. Another common metric is turnover, which while not solely HR's responsibility to manage, indirectly drives the selection, training, and rewarding of talent. Organizations have made significant investments in HR systems technology during the past 20 years, and while progress has been made in automating core processes and tracking worker data, most firms have great difficulty extracting meaningful information that can be used to positively impact the business. The inability to provide metrics that empirically highlight workforce issues and demonstrate the value of HR programs has made it difficult for the HR function to be perceived as a strategic partner to the organization. There is mounting evidence that senior leadership's patience with the HR information deficit is rapidly wearing thin; the C-suite is beginning to demand better evidence that the HR budget is being spent on programs that really make a difference to the organization. HR staff must develop a metrics-oriented mindset in order to avoid professional limitations; as HR academic John Sullivan has stated, "What word would you use to describe an HR manager who doesn't know how to use metrics? Answer: a waiter."

One effective approach to measuring HR is to divide workforce information management into four main categories, all of which must take into account the unique needs of information recipients according to their roles:

- **Information distribution**—Providing the most standardized information, delivered via a common process and simple format (e.g., standard turnover reports on paper, headcount by location as a pushed HTML page).

- **Metrics delivery**—Enabling stakeholders to see key ratios relevant to their business need, usually via graphical scorecards and dashboards that highlight exceptions for further drill-down and analysis. In its most highly evolved form, the system delivers actual versus expected key performance indicators (KPIs), with workflow-driven notification incorporating recommended actions (e.g., an HR executive dashboard includes a key metric from each HR functional area, and sends an e-mail alert when annualized turnover exceeds 10 percent at any location).

- **Contextual embedded analytics—**Presenting relevant analytics at a decision point in an application transaction in order to provide just-in-time decision support (e.g., a hiring manager extending an offer has access to salary information on incumbents in order to ensure equitable treatment).

- **Correlated analytics/predictive modeling—**Correlating analytics that move beyond functional HR silos and relate workforce information with enterprise data in order to determine the impact of workforce investments (e.g., the impact of turnover in a job category on revenue, the effect of an online learning event on the velocity of new product introduction). Predictive modeling leverages time-slice data and multiscenario analysis to generate views of the future (e.g., a 1 percent drop in employee satisfaction will result in a 2 percent decrease in customer satisfaction in three months and in a 1.5 percent increase in turnover in six months, with associated revenue and profit impacts).

In the Measure phase, HR moves beyond the provision of basic information via standard reports to electronic distribution of data, metrics dashboards tailored to specific organizational roles (e.g., HR generalist, line manager, HR executive), and contextual analytics embedded into HR software transactions. Leading firms are not only using more sophisticated multidimensional tools to "slice and dice" workforce data, but are now venturing into correlated analytics and various forms of predictive modeling to more accurately determine the value of HR investments. Effective development and delivery of a robust platform for workforce information management (WIM) provides a firm foundation for alignment efforts in the final phase of workforce excellence.

According to META Group research (see "Workforce Analytics 2003" series, Fall 2003), organizations looking to improve HR measurement capabilities are pursuing a strategic approach to workforce information management that includes role-based analysis, definition of a set of key metrics, and selection of multiple tools that meet the needs of stakeholders. While the supporting technologies are important, budgeting properly for internal marketing, communication, and change management is essential for successful deployments. The result of ongoing investment in this area is an enhanced ability to deliver role-based information throughout the enterprise, build metrics that matter to stakeholders, and determine the value of HR investments. A good HR measurement platform lies at the core of workforce excellence improvement efforts, as it provides the basis for monitoring the success of further compliance, automation, and alignment efforts.

Align

The ultimate key to improving workforce excellence is alignment, which impacts the organization along multiple dimensions. Various organizational units (e.g., region, division, department, team) are constructed to achieve business goals and objectives. Problems occur when these units (or the individuals within) are not properly aligned (e.g., lack the proper understanding of what needs to be done, and/or the skills and motivation to do it). HR investments in this phase focus on the following major activities:

- **Improving worker selection—**Leading firms have realized that picking the wrong talent up front has significant consequences throughout the employment life cycle. Therefore, they have focused on beefing up the assessment and selection components of the hiring process to improve worker suitability for job duties. Matching candidate capabilities to job requirements is a complex task that requires investment in determining core skills and competencies and embedding that information into the HRMS, where it can be used not only for recruitment, but other Align activities. One growing issue is the increasing use of contingent labor to meet organizational objectives; firms worldwide are beginning to apply the concept of suitability matching to all worker types, whether the open position is filled by a regular full-time or part-time employee, temporary, contractor, or intern.

- **Clearly communicating organizational objectives—**Even the most talented workers need to know what work needs to be done. Jobs are composed of many different tasks, and the organization must place them in the right context so that their people can determine what is most important. Senior leaders must put in place processes to develop and clearly articulate current objectives on a regular basis, including changes over time. Line managers must translate these high-level objectives into business unit goals, and help individual workers build their own objectives that relate directly to the needs of the firm.

- **Growing worker skills and competencies—**As a candidate transitions to some form of employment status, there is rarely a perfect correlation between worker skill sets and the requirements of the position. Any gaps must be addressed via a combination of learning events, mentoring, and on-the-job assignments. Leading firms leverage the results of the original candidate assessment and build a development plan that brings the worker to the desired skill/competency level as quickly as possible. A comprehensive learning management system (LMS) can be a source of competitive advantage, as the ability to track worker progress against development plans, schedule and administer learning events, and actually deliver online learning content are all critical components.

- **Managing performance—**A properly designed and executed performance management system will provide significant support to workforce alignment efforts. However, most firms have antiquated performance appraisal systems that are universally seen by management and workers as onerous, cumbersome, and a waste of time. The current trend is to supplement annual review of growth of needed worker skills/competencies with more frequent assessment of performance against objectives. This approach provides maximum flexibility in assessing all aspects of worker performance while more tightly linking individual and corporate performance.

- **Delivering achievement-based reward programs**—Another major trend taking shape in medium- and larger-sized firms is to strengthen the link between performance and pay. Traditional merit-based pay systems have not been able to adequately differentiate between marginal and superior performance, so organizations are working to increase the use of variable pay across a broader set of job categories. Variable pay has been fairly common for sales, management, and executive positions, but now firms are deploying variable pay programs for professional jobs. Given the increased complexity of these programs, organizations should take a "total compensation" approach to rewarding the workforce in order to maintain pay equity across the enterprise.

In addition to these major activities, HR must also institute a planning function to monitor the overall alignment of the workforce to business objectives, spot major disconnects, and implement corrective actions. This type of planning capability is also critical when senior management makes major changes to business strategy (e.g., merger/acquisition, divestiture, building a new business unit) that require a substantial reallocation of the workforce. Support of all of these workforce alignment activities has driven investment in supporting HR applications such as e-learning, recruitment, performance-based compensation systems, and comprehensive talent management, according to recent research published by Gartner Group ("Gartner Predicts 2004: HCM and Financial Applications").

While each HR alignment activity has traditionally been the focus of a number of small best-of-breed providers, core HRMS providers are rapidly expanding their functional footprint to offer competitive functionality. According to IDC research, "Human resources segment leaders, especially those in workforce management, have done a good job letting their customers expose and manipulate operational data, but it is going to be a daunting challenge for them to integrate the data that resides in different systems. ("Worldwide Human Resources Management Applications 2004–2008 Forecast and Analysis," August 2004). In contrast, applications that support Align processes that are part of an integrated HRMS can leverage the underlying skill/competency infrastructure and self-service capabilities without the need for expensive integration, leading to further cost savings and increased ease-of-use.

CLOSING THE LOOP: THE WORKFORCE EXCELLENCE MODEL IN ACTION

Achieving workforce excellence is a journey, not a destination—an organization never truly "arrives" at an end result. Rather, the model presumes a continuous series of adjustments, actions, and projects based on the results from various phases. For example, a firm deploying a new recruitment process and supporting technology for regular employees (Align phase) is likely to develop and deliver a set of metrics that will track hiring effectiveness and the resulting impact on business performance (Measure phase). Over time, the organization might extend the reach of the recruitment system to contingent workers, further improving the cost and cycle time of the hiring process (Automate phase). In addition, the legal and regulatory landscape for recruiting will continue to evolve, requiring further investments (Comply phase). Firms committed to achieving workforce excellence need to strive for this continuous closed-loop measurement and feedback system that will help define and prioritize ongoing HR investments.

ACHIEVING WORKFORCE EXCELLENCE THROUGH IMPROVED COMPLIANCE

Performance of basic data management and compliance activities must be flawless and cost-effective in order to avoid excess costs, regulatory penalties, litigation, or unwelcome public scrutiny. With over 2,850 active customers in over 80 countries around the world, Oracle HRMS is an integrated solution that can help ensure the accuracy and consistency of many processes in the Comply phase. The solution provides robust, configurable employee and organizational data management, compensation, and benefits administration. Global and multicountry organizations can take advantage of fast and accurate rules-based global HR and payroll-processing capability, with over 30 supported localizations on a single code base. Oracle Tutor enables firms to document and track critical business processes, and Oracle Learning Management supports development and deployment of applicable training to ensure compliance, both critical to satisfying Sarbanes-Oxley Section 404. Perhaps most importantly, for firms struggling with tracking and integrating workforce data in multiple HR applications and spreadsheets, Oracle HRMS provides a single version of the truth for all workforce information. Compliance is necessary and important, and Oracle HRMS enables companies like E*Trade Financial to "do the basics" with maximum efficiency. According to Brian Corcoran, Vice President of Corporate Systems, "Oracle has helped us manage our Financial and HRMS applications and offered valuable insights into best practices and the leveraging of technology to improve both processes and controls."

Achieving workforce excellence is a journey, not a destination—an organization never truly "arrives" at an end result. Rather, the model presumes a continuous series of adjustments, actions, and projects based on the results from various phases (see Figure 2). For example, a firm deploying a new recruitment process and supporting technology for regular employees (Align phase) is likely to develop and deliver a set of metrics that will track hiring effectiveness and the resulting impact on business performance (Measure phase). Over time, the organization might extend the reach of the recruitment system to contingent workers, further improving the cost and cycle time of the hiring process (Automate phase). In addition, the legal and regulatory landscape for recruiting will continue to evolve, requiring further investments (Comply phase). Firms committed to achieving workforce excellence need to strive for this continuous closed-loop measurement and feedback system which will help define and prioritize ongoing HR investments.
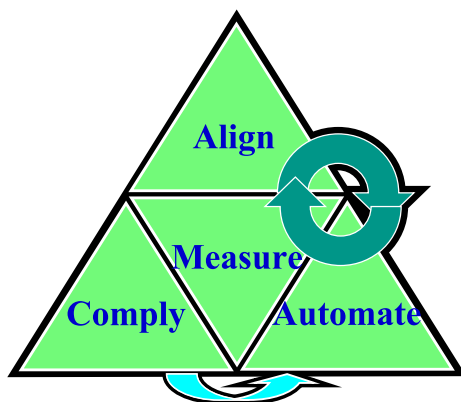

Figure 2 - The Workforce Excellence Model in Action

ACHIEVING WORKFORCE EXCELLENCE THROUGH INCREASED AUTOMATION

Once the HR basics are covered, organizations are looking to dramatically reduce the cost and cycle time of HR processes. One key element is to move HR transactions as close to the original source of data as possible via employee and manager self-service. User friendliness of the application is critical to ensure user acceptance, as is configurable workflow for routing, notification, and approval. Oracle HRMS delivers these elements as part of an integrated suite of enterprise functionality, extending the reach of the system to all workers and managers in the organization, and making possible significant cost and cycle time reductions. Oracle Self-Service HR includes comprehensive self-service transactions for workers to view and update their data while Oracle Advanced Benefits enables online benefits enrollment and administration, including full flexible benefit plans. Oracle Time & Labor provides robust, configurable time entry with manager approval and project integration. Oracle Self-Service HR includes manager self-service that enables supervisors to view subordinate data, initiate work events (e.g., transfers, promotions), plan compensation, and assess worker performance. Oracle HRMS is also integrated with Oracle CRM to support HR shared services center requirements. And behind the scenes, seamlessly linking applications and processes together is configurable workflow that automatically routes transactions, notifications, and information for review and approval. Oracle's integrated, modular functionality makes it possible for organizations to reduce cost, save time, and improve user satisfaction. One good case study is Burlington Coat Factory Warehouse Corporation. Chief Information Officer Mike Prince states, "You must have an edge on expenses to be able to effectively compete against the competition. By implementing Oracle Human Resources and automating our processes, we expect to lower the cost per employee by 25 percent. That gain in efficiency allows us to continue to grow our business, even in a down economy."

ACHIEVING WORKFORCE EXCELLENCE THROUGH IMPROVED MEASUREMENT

Firms that lack a comprehensive framework for measuring HR will find it difficult to determine the success or failure of workforce investments. A vast majority of companies struggle with a haphazard set of reporting and analytical tools that has developed over time and no longer meets their needs. We believe organizations should take a role-based approach in determining the specific information needs of stakeholders, and deploy the minimum number of tools required to meet those requirements. As Scott Sheppard, Director of HR Technology at Best Buy Company states, "We think it is critical to have the tools, the resources, and the data to be able to analyze how well we are utilizing and managing our human capital." Oracle HRMS is integrated into a comprehensive E-Business Suite, and provides a robust framework for HR measurement. All workforce information is in one place, with a single global data model and single global instance. In contrast to every other enterprise HRMS, no separate data warehouse is needed; Oracle HRMS leverages all the capabilities of the Oracle database, which allows transactional and analytical functions to coexist. Oracle HRMS includes over 700 standard reports, provides the ability for users to view summarized data through a standard browser, drill down to more detailed information, or export data to Excel. Using HR Daily Business Intelligence, organizations can deliver key performance indicators to HR management and line managers in order to facilitate trend-spotting, troubleshooting, analysis, and corrective action. In addition, HR analysts can do "slice and dice" sophisticated multidimensional analysis as needed with HR Intelligence's Discoverer tool. Knowing that "one size" or type of reporting tool cannot meet all stakeholder needs, Oracle HRMS delivers a variety of workforce information management solutions to help organizations measure the impact of HR investments.

ACHIEVING WORKFORCE EXCELLENCE THROUGH INCREASED ALIGNMENT

"As we move forward, customer service is a high priority. Our goals are to improve leadership, nurture talent and improve Lloyds TSB's agility in a dynamic business environment. Oracle HRMS enables us to achieve these goals while helping to improve employee satisfaction and reducing costs."—Martin Hunt, HR Shared Services Program Director, Lloyds TSB.

Organizations around the globe like Lloyds TSB are seeking to improve business performance by better aligning individual workers with business goals and objectives. HR can play a major role in facilitating alignment activities, if the HR systems and processes can support a closed-loop approach to measuring the impact of programs on the workforce, and making adjustments on a continuous basis. Oracle HRMS delivers a talent management suite tightly integrated with the core application, so users will spend less time integrating and reconciling multiple information sources, as the information flows between functions are built-in. Oracle Recruitment enables firms to evaluate and select the optimal workers (both regular and contingent) to achieve business objectives, and also handles all the administrative minutiae of the applicant tracking process. Oracle HRMS delivers a robust, configurable performance management process that enables managers to accurately assess worker performance, determine development needs based on skill and competency requirements, and determine succession plans/career development paths for workers. Once development plans are in place, Oracle Learning Management can schedule and administer all types of training and development events, as well as deliver blended learning to address competency gaps for current and future positions. Using Oracle Manager's Compensation Workbench and Oracle Incentive Compensation, companies can develop, deploy, and monitor reward programs, including merit, bonus, commission, incentive, and equity plans. All in all, the Oracle HRMS delivers the breadth of functionality needed to improve the alignment of the workforce with organization objectives, enhancing worker suitability, engagement, flexibility, and productivity.

Conclusion

The ultimate goal of the HR function is to improve the efficiency, effectiveness, and productivity of the workforce. However, none of the basic administrative duties can be neglected without serious consequences. To achieve and enhance workforce excellence, organizations need to shift the focus of HR from administrative tasks to strategic program delivery over time. HR leaders must work with senior management to roll out new processes that are supported by leading technologies and by successful execution, gain support for further workforce excellence enhancement initiatives. Remember, there is a continuum of workforce excellence that encompasses all organizations, and every firm is at a different place. No matter where your organization is at on the continuum, Oracle HRMS provides the tools that will enable you to add value to the organization. Flawless compliance, automated processes, sophisticated measurement, and increased alignment—achieve workforce excellence with Oracle HRMS.

附件六 Oracle HRMS 架構簡介

附件資料為研討會關於 Oracle HRMS 架構簡介

Information Driven HR

ORACLE

Ron Hanscome
Senior Product Director, HRMS
Oracle Corporation

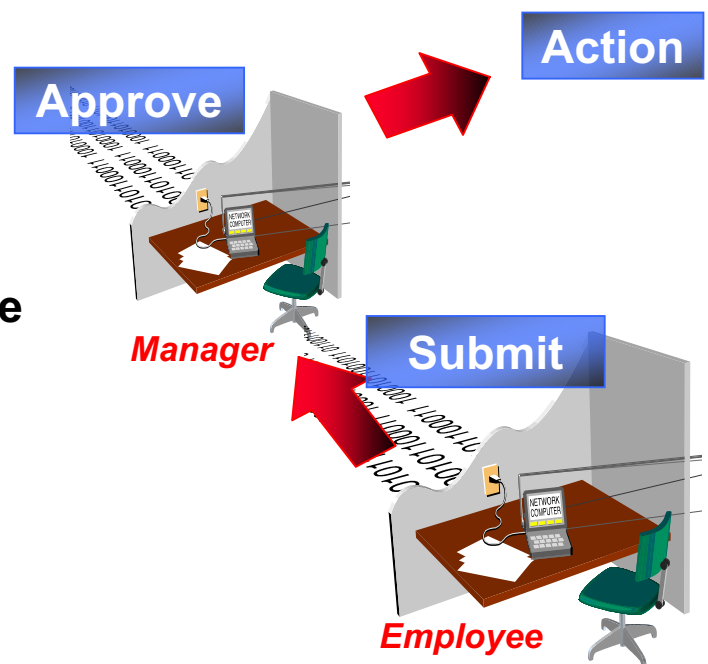**ORACLE**

HR: A Function In Transition

- HR must move beyond administration to focus on workforce effectiveness

- This requires a new model for HR – "Workforce Excellence"

- Cuts across organizational size, industry segment, and geographic boundaries

- Every organization is at some point on Workforce Excellence continuum

Workforce Excellence Model

Align

Measure

Comply

Automate
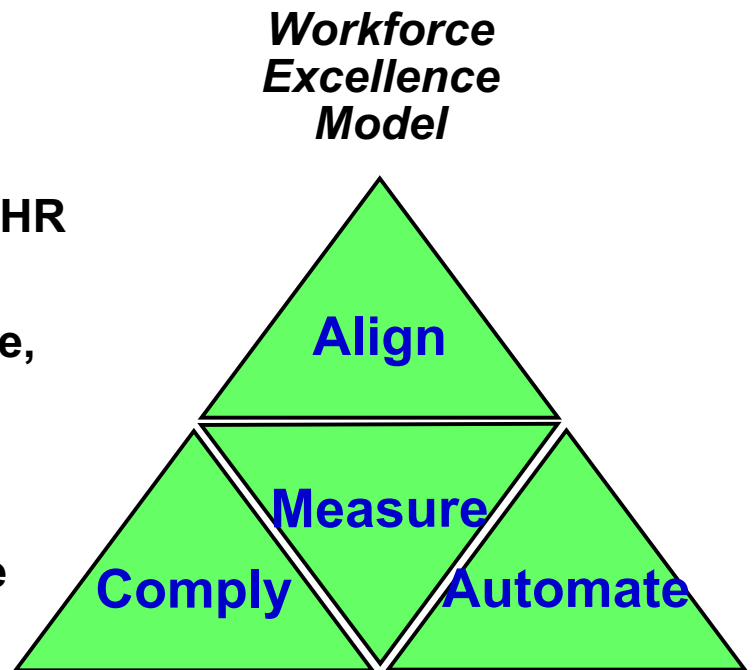
ORACLE

The Information Driven Approach to HR

- Necessary in order for HR to fully adopt Workforce Excellence

- Requires streamlined, accurate information flows to be effective

- Traditional HR processes must be redesigned

Approve

Action

Manager

Submit

Employee

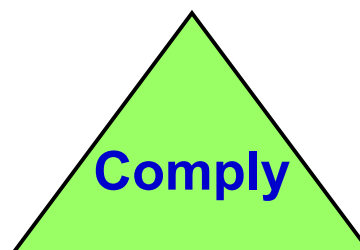**ORACLE**

Oracle HRMS Enables Information Driven HR

- **Core repository for workforce information serves as "single version of the truth"**
- **Powerful self service capabilities for workers (employees and contingents) and managers**
- **Configurable workflow that streamlines notifications and approvals**
- **Robust reporting and analysis tools, including role-specific KPI metrics dashboards**

Human Resources
Advanced Benefits
HR Intelligence
iRecruitment
Learning Management
Payroll
Self-Service HR
Time & Labor

ORACLE

Information Driven Compliance

- **Accurate, consistent information for timely compliance reporting**
- **Workflow triggers notification of needed compliance training**
- **Comprehensive audit and change logging functions**

Comply
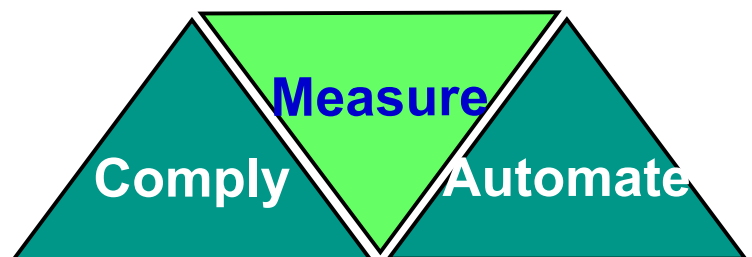
ORACLE

Information Driven Automation

- **Comprehensive employee and manager self service**
- **Robust workflow eliminates paper-based approvals**
- **Alerts triggered when critical values cross thresholds**

Comply   Automate
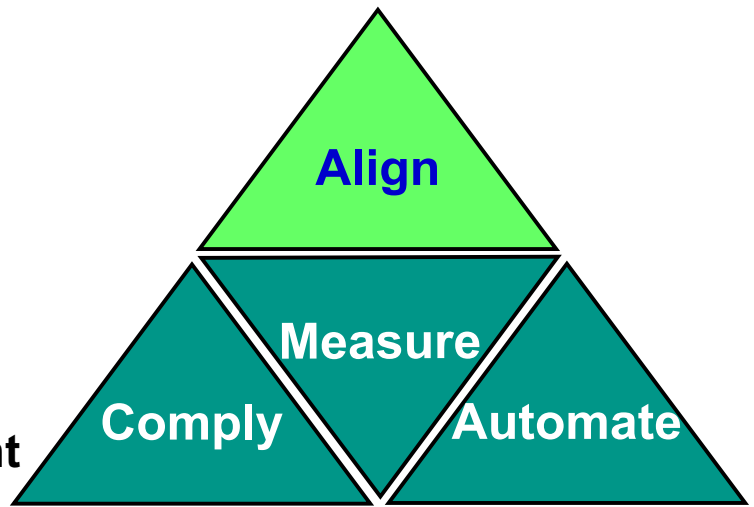
ORACLE

Information Driven Measurement

- **Role-based view of information needs**
- **Different tools for various workforce information categories**
- **HR DBI provides graphical view of key indicators with drill-down to details**
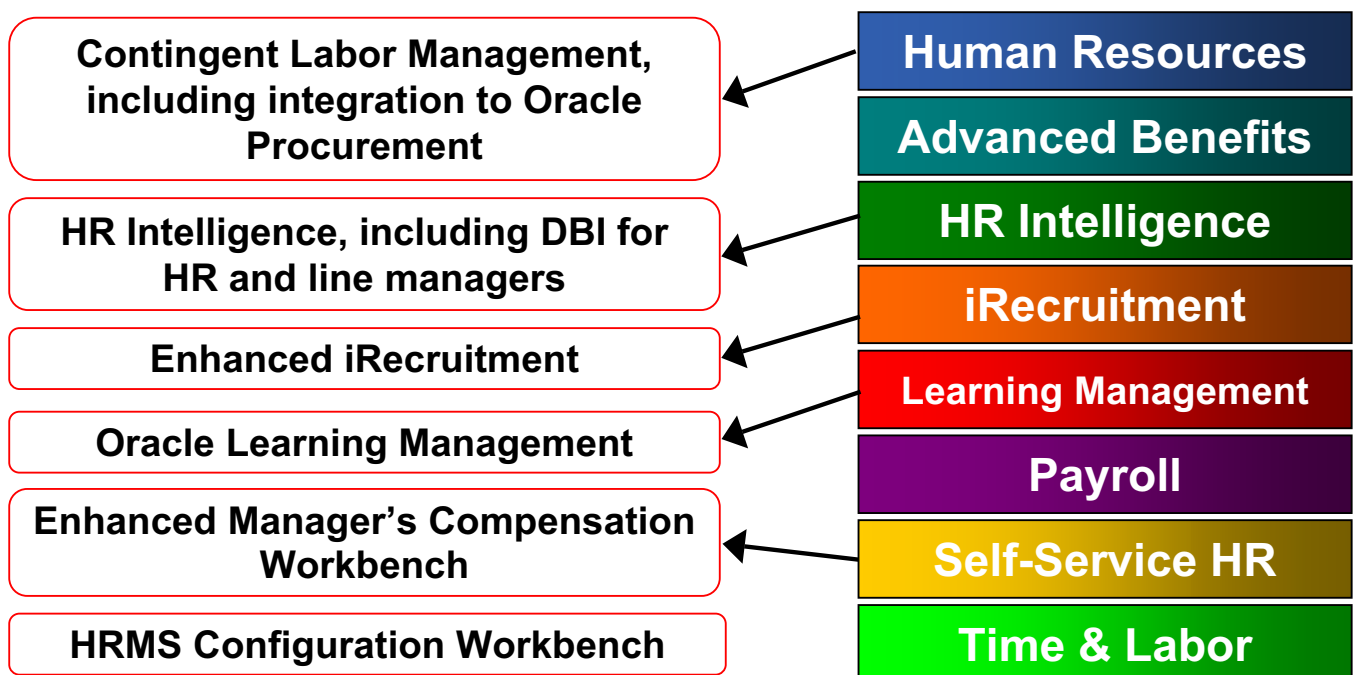
Measure

Comply   Automate

ORACLE

Information Driven Alignment

- **Comprehensive repository of worker skills and competencies versus job requirements**

- **Suitability matching assesses gaps and recommends learning**

- **Robust performance and compensation management completes the cycle**

Align

Measure

Comply   **Automate**

ORACLE

What's Hot/New in Oracle HRMS?

Contingent Labor Management, including integration to Oracle Procurement

HR Intelligence, including DBI for HR and line managers

Enhanced iRecruitment

Oracle Learning Management

Enhanced Manager's Compensation Workbench

HRMS Configuration Workbench

Human Resources

Advanced Benefits

HR Intelligence

iRecruitment

Learning Management

Payroll

Self-Service HR

Time & Labor

ORACLE

Michaels ®
THE ARTS AND CRAFTS STORE™

- **Business: Largest National Arts and Crafts Retailer; Over 800 stores; 35,000 employees**
- **Live on Oracle HRMS and Financials (Replaced PeopleSoft Financials)**
- **Why Oracle?**
  - **Strategic Relationship / Growth; Lower Total Cost of Ownership**
  - **Ease of Use / Functionality**
- **Transformation Results**
  - **Reduced time and administration costs using Employee and Manager Self-Service**
  - **Improved adherence to compensation practices by automating pay changes via Compensation Workbench**
  - **Increased Store Manager productivity with Manager Self-Service – hires, rehires, pay changes, appraisals, etc. – allowing more time to manage store**

ORACLE

AcuityBrands ™

- **Business: Industrial Manufacturing; 8000+ employees**
- **Oracle HRMS with Oracle E-Business Suite**
- **Why Oracle?**
  - **Global Single Instance**
  - **Single Source of Information to centralize planning, reporting**
  - **Easy to use, no-training required analytics**
- **Transformation Results**
  - **Complete information about their global workforce to identify key hiring needs, turnover problems, salary trends and more**
  - **Monitor performance tied to Key Performance Indicators (KPIs) and take corrective actions to remedy HR issues**

"The ability to understand which organizations within Acuity are understaffed – possibly resulting in missed revenues and inefficiencies – enables management to make intelligent decisions that impact our ability to operate efficiently and provide outstanding customer service,"
-- Jon Corliss, Manager of Business Systems Intelligence, Acuity Brands, Inc.

Making Information Driven HR a Reality

- **HR must transition to the Workforce Excellence model**

- **HR must redesign traditional processes to become more information driven to ensure successful adoption**

- **Oracle HRMS delivers a robust platform to enable information driven workforce excellence**

Next Steps

- **Oracle HRMS Product Page**
  - **http://www.oracle.com/applications/human_resources/intro.html**

附件七 甲骨文公司人力資源管理系統三大發展策略

資料來源:Oracel 中國公司新聞報導
    http://www.oracle.com/global/cn/pressroom/05_jan/p050118.html

北京， 2005 年 1 月 18 日 — 甲骨文中國公司（註冊名爲北京甲骨文軟體系統有限公司）今天宣佈在華推出人力資源管理系統（HRMS）業務發展策略。公司力圖憑藉其 HRMS 產品的領先技術和強大功能、牢固的策略合作關係和對客戶的深入瞭解，滿足中國巨大的人力資源管理需求，同時進一步確立其在中國 HRMS 市場的領導地位。

面對中國和世界市場競爭日益加劇的局面,中國的政府和企業正在努力提高自己員工的素質，因此對人力資源管理給予了前所未有的重視。

甲骨文公司亞太區人力資源管理解決方案業務發展高級總監 Sean Loiselle 在中國舉行的 Oracle HRMS 策略論壇上稱：“中國正在出現幾種人力資源發展趨勢。這些趨勢預示著各企業和機構將迫切需要採用有效的策略性人力資源管理方法和資訊技術,以獲得競爭優勢、得到並留住關鍵人才、提高人才效率和評估人才貢獻。此次系列論壇在中國北京（2005 年 1 月 11 日）、上海（2005 年 1 月 13 日）和深圳（2005 年 1 月 18 日）三城市舉行。

Loiselle 表示：作爲世界領先的應用軟體提供商，甲骨文公司比以往任何時候都更加強調幫助中國企業和機構採用功能齊全、高度智慧和支援人力資源管理整個環節的人力資源管理解決方案，使他們主動應對這些發展趨勢。”

這些發展趨勢包括：外國公司進入中國市場後爭奪頂級人才；由“家族式”管理變爲團隊式管理；提升中層管理人員的領導才能和管理技能；在一個迅速變化的時代保存和發展企業文化；加強培訓。這些趨勢直接影響著人力資源管理策略的制定。

Loiselle 透露，產品策略、合作夥伴策略和客戶關懷策略將組成甲骨文公司在中國的三大 HRMS 業務發展策略。

他說：“隨著中國商業環境和勞動力市場的不斷變化，企業和單位需要全新的策略性人力資源管理方式，並且把員工管理與企業目標的實現緊密聯繫起來。我們認爲，伴隨著人才管理模式由一般的行政管理向打造優秀員工(Workforce Excellence)的模式轉變，技術將發揮重要的支持作用。我們還認爲，甲骨文的 HRMS 策略適合中國的情況，也符合我們力圖鞏固中國 HRMS 市場領先地位的目標。”

提供最佳 HRMS

Oracle HRMS 是一套集成式人力資源管理軟體解決方案，它能協助企業和機構最大限度地挖掘員工潛力，全面打造優秀人才。作為 Oracle 電子商務套件（Oracle E-Business Suite）的一部分，Oracle HRMS 有別於同類產品，它具有支援人力資源管理整個環節的完整功能，並集成到單一資料模型中，從而確保從單一資訊源中即時地瞭解最真實的資訊，使高層管理人員們能夠做出最有根據的決策。Oracle HRMS 具有招聘、人力資源管理、福利、工資管理、獎金、績效管理、員工規劃和培訓／發展等關鍵功能。為了更好地幫助人力資源管理決策者，Oracle 應用軟體最新版本（即：Oracle 電子商務套件 11 i 10）中的 Oracle HRMS 模組還增加或增強了以下功能：

- 勞動力應急管理 — 按需管理全體員工，如合同工、代理機構人員和獨立承包人；

- 完整的企業網上學習管理；

- 快速實施工作臺；

- 學習管理 — 個人培訓計畫；

- 增強了的人力資源管理自助服務用戶介面和附加的事務處理功能；

- 提高了的人力資源資料庫智慧、網上招聘智慧、獎金和福利分析能力；

- 增強了的績效管理功能。

甲骨文公司還計畫不久在北京研發中心成立線上學習解決方案中心，為線上培訓開發領先的解決方案，以滿足中國線上教育市場的快速增長。

與人力資源專家合作

綜觀甲骨文公司在中國的 15 年發展史，堅固的合作夥伴網路一直是成功的基礎之一。為了滿足中國巨大的 HRMS 市場需求，甲骨文公司將更加努力地重視合作夥伴關係，公司將計畫與專門從事人力資源管理的諮詢公司及系統集成商合作，聯合開發解決方案並進行聯合銷售，如：公司已與領先的人力資源諮詢公司美世（Mercer）展開合作。甲骨文公司在中國有超過 10 家的 HRMS 合作夥伴。

根據 2004 年 10 月的 IDC 亞太區半年度企業應用軟體追蹤報告，到 2005 年，中國 HRMS 市場的年複合增長率將達到 44%，遠遠高於亞太地區其他國家。

保持客戶滿意度

Oracle HRMS 已經被很多世界著名的公司及領先的中國公司所採用，中國的客戶包括：中國移動、東方航空公司、交通銀行上海分行、廣州地鐵、光明乳業、太平洋保險網路學院、上廣電、北京國華電力公司和廣發證券。

為了確保給客戶帶來多種益處和可量化的投資回報，甲骨文公司將積極與客戶溝通，跟蹤和評估 Oracle HRMS 實施效果，瞭解和滿足他們的需求。

Loiselle 表示：“在私營和國營機構的人力資源部門把重點從日常行政管理轉移到策略諮詢的過程中，經常與人力資源經理和 IT 經理們交流和溝通以瞭解他們新的目標和需求並協助他們實現這些目標和滿足這些需求，對我們而言變得更加重要。”