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)

參加亞太經濟合作(APEC)電信暨資訊工作小組第二十九次會議暨相關研討會報告書

出國人員：

服務機關	職　稱	姓　名
交通部電信總局	處長	王碧蓮
交通部電信總局	副處長	許錫蘭
交通部電信總局	簡任技正	羅金賢
交通部電信總局	科長	梁伯州
交通部電信總局	專員	盧美滿
行政院研考會	高級分析師	林裕權
行政院研考會	科長	蔡世田
行政院研考會	專員	吳啟文
行政院國家資通安全會報	資深經理	吳家祺
行政院國家資訊通信發展推動小組IPv6基礎建設分組	協同主持人	李鳳霖
	協同研究員	洪燕竹
經濟部國際貿易局	科員	曾德宜
中華電信公司電信訓練所	所長	張來喜
中華電信公司數據通信分公司	副處長	康崇原
中華電信公司國際分公司	經理	陳楚方

出國地點：香港
出國期間：九十三年三月廿日至廿七日
報告日期：九十三年五月二十日

系統識別號:C09302020

公 務 出 國 報 告 提 要

頁數: 64　含附件: 是

報告名稱:

APEC電信暨資訊工作小組第二十九次會議暨相關研討會

主辦機關:

交通部電信總局

聯絡人／電話:

李菲菲／02-23433679

出國人員:

王碧蓮　交通部電信總局　綜合規劃處　處長
許錫蘭　交通部電信總局　綜合規劃處　副處長
羅金賢　交通部電信總局　總工程司室　簡任技正
梁伯州　交通部電信總局　綜合規劃處　科長
林裕權　行政院研究發展考核委員會　資訊管理處　高級分析師
蔡世田　行政院研究發展考核委員會　資訊管理處　科長
吳啓文　行政院研究發展考核委員會　資訊管理處　專員
曾德宜　經濟部國際貿易局　　科員
張來喜　中華電信股份有限公司　電信訓練所　所長
康崇原　中華電信股份有限公司　數據通信分公司　副處長
陳楚方　中華電信股份有限公司　國際電信分公司　經理
盧美滿　交通部電信總局　綜合規劃處　專員

出國類別: 其他

出國地區: 香港

出國期間: 民國 93 年 03 月 21 日 -民國 93 年 03 月 27 日

報告日期: 民國 93 年 05 月 20 日

分類號/目: H6／電信　H6／電信

關鍵詞:

內容摘要: APEC TEL29會議共有十八個會員經濟體及APEC秘書處計畫主任、一位觀察員(太平洋經濟合作理事會)、以及五位賓客(亞太實驗室認證體系、亞洲大洋洲電子信息協會、全球企業電子商務對話論壇，國際電信使用者協會以及澳門之代表參與。 本次會議我國由電信總局王處長碧蓮率團，參團單位計有行政院研究發展考核委員會、行政院國家資通安全會報技術服務中心、經濟部國際貿易局、行政院NICI IPv6推動工作小組基礎建設分組、資策會、中華電信公司等單位共計二十一人。 我代表團除提出國內最近電信監理及政策發展之書面及口頭報告外，並在「電子安全專案小組會議」、「下一代網路監理圓桌會議」、「電子化政府研討會」、「合作開發指導分組會議」等發表演講、提出書面或口頭報告。 我代表團在會中提出下列兩項新計畫提案，並獲TEL大會通過：APEC IPv6最佳應用計畫、APEC電信中心發展計畫，上述計畫分別由NICI IPv6推動工作小組基礎建設分組及行政院研究發展考核委員會研提。 本次會議宣布未來ＴＥＬ會議之主辦經濟體如下：TEL30由新加坡、TEL31由泰國、TEL32由韓國主辦。

出席亞太經濟合作（APEC）會議報告摘要表

1 會議名稱	APEC 電信暨資訊工作小組第二十九次會議(APEC TEL 29 Meeting)	
2 會議日期	2004 年 3 月 21-27 日	
3 會議地點	香港會議展覽中心	
4 出席經濟體別及秘書處人員姓名、職銜	計有十八個經濟體之代表、APEC 秘書處計畫主任(Program Director)、一位觀察員(PECC)、五個賓客(亞太實驗室認證體系(APLAC)、亞洲大洋洲電子信息協會(AOEMA)、全球企業電子商務對話論壇(GBDe)、國際電信使用者協會(INTUG))、澳門(Macao)之代表參與。	
5 會議主席及主導成員（Lead Shepherd）姓名、職銜	墨西哥籍 Ms. Sallma Jalife	
6 我國出席人員姓名、職銜	交通部電信總局 交通部電信總局 交通部電信總局 交通部電信總局 交通部電信總局 行政院研究發展考核委員會 行政院國家資通安全會報 NICI IPv6 基礎建設分組 經濟部國際貿易局	王處長碧蓮 許副處長錫蘭 羅簡任技正金賢 梁科長伯州 盧專員美滿 林高級分析師裕權 蔡科長世田 吳專員啟文 吳資深經理家祺 李博士鳳霖 洪教授燕竹 曾博士德宜

	中華電信公司電信訓練所　張所長來喜 中華電信公司數據通信分公司　康副處長崇原 中華電信公司國際分公司　陳經理楚方 工研院電腦及通訊工業研究所　宋課長振華 工研院電腦及通訊工業研究所　許經理建昌 資策會網路多媒體研究所　董所長建成 資策會科技法律中心　戴組長豪君 資策會科技法律中心　林經理煒鎔 NII 產業發展協進會　梁經理理旋
7 會議議程項目內容	一、議程之檢討與定案 二、APEC 秘書處報告事項 三、各指導分組會議及報告 （一）、商務便捷化指導分組 （二）、合作開發指導分組 （三）、人力資源開發指導分組 （四）、自由化指導分組 四、討論/通過新計畫提案/排定優先順序 五、各經濟體報告最近監理政策發展 六、觀察員及賓客發言 七、討論下次會議 八、其他事項
8 重要討論及決議事項	1. 通過下列計畫： (1) APEC IPv6 最佳應用計畫 (Killer Applications for APEC IPv6 Environment Project Proposal)(中華台北) (申請 APEC 營運帳基金補助美金 20,000 元) (2) 區域電腦網路基礎建設計畫 (Regional Cyber-Infrastructure)(韓國) (申請 APEC 營運帳基金補助美金 20,000 元)

	(3) 監理調查計畫 (Survey on Regulation)(INTUG)(自籌經費) (4) APEC 社區資訊服務推廣中心發展計畫 (APEC Telecenter Development Program) (中華台北)(自籌經費) (4) WiFi 連結計畫 (WiFi Connectivity)(加拿大) (申請 APEC 營運帳基金補助美金 35,550 元) 2. 暫訂下列研討會與未來 TEL 會議併同舉行： (1) TEL30： a. 電腦安全事件回應小組及無線安全研討會(CSIRT+Wireless Security)(美國) b. 區域電腦網路基礎建設研討會(Regional Cyber-Infrastructure)(韓國) c. 智慧型社區發展研討會(Smart Communicty Development) (加拿大) d. 資訊服務中心研討會(Telecenter Development Program)(中華台北) e. MRA 專案小組會議(MRA Task Force Meeting) (2) TEL31： APEC IPv6 最佳應用研討會 (IPv6 Killer Applications)(中華台北) (3) TEL32 區域電腦網路基礎建設研討會 (Regional Cyber-Infrastructure)(韓國) 3. 未來ＴＥＬ會議預定由以下經濟體主辦： TEL30—新加坡 TEL31—泰國(待官方確定) TEL32—韓國

<table>
<tr><td colspan="2">9 中共、香港之發言及提案情形</td><td colspan="5">無重要發言。</td></tr>
<tr><td rowspan="10">10 我國應配合辦理之工作與分工</td><td>A、共同推動之計畫</td><td colspan="5">1. 持續推動電信自由化。
2. 擔任人力資源開發指導分組召集人及合作開發指導分組（DCSG）副召集人。
3. 主辦 APEC TEL 數位落差行動藍圖之修正。
4. 參與 APEC 「WTO 電信參考文件最佳範例計畫」。
5. 參與電信服務部門全面自由化成果研討會計畫。
6. 推展 APEC IPv6 最佳應用計畫。
7. 推展 APEC 資訊服務中心發展計畫。</td></tr>
<tr><td>B、相關會議</td><td colspan="5">無</td></tr>
<tr><td rowspan="5">C、政府機構應推動工作</td><td>一</td><td>持續推動電信自由化。</td><td>相關單位</td><td>交通部電信總局</td></tr>
<tr><td>二</td><td>執行電信設備相互承認協定</td><td>相關單位</td><td>交通部電信總局</td></tr>
<tr><td>三</td><td>推動網路安全</td><td>相關單位</td><td>行政院研究發展考核委員會、行政院國家資通安全會報、經濟部商業司</td></tr>
<tr><td>三</td><td>促進商務便捷化</td><td>相關單位</td><td>經濟部國際貿易局</td></tr>
<tr><td>四</td><td>鼓勵民間部門積極參與電信基礎建設。</td><td>相關單位</td><td>交通部電信總局、行政院國家資訊通信發展推動小組</td></tr>
<tr><td>D 其他民間機構應推動工作</td><td>五</td><td>積極參與電信基礎建設。</td><td>相關單位</td><td>電信業者、電信資訊領域相關財團法人</td></tr>
</table>

11 是否召開協調會議推動	於 93 年 3 月 8 日在交通部電信總局召開 TEL29 行前會議。
12 備註：	

目錄

捌、 附件

附件一：主要經濟體最近監理及政策發展報告

附件二：主席報告

APEC 第二十九次電信暨資訊工作小組會議
暨相關研討會

壹、會議地點、時間、任務分組

會議地點：香港會議展覽中心

會議時間：3 月 21 日至 26 日

我代表團任務分組：如下表

日期	研討會/會議	議題主政單位	出席單位/會後報告單位/人員
3/21	電腦危機處理與資安鑑識講習會(一天) Incident Response & Forensics Workshop	行政院國家資通安全會報	1. 國家資通安全會報技術服務中心/吳資深經理家祺 2. 行政院研考會/林高級分析師、蔡科長世田、吳專員啟文 3. 經濟部國際貿易局/曾博士德宜 4. 中華電信公司/張所長來喜、陳經理楚方 5. 工研院電通所/宋課長振華
3/22	電子安全專案小組會議(一天) e-Security Task Group Meeting (eSTG)	1. 行政院國家資通安全會報 2. 經濟部商業司	1. 國家資通安全會報技術服務中心/吳資深經理家祺 2. 經濟部國際貿易局/曾博士德宜 3. 工研院電通所/宋課長振華(代表商業司出席) 4. NII 產業發展協進會/梁經理理旋(代表商業司演講)

			5. 資策會科法中心/戴組長豪君、林經理煒鎔 6. 中華電信公司/張所長、陳經理楚方
	下一代網路監理圓桌會議(一天) Regulatory Roundtable-Next Generation Networks	1. 行政院國家資訊通信發展推動小組(NICI) 2. 電信總局	1.工研院電腦與通訊工業研究所/許經理建昌/Session a.下一代網路形態及其服務提供能力(演講) 2.資訊工業策進會網路多媒體研究所/董所長建成/Session b.使用者對下一代網路之期許(演講) 3.NICI IPv6 基礎建設分組/李協同主持人鳳霖 4.中華電信數據通信分公司/康副處長 5.電信總局/王處長碧蓮、許副處長錫蘭/Session c.、d.下一代網路所帶來之監理挑戰、未來工作、羅簡任技正金賢
	團長會議		電信總局王處長碧蓮
3/23	MRA 專案小組會議(一天) MRA Task Force Meeting	電信總局	1. 國家資通安全會報技術服務中心/吳資深經理家祺 2. 電信總局/許副處長錫蘭、羅簡任技正金賢 3. 工研院電通所/宋課長振華

	寬頻研討會(一天) Broadband Workshop	行政院國家資訊通信發展推動小組(NICI)	1. NICI IPv6 推動工作小組基礎建設分組/李協同主持人鳳霖 2. 行政院研考會/蔡科長世田 3. 中華電信數據通信分公司/康副處長崇原 4. 工研院電通所/宋課長振華 5. 電信總局/梁科長伯州、盧專員美滿
	電子化政府研討會(一天) e-Government Workshop	行政院研究發展考核委員會	1. 研究發展考核委員會資訊管理處/林高級分析師裕權(演講)/吳專員啟文 2. 經濟部國際貿易局/曾博士德宜 3. 工研院電通所/宋課長振華 4. 資策會科法中心/戴組長豪君、林經理煒鎔 5. 中華電信公司/張所長來喜、陳經理楚方
	執行委員會(12:30-14:00)		中華電信公司張所長來喜(HRDSG 召集人)、電信總局梁科長伯州(DCSG 副召集人)
3/24	TEL 大會 I(上午)	電信總局	(所有參團單位) 電信總局/盧專員美滿
	自由化指導分組會議 (下午) LSG	電信總局	1. 資策會科法中心/林經理煒鎔 2. 電信總局/王處長碧蓮、許副處長錫蘭、羅簡任技正金賢

	合作開發指導分組會議 (下午) DCSG	1. 行政院國家資訊通信發展推動小組(NICI) 2. 電信總局(DCSG 副召集人)	1. NICI IPv6 推動工作小組基礎建設分組/李協同主持人鳳霖(演講)、洪協同研究員燕竹(提案人) 2. 中華電信數據通信分公司/康副處長崇原 3. 電信總局/梁科長伯州、盧專員美滿
3/25	自由化指導分組會議 (上午) LSG	略	略
	合作開發指導分組會議 (上午) DCSG	略	略
	商務便捷化指導分組會議 (一天) BFSG	經濟部國際貿易局	1. 經濟部國際貿易局/曾博士德宜 2. 國家資通安全會報技術服務中心/吳資深經理家祺 3. NII 產業發展協進會/梁經理理旋
	人力資源開發指導分組會議 (一天) HRDSG	中華電信公司電信訓練所(HRDSG 召集人)	1. 中華電信公司/張所長、陳經理楚方 2. 行政院研考會資訊管理處/林高級分析師裕權(提案人)
3/26	TEL 大會 II(上午)	電信總局	所有參團單位 電信總局/盧專員美滿

貳、各經濟體與會員代表

共有十八個經濟體（澳大利亞、汶萊、加拿大、中國大陸、香港、印尼、日本、韓國、馬來西亞、墨西哥、紐西蘭、俄羅斯、秘魯、新加坡、中華台北、泰國、美國、越南）、APEC 秘書處計畫主任、一位觀察員(太平洋經濟合作理事會(PECC))、以及五位賓客(亞太實驗室認證體系(APLAC)、亞洲大洋洲電子信息協會(AOEMA)、全球企業電子商務對話論壇(GBDe)以及國際電信使用者協會(INTUG)）以及澳門之代表參與。

參、會議主席

由墨西哥籍 Ms. Sallma Jalife 擔任主席。

肆、大會

(大會相關文件登載於：http://www.apectel29.gov.hk/documents.html#plenary)

一、會議議程

（一）、 議程之檢討與定案

（二）、 APEC 秘書處報告事項

（三）、 各指導分組會議及報告

（四）、 討論/通過新計畫提案/排定優先順序

（五）、 各經濟體報告最近監理政策發展

（六）、 觀察員及賓客發言

（七）、 討論下次會議

（八）、　其他事項

二、開幕致詞

APEC 電信暨資訊工作小組（以下簡稱 TEL）第二十九次會議於 2004 年 3 月 21 日上午開幕。會議首先由香港工商及科技局局長（Secretary for Commerce, Industry and Technology）Mr. John Tsang 致歡迎詞。T 氏歡迎各經濟體出席本次會議，並介紹香港所積極推動之「數位 21 策略（Digital 21 Strategy）」。渠強調各經濟體應共同合作發展電子安全及電子化政府倡議、促進資訊通信技術之取得、研議區域內自由貿易協定、相互承認協定及能力之建置等議題。

TEL 主席表示，各指導分組召集人應確保其分組各項計畫之目標符合 APEC 資深官員所定 11 項政策優先事項，及經濟技術合作(ECOTCH)之 4 大優先事項。為利 TEL 了解本區域內電信及資訊技術環境之發展現況，TEL 主席請各經濟體重視並協助各項研究、調查問卷及各項表格與資料庫之更新活動。TEL 主席另提出一份文件供參（如主席報告 Appendix 1），該表格載明 TEL 目前工作目標及各工作項目。

三、APEC 秘書處報告事項

(文件編號：telwg29/PLEN/9 & 9a)

APEC 秘書處計畫主任 M. Monica Ochoa 報告以下事項：

有關 2003 年 10 月在泰國曼谷舉行之第十一屆 APEC 經濟領袖會議及第十五屆 APEC 部長會議，會中通過數項新倡議並同意加強進行中之工作，以促進亞太地區貿易與投資之自由化與開放。

2004 年 APEC 會議之主辦經濟體為智利，會議之主題為「共同社群，我們的未來(One Community, Our Future)」，智利明列數項優先事項如下：

1. 使 APEC 成為多邊貿易體系之催化劑；
2. 將自由貿易協定(FTA)及區域貿易協定(RTA)納入 APEC 體制中；
3. 貿易便捷化以貿易及安全為重點；
4. 促進微小型企業之發展；
5. 藉由穩定及有效率的國際金融結構，確保區域經濟之繁榮。

APEC 各論壇擬訂計畫及評定計畫申請經費補助之優先順序時，應以 2004 年 2 月-3 月 APEC 資深官員第一次會議時所訂定之年度優先事項及 ECOTECH 優先事項為主要評量標準。

管理事項

APEC 各論壇於檢視計畫提案及評比計畫申請營運帳基金(operational account)補助之優先順序時，應謹慎檢視計畫之實質內容，並應依據計畫對 ECOTECH 及 APEC 目標之符合性作決定。

2004 年 APEC 營運帳基金預算為美金 2 百萬元，計畫申請經費之額度如超過營運帳基金十分之一（即美金 200,000 元），則將不予考慮。

2005 年 7 月之 BMC 會議將針對申請 TILF 特別帳基金補助之計畫進行更周密之審核，審核之標準為：(1)計畫與 2004 年資深官員會議(SOM)所定 TILF 優先事項相關；(2)計畫與貿易暨投資委員會(CTI)所訂優先事項相關。

計畫主持人於計畫期間應定期與 APEC 秘書處密切聯繫，至少每兩個月聯繫一次。計畫主持人須預留充分期間以竟邀出席人員及演講人員。

計畫評估作業：APEC 各論壇應成立評估小組(small group)（至少包括兩個經濟體），針對已執行完畢之計畫進行評估。評估報告應於計畫完成八週內送交 APEC 秘書處。

APEC 秘書處新網址為 http://www.apec.org，電子新聞稿將按季公布。

四、討論/通過新計畫提案/排定優先順序

本次 TEL 會議通過下列計畫：

1. APEC IPv6 最佳應用計畫(Killer Applications for APEC IPv6 Environment Project Proposal)(中華台北)
   申請 APEC 營運帳基金補助美金 20,000 元；
2. 區域電腦網路基礎建設計畫(Regional Cyber-Infrastructure)(韓國) 申請 APEC 營運帳基金補助美金 20,000 元；
3. 監理調查計畫(Survey on Regulation)(INTUG)(自籌經費)
4. APEC 社區資訊服務中心推廣發展計畫(APEC Telecenter Development Program)(中華台北)自籌經費；
5. WiFi 連結計畫(WiFi Connectivity)(加拿大)
   申請 APEC 營運帳基金補助美金 35,550 元；

通過下列研討會與未來 TEL 會議併同舉行：

TEL30：

1. 電腦安全事件回應小組及無線安全研討會 (CSIRT+Wireless Security)(美國)
2. 電子安全專案小組（eSTG）會議
3. 區域電腦網路基礎建設研討會(Regional Cyber-Infrastructure) (韓國)
4. 智慧型社區發展研討會(Smart Communicty Development) (加拿大)
5. 資訊服務推廣中心研討會(Telecenter Development Program)(中華台北)
6. MRA 專案小組會議(MRA Task Force Meeting)

TEL31：

APEC IPv6 最佳應用研討會(IPv6 Killer Applications)(中華台北)

TEL32：

區域電腦網路基礎建設研討會(Regional Cyber-Infrastructure)(韓國)

五、各經濟體報告最近監理政策發展

各經濟體提出電信監理及政策發展報告如附件一(http://www.apectel29.gov.hk/documents.html#plenary)。

六、觀察員及賓客發言

國際電信使用者協會(INTUG)(文件編號 telwg29/PLEN/21)

INTUG 代表(Ms. Rosemary Sinclair)籲請各經濟體採取行動，衡量現有業者在提供電路出租業務方面之績效，確保業者提供服務時無歧視待遇。

有關垃圾電子郵件(spam)，INTUG 建議 TEL 及各經濟體密切注意 spam 之相關進展，並考量下一代網路之設計是否應包含若干措施，以限制或監控 spam 等濫用之情形。

INTUG 亦關切行動電話國際漫遊業務之價格過高，認為行動受話費率(mobile termination rates)價格太高，建議應有監理機制之強力介入，INTUG 請各經濟體應促使該受話費率以成本為導向，並表示當競爭無法奏效時，監理即有其必要性。

亞洲大洋洲電子信息協會(AOEMA)(文件編號 telwg29/PLEN/19)

AOEMA 代表(Mr. Yuichi Tasaki)指出，為協助中小企業(SME)發展有效率的通信策略，認為 TEL 應注意以下兩項議題：使 SME 能獲得有關通信選擇及執行策略之建議、對通信安全之建議。AOEMA 樂於協助 TEL 建立知識庫，以促進亞太地區 SME 之發展。

亞太實驗室認證體系(APLAC)(文件編號 telwg29/PLEN/10)

APLAC 代表(Mr. John Mitchell)對於其能在 MRA 專案小組會議、研討會及相關訓練活動方面有所貢獻感到榮幸，並對其能成為 MRA 管理系統(MRAMS)之首位贊助者感到驕傲。APLAC 將繼續

提供加值實驗室認證服務。APLAC 之網站設於：www.aplac.org。

全球企業電子商務對話論壇(GBDe) (文件編號 telwg29/PLEN/07 &08)

GBDe 代表(Mr. Tomohiko Yamakawa)報告 2003 年 11 月在美國紐約舉行之 GBDe CEO 高峰會議情形。下次 GBDe 之 CEO 高峰會議預訂於 2004 年 11 月 29-30 日在馬來西亞吉隆坡舉行。GBDe 網址：www.gbde.org。

澳門(Macao) (文件編號 telwg29/PLEN/22)

澳門代表(Mr. Vai Hong Fong)感謝 TEL 同意給予賓客身分，並報告澳門電信監理、憑證管理中心、智慧型身分證(Smart ID)、電子化政府計畫等之最新進展。

太平洋經濟合作理事會(PECC)

PECC 代表(Mr. David Parsons)表示 PECC 目前受資深官員委託，負責監督並評估 e-APEC 策略之執行情形，希望 TEL 處理以下議題：安全與貿易、電子化政府、資訊經濟及人力建置等，並希望 TEL 提供上述議題之相關資訊及個案研究。

七、討論下次會議及電信暨資訊專業部長會議

未來 TEL 會議預定由以下經濟體主辦：

TEL30—新加坡（2004 年 9 月 19-24 日）；
TEL31—泰國（尚待官方確認）；
TEL32—韓國。
有關第六屆電信暨資訊專業部長會議(TELMIN6)之主辦經濟體尚未確定，將由 TEL 主席辦公室繼續協調。

八、其他事項

TEL 副主席 Mr. Inuk Chung 呼籲各指導分組召集人及早準備須提交 TELLMIN6 之文件，並規劃未來工作事項。C 氏表示計畫提案之提出程序應符合延續性、格式化、效率化之規定，並應於會議前及早提出，俾各經濟體有充分時間審核文件。C 氏亦提醒各計畫應自行負擔資料上載至 TEL 網站所需費用。

TEL 主席特別提出各指導分組及專案小組於進行議程時應注意之優先順序如下：

1. 進行中計畫之進度報告；
2. 新計畫（符合規定格式）；
3. 討論、資訊分享等。

伍、各指導分組會議及報告

(各指導分組會議文件登載於網址
http://www.apectel29.gov.hk/documents.html#Liberalisation)

一、自由化指導分組（LSG）報告

本會議共有十二個經濟體代表參加，包括澳大利亞、加拿大、中國大陸、香港、日本、韓國、紐西蘭、菲律賓、新加坡、中華台北、泰國、美國。另有 TEL 賓客國際電信使用者協會(INTUG)代表參加。其中汶萊、印尼、智利、馬來西亞、墨西哥、巴布亞新幾內亞、秘魯、越南及俄羅斯等九個經濟體未派員與會。

(一)、議程說明

自由化指導小組（LSG）之議程，經討論後獲通過及採納。本次會議召集人為澳洲代表 Colin Oliver，會中感謝前任會議召集人加拿大代表 Ms. Kathy Fisher，另介紹兩位新的會議副召集人，分別為韓國代表 Dr. Chong Hoon Park 和日本代表 Mr. Eiji Makiguchi。他也提到 LSG 在現階段與未來的工作，應該考慮相關資深官員會議(SOM)、經濟和技術合作(EcoTech)的議題排列之優先性。

(二)、討論會議

1. 下一代網路：監理圓桌會議

香港在圓桌會議的報告(telwg 29/LSG/13)已被接受，主辦單位也恭賀該圓桌會議非常成功。在監理圓桌會議討論下一階段方向， 討論的焦點係提出今後解決問題的方法和建議，作為 TELMIN 6 會議未來工作之倡議重點。

澳洲代表建議應向 TEL 提出於 TEL 30 召開前舉行一場研討會以開啟下一代網路(NGN)的神秘面紗和提升認識，研討範圍包括：

- 確認經由 NGN 所傳送服務的主要能力和特性。
- 最能符合終端用戶合理的期待的服務能力及特性。
- 確認關於提供 NGN 資訊予終端用戶的可能選項。
- 確認 NGN 基礎建設中所提供的特定服務及其特性，互連另一個 NGN 服務到一個已存在的網路服務是必須的，並利用既有的 APEC 互連指導方針來發展互連架構。

新加坡代表也提出，研討會重點在於研提 NGN 的監理範圍，並儘可能的減少監理，同時指出研討會應該考量每一經濟體在 NGN 應用的不同階段情況，並確保對 TELMIN 6 所提的任何建議均對此有所認知。

同意該研討會應以一些特殊的 NGN 問題為範圍，並鼓勵管理者和網路提供者參與。工作小組最初目標是促成對 NGN 議題的共同了解，並避免於引進新服務時造成不必要的障礙。

回應美國代表的建議案(參見 telwg29/LSG/18)， LSG 同意將監理圓桌會議所提之 NGN 事項向大會報告，並建議在 TEL 30 舉辦一場研討會，概述 NGN 涉及監理制度、既有業者、新業者、消費者及 TEL 就 NGN 未來的工作領域，並擬將 NGN 研討會成果報告提送 TELMIN 6 部長會議。

LSG 也同意建議下一個研討會以非正式型態舉辦，俾利擴大參與。

2. 採納及履行 WTO 電信參考文件進度

為回應資深官員會議對執行 WTO 現況資料的要求，加拿大於會場

分送"採納及履行 WTO 電信參考文件進度報告"(參見 telwg29/LSG/15)。現階段該份報告尚屬草案，LSG 希望各經濟體能儘速檢視國內之實施狀況並於四月底前將資料送交加拿大，俾利 TEL 主席能於五月中旬將報告內容提交貿易暨投資委員會(CTI)。

3. 履行 WTO 電信參考文件之最佳範例指南(Best Practices to Implementing the WTO Reference Paper Guide)

新加坡提交"履行 WTO 電信參考文件之最佳範例指南"之進度報告(參見 telwg29/LSG/16)。草擬小組委員業依各方意見起草乙份基本架構，然因資料過多致作業不及，無法及時於本次 LSG 會中提供完稿之指南。草案初版擬於 2004 年 6 月底分送所有經濟體，並希望於 TEL 30 前由草擬委員會彙集意見，俾於 LSG 會議時討論。該文件擬於 TEL 31 會議中進行定稿討論並送請 TEL 與 TELMIN 6 部長會議認可。

4. 自由化成果(Liberalization Stocktake)

TELMIN2 部長會議通過茂物宣言(Bogor Declaration)架構下之"電信服務部門全面自由化要素參考列表"。自 1996 年至今，市場、技術、監理架構及商業模式不斷變動，因此，本案進行的目的在於檢驗七年中要素指標運用之效度、評估達到預設目標之進展、評估該列表涵蓋之範圍是否足以將所有涉本部門之主要議題含括在內、每個要素是否仍足以作為電信全面自由化市場之驗證指標，並提供調整或新增措施之建議。

顧問 John DeRidder 致力於自由化成果計畫之研究，其於會中提出研究報告草案 (參見 telwg20/LGS/09)。Mr. DeRidder 表示，自該參考文件被採用後，儘管國際環境、市場、技術或規範變動不斷，然研究結果顯示"主要要素"仍是能與時俱進。同時，該份報告指出，雖然開發中和已開發的經濟體依循不同途徑進行電信全面自由化，惟將所有經濟體之進展與該列表設定之願景做比對，可明顯反應出各經濟體對電信自由化之成果皆有十足的進展。該份報告也指出每一會員都有機會透過 WTO 杜哈回合談判，推動國內之電信改革。

顧問團隊除提供許多建議供各經濟體參考，並就 APEC TEL 未來的工作提出建言。LSG 同意應予各經濟體充裕的時間進行該等建議事項之考量。

LSG 贊許本計畫案業成功地檢視各項要素，確認該等要素仍是重要相關的，並證明各經濟體之進展可以達到預期目標，同時提供多項建議以協助經濟體參與 WTO。LSG 同意發布此份研究報告，並予經濟體兩星期的時間就此份報告提供實質細節之內容補充。

召集人感謝顧問團隊及計畫監督者的辛勞，並強調與會代表若有進一步的實質意見，請儘速送交顧問團隊，俾利報告的完成。該份報告將有助於檢視 APEC 之工作進度，以達到茂物目標。

5. 有效的執法和落實-草擬指導方針與實施方法(Effective Compliance and Enforcement-Draft Guidelines and Practices)

新加坡提出"有效的執法和落實-草擬指導方針與實施方法"文件草案（參見 telwg29/LSG/08）。該文件現屬後半階段，起草小組正尋求及蒐集各經濟體之意見，包括提供有效運用該執法和落實程序之案例俾供個案研究。

進一步之草案文件包括''執法與實施原則"草案將在 TEL 30 會議中提出，含括一整套原則之指導方針最終版本將會在 TEL 31 時尋求 TEL 認可，指導方針及實施原則亦將提報 TELMIN 6 部長會議認可。

6. 虛擬企業網路(VPN)監理調查專案小組

回應 INTUG 所提報之 telwg29/LSG/03 文件，同時考量召開下一代網路(NGN)研討會之提議，澳洲、加拿大、香港、大陸、韓國、美國擬加入以 INTUG 為首之短期專案小組：

(1) 同意設計乙份精簡之監理情況意見調查表，以收集虛擬企業網路在 APEC 經濟體間建置的資料，特別是與公眾網路互連的監理規定。

(2) 將意見調查表分送 TEL 各經濟體聯絡人，以尋求對各經濟體最有效的資訊。

(3) 編輯乙份報告給 TEL 30，包括召開 NGN 研討會提案

(三)、資訊交換

1. 監理技能

澳洲提出監理技能訓練設計計畫(Regulatory Skills Training Design Project)成果，計畫成果包含一系列主要技巧領域之訓練模組，以符合有效達成獨立監理之需要，包括符合性監控、實施、公眾通信、諮詢、調查、仲裁和爭執解決。

訓練架構設計，使模組能夠被發展出來，並允許有彈性的傳承，以及依個別經濟體需求訂製合適訓練架構。印尼要求將頻譜管理訓練包括在內，這將包括在訓練架構中。

至於未來工作之優先性，召集人請與會代表向 HRDSG 的同仁或 Mr. Leo van Neuren 提供其建言。

2. 專線

INTUG(Ms. Rosemary Sinclair) 和美國(Joe Welch, MCI)簡報經濟合作暨發展組織(OECD)和 APEC 各經濟體之專線費率。最新的國際比較研究結果顯示，各經濟體對於專線費率之訂定有極大之差異性。

專線是通信市場的基礎，網路業者和服務提供者利用其來提供他們的服務，大型企業用戶利用其作為連結他們全世界據點的方法，網際網路服務提供者高度仰賴專線便利性以連接到全世界的網際網路骨幹網路，包括寬頻和窄頻的接取。

簡報者主張在競爭的電信市場，專線接取應採無差別待遇，同時費率應以成本為導向。縱使如此，監理措施、專線之費率趨勢仍應列為關注的重點。

隨後討論所提出關於成本要素和政策議題相關之問題，皆有可能發生在每一個經濟體。不管每個經濟體採取之決策方法為何，與會者咸認為取得更合適之資料將有助於本議題之探討。

- 專線資訊收集計畫(Leased Line Information Gathering Project)

  LSG 同意於下一次會議時組成專案小組以進一步針對此議題進行研討，可以簡單的向顧問提出計畫的範圍及種類(價格及供租專線的條件)，用以收集經濟體的資料，以及發展國際比

較的方法以利資料蒐集與編輯。此小組報告可以成為專案計畫研究的基準。許多經濟體同意加入此計畫與 INTUG 共同發展本工作，包括澳洲、香港、大陸、印尼、日本、美國及我國。

(四)、計畫活動報告

1. MRA 專案小組會議報告(MRA Task Force Report)

MRA 專案小組主席報告會議情形(telwg29/LSG/17)。目前尚無副主席人選，主席鼓勵代表考慮提名適當人選。

中國大陸業於今(2004)年 2 月通知 TEL 工作小組主席將自本年 8 月起實施第一階段，汶萊表示將與新加坡在 ASEAN 之架構下進行第一階段之合作事宜。截至今年底前，業有 17 個經濟體參與 MRA 第一階段之執行，5 個經濟體參與 MRA 第二階段之執行。

同意發展新的 MRA，定名為電信設備標準及規定相互認證協定。現行的相互承認協定著重於電信設備符合性評鑑程序部份，不涉及經濟體間法規內容之相互承認，因此，目前專案小組刻正進行「電信標準等同性比較」之調查研究，以作為推動此一新型態 MRA 可行性之評估參考。專案小組將尋求自由化指導小組(LSG)、電信暨資訊工作小組(TEL)及第六屆亞太經合會電信資訊產業部長會議(TELMIN6)對此新 MRA 之認同與支持。

下一次 MRA 專案小組會議將在 TEL30 前舉行，專案小組需要星期一及星期二各半天的時間開會，以持續討論 MRA 第一、二階段程序的執行。最後，主席代表專案小組對香港主辦 TEL 29 會議表達誠摯之謝意。

A. MRA 訓練計畫進展

澳洲報告 HRDSG MRA 第二階段訓練計畫設計案之執行進展。澳洲代表 Mr. Neuren 表示業針對本案設計一組問卷調查表，期望所有經濟體，尤其擬執行第二階段的經濟體能儘速填復，以利 MRA 第二階段訓練計畫案之進行。

B. MRA 管理系統報告

MRAMS 系統已正式運作供各經濟體登錄使用，隨著參與第一及第二階段經濟體數量之增加，關於 Annexes I to IV

的資料必須放置於同一位置，始方便經濟體擷取資料。為提升資料庫使用效能，主席請尚未提供附件 I 至 IV 的經濟體能儘速將資料送與 Mr. Polites 載入資料庫，以利 MRA 之執行。由於 MRAMS 係一自費計畫，為使本資料庫系統完整開放並能永續發展，仍需各經濟體協助尋覓贊助者提供長期的經費支援。此外，為順利及有效地擷取各經濟體的資料，會中臨時提議於 APEC 網站設計一登錄網頁，並連結至各參與經濟體登載有附件 I 至 IV 相關資料的網頁。主席表示將與 APEC 祕書處諮商此案之可行性後再作研議。

C. 電信標準等同性比較計畫

澳洲報告由 TILF 經費支援之本計畫案業由 Colony Park Group 承辦，該得標公司將選擇性的就某些電信設備標準進行一系列之比較及研究。這對下一個 MRA 是重要的前置工作，其中包含以自籌基金辦理 APEC-APT 聯合研討會。該研討會將提供一個良機來廣泛地探討區域性標準合作事宜。

(五)、新計畫提議

沒有新的計畫要求 APEC 基金補助，計畫小組將自籌經費，故無設定優先性之需要。

LSG 同意於 TEL30 召開一場 NGN 研討會之提案，並給予 MRA 專案小組兩個半天的會議時間。

(六)、共同行動計畫

召集人提出 LSG 應行優先注意的領域，包括良好監理準則、貿易議題、發展商務模式和技術。會中對共同行動一覽表未作任何改變，擬於下一次會議中再行檢視。

(七)、其他事項

召集人於會議結束時，感謝與會的人主動參與和共同研究精神。

二、合作開發指導分組（DCSG）報告

（DCSG 會議文件登載於 http://www.apectel29.gov.hk/documents.html #Development）

DCSG 會議由美籍召集人 Ms. Diane Steinour 主持，副召集人（中華台北：梁科長伯州、中國大陸馬嚴教授）均出席本次會議。

(一)討論事項

1、 TEL 數位落差活動（TEL Digital Divide Activities）
(文件編號：telwg29/DCSG/07, 08, 09)

「數位落差行動藍圖（Digital Divide Blueprint for Action）」共包含三項文件：TEL 活動表（Matrix of TEL Activities）、其他論壇相關活動調查（External Stocktake 2003-2004）、網際網路接取／普及統計（Monitoring Internet Access）。

該藍圖旨在彙整 TEL 內部及外部相關論壇有關活動及資訊，以達成縮短數位落差，及達成領袖會議所定促進區域內 ICT 普及接取之目標（即 2000 至 2005 年間促使網際網路接取人口成長三倍，及 2010 年前促使各經濟體之所有群體均能獲有網際網路接取機會）。相關進展將於彙整後由 TEL 大會提報予 TELLMIN6 會議。

DCSG 副召集人報告上述三項文件之彙整更新情形，並請各經濟體提供數位落差連絡人及惠提更新資料。

2、 TEL 寬頻活動

為準備提交寬頻議題報告予 TELMIN6 會議，美國建議成立一起草小組，負責擬訂一份促進寬頻建置之主要原則草案，加拿大、韓國、泰國、菲律賓、中華台北及中國大陸志願加入該起草小組，並隨即於 DCSG 會後聚會，針對報告之大綱進行討論及交換初步意見。

3、 下一代網路(NGN)與 TEL

有關美國所提議於下次 TEL 會議時由 LSG 與 DCSG 共同舉辦

NGN 研討會一事，DCSG 並未附議該建議，但認為其通過之新計畫提案(IPv6 及 Cyber Infrastructure)均與 NGN 發展有重大關聯。

(二)資訊分享 — 下一代技術及應用

本分項議程由中華台北報告「IPv6 建置現況(The IPv6 Deployment Status in Chinese Taipei)」（文件編號 DCSG/11a）、中國大陸報告「學術研究單位之 IPv6 發展(IPv6 Development of Research and Academic Community in China)」（文件編號 DCSG/25）、越南報告「xDSL 及 NGN 網路建置(Implementation of xDSL Network and NGN Network)」（文件編號 DCSG/02）。

(三)DCSG 計畫

1、新計畫或研討會提案

(1) 區域電腦網路基礎建設計畫(Regional Cyber-Infrastructure)(韓國) （文件編號 DCSG/23a）

本計畫主要在促進各經濟體格網計畫之合作，預訂於 TEL30 及 TEL32 會議時各舉辦一場格網研討會。該計畫擬申請 APEC 營運帳基金補助美金 20,000 元。DCSG 同意通過該計畫。

(2) APEC IPv6 最佳應用計畫(Killer Applications for APEC IPv6 Environment Project Proposal)(中華台北) （文件編號 DCSG/11）

本計畫由我國行政院 NICI IPv6 基礎建設分組李博士鳳霖及洪教授燕竹所提出，旨在與 APEC 各經濟體展開 IPv6 最佳應用之技術合作，以共同建置該應用之研發環境，計畫內容包括舉辦研討會、調查研究及資料庫之提供。該計畫預訂於 TEL31 會議時舉行 IPv6 研討會，並擬申請 APEC 營運帳基金補助美金 20,000 元。計畫獲 DCSG 通過。

(3) APEC 電子(APEC e-Inclusion : Bridging the Digital Divide)（加拿大）（文件編號 DCSG/15）

本計畫預訂舉辦研討會並進行調查研究，以處理有關以社

群為基礎之經濟發展議題，並將殘障人士納入於數位經濟體系中，以改善社群內一般大眾之生活品質。

本計畫未獲通過，DCSG 決議由加拿大於下次會議時，在資訊分享之議程分項中作簡報，以增進其他經濟體對本計畫之了解。

2、進行中計畫

本次 DCSG 會議由於議程項目頗多，未及就進行中計畫及其他事項等作報告及討論。各項進行中計畫之書面報告詳見 http://www.apectel29.gov.hk/ documents.html#Development。

三、商務便捷化指導分組（BFSG）報告

(一)、開幕致詞

韓籍 BFSG 召集人 Yong-Suk Lee 致詞歡迎各經濟體與會代表，並感謝中國香港提供場地，並分別介紹紐西蘭籍副召集人 Dr. Frank March 及越南籍 Mr. Tran Quang Cuong 兩位副召集人。

(二)、BFSG 活動

1. eSTG & CERT 研討會：資訊安全小組主席 Mr. David Hickman 提出日前所舉行之該小組會議與工作研討會報告，並請求 BFSG 賡續舉行全天之工作研討會，議題應包含「無線安全」及「電腦安全事件回應小組」(CSIRT)，美方願意出資籌辦，渠並要求 BFSG 同意於下次 TEL 會議時，舉辦全天的電子安全小組會議。

   BFSG 接受該研討會之報告及提案，並同意於 TEL30 召開全天之電子安全小組會議。

2. 電子化政府研討會：由 PECC 代表 Prof. Obi 提報關於由 BFSG 與 HRDSG 所合作之該次研討會辦理情形，稱許該研討會相當成功。BFSG 召集人稱譽此模式實為 APEC TEL 之指導小組間合作的典

範。

BFSG 接受研討會之報告。

(三)、新增計畫：無。

(四)、目前進行中的計畫

1. 電子化政府工作方案(e-Government Work Program)：韓方報告關於該計畫的進程，經會眾討論後同意將進一步討論如何於跨領域之場合推動該議題。

2. 從使用者的觀點探討電子化政府：本案經研究澳洲、韓國、墨西哥、菲律賓及我國等五個經濟體後，提出關於推動電子化政府之寶貴經驗。BFSG 接受此一報告。

3. 電子化政府人力資源開發-電子化大學網路(e-University Network in HRD for e-Government)(泰國/PECC)：本案亦由 PECC 代表 Prof. Obi 提報本案之進展，TEL 主席於會中建議可將本案結果與 APEC 人力資源發展工作小組(HRDWG)分享。

4. APEC ebXML 研討會：泰國報告該研討會籌備情形，並已向 BMC 預算管理委員會提出緊急支應的請求，如蒙批准預計將於今年 7/21-23 於曼谷舉行該研討會。BFSG 接受此一報告，召集人並敦請各經濟體主動參與。

5. 全球 B2B 互運(Global B2B Interoperability)(韓國)：AOEMA 對於本案表達關切，盼本計劃未來能強化付款及安全領域之議題。本案獲得接受。

6. 認知研討會(Awareness Seminars)：從上次 TEL 會議以降，AOEMA 業已於中國上海及寮國永珍舉行二場研討會，反應熱烈。本案獲得接受。

7. 網站接取(Website Accessibility)：澳洲盼能藉由 APEC 秘書處，將本案之報告傳播給所有 APEC 群體參用。本案獲得接受。

8. 電子郵件之安全環境(e-mail practice for a culture of security)(AOEMA)：AOEMA 推薦使用本計畫之手冊，藉以幫助區域內中小企業了解在商業環境中使用 e-mail 之意涵。本案獲得接受。

9. APEC TEL 網站維護(APEC TEL WG Website Maintenance)：韓國要求 BFSG 於大會中請所有經濟體檢視計畫文件上傳之成本，以在計畫預算中反映此需求。BFSG 將於大會中提出該項建議。

(五)、討論及資訊分享

1. 澳洲在反擊 SPAM 方面之角色(Australia's Role in Combating SPAM)：澳洲簡報該國打擊日益嚴重的垃圾電子郵件之步驟。

2. 日本反 SPAM 之活動(Anti-spam activity in Japan)：日本報告該國對付垃圾電子郵件之方式。隨後部分經濟體扼要地口頭說明該國之政策，INTUG 則重視私人部門採用措施的重要性。

   日本向 BFSG 簡介在電子商務指導小組(ECSG)之討論情形，惟目前並無具體建議，將持續進行意見交流活動。

(六)、其他事務

1. 與其他論壇之合作：

   (1) BFSG 召集人注意到與其他論壇建立合作關係之重要，並歡迎各方提出建言。紐西蘭籍副召集人則表示彙整 TEL 之各指導小組之間活動的一覽表，將對於未來工作有所助益。召集人隨即表示業已注意到其他指導小組與 BFSG 間有共同關注的議題，包括數位落差、寬頻應用、技術支援、RFID 的隱私權保護、電子商務技能發展、電信中心發展及中小企業之網路安全等問題。

   (2) 未來將進一步與其他 APEC 論壇與全球性論壇進行合作。

   (3) 關於由墨西哥主辦之第二屆 APEC 電子化政府高層研討會議，預計將於本年九月舉行，BFSG 將向大會提出建議，爭取

TEL 工作小組之代表參與該會，TEL 主席即表示計劃將會出席該會。

2. 關於電子安全計畫的微幅修正：有關美國所提出的「網路犯罪法律及執法能力建構計畫」，原本預訂將於第二階段與各經濟體進行一對一的訓練，惟目前欲參加第二階段者有限，且亦有需求按照第一階段的多邊方式進行研討，故本案將以自費方式賡續辦理多邊型態之會議。該修正獲得批准。

   關於下一代網路之議題：美國方面提出要求希望各指導分組能將下一代網路之議題納入工作範圍，其提案包括於下屆 TEL 會議舉行下一代網路之工作研討會，惟美方並未要求 BFSG 做出特別決定，紐方及越南代表於會中表示此一議題似與寬頻(broadband)及無線(wireless)之研討會重複；因此，BFSG 召集人建議既然美方沒要求 BFSG 做出決議，故將本案僅視為意見交流之資料，請會眾參考。

3. 召集人指出，BFSG 應儘早就下屆電信暨資訊部長會議進行準備，並請經濟體檢視 TELMIN5 部長宣言中所揭櫫之相關工作。

四、人力資源開發指導分組（HRDSG）報告

(一)計畫進度報告

1、 電子化政府人力資源開發- 電子化大學網路計畫(e-University Network in HRD for e-Government)

本計畫第一階段起始於 TEL27 2003 年 3 月馬來西亞吉隆波。2003 年 4 月首先在泰國以面授開始。主要計畫由泰國主導,期間自 2003 年 9 月 12 日至 2004 年 3 月 11 日。主辦經濟體包括日本 JICA、泰國 TOT Academy，有來自 TOT、CAT、PTD、NECTEC、AIT 及 MICT 20 個會員經濟體參加,其訓練課程是日本東京 8 個專家以國際視訊會議作線上講解。本計畫第二階段是由包括日本、泰國、菲律賓、越南及印尼 5 個會員經濟體共同參與，並得到 2004 年 APEC 中央基金補助美金 66,700 元，

及由日本 Waseda University, ITU-CoE 及其他參與經濟體補助美金 120,000 元經費協助執行。SOM 已同意日本 Waseda University 在相關研究活動使用"APEC e-Government Research Center" 名稱與代號。本計畫在 2004 年首先是在香港 TEL29 舉辦電子化政府研討會，揭開序幕之後，將由日本 JICA 作線上即席講解，7 月對菲律賓、8 月對印尼、9 月對越南、最後是泰國。第二階段預定於 2004 年 12 月完成，第三階段將從 2005 年 1 月開始。

2、 APEC MRA 第二階段執行-HRD 訓練計畫(APEC-MRA HRD Project: Training Program Design for Phase II Implementation)

本計畫的宗旨為進行訓練需求分析，並建議 HRD 活動規劃，如研討、專家支助、訓練材料等，以進行 APEC TEL MRA 第二階段。澳洲代表報告初步設計計畫已完成，並冀望在 TEL29 徵詢各經濟體建議，計畫結果將在 TEL30 提出。本計畫起始於 2004 年 2 月預定 2004 年 9 月完成，得到 APEC 中央基金補助美金 18,000 元。

3、 中小企業網際網路安全訓練計畫(SME Internet Safety Training Program)

本計畫係發展安全網(Safety Net)資訊訓練課程，對 APEC 各經濟體公部門及私部門提供教育訓練。訓練內容將加強協助小企業及微小企業(small and micro enterprises)執行安全評量，並建立線上經濟的信心，包括訓練指導、課程計畫、學員指導、有關執行之行動計畫。

澳洲代表報告本計畫目前正作個案訓練課程發展與籌備。本計畫起始於 2003 年 3 月預定 2004 年 4 月結束,得到 APEC 中央基金補助美金 20,000 元。

本計畫資料來源將作成 PDF 可透過上網擷取。中華台北建議在網站上是否可提供其他語言版本供其他經濟體參考，澳洲代表回應如有經濟體願意贊助資金，其樂觀其成。

4、 APEC 智慧型社區開發計畫(APEC Smart Community Development Project)

本計畫代表加拿大提議在 TEL30 新加坡舉辦半天研討會探討智慧型社區開發計畫議題及概念。研討會將會幫助各經濟體了解智慧型社區本質及其利益、建置方法與計畫。最終目地是完成 APEC 智慧型社區開發計畫。

本計畫第一次研討會成果將於 TEL30 HRDSG 中作報告，並徵求與會者建議，俾作為將來計畫推展與研討會可行性的決策參考。

本計畫起始於 2003 年 3 月預定 2004 年 4 月結束，得到 APEC 中央基金補助美金 30,000 元。

5、 監理機構訓練設計計畫(Regulatory Training Design Project)

本計畫係設計訓練架構，針對會員經濟體監理機構，探討在面臨最新競爭市場之 HRD 需求，並教育訓練相關人員。

本計畫已接近尾聲。針對獨立監理機構主要活動及所需技能所進行之研究分析設計業已執行並提出書面報告供本分組考量，包含如何建立能力提昇之訓練架構。此外，已提出監理機構訓練計畫提案供考量。

本計畫起始於 2003 年 12 月預定 2004 年 5 月結束,得到 APEC 中央基金補助美金 18,250 元。

6、 TEL 電子商務技能標準計畫(TEL e-Commerce Skills Standard Project)

本計畫的宗旨為提供電子商務架構與技能標準,參加者有來自菲律賓、大陸、泰國、印尼等有興趣經濟體。

本計畫於 2003 年底完成。本計畫提供電子商務架構與技能標準,包括數個階段, 其目地是全力支持參與的經濟體建立電子商務技能標準平台，採用書面資料、研討會型式，將電子商務技能標準教授參與的各經濟體。

其成果已在人力資源開發指導分組作報告發表。

7、 APII 合作中心人力資源開發計畫(Human Resource Development Program of APII Cooperation Center)

本計畫係透過韓國經濟體分享其建立數位落差經驗與政策給其他經濟體作為人力資源開發參考。

本計畫，包括短期之國際資訊及電信人力資源開發計畫(International information and telecommunication human resource development program)，及長期之下一代電信領袖夥伴計畫 Fellowship program for next generation telecom leaders。

在 2003 年短期之國際資訊及電信人力資源開發計畫計提供 12 項課程及訓練 139 人，其中 60%來自 APEC 會員經濟體。同時，長期之下一代電信領袖夥伴計畫，70%學員來自 APEC 會員經濟體。

本計畫資料可在網址<http://www.apiicc.org>取得。

8、 供應商訓練教材資料庫計畫(Vendor Training Material Database and Information Technology Awareness, Training and Education Materials)

美國代表報告本計畫資料可在網站上取得，參考網址 http://apec.isu.edu，並邀請各經濟體提供更多材料以豐富資料庫，如有資料可傳送到apec@cob.isu.edu.彙總。澳洲代表建議將本計畫更名,使其較具吸引力,已列入下次會議參考。韓國及中華台北代表分別表示希望在網站資源分享能使用本國語言。召集人表示網頁資訊極具價值，期望各經濟體踴躍提供更多資訊。

9、 資訊技術教育太平洋聯盟(EduPACT: An Alliance for IT Literacy and Skills Development)

PECC 報告目前此計畫進度是: EduPACT,TRIO 在開闢創新

無線市場及帶領 ICT 建立女性中小企業主的能力提昇有顯著進步。

召集人讚賞本計畫參與者的努力及用心並期望繼續推動相互合作。

10、 電信資訊技術論壇(Telecoms Info Technology Forum, TIF)

本計畫由於是自費且目前無法取得產業界贊助，故暫無進度。

(二)新計畫

1、 監理訓練執行計畫(Regulatory Training Implementation Project)

本計畫係執行訓練架構，針對會員經濟體監理機構(regulatory agency)，教育訓練監理人員(regulatory staffs)使具備面對競爭市場之各種能力，包括 compliance monitoring, enforcement, publiccommunication, inquiry, investigation, arbitration。

2、APEC 社區資訊服務推廣中心發展計畫(APEC Telecenter Development Program)

本計畫主要係為具體展現中華台北協助縮減國際數位落差的行動，支持 APEC 數位機會中心(ADOC)設置工作的推展。原則上將透過第一階段的研討活動與訓練，建立相關工作推展的共識後，再於第二階段擇部份發展中經濟體（最多四個）建置社區資訊服務推廣中心。

3、郊區及偏遠地區 Wi-Fi 連結計畫(Wi-Fi Connectivity in Rural and Remote Communities)

本計畫的宗旨在闡述數位落差的一項主要議題：聯結偏遠地區。

會員經濟體中政策制定者、監理者與決策者必須深刻了解此一議題，包括如何促進寬頻網路接取之永續與具成本效益之發展等，進而推廣促成此一計畫落實。

陸、專案小組會議及研討會

(研討會議文件登載於網址 http://www.apectel29.gov.hk./doucuments.html)

一、電腦危機處理與資安鑑識講習會(Incident Response & Forensics

Workshop)

會議名稱、舉行時間、地點	● 電腦危機處理與資安鑑識講習會 ● 2004 年 3 月 21 日 ● 香港會議暨展覽中心，香港 (Hong Kong Convention and Exhibition Center(HKCEC))
與會人員單位、職銜、姓名	● 研考會 高級分析師 林裕權 ● 研考會 科長 蔡世田 ● 研考會 專員 吳啟文 ● 國家資通安全會報 資深經理 吳家祺 ● 國貿局 曾博士德宜 ● 工研院電通所 課長 宋振華
與會人數(請指出哪些會員體未派員與會)	● 約有十四個會員體一百位代表與會。 ● 智利、墨西哥、秘魯、菲律賓、汶萊、巴布亞紐幾內亞及俄羅斯等七個會員體未派員與會。
會議討論主要議題	本次會議主要是各會員體之 CERT 分享及電腦鑑識進行研討。
主要議題之結論	1. 亞太地區資安議題、趨勢及建議 ● 全球資安問題來自於：網際網路之資安僅被視為架構之外加項目，且網際網路軟體品質不夠完善，人們日益依賴網際網路之速度遠超過人們管理安全上之問題。 ● 資安議題主要有惡意程式之衝擊越來越難降低，如：病毒與網蟲發展與傳播之速度均提升；企業與個人在補強弱點與處理資安威脅之能力與人力明顯不足。 ● 建議政府部門，應加強 CERT 與執法單位之合作，這些合作包含

	國內與國際上之合作；增加產業、政府及使用者之資安宣導；協助廠商開發符合安全需求之軟硬體；鼓勵遞交軟硬體給使用者時必須設定安全功能；強化資安專家之培訓。 ● 建議 CERT 增加國際合作與資訊分享；建立 APCERT 各 CERT 單點聯絡窗口(POC)；建立 APCERT 與美國及歐盟之大範圍網路監控資訊分享，以利早期資安預警。 ● APCERT 主席 Graham 建議各經濟體代表政府之 CERT 最好參加 APCERT 組織，並請美國 CERT/CC 從旁協助。 2. 美國贊助下一屆(APEC TEL30)一天之講習會，主要議題為 CSIRTs 及 Wireless 安全。

本次參與電腦危機處理與資安鑑識講習會之人數超過 200 人，其中來自 APEC 各個經濟體的代表約 100 人，參加代表多來自政府單位（交通部、經濟部）或各國推動國家政策之相關單位，以及各國危機處理應變中心之代表，至於來自當地的參加人數超過 100 人。

本講習會主要目的是要深化 APEC 經濟體之間在資訊安全方面之合作，本屆講習會主要的議題在各 CERT 對電腦攻擊與漏洞之主動防護措施及事件發生之鑑識(Forensics)方法與工具之使用。

謹將本屆講習會內容摘要整理如下，以供參與資訊安全政策研擬單位、推動資安技術服務、研發單位及下屆參與會議之人員參考，共同持續推動我國資訊安全國際合作之任務。

各講者除提報與 CERT、Forensics 或政府活動有關的經驗外，亦舉行座談會(Panel Discussion)，台下聽眾發問踴躍，主要重點摘錄如下：

- 電腦鑑識：包含資訊技術(IT)證據及事件檢查之鑑識工具與技術
- CERT：部分經濟體 CERT 經驗
- 主動防護措施：網路監控實例及如何分析與經濟體之 CERT 分享此監控資料

較重要資訊摘錄如下：

(一)、資訊技術證據管理指引

1.題目英文名稱：Guidelines on the Management of IT Evidence

2.講者介紹：Ajoy Ghosh，任職於雪梨 University of Technology，具有十二年電腦犯罪研究、資訊安全及隱私之經驗。目前參與起草澳洲的 Standard Australia's Handbook 171：Guidelines on the Management of IT Evidence 文件。

3.內容摘要：

本簡報主要在說明澳洲最近公布之標準草案 Standard Australia's Handbook 171：Guidelines on the Management of IT Evidence 文件，IT 證據可作為一個單位在訴訟之參考，在被起訴時之防護。電腦安全鑑識在傳統上視為事發後的作為，也許毫無結果，但有規劃的情況下鑑識仍可有效獲得與保存證據。本文件敘述有系統的鑑識整個生命週期的方法論。

4.參考方向：

本簡報內容及該 Handbook 可提我國司法及檢調單位建立資安鑑識實驗室之相關程序之參考。

(二)、電腦鑑識-需要各類工具

1.題目英文名稱：Computer Forensics- The need for diverse Tools

2.講者介紹：Paul Jackson, Hong-Kong Police, The Government of HKSAR，1988 年大學工程科學管理畢業後加入香港警方電腦犯罪偵察技術工作，負責發展及訓練辦案人員之能力之規劃與推動，尤其是電腦鑑

識之證據蒐集分析，近年除獲得電腦鑑識學位外，並受過多次各種國內外資安鑑識訓練，且獲英國聘請做 Law Enforcement Agency 之人員訓練。

3. 內容摘要：

資安鑑識過程中除需各種功能之工具外，亦需有鑑識之常識或想法。本篇報告中主要提到一些商業上及自由軟體之鑑識工具，並無一個鑑識工具可做完全部之鑑識工作，沒有充分熟悉工具使用亦無法發揮其鑑識效能。鑑識工具的例子有有：

- 偵測與擷取 Internet Streaming video
- 檢視 Internet 歷史檔
- 檢驗數位影像
- 挖掘 Windows 儲存之密碼

鑑識之證據越充分越好，工具蒐集之資訊若有互補效果更好。

4. 參考方向：

本簡報內容部分可提我國司法及檢調單位建立資安鑑識實驗室之相關程序之參考。

(三)、資訊安全分享評估中心-日本現況及未來計畫

1.題目英文名稱：ISAC-Current Activities and Future Plans

2.講者介紹：Koji Nakao，任職於日本電信資訊分享及分析中心。

3.內容摘要：

日本於 2002 年建置電信業 ISP 間就網際網路資安事件蒐集分享與分析之機制。

Telcom-ISAC Japan 功能

1. 2003 年 3 月起在 portal 網站提供 ISP 會員之間影響電信通訊基礎建設系統之弱點及警訊分享

2. 在 portal 網站提供資安產品資訊及 Telcom-ISAC Japan 訓練資訊等

3. 建立事件蒐集系統：藉由在各 ISP 部署 Wide-area Monitoring system 之資料蒐集 Sensor，自動蒐集遍佈在日本之 ISP 資安事件，及事件因應 Incident Handling System。

4. 2003 年起建立並營運系統分析中心

5. 2003 年起建立與 JPCERT/CC，NIRT，Telcom-ISAC Korea 資料分享

6. 建立 Telcom-ISAC Japan 論壇，討論機制功能及改善方案

目前 Telcom-ISAC Japan 系統已由 portal 網站提供警訊及弱點資訊，至於事件及時監控與分析中心功能於 2004 年十月雛形系統將完成。Telcom-ISAC Japan 與日本國內之 NIRT 與 JPCERT/CC 密切合作。Telcom-ISAC Japan 與美國及韓國之 Telcom-ISAC 開始合作。

4.參考方向：

Telcom-ISAC Japan 可供我國建立 NSOC 之參考。

(四)、電腦鑑識工具用在電腦犯罪調查

1.題目英文名稱：Computer Forensics as a tool for Criminal Investigation

2.講者介紹：Collines Leung, Hong Kong Police, The Government of HKSAR，作者為香港警方商業犯罪部門調查首席，負責管理兩個資安鑑識實驗室及電腦鑑識測驗及訓練。2002 年獲選擔任國際電腦證據組織(International Organization Crime Evidence, IOCE)執行長，2004 年通過 CISSP 認證。

3.內容摘要：

本報告主要議題包含：電腦犯罪主要型態、電腦鑑識是什麼、電腦鑑識之倫理與原則、電腦鑑識之工作項目、電腦鑑識實施能力、香港電腦鑑識之策略及未來之挑戰等。

電腦犯罪主要型態：

1. 非授權之存取（駭客）
2. 犯罪破壞
3. 線上信用卡及身份資料竊取及詐欺
4. 線上拍賣詐欺
5. 線上色情

電腦鑑識

1. 核心是數位證據，儲存媒體包含：電子儀具、電腦及網路
2. 電腦鑑識會針對上述媒體的數位證據進行認定、搜尋、恢復、擷取及分析
3. 實體證據往往包含指紋、血跡、彈道等用來比對用且在一定的範圍之下；數位證據包含被刪除之檔案、系統 log、電子郵件及 ICQ 紀錄等用來鑑識調查之用且無一定之邊界

電腦鑑識之倫理與原則

1. 維持資料的完整性
2. 避免被污染
3. 詳細文件化
4. 科學方法
5. 客觀
6. 精確發現與事實
7. 獨立公正檢查
8. 建立與有效之程序
9. 專業之解釋

電腦鑑識之工作項目

1. 資料保存：拷貝複製

2. 資料復原

3. 系統復原

4. 參數找尋

5. 虛擬犯罪情景重建

6. 文件化與證據解釋

香港電腦鑑識實施能力

1. 1993 年建立主要在於鑑識行動電話之詐騙

2. 2001 年 6 月成立科技犯罪組

3. 2003 年 9 月電腦鑑識實驗室全面運作

香港電腦鑑識策略

1. 認可電腦鑑識

2. 電腦鑑識實驗室

3. 建立電腦鑑識程序參考手冊

4. 電腦鑑識工具發展

5. 國內外電腦鑑識訓練

6. 研究/研討會/會議/研習

香港電腦鑑識實驗室於 2002 年 9 月正式啟用

經費：全部約六千萬台幣（參考）

裝潢與平台：HK$2,500,000 (USD320,512)

Tai Po Forensics Viewing Suite：HK$100,000 (USD12,820)

Hardware & Software (1999 – 2003)：HK$9,865,000 (USD1,264,743)

人員：22 位電腦鑑識警察

實驗室實體安全

- Multi-level Restrictive Access Control

- FM 200
- Electro-Magnetic Free Environment
- CCTV

Data Cloning Area

- Restrictive Access
- 12 Secured Server Cabinets
- FM 200 extinguisher
- Redundant air-conditioning system
- Uninterruptible power supply

Forensics Examination Area

- Tailored-made examination bench with 12 booths
- Tailored-made tower to ensure smooth workflow
- Anti-static electricity free work bench

Evidence Viewing Suite

- 3 Viewing Rooms
- Separate access for viewers and examiners to ensure integrity.

Network Forensics Studio

- 3 examination benches
- Network Reconstruction
- Network Forensics Examination

電腦鑑識工具

- Encase + Fastbloc
- i-Look Investigator
- DESK - Digital Evidence Search Kit

- Developed by HKP & HKU since 2000
- Address the Chinese environment
- UAT by free trial amongst universities and LEAs, both locally and overseas
- Source code shared by police and HKU

新的設備

- 消磁機：(HK$160,000 / USD20,510)
- 高速密碼破解機：(HK$210,000 / USD26,925)

4.參考方向：

本實驗室可作為建置我國資安鑑識實驗室之參考

(五)、美國、大陸、日本及韓國 CERT 經驗分享

本屆各 CERT 分享議題主要在事件處理與網路監控，其中

美國 CERT/CC 所提的 Security Analysis Program(SAP)分送該 tool 給美國民間企業利用 Silk Tool（http://www.cert.org/analysis/silk.html）裝設在企業網路對外之路由器上蒐集封包之 Header 的應用，藉由網路之監看，發現非授權入侵網路之行為、網路後門及異常路由事件，進而強化網路防禦與降低惡意程式入侵。

大陸的 CNCERT/CC 介紹目前情形，除了 CNCERT/CC 在大陸各地下設 31 個分之機構較為特別，其他並沒有較為突出之處。

日本 2004 年要藉由與廠商建立信賴之關係強化較 Proactive 的方法「弱點處理(Vulnerability Handling)」以補強事後事件處理(Incident Handling)與事中網路監視(Traffic Monitoring) 之不足之處。

韓國除了報告 KrCERT 現況之外，比較特別的是目前正進行 Telecom-ISAC 計畫，於 March, 2002 by Article 16 of Infrastructure Protection Act 法令，12 家 ISP 必須加入 Telecom-ISAC，以協同偵測網路事件，分享資訊以打擊駭客入侵之行為。

二、電子安全專案小組會議

本次電子安全專案小組（e-Security Task Group, eSTG）會議於 3 月 22 日召開，會議內容包括電子認證、網路安全、電腦犯罪與企業安全等領域。電子安全專案小組新副主席由美國國土安全局策略聯盟主任（Director of Strategic Partnerships, US Department of Homeland Security）Sallie McDonald 擔任。

（一）電子鑑別議題(Electronic Authentication)

1. APEC 部長級會議針對 APEC TEL 行動方案指示：「APEC 部長讚揚 TEL 工作小組著手電子驗證和簽章相關工作，並要求 TEL 需持續該努力，尤其是建立亞太區電子鑑別互通架構部分。」

   為回應此指示，APEC TEL 電子安全專家小組建立「核發符合跨界電子商務用途之憑證架構指導原則草案（Draft Guidelines for Schemes to Issue Certificates Capable of Being Used in Cross Jurisdiction eCommerce），於去（2003）年 10 月的 APEC TEL 第 28 次會議提出該草案，並要求各會員經濟體就草案內容提供修正意見。今（2004）年 3 月底召開的 APEC TEL 第 29 次會議中，由 eSTG 主席報告該指導原則草案採納各經濟體提出建議後之內文修正狀況，這些建議包括互通指導原則建立方法論以及後續推動方向等。

   該互通指導原則建立目的為促進跨界電子商務，方式為從不同經濟體現有的 PKI 架構中找出可用在電子商務用途的一組電子憑證，並找出這些憑證核發的共通性條件；電子安全專家小組並定義上述憑證用途僅適用於一般性的 B2B, B2G, G2B 及 B2C 電子商務交易，而不適用於具高度敏感、或涉及國家安全、或高價值的交易行為。

   該指導原則草案的建立是以包括澳洲、加拿大、香港、中國大陸、新加坡和美國等數個經濟體的現有電子憑證實施架構比較結果為基礎，並將歐洲電信標準組織（The European Telecommunications

Standards Institute, ETSI)的合格憑證規格標準納入成為參考依據。指導原則內容的陳述方式以國際標準 IETF RFC 2527 條款為大綱，列出各項目之建議性原則。本草案期能在今年第四季即將召開的 APEC TEL 第 30 次會議中達成共識並完成原則內容。

相關文件下載：
http://www.apectelwg.org/apecdata/telwg/28tel/estg/telwg28-ESTG-13-R1.htm

http://www.apectelwg.org/apecdata/telwg/28tel/estg/telwg28-ESTG-14.htm

2. 本次由會員經濟體以電子鑑別（Electronic Authentication）為主題在電子安全專家小組會議中提出的簡報共五項，以下分別摘要。

- **PKI 跨國互通：PAA 的相互承認架構（香港）**

  由香港 Tradelink 公司代表簡介泛亞商務聯盟（Pan Asia e-Commerce Alliance, PAA）電子通關業務所採行的 PKI 相互承認架構；Tradelink 為 PAA 聯盟在香港的通關服務業者。PAA 的 PKI 相互承認架構主要從業務需求角度出發，設計一套解決跨國貿易流程的可信賴 PKI 憑證互通架構。2001 年初 PAA 憑證政策管理中心（Certificate Policy Authority）成立，並依該政策對 PAA 會員的憑證服務業者（CA）進行鑑定，確立這些 CA 的實際運作情況與其憑證作業實作基準所宣稱者相符，並且公布通過鑑定的 CA 清單給所有 PAA 會員。目前 PAA 會員中包括香港、台灣、新加坡、韓國、中國大陸以及日本等共 6 家憑證機構受 PAA 認可。

  簡報下載：http://www.apectel29.gov.hk/download/estg_21.pdf

- **E-Trade 電子簽章使用（韓國）**

  由韓國資通訊部（Ministry of Information Communications, MIC）代表提出電子化貿易的電子簽章使用課題。韓方首先簡介韓國 PKI 架構，包括韓國電子簽章法、全國階層式 PKI 架構的內涵、以及韓國電子憑證市場現況統計。考量全球電子安全交易環境發

展的趨勢，而有不同國家不同電子簽章系統間相互承認的需求；在實施上，MIC 認為應採用電子化貿易流程的重新定義、先導型測試計畫以及相互承認協議的達成等三個步驟。

簡報下載：http://www.apectel29.gov.hk/download/estg_28.pdf

- **中華台北 PKI 發展現況（中華台北：NII 產業發展協進會）**

由 NII 產業發展協進會代表報告國內在公部門與私部門的 PKI 相關活動與發展現況。因受經濟部商業司委託擔任 PKI 中華台北推動委員會秘書組並參與亞洲 PKI 論壇國際合作事務，NII 整合對國內 PKI 相關政策、產業與市場現況的觀察結果，於會議中報告國內主要的 PKI 活動、計畫、推動政策、市場等方面的近期發展進度，包括政府 PKI、醫療 PKI、BCA、金融 PKI 和私部門廠商的憑證服務發展策略。結論處提出，我政府以成為電子憑證大量使用者方式刺激國內 PKI 市場的發展，而產業界則以專業知識和創新力，並透過與其他廠商間或與使用者間策略聯盟方式，創造市場對電子憑證的需求。

簡報下載：http://www.apectel29.gov.hk/download/estg_22.pdf

- **香港 e-CERT 服務（香港）**

由香港郵政憑證中心代表分享其發行電子憑證（e-CERT）服務與推廣的經驗。香港郵政至今已發行超過 41 萬張 e-CERT 給個人和企業用戶，該 e-CERT 憑證可以磁碟片、智能卡（smart card）或 USB 載具等方式儲存。目前在香港的 e-CERT 憑證應用非常多元化，包括網路銀行、線上股票交易、網路資料與電子郵件傳輸、個人信用資料查詢、電子化政府、線上購物與競標等。為進一步推廣 e-CERT 的申請，香港郵政推動了民眾紙本身份證換智能卡身份證（smart ID card）免費贈送內建一年期電子憑證的專案，期能促成市場電子憑證臨界量。此外，香港郵政並提供企業伙伴使用 e-CERT 憑證的技術支援，包括 PKI module 安裝與導入輔助工具等。

簡報下載：http://www.apectel29.gov.hk/download/estg_09.pdf

- **電子認證服務案例 – 以中華台北自然人憑證為例（中華台北：行政院研考會）**

  行政院研考會代表以國內自然人憑證為例說明國內電子認證服務現況，內容首先介紹我國 PKI 以橋接式為架構，並就內政部憑證中心的成立任務、里程碑、架構內含與相關法令進行說明，並描述自然人憑證主要功能、推動策略與相關應用等項目。最末提出政府推動本項政策所學習到的經驗包括：建立共識需要時間冗長，計畫實施要從小規模開始再予以範疇放大、以及電子認證要以應用為導向等建議。

  簡報下載：http://www.apectel29.gov.hk/download/estg_23.pdf

3. APEC 經濟體電子認證發展狀況報告

   由各經濟體自發性地報告其電子認證相關政策與發展現況。

（二）資訊基礎建設與網路的安全議題(Security Of Information Infrastructure and Networks)

1. 由主席報告墨西哥 Los Cabos 和曼谷的 APEC 部長級會議結論中與網路安全、網路犯罪有關的聲明事項：歡迎 TEL 工作小組就網路犯罪立法與執法能力培育計畫內容向部長級會議進行報告，並要求 TEL 工作小組在網路犯罪領域有更進一步的努力。部長級會議亦贊同 TEL 持續推動全球 CERT 網（CERT Network）的形成，同意支持網路安全與技術指導原則的推動、以及提高大眾對電腦安全威脅認知度和相關教育訓練措施。

2. 由 GBDe 組織代表簡介 GBDe 網路安全策略：以推動一致性的政策基礎架構促成健全的全球性整合電子商務架構方式，迅速且具協調性地回應網路安全威脅。GBDe 提出從產業觀點出發的建立安全文化的必要性，在作法上則建議發展電子驗證機制、認證制度和安全標準、資訊分享等項目。最末 GBDe 提出有必要與 OECD 組織間建立對話管道，並且鼓勵公私部門在安全課題上的合作。

3. 澳洲與美國代表共同報告目前 APEC TEL 電腦危機小組訓練計畫情況，該計畫目前仍持續進行中，包括在泰國、越南及菲律賓的訓練活動已完成，印尼和巴布新幾內亞（Papua New Guinea）的訓練課程也將於三個月內開始。由 APEC TILF 經費支援的 CERT 人才訓練計畫也陸續從美國取得額外經費支援，這是為了要確保包括墨西哥、智利、秘魯和俄羅斯等四個國家均能受惠於此計畫。上述 CERT 人才訓練計畫的訓練重點包括兩部分：建立電腦安全事件回應小組（computer security incident response team, CSIRT）、以及 CSIRT 的管理。

4. 區域性發展報告

   - 美國國土安全局之網路安全部門（National Cyber Security Division, Department of Homeland Security）代表說明美國目前實施安全網際空間策略之進度，主要內容包括：美國已建立國家層級的 CERT 中心，並著重於評估軟體弱點、國家重要網路安全資產辨識等工作。

   - 韓國 MIC 代表介紹於去（2003）年 12 月甫建立的韓國網際網路安全中心（Korea Internet Security Center, KISC），該中心成立主要任務為偵測韓國境內網路骨幹網路，透過快速回應機制避免損害的發生；此外，KISC 也單一化了先前韓國對於資安事件通報管道分歧的情況。

5. 來自日本經濟貿易與工業部（Ministry of Economy, Trade and Industry）的 Tomohiro Innami 簡報 Vulnerability Analysis Activities，簡報中指出軟體的弱點（Vulnerability）是不可避免的，且對資通訊安全的影響甚鉅。然而目前並無系統化的弱點處理、通報及補救體系，應建立專責的弱點分析中心（Vulnerability Analysis Center），並加強國際間的軟體弱點資訊的交流。

6. 日本 Ministry of Public Management, Home Affairs, Post and Telcommunications （MPHPT）Eiji Makiguchi 則簡報了日本處理垃圾郵件（Spam mail）的情況，簡報中分析日本垃圾郵件的現況與趨勢，目前日本的垃圾郵件來源已逐漸從 PC 移往行動設備，在內

容方面則以廣告佔大多數，約為總量八成。日本政府已於 2002 年制訂相關法案，管制垃圾郵件。Eiji Makiguchi 提出政府、行動系統商、ISP 及 Email marketing groups 四方面處理垃圾郵件的建議。

7. 美國的 Corey Schou 教授簡報了 APEC TEL 26,27 關於資訊安全人員認證（Accerditing）的討論，並簡介包括 CISSP（Certified Information System Security Professional）、SSCP（System Security Certified Practitioner）、CISM（Certified Information Security Manager）、CISA（Certified Information System Auditor）、GICA（Global Information Assurance Certificate）、Security+、ISSPCS（International System Security Professional Certification Scheme）等國際知名的資訊安全人員認證。

（二）電腦犯罪

美國法務部（Department of Justices）的 Richard Downing 簡報電腦犯罪相關議題。Richard Downing 簡報由其領導的 Cybercrime Legislation and Enforcement Capacity Building Project，計畫時程由 2003 年五月及持續執行至 2004 年底。目前計畫已完成第一階段工作，於 2003 年 7 月 21-25 在泰國曼谷舉辦 Conference on the Strengthening International Law Enforcement Cooperation to Prosecute Cyber Criminals, Hackers and Virus，共有來自 17 個經濟體的 120 名人員參與。

計畫的第二階段目前已經開始進行，其目標在於協助提出要求的經濟體設計對抗電腦犯罪的法律制度，並建立電腦犯罪調查的組織與能力。

（三）企業安全

美國卡耐基美濃大學的軟體工程研究所(Software Engineering Institute, SEI)建立了國際知名的 CERT 組織。本次會議中，CMU 的 Jeff Carpenter 簡報了 OCTAVE（Operationally Critical Threat, Asset, and Vulnerability Evaluation）風險評估程序，OCTAVE 藉由分析組織的資產、威脅與弱點，建立安全策略與計畫。是一套適用於組織內部進行風險自評的方法。

紐西蘭 Andrew McE Mason 先生對中小企業面臨的資訊安全議題，Andrew McE Mason 指出，中小企業與大型組織面臨同樣的安全威脅，但卻缺乏時間、金錢、知識與人員處理這些安全議題，並說明紐西蘭處理中小企業安全的各項行動。簡報中指出 Awareness-raising 為中小企業安全議題的主要挑戰。

三、下一代網路監理圓桌會議(Regulatory Roundtable-Next Generation Networks)

本次(第四次)監理圓桌會議於 3 月 22 日在香港國際會議中心舉行，由香港電信管理局局長 Mr. AU Man-Ho 擔任主席，共有來自十九個經濟體的資深官員及代表（近百位）出席本次會議。會議由專家及監理者代表針對下世代網路(Next Generation Network, NGN)相關的四項主要議題分別提出專題報告，並開放與會者發問及討論，會議相關重點如下：

（一）下世代網路的型態及其提供服務的能力

新加坡資通發展局 Dr. Tan Geok Leng 以" Are you ready for the Next Generation Network? - what is NGN and what services it brings"為題提出報告（詳 telwg29/RR/10），首先針對傳統公眾電話交換網路（PSTN）、陸地行動電話網路（PLMN）及網際網路（Internet）的特徵、NGNs 的技術驅動力以及電路交換（Circuit Switching）與分封交換（Packet Switching）間的此消彼長的態勢作了一扼要說明。最後，新加坡 Dr. Tan 指出一些因 NGNs 所可能衍生的各種令人激賞的服務並提醒 NGNs 尚有許多創新應用和服務待經營者發掘，同時新技術所帶來的長期衝擊不應被低估。

印尼 TELKOM 公司研發部門主管 Dr. Wiseto Agung 以"NGN: Service Provision and Opportunity" 為題提出報告（詳 telwg29/RR/03），將成本效率的需求、開放性的標準和更加彈性的特點均歸因於 NGNs 發展的成果。他特別指出 NGNs 服務

結構的幾個主要特點和 NGNs 所能提供的一些基本與增值服務（basic and enhanced services）。Mr. Agung 先生更強調互運和開放性介面、模糊的疆界和司法管轄權、號碼控制、域名和地址資源等均是監理者所必須正視的重要問題。

美國 QUALCOMM 公司國際部門主管 Ms. Samantha Craig 以"Types of CDMA NGNs"為題提出報告（詳 telwg29/RR/09），是一篇 CDMA2000 和 WCDMA 全球性發展的簡報。她從所獲得各式各樣的用戶經驗來佐證下世代 CDMA 網路不僅可用在先進社會娛樂方面的應用，同時可作為發展中國家有關教育、健康和寬頻接取等議題的解決方案。

加拿大 Nortel 公司經理 Mr Kenneth Lo 以"NGN Services Anytime Anywhere"為題提出報告（詳 telwg29/RR/07），說明了一些新世代的服務並解釋 NGNs 將會整合設備、服務和網路，並藉由單純化、更大的控制、個人化的調和、多維度、成本效益和各式各樣服務無縫共存的方式為今日通信需求提供解決方案。

中華臺北工業技術研究院電腦與通訊工業研究所的許建昌經理以"ENUM - enabled IP Telephony Services"為題提出報告（詳 telwg29/RR/06），提供了 ENUM 的介紹，一套為 IP 電話或 PSTN/IP 綜合網路找出為用戶所設計之編碼機制。他解釋因 ENUM 的佈署與推廣將使植基於 IP 的多媒體服務能在匯流的 NGNs 上以公眾電話號碼型式呈現。他同時呼籲監理者應檢視像 DNS 安全性、用戶隱私、服務完整性和號碼可攜性等相關監理議題。

（二）用戶對下世代網路之期望

INTUG 亞太地區副主席 Ms Rosemary Sinclair 以"User Expectations of NGNs - the critical infrastructure for the networked society"為題提出報告（詳 telwg29/RR/04），提及到 INTUG 其政策優先工作項目中監理的最佳實務範例、普及接

取、寬頻、出租電路、IP 電話和編碼均與 NGNs 的發展密切相關。她從終端用戶的觀點來詮釋用戶對下世代網路之期望，冀望 NGNs 能在具成本效益的接取、可靠性、抗垃圾郵件（spamming）之安全性、普及接取及網網相連（Any-to-Any Connectivity）等條件下，用戶得達成以成本為計價基礎的互連。另政策制訂者和監理者則被呼籲應檢視 NGNs 市場發展情形，以確保競爭得被提升，創新得被鼓勵並使用戶得以獲益。

中華臺北資訊工業策進會網路多媒體研究所董建成所長以"Enrich Life with Mobile Services as Society is Networked"為題提出報告（詳 telwg29/RR/05），引述 e 日本計畫項下多媒體無線接取創新整合網路 (MIRAI)並以 M 臺灣計畫中行動通訊應用為例，認為下世代的服務將會由用戶來主導與控制，並將擴大內容方面的應用。

（三）來自下世代網路之監理挑戰

美國聯邦通訊傳播委員會（FCC）國際局的局長 Mr. Donald Abelson 以"The Regulatory Treatment of the Internet in the United States"為題提出報告（詳 telwg29/RR/02），分享 FCC 為維持網際網路作為一個自由和開放的創新平臺而免除資訊服務政府法規管制所作承諾的經驗。他指出 FCC 最近正倡議檢視 IP 化之服務對美國電信法規所造成的衝擊，譬如在法規執照分類、普及服務義務、公共安全和執法等方面。最少的法規管制被建議俾鼓勵市場創造價值予消費者，Abelson 先生同時強調監理者保護四個基本網際網路自由(即自由擷取內容、自由使用應用、自由附接個人設備和自由獲得資訊)的必要性。

澳洲通訊資訊科技暨藝術部負責通訊部門的副秘書長 Ms. Fay Holthuyzen 以"Innovation, Interoperability and Choice: next generation policy challenges now"為題提出報告（詳 telwg29/RR/11），以 Ballarat 的專題研究來強調政策制訂者和監理者在鼓勵創新和促進競爭和消費者福利間取到正確平衡的

重要性。Fay 女士並且指出了 NGNs 所衍生的三大類政策和監理問題，包括消費者問題(如：服務品質、緊急服務的接取、普及服務、個人隱私與執法等)；競爭問題(如：服務綑綁、內容的可用性、過時法規和互連安排等)和其它問題(如：頻譜管理、司法、過渡期間、國家安全和執法等)。她認為目前主要考量應該是什麼程度的法規管制是必要的，同時應審慎思考任何一個過時網路所引用的法規是否真能適用於新的網路。

韓國電信的資深研究員 Mr. Sang-Mok Mok 以"Regulatory issues of NGNs"為題提出報告（詳 telwg29/RR/08），指出 NGNs 具有開放式結構、多重接取和植基於 IP 的匯流網路基礎建設等特徵。除指明 NGNs 的市場驅動力及所湧現的服務之外，李先生並強調緊急通訊服務、電力饋送和合法攔截通訊內容等監理議題仍待進一步討論。

馬來西亞通訊暨多媒體委員會技術處處長 Mr. Zamani Zakariah 以"Malaysia:The Transition into the Next Generation Networks"為題提出報告（詳 telwg29/RR/12），分享了馬來西亞市場的演進過程以及馬來西亞通訊暨多媒體委員會在促進匯流所採取的各項措施的經驗。他解釋為了迎合在過渡時期的挑戰，監理者有必要正視及處理與消費者、內容、接取、技術標準、寬頻和接取政策等相關議題。因此，馬來西亞通訊暨多媒體委員會在過去成立了各種的論壇針對上述議題進行研討。

（四）未來工作

美國提醒 NGNs 的發展應該對 TEL 工作小組下的四個指導分組的工作均有關聯，同時 NGNs 相關討論不應於圓桌會議後即告結束。

美國、香港和新加坡共同建議 TEL 工作小組舉辦一講習會或一系列的講習會繼續討論 NGNs 議題，特別是針對法規管制的程度、競爭護衛和消費者議題。

澳洲特別強調應確保傳統網路與下世代網路間互連的重要性。

韓國呼籲各經濟體間不同的監理方式應該有更多的資訊交換與意見交流。

INTUG 鼓勵經濟體能針對 NGN 發展所衍生的有關服務的定義、國際訊務的計費和其它共同的監理議題經濟體間應有更多的對話，以便在這些議題上能形成共識。

最後，主席總結了討論和感謝所有報告人頗具價值的報告及參加者熱烈的參與。他並感謝澳洲、加拿大、韓國、新加坡和美國為準備本次圓桌會議所作之協助。他並且呼籲所有經濟體能就下世代網路之監理挑戰繼續合作和交換想法與看法。

下世代網路(NGNs)為監理者、政策制訂者、企業及消費者創造了新的挑戰和機會。NGNs 既是如此複雜且衍生多面向的議題，其影響又涉及四個指導分組，因而，自由化指導分組建議 APEC TEL 繼續檢視 NGNs 及它們的涵義。俾使各經濟體網路得以平順從傳統銅線演進至未來光纖、無線及 IP 封包型態。

為使 NGNs 的工作能於 TELMIN6 獲得各經濟體電信暨資訊部長們的背書，為期週延，自由化指導分組建議各指導分組能將其在 NGNs 過去和當前的工作以及對未來建議的工作彙整後提報至 TELMIN6。

四、電信設備相互承認協定專案小組會議(MRA Task Force Meeting)

本會議於 3 月 23 日在香港舉行，由 MRA 召集人 Mr. Andrew Kwan 主持，共有十五個經濟體三十四位代表參加。本次會議主要是延續討論 APEC TEL MRA 之執行成效、經驗分享、檢討上一次會議後各經濟體在執行 MRA 的現況。

(一) 首先由各經濟體報告 APEC 電信設備符合性評鑑相互承認協定 (APEC TEL MRA) 執行時程。

第一階段(測試報告相互承認)執行時程：

中共業於 2004 年 2 月函知 TEL 工作小組主席將自今年 8 月起實施第一階段，汶萊表示將與新加坡在 ASEAN 之架構下進行第一階段之合作事宜。截至今年底前，業有 17 個經濟體參與 MRA 第一階段之執行。

第二階段(設備驗證之相互承認) 實施時程：

表態參與第二階段實施經濟體數目維持不變，計有加拿大、香港、新加坡、中華台北及美國等五個經濟體。為利於我國 MRA 之執行，茲將各經濟體所表述之 MRA 實施時程修正彙整如下。

「電信設備符合性評鑑相互承認協定」經濟體實施時程表

經濟體	測試報告之相互承認（階段 I）	設備驗證之相互承認（階段 II）
澳大利亞	已實施	可接受供應商宣告文件；澳洲政府不需設備驗證
汶萊	2003 年 12 月	未定
加拿大	已實施	已實施
智利	未定	未定
中國大陸	終端設備 2004 年	未定
香港	已實施	已實施
印尼	2003 年 12 月 31 日	2006 年
日本	已實施	未定
韓國	已實施	未定
馬來西亞	2004 年	未定

墨西哥	2005 年 6 月	未定
紐西蘭	已實施	未定
巴布亞新幾內	2002 年 12 月	2004 年
秘魯	2000 年 4 月	未定
菲律賓	2005 年	2006 年
俄羅斯	未定	未定
新加坡	已實施	已實施
中華台北	已實施	已實施
泰國	2004 年	2006 年
美國	1999 年	2002 年
越南	2004 年	未定

(二) 澳洲 Mr. Leo van Neuren 報告 HRD MRA 第二階段訓練計畫設計案之執行進展：

Mr. Neuren 表示業針對本案設計一組問卷調查表，期望所有經濟體，尤其擬執行第二階段的經濟體能儘速填復，以利 MRA 第二階段訓練計畫案之進行。此外，鑒於 MRA 第二階段之執行涉及各經濟體的公權力，為建立電信設備主管機關對彼此驗證機構專業能力的信心，主席期望各經濟體能儘速指派熟稔出口國法規範的專家名單，俾建立專家資料庫以協助進口國的認證機構進行驗證機構的評鑑工作。

(三) MRA 資訊管理系統(MRAMS)：

MRAMS 系統已正式運作供各經濟體登錄使用，為提升資料庫使用

效能，主席請尚未提供附件 I 至 IV 的經濟體能儘速將資料送予 Mr. Polites 載入資料庫，以利 MRA 之執行。由於 MRAMS 係一自費計畫為使本資料庫系統完整開放並能永續發展，仍需各經濟體協助尋覓贊助者提供長期的經費支援。此外，為順利及有效地擷取各經濟體的資料，會中臨時提議於 APEC 網站設計一登錄網頁，並連結至各參與經濟體登載有附件 I 至 IV 相關資料的網頁。主席表示將與 APEC 祕書處諮商此案之可行性後再作研議。

(四) 有關與 CITEL 合作事宜：

MRA 任務編組召集人 Mr. Andrew Kwan 報告，CITEL 在 MRA 的執行進度相當緩慢，遠落後於 APEC TEL MRA，因此，目前與 CITEL PCC.1 間實無積極聯絡之必要。擬於一年後，依 CITEL 參與第一階段之經濟體數目之多寡決定是否召開 CITEL -TEL 聯合會議，以進行相關合作議題之討論。

(五) 審視及修正「APEC MRA 指引及管理工具」：

以澳洲為首之專案小組業草擬乙份修正文件，擬陳請主席分送各經濟體尋求意見。

(六) 供應商符合性聲明議題：

主席將於會後將 SDoC 調查表分送各經濟體填報，並擬於下次會議中依調查結果提送大會採用。

(七) 「電信標準等同性比較」計畫案：

澳洲 Mr. Ian McAlister 報告，由 TILF 經費支援之本計畫案業由 Colony Park Group 承辦，該得標公司將選擇性的就某些電信設備標準進行一系列之比較及研究。

(八)「發展強制性電信標準、法規及技術規範之良好監理準則」計畫案：

將由加拿大、澳洲、紐西蘭、日本與美國等五經濟體合組特別小組共同研擬一套良好監理準則以協助經濟體發展強制性的電信標準及法規。

(九) 第二階段相關議題之討論及決議：

1. 電磁安全議題案：APEC TEL MRA 附錄 A 規定「電氣安全符合性評鑑機構應依據進口國技術法規適用不同的指派程序」，該條文意旨係指進口國之電磁安全之法規及符合性程序若異於 APEC TEL MRA 之要求時，應適用進口國之法規規定。專案小組決議就各經濟體適用之電磁安全之法規及符合性程序進行調查。

2. 目前，由於認證機構對於符合性評鑑機構所採用之再評鑑周期的態樣不一，在 ISO 17011 國際新標準正式發表前之空窗期間，專案小組決議，有關業經指派認可之 CAB 再評鑑周期，應依各進口國之規定為之。

3. 專案小組同意釐清 APEC TEL MRA 附錄 A 章節 C2 (c)與 C2 (d)有關驗證機構如何證明其對設備相關技術法規之規定具有專業知識之要求，亦即「為確保驗證機構擁有最新技術能力及專業知識，驗證機構應證明其為經評鑑認可之測試實驗室或驗證機構得與已被指派的測試實驗室以簽定合約方式為之。」

(十) 新計畫案：

電信設備標準規範相互承認協定(Mutual Recognition Arrangement on telecom equipment standards and requirements)：現行的相互承認協定著重於電信設備符合性評鑑程序部份，不涉及經濟體間法規內容之相互承認，鑒於後者對於相互承認之推展有實質上之助益，因此，目前專案小組刻正進行「電信標準等同性比較」之調查研究，以作為推動此一新型態 MRA 可行性之評估參考。鑒於發展本計畫案勢需投注龐大的人力、時間及努力，因此，專案小組將尋求自由化指導小組(LSG)、電信暨資訊工作小組(TEL)及第六屆亞太經合會電信暨資訊產業部長會議(TELMIN6)之認同與支持。

(十一) MRA 專案小組會議架構變動案：

考量 MRA 專案小組的延續性及各經濟體與會代表的更迭性，主席 Mr. Andy Kwan 要求各經濟體踴躍提名副主席人選以利主席職務輪轉方式之進行。

MRA 任務編組決議向 LSG 建議於 APEC TEL 30 大會前，安排為期一天的 MRA 專案推動小組會議(分別為星期一及星期二兩個半天），以持續討論 MRA 第一、二階段程序的執行。最後，主席代表專案小組對香港主辦 TEL 29 會議表達誠摯之謝意，並再次讚揚中華台北代表—電信總局許副處長錫蘭對發展及執行 APEC MRA 的重要貢獻。

五、寬頻研討會(Broadband Workshop)

寬頻研討會於 3 月 23 日舉行一天，由合作開發指導分組（DCSG）召集人美籍 Ms. Diane Steinour 主持。研討會主題為：促進寬頻投資及運用之支持性政策及監理要素-善用稀有資源 (Supportive Policy/Regulatory Elements to Encourage Broadband Investment & Use: Leveraging Limited Resources)。

（一）議程一

由香港電訊管理局提出報告（Regulatory Policy to Encourage Broadband Uptake: The Hong Kong Experience），首先介紹寬頻目前在香港發展現況，接著說明香港政府為推動寬頻普及所採取的市場自由化政策，及包括為克服 Last Mile 難題的兩項措施：促使新業者自行建置用戶接取網路(Facilitating the construction of self-built customer access networks by new entrants)；第二類互連政策 (Type II interconnection policy)。

最後討論香港在寬頻領域內那些已獲致成果及那些尚未見效，以及可供其他各經濟體借鏡之獨到經驗。

（二）議程二：

有利之投資環境：ＡＰＥＣ區域內有關寬頻之財務性發展。

a. 澳洲提出報告(Broadband-A New Entrants Perspective)，強調新業者評估投資風險包括回收年限、市場開放程度、執照取得及

監理策略影響等等。

b. 澳洲提出報告(True Broadband-Exploring the Economic Impact)，他解釋 true/ultra Broadband 的定義，並說明荷蘭 "Smart City"計畫及澳洲 "True Broadband"計畫中，寬頻對都會區域的經濟發展效益。

（三）議程三

寬頻在經濟發展上所扮演之角色：以使用者社群為重點。

a. 菲律賓報告(Network Development and Future Broadband Convergence Society)，報告中介紹菲律賓在 Internet 及 DSL 的現況，及未來發展重點包括 Wi-Fi、VoIP 及社區 telecenter。.

b. 香港提出報告(Broadband's Role in Economic Development: Focus on the User Community in Hong Kong)，介紹香港寬頻市場、3G/4G 及國際性協同合作現況。

c. 泰國提出報告(BB Uptake in Thailand & BB for Research in Science and Technology)，介紹泰國寬頻現況、政策及寬頻相關技術研究發展。

d. 國際電信使用者協會(INTUG)提出報告(Focus on User Community)，提到寬頻在世界各國蓬勃發展的狀況，下一步應是如何提供用戶可支付合理價格之寬頻服務，並談及諸多以使用者角度關注的問題包括 ISP 可否供裝、效能、可靠度及安全性等資訊之獲得。

（四）議程四

在提供寬頻方面，對先進無線系統及衛星系統有利之政策環境。

a. 泰國提出報告(The Frequency Re-allocation for Broadband Wireless Access)，提到 Wi-Fi 使用之 ISM 頻段在某些經濟體區域內已被佔用(例如泰國)，因此提議調整頻段，以容納無線寬頻技術的陸續發展所需。

b. 澳洲提出報告(m.Net-A Collaborative Partnership for Wireless Broadband Applications Developments)，介紹 m.Net 協會及其目標發展可立即商業化之無線寬頻應用，包括 WLAN 及 3G 來推廣 Mobile Internet。

c. 日本提出報告(The Ubiquitous Society)，主要介紹 KDDI 公司寬頻策略、角色定位及如何整合固定及無線的寬頻服務。

（五）議程五

滿足服務不足及未受服務社群之需求：經濟體及區域對於普及接取倡議之個案研究、寬頻政策之討論。

a. 馬來西亞提出報告(Progress on Broadband Experiences and Lessons learnt From Under-Served & Unserved Areas)，說明馬來西亞推動寬頻服務經驗中體會關鍵成功因素包括：使用正確技術、適宜的價格、政府誘因、內容和應用及消費者意識和教育等，供各經濟體參考。

b. 中國大陸提出報告(Strategy，Technology Driving Forces-Development of Broadband in China)，指出目前大陸推動"telephone to villages"普及化服務，短程目標希望在 2005 年底達到 95%以上，中程目標在 2010 年達到一定數目之鄉村居民、學校、醫院及相關團體等連上公眾電信網路，長程目標在 2020 年達到所有機關團體及家庭均可連上公眾電信網路，並由大陸包括中國電信、中國網通、中國移動、中國聯通、中國鐵通及中國衛通等六家電信業者依照營收比例負責執行，最後將成立普及服務基金來推動。

越南提出報告(Vietnam's Experience in Broadband Access Development)，主要介紹越南 ICT 及寬頻接取發展現況及如何應用寬頻服務發展電子化政府、電子教學(tele-education)及電子醫療(tele-medicine)。

六、電子化政府研討會(e-Government Workshop)

本次研討會共有泰國、印尼、日本、馬來西亞、菲律賓、韓國、

香港（主辦國）及我國等八個經濟體，就電子化政府推動情形進行簡報及共同研討。我國電子化政府簡報，由行政院研究發展考核委員會林高級分析師裕權於第二節會議中報告，題目為"Make Government one stop service a Reality- The development of E-government Common Platform and Cluster Services"，介紹我國推動電子化政府共通作業平台及創新 e 化服務相關經驗，展現我國電子化政府成果。

有關參加本次研討會之心得及建議，說明如後：

(一)我國推動電子化政府共通作業平台及創新 e 化服務相關成果，在 APEC 各經濟體中尚屬領先群，今後應繼續加強相關推動工作，並積極參與 APEC 相關電子化政府事務。

(二)APEC 經濟體大多設有資訊專責部門，統籌推動電子化政府相關事務，而我國目前並未設置資訊部，對於電子化政府之推動，易產生政策無法貫徹、協調困難及資源分散等問題。

(三)如何加強 APEC 各經濟體間之合作與交流，縮減國際數位落差，已受到 APEC 各經濟體之重視，我國應善用推動電子化政府之優勢地位與資源，積極參予 APEC 相關事務。

(四)決策高層之重視與支持，為推動電子化政府之重要關鍵，CIO 相關訓練課程規劃與成效，已普遍受到 APEC 各經濟體之重視。

(五)鑒於網路安全事件頻傳，如何加強網路申辦服務之資訊安全，加強使用者之安全意識，建立使用者之信心，為推動電子化政府之重要課題。

(六)如何採用開放標準，建立資料交換機制，為電子化政府推動之趨勢。我國推動之電子化政府共通作業平台，即遵循 Web Services 等國際標準進行規劃與建置，有效解決跨機關間之資料交換問題。

柒、感想與建議

一、此次配合外交部成立「ＡＰＥＣ數位機會中心」(APEC Digital Opportunity Center, 簡稱 ADOC)一案，行政院研考會於 HRDSG 會議中研提「APEC 社區資訊服務推廣中心發展計畫（APEC Telecenter Development Program）」，經過與會代表討論，計畫獲得通過。本計畫於會議討論過程中，韓國與菲律賓代表發言提出諸多意見，尤以韓國代表 Dr. Chung（TEL 副主席，前任 HRDSG 主席）提出頗多質疑意見，幸賴會議主席中華電信公司張所長適度運用會議中場休息的技巧，提供我方提案人進一步準備資料與斡旋的機會，並隨即於接續會議允許我方提案人再度上台說明，終能獲得與會代表的支持通過。此一過程與經驗，說明我國爭取擔任工作分組召集人可適度發揮關鍵影響的重要性。

二、除上述計畫「APEC 社區資訊服務推廣中心發展計畫」之外，我國亦由 NICI IPv6 基礎建設分組研提「APEC IPv6 最佳應用計畫」，會議期間計畫主政單位人員不遺餘力，向其他經濟體遊說斡旋，以積極爭取支持，最後終於獲得多個經濟體之支持並獲通過。上述兩項計畫獲 TEL 大會通過，可謂本次我團出席會議之兩項重大成果。未來有關計畫之執行、進度報告及配合事項，建請相關執行單位依循 APEC 秘書處之規定辦理，並建請執行單位就計畫所屬研討會之議程規劃及演講人選邀集等事宜預作準備。

三、對於韓國所提 APEC 電子化政府計畫，我國於會議前即積極聯繫韓方貢獻意見，於 HRDSG 會議中針對韓國所提報告更提議應將建置 APEC 電子化政府網站一項納為具體項目，俾利於相關資訊與資源的整合，同時承諾若有需要我國可負擔相關工作。會議後，BFSG 主席 Y. S. LEE 先生曾洽行政院研考會林高級分析師裕權提及，爾後韓國恐對於 APEC 電子化政府計畫事宜恐難再有更進一步的貢獻，因我國於此一議題一向積極參與、研提諸多意見的熱誠與態度，渠建議可否由我國接手主導。此一提議，應可由行政院研考會進一步研商處理，或有機會成為我國表現的主軸之一。

四、本次會議特別聲明並強調各經濟體所提計畫之內容應符合 APEC 各相關優先事項及目標，並應及早送交，俾計畫能順利獲檢視並通過。另 APEC 秘書處計畫主任亦強調，各項計畫之主持人應定期與其密

切聯繫，俾利計畫之推展與執行。俟後我方於研提新計畫提案或提交計畫之進度報告時，應密切配合該規定。

五、從本次電子安全專案小組會議的討論內容可以發現，在資通訊安全領域，各會員國關心的議題已經不只著重於電子化政府與 PKI，網路安全、電腦犯罪議題受到更多的重視。同時由於網際網路上的犯罪行為可以很輕易的達成跨國界的犯罪行為，因此會員國間也嚴肅的考慮跨國間的電腦犯罪偵察合作，未來我國應可多注意這方面的趨勢。

六、網路監控(Traffic Monitoring)資安資訊分享及電腦安全鑑識(Forensics)已成為本次 APEC TEL 會議之重要討論議題，大會也建議加強電腦犯罪之防制合作推動工作。

本次，在日韓兩國在電信通訊資安分享與分析中心（Telcom ISAC）建置運作、澳洲的數位證據指引及香港警方在資安鑑識實驗室之建置與營運之經驗最值得我國 NSOC 及資安鑑識實驗室相關工作之參考。此外，參訪香港 HKCERT 經驗可供我國 TWNCERT 參考，拜訪 e-Cop 之 SOC 方案亦可供後續建置 NSOC 之參考，尤其該公司將全力支持國內 NSOC 共通規格之制訂工作。本次會議相關資料將提供國家資通安全會報相關推動工作參考。

附件一

主要經濟體最近監理及政策發展報告

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Policy and Regulatory Update – Chinese Taipei

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Plenary agenda item : H

Plenary

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Chinese Taipei

Policy and Regulatory Update – Chinese Taipei

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APEC Telecommunications and Information Working Group
29th Meeting | 21-26 March 2004 | Hong Kong, China

APEC TEL 29

Policy and Regulatory Update

Chinese Taipei

March 2004

I. Telecommunications Developments

A. Telecommunication Market

Chinese Taipei's telecom market has been gone through the dramatic changes after Type I telecom businesses were all opened up, one after another. Among those, the mobile and international telephone markets have become the subjects of intense competition. The statistics on telecom market in Chinese Taipei are illustrated in Table 1.

Table 1. Telecom market statistics as of Dec. 31, 2003

Services	No. of subscriber	Penetration
Fixed line	13.37 million	59.11%
Mobile phone	25.09 million	110.99%
Internet	8.76 million	39.00%
Broadband Internet	3.04 million	34.71%

B. The Assessment of the Economic Impact of Telecom Liberalization

The second assessment of the economic impact of our telecommunications liberalizations released in Dec. 2003, has shown that consumers have benefited from a surplus of NT$ 222,49 billion in the mobile

phone services over 1998-2003 and NT$ 23.69 billion in the international call service over 1999-2002.

Additionally, telecom liberalization has produced a vast array of spill-over effect. An investment of NT$ 1.00 in telecommunication service sector is estimated to give rise to an output multiplier by NT$ 2.79.

C. Establishment of a Telecommunications Technology Center

In order to tackle the ICT technology development , and to provide test and certification services for ICT industry, DGT has been approved to establish a TTC on Jan. 28, 2003. The TTC will be a non-profit government-funded organization. In addition to being a technical arm of the DGT, it will also be a national-level certification center.

The preparatory office of TTC has been established on August 11, 2003 to conduct the establishment affairs, and its registration of being a non-profit corporation was completed on February 16, 2004.

D. Progress of Establishment of the National Communications Commission (NCC)

Two bills, "Communications Basic Law "(CBL) and "Organizational Statute of National Communications Commission" (Statute of NCC) have been submitted to our Legislative Yuan for deliberation in Sep. 2003. The CBL provides the legal basis for establishing of NCC and stipulates common principles for communications services while the statute of NCC sets forth the organizational structure and operations of the NCC. The Legislative Yuan completed the CBL deliberation on Dec 26, 2003. The statute of NCC is still under the deliberation process.

II. Promotion of Online Economy

A. On-Line Service

According to survey statistics from the Institute for Information Industry (III), the online penetration rate of households was 57% in August 2003. In

addition, a survey conducted by the III in August 2003 revealed that the ratio of broadband households to all online households in Chinese Taipei was high at 73%. Of all broadband users, the ratio of digital subscriber line (DSL) users to the total broadband population had risen to 66%, from 30% in December 2001. The ratio of narrowband users to total online population, by contrast, dropped from 63% to 26% over the same period.

According to *the "Internet Connection Bandwidth Survey" conducted jointly by ACI-FIND of III, TWNIC and NCA (Net Consumers Association)*, Taiwan's total international bandwidth for Internet traffic reached 44,923 Mbps at the end of 2003, up a total of 20,119 Mbyps with a growth rate of 81% compared to that of previous quarter.

B. Progress of the IPv6 Development

In response to the fact that wireless technology and the 3G industry will bring about the filling up of all IPv4 addresses at an early date, Chinese Taipei is working hard to lead domestic enterprises to become involved in IPv6 as soon as possible. A government-led IPv6 steering committee was established in October 2001, to push for the R&D, standards & testing, infrastructure development, and application & promotion of the IPv6 Internet environment in Chinese Taipei. In April 2002, The Industrial Technology Research Institute (ITRI) formed "IPv6 Forum Taiwan" to promote the development of IPv6 technology in Chinese Taipei. Moreover, a budget of NT$300 million has been allocated for relevant projects, starting from 2003 to 2007. The Internet environment in Chinese Taipei is expected to be thoroughly upgraded to be IPv6-compliant in 2007.

The production IPv6 addresses allocated to Chinese Taipei have amounted to 13. To further increase local community's awareness to IPv6, we plan to build two IPv6 showrooms in Chinese Taipei. By now, the first one has opened to the public, and rolled out all kinds of demonstrations of IPv6 products and appliances. Moreover, it also provides the public with an environment to surf Internet over IPv6 network. As we know, it is the fifth one in the world. In addition, as of Feb. 2004, Chinese Taipei's six Ipv6 products were granted Ipv6 Ready Logo from the Ipv6 Ready Logo Committee.

C. e-Government

Recently, two more certification authorities were established in Chinese Taipei, including the Bridge CA and XCA. The Bridge CA was launched in February 2004, which is to provide cross certification service among PKIs and CAs. The XCA was established to provide certification service that is not covered by current CAs. The XCA and previously established GCA, MOICA, MOEACA and GRCA comprise of a complete e-government PKI. The MOICA provides certification service for citizens. As of February 2004, more than 310 thousand certificates have been issued.

To alleviate the digital divide between urban and rural areas, Chinese Taipei continued to establish telecenters in remote areas in 2004. The government collected three thousand used computers and gave them to disadvantage groups in March 2004.

An e-government common platform project was launched in 2002. Its first stage development will be finished in April 2004; at the same time two kinds of e-government cluster services will be ready for delivery, including an integrated business registration service and an innovative travel service.

D. The Anti –Spam

Most spam can now be considered illegal in Chinese Taipei. Spamming fraudulent content violates the Civil and Criminal Codes. Sending false or misleading headers or subject lines of spam violates the Fair Trade Law or Trademark Law. The violation of an ISP's terms of use is accounted breaching of contract. Additionally, Chinese Taipei's Criminal Code stipulates it illegal to gain unauthorized access to a person's computer by way of password or network flaw or to impair the functioning of a computer by purposefully sending a high volume of messages. The Computer-Processed Personal Data Protection Law prohibits most private entities from collecting, processing, transmitting or using anyone's "personal data," and even those who may do so must act within the "permitted purposes" precinct. However, no court has ever reached any verdict against spam yet.

In line with the worldwide trend toward blocking spam, the Preparatory

Office of National Communications Commission is empowered to draw up the related regulation against spam. The draft regulation against spam is expected to be tabled in June 2004, aiming to protect on line users from spam.

III. Promotion of Info-Communications Security

A. Cyber Security

In July 2003, TWNCERT joined FIRST (Forum of Incident Response and Security Teams), the largest international computer incident handling cooperation forum with 114 full members. TWNCERT is also one of the 15 full members of APCERT (APCERT now consists most of CSIRTs here in Asian Pacific region). Currently, TWNCERT is working with Japanese Security Operation Center (JSOC) in "Honey Pot" system. JSOC and TWNCERT will have more understanding of hackers' behaviors which will be very useful in detecting the intrusion from malicious users.

B. Compendium of IT Security Standards.

BS7799 is one of the major efforts of IT security standards in Chinese Taipei. The following are current status of BS7799 in Chinese Taipei:

- So far, 10 companies and government organizations are certified by BS7799-2:2002 in Chinese Taipei.
- The guideline for accreditation of the organization of ISMS certification and registry established in Sep. 2003.

ISO 15408 implementation in Chinese Taipei:

- The domestic version ISO 15408 part2 established in the end of 2003.
- The domestic version ISO 15408 part3 is under approving.
- Plan to establish the Common Criteria laboratory by 2006.

P

Regulatory Update

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Regulatory Update

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APEC Telecommunications and Information Working Group
29th Meeting | 21-26 March 2004 | Hong Kong, China

Regulatory Update
- China

In 2003, telecommunication market in China maintains a fast growth momentum. The total number of telephone users reached 532 million, with a penetration rate of 41.3%, of which, the fixed line users numbered 263 million, and the mobile users amounted to 269 million, which for the first time exceeds that of fixed users. Internet subscribers increased to 79.5 million.

Progress on telecommunication regulations in China:

I Telecommunication Law

The Ministry of Information Industry(MII) has accelerated its work on ICT legislation, especially on telecommunications, and is currently in the process of drafting *Telecommunication Law*.

II Telecommunication Regulation

- To strengthen interconnection regulation, MII has released the *PSTN Interconnection Settlement and Tandem Building Costs Sharing Method* and the *Rules on Argumentation of Telecommunication Networks Interconnection Disputes;*

- To improve supervision on quality of service, MII has published the *Telecom Service Specifications* and *Rules on Supervision and Spot Check of Telecom Service Quality* as well as customer satisfaction evaluation scheme and indicator system at both ministerial and provincial levels.

III Telecom Resource Management

- In January 2003, the *Method on Managing Telecom Network Numbering Resources* was released to improve the management of numbering resources, and later, *Telecom Network Numbering Plan* was released to provide guidance for better allocation of numbering resources and for more efficient planning and use of resources by telecom businesses.

- To improve the usage of frequencies and suit the needs of industry development, continued efforts are being made to revise the existing *Radio Management Rules of People's Republic of China*.

IV Telecom Restructuring

In 2003, the work on business and asset separation and network interconnection between China Telecom and China Netcom has basically been completed, and progress has also been made on the internal merging of China Netcom Group. A competitive framework, which enables China Telecom and China Netcom to penetrate into each other's fixed line markets in the northern and southern parts of China, has taken shape. Currently, there are more than two operators operating basic telecom services and nearly 8000 operators providing value-added services in China.

P

Update on Regulatory and Policy Developments Hong Kong, China

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Hong Kong, China

Update on Regulatory and Policy Developments Hong Kong, China

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29th Meeting | 21-26 March 2004 | Hong Kong, China

APEC TEL 29
Update[1] on Regulatory and Policy Developments
Hong Kong, China
(Position as at 8 March 2004)

A. Licensing of Mobile Services on Expiry of Existing 2G Licences

The licences of the existing 2G mobile services will expire in 2006. The Government issued a public consultation which ended in October 2003. The Government will initiate a second round of consultation views collected in the first round. In the first consultation paper, it was proposed to offer "right of first refusal" to the existing 2G licensees. This would provide a stable investment environment and minimize potential disturbance to existing customers of 2G services. However, spectrum which were not efficiently utilized should be subject to competitive bidding to ensure better utilization of spectrum.

B. Type II Interconnection

Following the first consultation on "Review of the Regulatory Policy for Type II Interconnection" which ended August 2003, the Government issued the second consultation in December 2003. It was proposed to withdraw Type II interconnection obligation for buildings which were connected by at least two self-built customer access networks. This proposal would protect consumer interest by ensuring that consumers having a choice at present would continue to have a choice, and at the same time encourage operators to roll out self-built customer access networks. The proposal is therefore pro-consumer and pro-investment.

C. Regulation of Mergers and Acquisitions

The Telecommunications (Amendment) Ordinance 2003 was passed by the Legislative Council in May 2003, providing a comprehensive and clear framework for the regulation of mergers and acquisitions of carrier licensees in the telecommunications market. The Ordinance aims to promote effective competition and assist the industry in making informed business decisions on

[1] The web sites of the Communications and Technology Branch of Commerce, Industry and Technology Bureau (CITB) and the Office of the Telecommunications Authority (OFTA) provide more information on all the subjects covered in this Update. Their web addresses are www.info.gov.hk/citb/ctb and www.ofta.gov.hk.

merger and acquisition matters. Under the Ordinance, there is an ex post regulatory regime whereby the Telecommunications Authority (TA) is empowered to sanction against completed mergers and acquisitions which have, or are likely to have, the effect of substantially lessening competition. There is also a channel for the carrier licensees and the proposed acquirers to seek the TA's prior consent on a voluntary basis. Compared to an ex ante regulatory regime whereby licensees must seek TA's prior approval before proceeding with a merger and acquisition, this regime will help minimize the compliance burden on the industry. Decisions of the TA are subject to appeal to the Telecommunications (Competition Provisions) Appeal Board.

OFTA is now consulting the industry and the public on the relevant guidelines. We aim to bring the Ordinance into operation in early 2004 when the guidelines are finalized.

D. Reduction of Licence fee for Fixed Carrier Licences for External Services and Mobile Carrier Licences

In December 2003, the Government proposed to reduce the annual licence fee for fixed carrier licences for external services from $0.5 million to $0.2 million. On mobile service, a reduction of licence fee per mobile station from $24 to $20 per year has been proposed. It is expected that the new fee structures will come into effect in May 2004.

E. Blueprint for IT Development — Digital 21 Strategy

Aiming at making Hong Kong a leading digital city in the globally connected world of the 21st century, we promulgated the first Digital 21 IT Strategy in 1998, which was subsequently reviewed and updated in 2001. Since the issue of the first Digital 21 Strategy, we have made great strides in putting in place the right environment, infrastructure, skills and culture to encourage the development and adoption of IT by the community. The Hong Kong community is now a mature and avid user of IT.

The challenge now is to sustain the momentum created in the last five years and continue to harness the benefits of IT for business, the community and Hong Kong's position in the world. In March 2004, we issued an updated Digital 21 Strategy which mapped out eight main areas of action in meeting this challenge:

- Government leadership
- Sustainable e-government programme
- Infrastructure and business environment
- Institutional review
- Technological development
- Vibrant IT industry
- Human resources in a knowledge economy
- Bridging the digital divide

The 2004 Digital 21 Strategy sets out a sustainable programme of measures with the aim of realizing the full potential of IT to accelerate Hong Kong's transition to a knowledge-based economy, and to provide the impetus to economic growth and prosperity.

F. E-government

Under the 2001 Digital 21 IT Strategy, e-government was positioned as a key strategic initiative for the Hong Kong Government to lead by example in the use of e-business, both in conducting internal business and delivering public services. The use of e-business not only allows Government to improve efficiency through technology exploitation and service improvement, but also drive the wider adoption of information technology in the business sector and the wider community.

By the end of 2003, we have achieved our overall targets to provide an e-option for 90% of public services which are amenable to the electronic means of delivery and conduct over 80% of Government procurement tenders through electronic means. The next stage of e-government will focus on service quality and cost-effectiveness. In particular, it should seek to create value to customers as well as to the Government.

Specifically, we should, through obtaining a better understanding of our customers' needs, drive up utilization of our e-government services. In particular, we will consider introducing lower pricing for e-services, which generally involve fewer manual processes than the traditional channels. Other measures such as increasing user-friendliness, introducing service convenience and priority for e-services and implementing customer relationship management (CRM) features will also be examined. We will set out clear CRM policies and guidelines, introduce measures to obtain customer feedback and assist departments to target improvement of utilization of e-services. We will also

focus on "joined up" initiatives across Government departments and the re-engineering of Government operations and processes through our e-government programme. Once a critical mass of e-service users has been created, there will be room for Government to consider rationalizing different channels of service delivery and scaling down the provision of less cost-effective channels, where necessary and justified.

In addition, we are taking advantage of one the world's highest mobile penetration rates to introduce m-Government. Many government departments are already using wireless technology to enhance the efficiency of their daily operations, e.g., HongkongPost is using a GPRS-enabled collection and delivery system. A whole range of government news, information are accessible via wireless devices. Citizens can make use of interactive-SMS technology to make appointment booking to replace their identity card. More m-Government services using 3G and other wireless technologies are being explored.

The Electronic Service Delivery (ESD) Scheme

Our flagship e-government project, the Electronic Service Delivery (ESD) Scheme (www.esd.gov.hk), provides interactive and transactional public services online in a one-stop and customer-oriented way. In December 2003, it was selected as a winner of the Asia Best Practice Award in the category of e-government in the World Summit Award, in terms of e-content and creativity. In addition, its innovative public-private sector partnership model has provided a readily available infrastructure for the private sector operator to offer value-added e-commercial services at the same portal. This unique feature has further facilitated e-government and e-commerce development in Hong Kong. Meeting the objective of pump-priming e-commerce development in Hong Kong, the ESD operator was selected as the Best E-Commerce Service Provider in Hong Kong by a renowned financial magazine in December 2003.

The ESD website now provides over 180 online public services from over 50 government departments and public bodies. Many of these are joined-up initiatives. To cater for the needs of both citizens and businesses who move homes and offices, we have enabled them to notify twelve Government departments and a number of telecom companies and charity organisations about their change of address using a single online form at the ESD website from April 2003 onwards. The appointment booking service for applications for travel documents and extension of stay was introduced in January 2004.

We pay continuous efforts in promoting the usage of ESD services. One option is by introducing differential pricing. From the third quarter of 2003 until

end July 2004, a wide range of statistical and other government publications sold online are priced 25% lower than those sold through traditional channels. This pilot discount offer is attracting more usage to the online bookstores. We are working towards a permanent discount scheme. On the other hand, from January 2004, all softcopies of statistical publications are sold at 25% less than the equivalent hardcopies. Coupled with other promotional efforts, our ESD services continue to gain popularity. As a result, the average daily hit rate of the ESD website has increased by 57% compared with a year before.

Multi-Application Smart ID Card

We have rolled out a new generation of identity card in June 2003. It takes the form of a smart card with multi-application capacity. In addition to using the card for traditional immigration functions (as a means of identification), holders of the smart ID cards may choose to use their ID cards for library services. They may also opt to embed onto their ID cards, a one-year free digital certificate issued by Hongkong Post to carry out secure online transactions. Moreover, it can be used for automated immigration clearance in around end 2004 and can be used as a driving licence in around 2006. We have also reserved capacity in the chip of the smart identity card for an e-purse function. Since each of 6.9 million population in Hong Kong is required to carry an ID card, this initiative is creating a critical mass of citizens who are ready to make use of e-services. It will in turn drive the development of further applications and wider adoption of e-business in the community, bringing about tremendous market opportunities for service and application providers.

Joined-Up Projects

Joined-up government is a priority of Hong Kong's e-government agenda. Apart from the one-stop change of address service mentioned above, examples of other joined-up projects that we are taking forward include a Business Entry Portal, a Common Look and Feel for Government websites, a Property Information Hub and an Integrated Criminal Justice System.

In early February 2004, we rolled out the Business Entry Portal (www.business.gov.hk) through the ESD Scheme. This is providing one-stop access to a wide range of business information. Businesses can search for the information they need according to their business cycle – from starting a business, obtaining finance, expanding a business, to managing a business. There are also value-added services, such as business news and a directory service. In addition, there are opportunities for adding private sector-provided business information (such as bank loans) into the portal.

To give Government websites a consistent online brand image and improve navigation and information presentation from the user perspective, we promulgated the Common Look and Feel (CLF) website design initiative to all bureaux and departments. We have already revamped the most popular Government websites with CLF. We aim to revamp all Government sites with the CLF in a progressive manner.

The Property Information Hub aims to provide a one-stop access to property-related information that is held by different Government departments. The project is likely to benefit businesses in the property sector, the general public and other market participants. It will improve the overall transparency and efficiency of the property market in Hong Kong. We hope to introduce the first phase of its services in 2005.

The proposed Integrated Criminal Justice System is an important project for enhancing the efficiency and accuracy in transferring information between the departments and agencies which are involved in the criminal justice process. The aim of the project is to improve the information flow through the system - from arrest to identification, prosecution, trial, correction, rehabilitation and release. We are now conducting the necessary business and privacy studies before actual implementation.

Institutional Arrangement

To further make use of information technology to create value for both customers and the Government, we are reviewing our institutional arrangements, including establishing a Chief Information Officer (CIO) function. This will ensure we have the necessary structure, resources and expertise to better serve the community in the next wave of e-government activity.

G. Implementation of the Electronic Transactions Ordinance

The Electronic Transactions Ordinance (ETO), largely modelled on the United Nations Commission on International Trade Law – Model Law on Electronic Commerce, was enacted in January 2000. It gives legal status to electronic records and digital signatures and establishes a voluntary recognition scheme for certification authorities (CAs) operating in Hong Kong.

Within the legislative framework, we have established a local public key infrastructure (PKI) supported by CAs. The Government has taken the lead in establishing a public CA through the Hongkong Post which commenced operation in January 2000. The Hongkong Post CA is a recognised CA under the ETO.

Private companies, both local and overseas, are free to set up CAs to serve the needs of the community and application for recognition under the ETO is entirely voluntary. We have established a Certification Authority Recognition Office (CARO) to deal with matters relating to the voluntary CA recognition scheme. The CARO processes applications for and renewal of CA recognition, and monitors compliance of ETO and code of practice by recognized CAs. Up till now, two private companies, Digi-Sign Certification Services Limited and HiTrust.Com (HK) have been granted recognition under the ETO.

With a clear legal framework and the PKI, both the public and private sectors have developed various applications of electronic public service and electronic commerce in Hong Kong. Hong Kong has developed a web-based public service delivery portal and government procurement system. PKI technology is also adopted in the flourishing Internet banking service and online stock trading services. The legal and physical infrastructure has successfully built up a trustworthy environment for electronic commerce to flourish in Hong Kong.

To ensure that our legal framework for electronic transactions keeps pace with e-business developments and technological advancement, we introduced in June 2003 a set of amendments to the ETO to update and improve the Ordinance. We aim to complete the legislative process within the 2003-04 legislative session.

H. Digital Terrestrial Broadcasting

The Government is planning to introduce digital terrestrial television (DTT) broadcasting into Hong Kong. It is conducting a second public consultation on digital terrestrial broadcasting, which ended on 5 March 2004.

The consultation paper sets out the Government's proposals for launching DTT in Hong Kong, which mainly focus on arrangements for licensing of multiplexes and transition from analogue to digital television broadcasting, as well as the market-led approach to the adoption of DTT technical standard. In particular, the Government proposes that the two existing terrestrial broadcasters (ATV and TVB) shall start simulcasting their existing four programme channels in both analogue and digital forms in 2006 with a view to achieving territory-wide digital coverage by 2008.

As for digital audio (DA) broadcasting, the Government maintains its position that the introduction of DA broadcasting should be market-led. The existing sound broadcasters should be allowed to continue their existing analogue AM and FM broadcasts under their respective licence conditions. The Government welcomes applications for launching DA broadcasting trial services and has made available L-Band frequencies for DA broadcasting implementation. Subject to spectrum availability, it may also consider applications for using Band III frequencies for DA broadcasting.

I. Review of Broadcasting Regulatory Regime

The Government is reviewing the broadcasting regulatory regime in the light of technological convergence. The objective is to ensure that the regulatory regime remains an effective tool to facilitate the development of the industry in the converging environment. The scope of the review covers the regulatory ambit, room for further streamlining of regulation and media ownership, etc. We plan to consult the public in 2004 on the outcome of the review.

J. Hong Kong's Cyberport

The Cyberport is an important information infrastructure that we are developing at Telegraph Bay in the Southern District of Hong Kong Island. This project is progressing well, and is being completed in phases, between 2002 and 2004. The first two phases were completed and the remaining two phases will be completed by early and mid 2004 respectively. Upon full completion, the Cyberport will provide about 100,000 m^2 of first class office space for accommodating over 100 companies of different sizes; a Cybercentre containing a mix of cyber-related educational, entertainment and retail facilities; and a 5-star hotel of 173 rooms to accommodate international visitors.

The state-of-the-art infrastructure and campus-like environment at the Cyberport will attract, and thus create, a strategic cluster of like-minded

companies and a critical mass of professional talents specialising in information technology, information services and multimedia content creation. These companies will be served by a world class telecommunication infrastructure (comprising an optical fibre network and a wireless local network) capable of providing abundant broadband capacity to serve all parts of the Cyberport and to provide a seamless link between the Cyberport and the rest of the world. Cyberport companies will also benefit from a wide range of high-tech facilities (such as audio-visual equipment, data centre, high-tech business centre and exhibition and demonstration areas) and many useful services (such as interface with universities and liaison network with venture capitalists). The pleasantly landscaped low-density environment at the Cyberport will induce innovative thinking and creative synergy among the like-minded professionals.

Acting on the advice of a committee comprising local, international and industry experts, we have now succeeded in recruiting a total of 28 tenants comprising companies such as PCCW, CSL, Centro, Sonera SmartTrust, Microsoft, GE Information Services, Sybase and a number of small and medium sized IT companies. The aggregrate take-up rate for all those office space which are completed and ready for leasing is about 63%.

The Cyberport companies will bring along with them like-minded professionals at the Cyberport. They will apply, use, experiment, create and develop applications, services and contents and push back frontiers in their fields. This is also a place for grooming of professional talent. The University of Hong Kong, together with six industrial/corporate partners namely Cisco, Hewlett Packard, IBM, Microsoft, Oracle and PCCW has set up a Cyberport Institute in the Cyberport in September 2003. This Cyberport Institute will provide market-driven programmes to nurture talent for Hong Kong.

To promote the development of wireless and mobile applications in Hong Kong, the Government has funded the establishment of the Hong Kong Wireless Development Centre (HKWDC) in Cyberport to provide central testing facilities for wireless application developers and to assist them in marketing their innovations locally, overseas and in the Mainland. The HKWDC was opened in December 2003. Separately, a Digital Media Centre is being set up in Cyberport to provide advanced post-production facilities and technical support for digital content creators. The Centre will be completed in March 2004.

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Australia's Regulatory Update

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Submitted by:

Australia

Australia's Regulatory Update

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APEC Telecommunications and Information Working Group
29th Meeting | 21-26 March 2004 | Hong Kong, China

Contribution by Australia

Plenary Session

AUSTRALIA: REGULATORY UPDATE

HIGHLIGHTS

- On 10 March, the Minister for Communications, Information Technology and the Arts announced changes to the portfolio, which aim to maximise the benefits of ICT to the community, business and to the delivery of government services. These include the creation of an Australian Government Information Management Office and establishing an Office for the Information Economy within Department of Communications, Information Technology and the Arts (DCITA). The changes take effect from 8 April 2004.

- The *2002-2003 Telecommunications Performance Report* released by the ACA showed that telecommunications reforms have added a further $12.3 billion to the Australian economy by 2002-03.

- On 26 June 2003, the Government introduced legislation in the Australian Parliament to allow for the full privatisation of Telstra, the largest telecommunications carrier. The House of Representatives passed this legislation on 21 August 2003. The Bill was introduced into the Senate on 21 August 2003, but on 30 October 2003, the Senate failed to pass the Bill. The Government reintroduced the Bill into Parliament on 4 March 2004.

- There are currently over 100 licensed carriers operating services in Australia.

- The first accounting separation reports were published by the ACCC on 22 December 2003. The accounting separation regime requires the preparation and publication of regulatory accounts, as if there was vertical separation between Telstra's wholesale and retail activities. The ACCC is required to submit further accounting separation reports on a six monthly basis, with the next report due in mid-April 2004.

- In December 2003, the Australian Government initiated a review of the Universal Service Obligation and Customer Service Guarantee pursuant to section 159A of the *Telecommunications (Consumer Protection and Service Standards) Act 1999*. The review is being conducted by DCITA and will include a focus on the costing, funding and contestability arrangements of the current universal service regime.

- The ACA is currently undertaking a review of payphone policy in accordance with a direction made by the Government in July 2003.

- The ACA will commence a review of the Network Reliability Framework (NRF) in the first quarter of 2004 in accordance with a direction made by the Government.

- The *Spam Act 2003* was passed by the Australian Parliament in December 2003 with most provisions taking effect in April 2004. Both the legislation, and the National Office for the Information Economy (NOIE) Final Report on Spam on which it was based, can be accessed through the NOIE spam page http://www.noie.gov.au/projects/confidence/Improving/spam.htm.

TELECOMMUNICATIONS

2002-2003 Telecommunications Performance Report

The *2002-2003 Telecommunications Performance Report* released by the ACA showed that telecommunications reforms added a further $12.3 billion to the Australian economy by 2002-2003. This means that the Australian economy is estimated to be $12.3 billion larger than it would have been without liberalisation in telecommunications.

The Report also highlighted that by 2002-03 the reforms in telecommunications had underpinned the creation of approximately 54,000 extra jobs. For the period 2003-2003 the reforms resulted in real consumption benefits of $5.7 billion, benefits to small business worth $1.8 billion and the output of the telecommunications industry increased by 97%. The full Report can be found on the ACA website at http://www.aca.gov.au/aca_home/publications/reports/reports/performance/2002-03/report.htm

Telecommunications carriers

Infrastructure (carrier) licences are available on application from the industry regulator, the ACA. There are no limits on the number of carriers. Licence fees are based on cost recovery principles. Carriers must have an industry development plan that has been approved by the Minister for Communications, Information Technology and the Arts; carriers whose capital expenditure and revenue does not exceed specified limits may apply for an exemption from this requirement. The provision of content services does not require licensing. There are currently over 100 licensed carriers operating services in Australia. They are listed at: http://www.aca.gov.au/aca_home/licensing/telcomm/list_of_licensed_carriers/carriers.htm

Currently the Australian Parliament is considering legislation that will amend the *Telecommunications Act 1997*. Under the proposed amendments, the carrier license process will be changed, for national security reasons, and applicants for a carrier license will undergo a security assessment prior to the granting of a license.

Telstra Privatisation

The Bill to allow the Australian Government to sell its remaining shareholding in Telstra, was originally introduced into the Australian Parliament on 26 June 2003. The Bill was passed by the House of Representatives on 21 August 2003, and was introduced into the Senate the same day. The Bill was referred to a Senate Committee for consideration. The majority report of the Committee recommended passing the legislation, with some minor amendments. However, on 30 October 2003, the Senate failed to pass the Bill. The Government reintroduced the Bill into Parliament on 4 March 2004.

Under the *Telstra Corporation Act 1991,* Telstra is subject to ownership restrictions that limit foreign groups to 35 per cent of Telstra's listed capital and a maximum holding of 5 per cent for individual foreign entities. The proposed legislation does not change the current limits on foreign ownership of Telstra.

The Government introduced the sale legislation after its comprehensive response to all 39 recommendations of the Regional Telecommunications Inquiry. That response included A$181 million worth of initiatives to improve existing telecommunications services, 'locking in' ongoing service improvements and 'future proofing' telecommunications in regional, rural and remote Australia. It should be noted that the expenditure of these funds is separate from the privatisation process.

The Bill provides that Telstra be required, under a licence condition, to maintain a local presence in regional Australia and to prepare, and submit for approval, a Local Presence Plan. It also provides for regular, independent reviews of regional communications needs. This will be done by the Regional Telecommunications Independent Review Committee at intervals of no more than every five years.

New Licence Conditions for Telstra

A license condition guaranteeing the provision of the minimum equivalent throughput of 19.2kbps over Telstra's fixed line network on request for dial up internet access services has been imposed on Telstra as part of the Government response to the Regional Telecommunications Inquiry.

Improvements to competition regulatory regime

Pursuant to Part XIB of the *Trade Practices Act 1974* (the TPA), the Minister for Communications, Information Technology and the Arts issued a direction to the ACCC on 19 June 2003, to make record keeping rules requiring Telstra to implement accounting separation of its retail and wholesale activities.

The accounting separation regime requires the preparation and publication of regulatory accounts, as if there was vertical separation between Telstra's wholesale and retail activities. This provides transparency to the regulator and to the market, to assist in determining whether Telstra is unfairly discriminating between the price that it charges competitors for wholesale services and the price that it charges its own retail arm.

The first accounting separation reports were published by the ACCC on 22 December 2003 and included three key aspects:

- A current-cost valuation of Telstra's assets, compared with the historical or original cost of these assets;
- An analysis designed to reveal whether there is sufficient margin between Telstra's retail prices and the prices it charges access seekers to use its network (plus related costs); and
- Key performance indicators on non-price terms and conditions that measure the difference between the percentage of Telstra wholesale's business and residential customers and Telstra Retail's business and residential customers which met the performance standard.

The ACCC is required to submit further accounting separation reports on a six monthly basis, with the next report due in mid-April 2004.

The ACCC is also required to prepare and publish a six monthly report on competition in the corporate sector of the telecommunications market, with the first report to cover the period July to December 2003. This report is expected by June 2004.

Amendments to the Part XIC of the TPA in 2002 also required the ACCC to publish model terms and conditions reflecting the prices that carriers could expect to pay for access to 'core' interconnect telecommunications services, including the Public Switched Telephone Network, the Unconditioned Local Loop Service and the Local Carriage Service. The ACCC published model price and non-price terms and conditions for the 'core' services on 3 October 2003.

Review of universal service arrangements

In December 2003, the Government initiated a review of the universal service obligation (USO) and Customer Service Guarantee pursuant to section 159A of the *Telecommunications (Consumer Protection and Service Standards) Act 1999*. The review is being conducted by DCITA and will include a focus on the costing, funding and contestability arrangements of the current universal service regime. As part of the review, DCITA is also considering whether the current arrangements are impeding the development of competition in regional, rural and remote Australia and whether network extension and trenching costs are impeding access to USO services generally. Further information on the review, including copies of submissions received, is available at www.dcita.gov.au
DCITA will report to the Minister on the outcomes of the review before 31 March 2004.

Review of payphone policy

The ACA is currently undertaking a review of payphone policy in accordance with a direction made by the Government in July 2003. The review will focus on the effectiveness of the provision of payphones under the universal service arrangements and will examine arrangements for determining the location of payphones, including the criteria for installation and relocation of public payphones.

This review is in addition to the wider review of the USO being conducted by DCITA, and will address the payphone component of the review required under s159A of the *Telecommunications (Consumer Protection and Service Standards) Act 1999*. The ACA is due to report to the Government on its findings by 31 March 2004.

Review of the Network Reliability Framework

The ACA will commence a review of the Network Reliability Framework (NRF) in the first quarter of 2004 in accordance with a direction made by the Government. The NRF, which commenced in January 2003, is a three-tiered compliance and reporting framework that aims to improve the reliability of Telstra telephone services.

Digital Agenda Act Review

On 1 April 2003, the Attorney-General announced that lawyers Phillips Fox had been selected to undertake a consultancy to inform the three year review of Copyright Amendment (Digital Agenda Act) 2000. The Digital Agenda Act came into effect on 4 March 2001, updating the *Copyright Act 1968* for the digital environment. Among other changes, it introduced a new technology neutral right of communication and extended, as far as practicable, the current exceptions to the exclusive rights of copyright owners to the digital environment. Phillips Fox has recently submitted its

report and the Government is considering its response. The full Governmental review of legislation is due to occur in 2004.

Anti-SPAM Activity

The Spam Act 2003, which sets a new benchmark for national anti-spam legislation, was passed by the Australian Parliament in December 2003. Both the legislation and the National Office for the Information Economy (NOIE) Final Report on Spam on which it was based, can be accessed through the NOIE spam page http://www.noie.gov.au/projects/confidence/Improving/spam.htm.

The legislation has attracted widespread support from both the anti-spam and the business communities as it provides a balanced approach to permitting responsible direct marketing and other business activities whilst providing a strong response to spamming activities.

The main features of the anti-spam strategy being adopted are;

- National legislation, to be enforced by the Australian Communications Authority, banning the sending of commercial electronic messaging, without explicit or inferred consent (an opt-in regime);
- Civil sanctions for unlawful conduct including financial penalties, and an infringement notice scheme, which take effect on 11 April 2004;
- The requirement for all commercial electronic messaging to contain accurate details of the sender;
- Banning the distribution and use of e-mail 'harvesting' or list-generating software for spamming, and
- Working together with international organisations to develop global guidelines and cooperative mechanisms to combat the global spam problem.

A major education program is now being initiated to ensure businesses are fully aware of and complying with the legislation.

THE INFORMATION ECONOMY

The newly created Australian Government Information Management Office (AGIMO) will focus on promoting and coordinating the use of new information and communications technology to the delivery of Australian Government programs and services.

The AGIMO will:

- work with government agencies to develop standards to integrate services across agencies;
- develop Government e-procurement processes including managing the AusTender system, which enables online access to Australian Government
- business opportunities, tender documents and electronic tender submission;
- promote whole-of-government telecommunications arrangements and volume software sourcing arrangements;

- manage the roll-out of the Fedlink system, which enables secure online communications between Government agencies;
    - develop an e-Government Authentication Framework to assist people in verifying electronic communications; and
    - manage Gatekeeper, the Government's accreditation system for certifying digital signatures.

The Office for the Information Economy (OIE) in DCITA will assess the drivers of the global information economy.

It will:

- examine the impact of information and communications technology on the business environment and productivity growth;
- coordinate the finalisation of the Government's Strategic Framework for the Information Economy;
- manage a range of research and analysis activities, such as statistical and econometric analysis, commissioned research and case studies;
- monitor and investigate community access to the Internet and the role of ICT skills in overcoming limited electronic access;.
- provide a coordination role on e-security matters;
- implement the Australian Government's approach to countering spam; and
- work with industry to develop approaches to accelerate the productive uptake of e-business throughout the economy.

RELEVANT WEB SITES

Department of Communications, Information Technology and the Arts:

http://www.dcita.gov.au includes specific issues relating to intellectual property

National Office for the Information Economy: http://www.noie.gov.au/; http://www.govonline.gov.au

Australian Broadcasting Authority: http://www.aba.gov.au/

Australian Communications Authority: http://www.aca.gov.au/

Australian Competition and Consumer Commission: http://www.accc.gov.au/

Innovation Action Plan: *see* http://www.isr.gov.au/iap/index.html

Federal Privacy Commissioner: http://www.privacy.gov.au

Attorney-General's Department: http://www.law.gov.au/publications/ecommerce includes publications on electronic commerce law.

Tel:Info: www.telinfo.gov.au includes specific information about telecommunications services and entitlements for people in regional Australia.

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Voluntary Report of Canada

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Voluntary Report of Canada

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APEC Telecommunications and Information Working Group
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VOLUNTARY REPORT – CANADA
APEC TEL 29
Hong Kong – 21-26 March, 2004

This report consists of five sections. The first section addresses broad policy initiatives and frameworks that influence policies relating to telecommunications, information technologies and electronic commerce. The second section focuses on policy and regulatory developments in Canadian telecommunications. The third section addresses current Canadian spectrum activities. The fourth section includes some links pertinent to the Canadian ICT industry. The fifth and final section addresses some of Canada's international commitments and initiatives.

Broad Policy Initiatives

A. Broadband

Canadians are among the world's leaders in Broadband use. Since January 2001, the Government of Canada has repeatedly stated its commitment to provide Broadband access to all communities in Canada. This commitment was based on the recognition that broadband will help further Canada's development in the twenty-first century, just as other communication technologies have in the past. To advise the Government of Canada on how best to achieve this objective, the Minister of Industry established a National Broadband Task Force (NBTF). In its June 2001 report *The New National Dream: Networking the Nation for Broadband Access*, the Task Force proposed a policy framework and an action plan for extending broadband networks and services to First Nation, Inuit, northern, rural and remote communities that are unlikely to be served by market forces alone, without some form of government assistance. The Broadband for Rural and Northern Development Pilot Program was consequently launched in September 2002 and received $105-million in funding to carry out its mandate until 2005. Selections for the pilot program are being made through a two-step process. First, communities submit proposals for funding to support the development of a business plan. Successful communities are eligible to receive up to $30 000 for this purpose. Additional funds will be available on a competitive basis to eligible communities to implement their business plans. The level of contribution will be subject to the quality of the submissions and the availability of funds. All submissions for funding components are assessed by an arm's-length National Selection Committee with members from academia, government, the private sector, health, education and community organizations.

Less than a year into operations, the mandate of the Broadband for Rural and Northern Development Pilot Program has moved dramatically closer to realization. Competitions for both rounds of funding have generated intense participation from communities across Canada. The pilot program has also acted as a catalyst for additional investments in Broadband. On October 5, 2003, Infrastructure Canada, Industry Canada and the Canadian Space Agency announced the $155-million National Satellite Initiative. The National Satellite Initiative will expand satellite capacity to Far North and Mid North communities, as well as remote communities which cannot receive broadband services in any other feasible or economic form than satellite communication.

The Government of Canada's Broadband for Rural and Northern Development Pilot Program and the recently announced National Satellite Initiative are playing a central role

in connecting rural and remote communities and, therefore, ensuring Canadians are among the world's leaders in Broadband use. More information on this program is available at www.broadband.gc.ca.

B. E-commerce: Household shopping on the Internet

According to the 2002 Household Internet Use Survey, Canadian households spent just over CAD $2.4 billion shopping on the Internet, on everything from airplane tickets to books. This represents a 35% increase from CAD $1.8 billion spent online in 2001, a growth rate that far exceeds the 4% increase in the number of households that accessed the Internet from any location in 2002. An estimated 2.8 million Canadian households actively participated in e-commerce in 2002, up from 2.2 million in 2001. These households accessed the Internet from various locations, not just home. In total, they placed 16.6 million orders. For every $10 spent by households on Internet purchases in 2002, $6.36 was spent on Canadian websites. In 2002, Canadians spent CAD $884 million of their e-commerce dollars at non-Canadian websites. Statistics Canada released this report in December 2003. Further information is available at: www.statcan.ca.

C. Canada's Policy Initiatives for Building Trust and Confidence in the Internet

Personal Information Protection and Electronic Documents Act (PIPEDA)

The *Personal Information Protection and Electronic Documents Act* (PIPEDA) came into full effect on 1January, 2004. PIPEDA applies to all personal information collected, used or disclosed by private sector organizations in the course of commercial activity. Its privacy provisions are based on the Canadian Standards Association's Model Code for the Protection of Personal Information. Key among the Act's provisions are:

- organizations are required to seek the consent of individuals prior to collecting, using or disclosing their personal information;
- organizations must protect personal information with security safeguards appropriate to the sensitivity of the information; and
- individuals may access personal information about themselves held by an organization and have it corrected, if necessary.

The legislation was previously applicable to federally regulated industries, such as banking and telecommunications, and applies to provincially regulated businesses as of January 1, 2004, except in provinces that have developed substantially similar legislation. Further information is available at: http://privacyforbusiness.ic.gc.ca/epic/internet/inpfb-cee.nsf/vwGeneratedInterE/h_hc00000e.html.

Authentication

As part of its ongoing work to build trust and confidence in the Internet, Canada is in the process of releasing a set of Principles to guide the development and use of authentication in Canada. Developed collaboratively by Industry Canada and a working group representing suppliers, users, consumer advocates, academia, professional associations and provincial governments, the Principles are a further building block to make a safer, more secure Internet. Other building blocks include Canada's policy for the use of encryption technologies, consumer protection measures for the electronic environment

and legislation to protect Canadians' privacy online.

On a technology-neutral basis, the Principles identify the functions and responsibilities of participants in authentication processes, provide a framework for assessing and managing the associated with these responsibilities and establish benchmarks for security, privacy and complaint-handling matters. The Principles will form the basis for codes of conduct, guidelines and other voluntary initiatives that are tailored to the requirements of specific industries and government. Further information on this initiative can be found at: **http://strategis.ic.gc.ca/authen**

Spam

Industry Canada is currently finalizing a six point joint industry-government action plan to curtail the rising volume of unsolicited commercial e-mail (spam). The department has been working and consulting with industry stakeholders since 2002, when the volume of spam began to rise significantly. The elements contained in the proposed action plan have emerged from these discussions and consultations.

The action plan reflects a toolkit approach that calls for better enforcement of existing laws, improved and more transparent industry practices and the use of technology to validate legitimate commercial e-mail communications. It provides for specific actions by both the government and private sector stakeholders and sets a clear timetable for implementing these measures.

Policy and Regulatory Developments in Canadian Telecommunications

For a complete overview of the telecommunications services, please refer to Industry Canada's reference tool *Telecommunications Service in Canada: An Industry Overview.* This reference tool can be accessed on Industry Canada's website at:
http://strategis.ic.gc.ca/TelecomServicesOverview

A. Status of Competition in the Canadian telecommunications industry

The Canadian Radio-television and Telecommunications Commission (CRTC) released its third annual report on the status of competition in the Canadian telecommunications industry in November 2003, providing an assessment for the year 2002. The report is the third in a series of five annual reports requested by the government.

The report indicates that, while Canadians overall enjoy more choice and improved prices in the telecom services available to them, telephone competition is still weak in certain areas, particularly the local wireline market, where the competitors have made little progress in 2002. Incumbent phone companies continue to hold over 95% of both lines and revenues.

Meanwhile, as local revenues and the number of lines decreased over 2002, wireless and high-speed Internet markets experienced double-digit growth, both in terms of revenues and number of subscribers.

Highlights include:

- Total service revenues for 2002 were approximately CAD $32.2 billion, nearly a 1% increase over the previous year.

- Many companies launched new or revised business plans after the elimination of $8.3 billion in long-term debt and $4.6 billion in write-downs and restructuring costs. Capital expenditures, excluding a 2001 Industry Canada spectrum auction, were down 25% in 2002.

The report provides information on the telecommunications industry including the regulatory regime, key players, the status of competition, its effect on customers and the status of broadband infrastructure roll-out across the country. Copies of the full report can be found on the CRTC Web site at www.crtc.gc.ca.

B. Broadcasting Policy Monitoring Report

The CRTC issued its fourth annual Broadcasting Policy Monitoring Report in December 2003. The report provides information on the status of the broadcasting distribution undertaking (BDU), television and radio industries in Canada. It also identifies a number of social issues including programming standards, accessibility and cultural diversity, as well as the status of Internet use. Respecting BDUs, competition for cable services comes mainly from Direct-to-Home (DTH) satellite distribution undertakings and multipoint distribution systems (MDS). As a result of competition, the share of the large cable undertakings (Class 1-3) rose from 93.5 percent in 1999 to 78 percent in 2002. Approximately 82 percent of Canadian households receive basic service from a BDU.

Subscriptions to DTH services totalled 2 million and their share of the market reached 21 percent in 2002. Subscriptions rose by nearly 440,000—or 29 percent—from 2001 to 2002. This growth was derived mainly from former cable subscribers and new subscribers in areas without cable access. The number of subscribers to digital services (including cable TV and DTH) increased from 3 million to 3.6 million between June 2002 and June 2003. By the end of November 2003, the rates of 4.7 million, or 70%, of the subscribers of the large cable undertakings (Class 1) had been deregulated.

C. Regulatory framework for the distribution of digital television signals

In November 2003, the CRTC released a regulatory framework (CRTC 2003-61) that will govern the distribution of over-the-air digital television services by broadcasting distribution undertakings (BDUs), as well as the distribution of other mandatory, optional and discretionary services that provide high definition (HD) programming. In general, a BDU's regulatory obligations and authority to distribute digital signals will match those that currently apply to the distribution of analog versions of these signals. Except as otherwise provided under a condition of license, BDUs must carry the primary signal of Canadian over-the-air digital television signals identified in the regulations. The CRTC expects all BDUs to implement the upgrades necessary in order to comply with the priority carriage requirements for digital signals. In order to make better use of smaller BDUs limited distribution capacity, the CRTC will consider granting exceptions to these requirements in limited circumstances by condition of licence. The CRTC also concluded that a BDU can apply to cease carriage of analog signals once 85% of the BDU's subscribers have the

ability to receive digital services. The CRTC indicated that it will launch two follow-up proceedings. The first will establish a licensing and distribution framework governing the transition of pay and specialty services to HD. The second proceeding will examine the regulatory framework governing the carriage of HD services by direct-to-home satellite undertakings.

Canadian Spectrum Activities

A. 2300 MHz and 3500 MHz band spectrum auction

Provisional licence winners of the 2300 MHz and 3500 MHz band spectrum auction were announced in February, 2004. Twenty-two companies made successful bids and are eligible to receive licences upon final payment. Following the start of the auction on February 9, 2004, 392 licences were allocated with bids totaling over CAD $11.2 million. The confidentiality and authenticity of all bids conducted over the Internet were ensured through the use of Canadian public key infrastructure encryption and digital signature technologies. The allocation of this spectrum will enable carriers to extend and enhance wireless broadband access and services in both rural and urban areas throughout Canada. Further information is available at: http://strategis.ic.gc.ca/spectrumauctions.

B. National Antenna Tower Policy Review

In March 2003, the National Antenna Tower Advisory Committee was formed to undertake a policy review regarding tower siting in Canada. The Advisory Committee is expected to submit a report in the spring of 2004, outlining policy recommendations for improvement to Canada's antenna authorization processes. Further information is available at: www.antennareview.ca

Canada's ICT Industry

SourceCan

SourceCAN (www.sourcecan.com) is a free e-marketplace that matches Canadian products and services with thousands of business opportunities posted by domestic and foreign corporations and governments. Through an international tender feeding system, small and medium sized Canadian companies can source bids, post opportunities and pursue strategic partnerships, all within a secure online trading environment. SourceCAN offers firms a comprehensive and up to date Canadian capabilities database, exposing Canadian businesses to the global marketplace. SourceCAN is working to fulfill the Government of Canada's commitment to improving connectedness, industrial development and global trade.

International commitments and initiatives

A. WTO - Agreement on Basic Telecommunications

Since the ABT was signed in 1997, Canada has adopted all necessary measures to implement, and in important areas, to exceed its obligations under the WTO Agreement. In fulfilment of its obligations:

- Canada has removed foreign ownership restrictions in the areas of global mobile satellite services, ownership of submarine cables and satellite earth stations.
- Teleglobe's monopoly on facilities for overseas services ended on October 1, 1998. Teleglobe's special ownership restrictions were eliminated at the same time.
- Telesat Canada's monopoly on domestic and trans-border satellite telecommunications facilities was ended on March 1, 2000, and;
- An open regulatory regime for international telecommunications was established and Canada opened its overseas satellite market – one year ahead of the commitments made within the WTO agreement.
- In March 1999, the government made amendments to the Radiocommunication Regulations in order to remove the requirement of Canadian ownership and control that applied to fixed and mobile satellite earth station licence holders.

WTO - GATS – Trade in Services negotiations

Canada has made its initial offer available online at: www.dfait-maeci.gc.ca/tna-nac/TS/offer-en.asp

B. FTAA

Canada has made its trade objectives public (available online at: www.dfait-maeci.gc.ca/tna-nac/FTAA/ex-io-en.asp).

C. World Summit on the Information Society

The first phase of the **World Summit on the Information Society (WSIS)** attracted 50 Heads of State/Government and over 11,000 delegates from governments, private sector and civil society. Canada was one of the largest contributors to the event. The Canadian pavilion, Summit forums and award events effectively highlighted Canada's information and communications technology (ICT) success stories in e-development, e-trade, e-learning, e-culture and e-government. The main side events sponsored by Canada, in particular the Global Forum on Indigenous Peoples, were also well attended and gave promise of ongoing partnerships. The final Declaration of Principles and Plan of Action, adopted by consensus, were in line with Canada's efforts to promote the concepts of building effective partnerships among government, the private sector and civil society to harvest the benefits of ICTs for development. In addition, Canada was pleased with the success of interventions on core values for the Information Society, such as inclusiveness (particularly in terms of gender and youth), mainstreaming ICTs in development programs, freedom of opinion and expression, independent media, cultural diversity, and on finding a way forward on internet governance.

Canada will again be an active participant in the second phase of the World Summit on the Information Society, to be held in Tunis 2005. Canada believes that WSIS should focus on poverty reduction and development through partnerships (community-led) and mainstreaming ICTs. Canada has also joined the WSIS Bureau as a WEOG representative.

It is increasingly evident that ICTs can play a critical role in reaching the UN's Millennium Development goals – WSIS helped show what was possible with some of the world's most creative minds and talented people. It keeps the hope alive that there can indeed be a "liberation technology" that can bridge the digital divide. For more information on Canada's involvement with the WSIS please visit: http://wsis-smsi.gc.ca .

P

Policy and Regulatory Update by Japan

Doc no.
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PLEN/26

Plenary agenda item : H

Plenary

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APEC Telecommunications and Information Working Group
29th Meeting | 21-26 March 2004 | Hong Kong, China

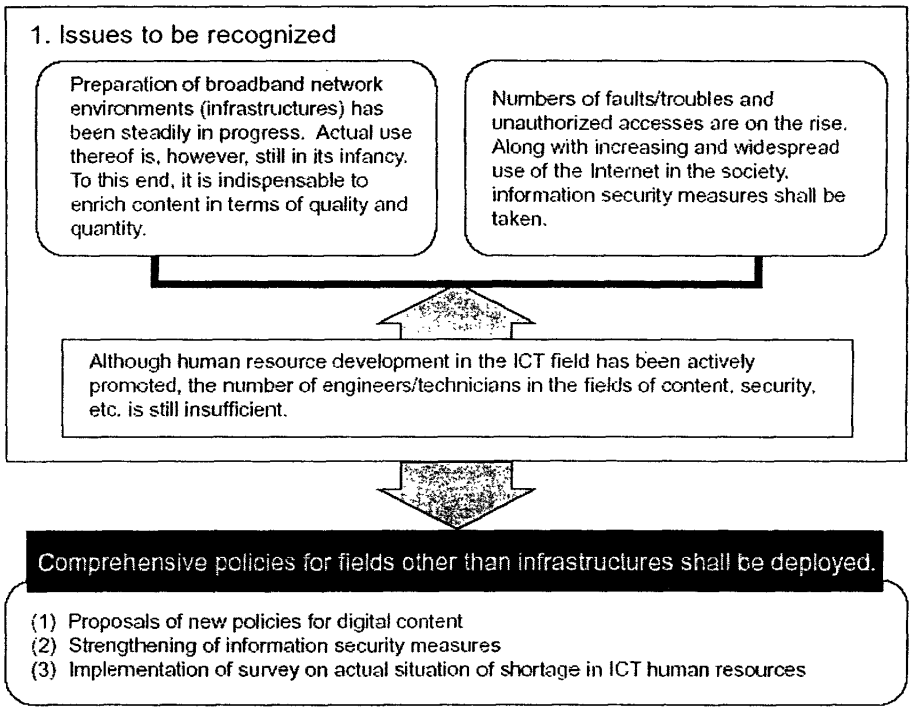
Policy and Regulatory Update by Japan

Important actions of Oct 2003-Mar 2004

1 Final Report from "Roundtable on Info-Communications Software"

Since March 2003, MPHPT has been holding the "Roundtable on Info-Communications Software" (Chair: Mr. NAGAO Makoto, former president of Kyoto University), an advisory group to the Director-General for Policy Planning (in charge of info-communications), with the purpose of deliberating upon basic directions concerning digital content, ICT security and human capacity building that target various current topics and solutions thereof. The Roundtable has compiled its findings as a final report. The outline of the final report is as follows:

1. Issues to be recognized



2. Challenges to be met for promoting ICT software and basic directions

(1) Proposals of new policies for digital content

10 measures for new content policies

1. To consider content as civilization
2. To develop comprehensive policies for content

3. To raise the national level of abilities for expressing/transmitting content
4. To strengthen policy measures for supporting pop cultures
5. To promote human resource development
6. To expand industrial foundations for producing content
7. To reform the distribution system
8. To establish a safe and secure environment for consumers
9. To encourage communities to establish their identities
10. To deploy policies for technologies from the viewpoint of content

(2) Strengthening of information security measures

1. Preparation of safe and secure network infrastructures
2. R&D on security technologies comprising foundations of safe and secure infrastructure
3. Establishment of distribution/collaboration centers of security information for supporting safety and security
4. Strengthening of user security measures for enjoying safety and security
5. Realization of networks with ease-of-use for enjoying safety and security

(3) Strengthening of human resource development in the ICT field

I. Improvement in effectiveness of ICT education from elementary to upper secondary Schools

MPHPT will request MEXT to introduce subject "information," and provide MEXT with knowhow on preparation of questions concerning ICT-related qualification staff.

II. Future figures of shared roles among ICT educational institutions

MPHPT shall consider support for getting ICT basic education entrenched in niversities so as to establish practical ICT education as one sector of scholarships

2 "Study Group on Mobile Number Portability" Convened

On November 10, 2003, MPHPT held the "Study Group on Mobile Number Portability (MNP)" with the objective of deliberating upon MNP, from the viewpoints of improving users' convenience and of promoting competition among mobile telephone carriers.

Mobile Number Portability: A mechanism that allows a user to retain the same telephone number, regardless of the subscribed-to mobile telephone carriers.

1. Purpose

The "Mobile Number Portability (MNP)" is expected to bring about merits from the viewpoints of improving users' convenience and of promoting competition among mobile telephone carriers. Since a considerable amount of costs is required for introduction of portability, it is vital to fully consider user needs and effects thereof. To this end, the Study Group, as an open forum, was established for the purpose of deliberating upon MNP based on a range of opinions.

2. Major topics

i) Analysis/evaluation needs concerning MNP
ii) Basic concepts on introduction of MNP

iii) Desirable methods for realizing MNP and for sharing the costs thereof

3. Schedule
Following the first meeting held on November 10, 2003, the Study Group plans to compile its findings as a report around February 2004.

3. Announcement of "Basic Approach Concerning Evaluation of Competitive Situation in the Telecommunications Business Field" and "FY2003 Details for Implementation of Evaluation of Competitive Situation in the Telecommunications Business Field"

On November 18, 2003, MPHPT released the "Basic Approach Concerning the Evaluation of Competitive Situation in the Telecommunications Business Field" and "FY2003 Details for Implementation of the Evaluation of Competitive Situation in the Telecommunications Business Field."
On October 7, 2003, MPHPT released a draft "Basic Approach" and draft "FY2003 Details for Implementation" for inviting public comments based on the report (July 2003) of the "Study Group on Methods for Evaluating Competition in the Telecommunications Fields as IP Evolves" (Chair: Dr. SAITO Tadao, Professor Emeritus, the University of Tokyo). These "Basic Approach" and "FY2003 Details for Implementation" released this time were formulated based upon the public comments filed through the due procedures. The outline of these "Basic Approach" and "FY2003 Details for Implementation" are as follows:

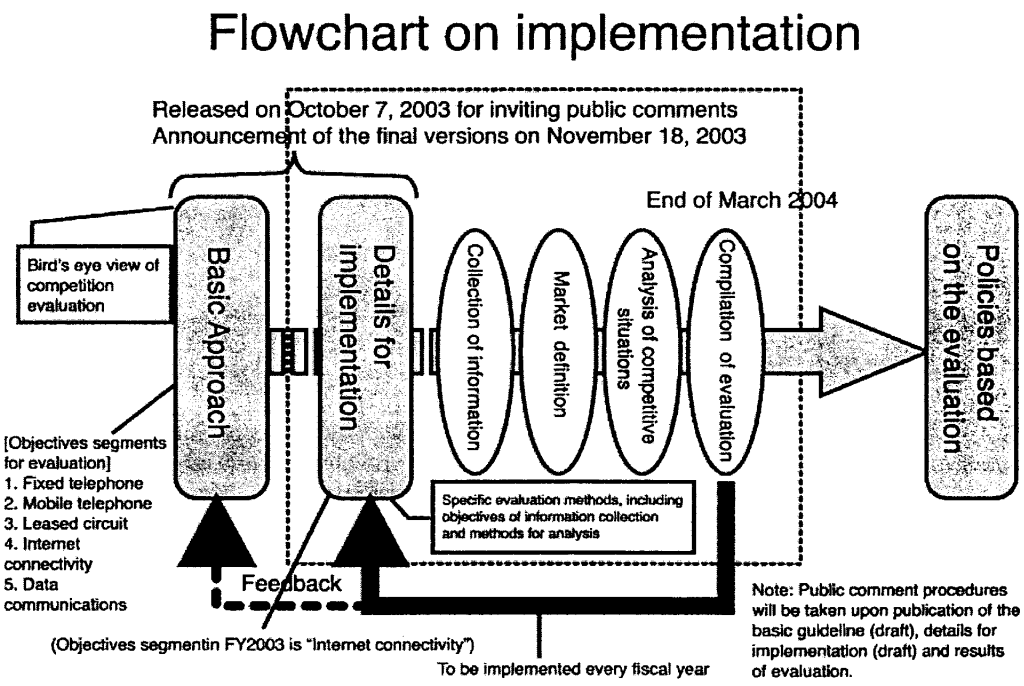
I. Purposes
1. Grasping of increasingly complex competitive situation along with the evolution of IP/broadband introduction
i) Flexibility in constructing networks is improved through repeated regulatory reforms in the telecommunications business field.
ii) New entries, services and operation methods are successively increasing along with the evolution of IP/broadband introduction.
iii) Due to changes in the structures for providing services and in relationships among service providers, progress of competition varies by service and area.
2. The shared recognition of competitive situations, transparency of administration and foreseeability are improved.
i) Formulation of broader consent concerning data, etc. and methods for analyses, competitive situations of market are analyzed on a fact basis and published
ii) Improvement in transparency of administration and in foreseeability.

3. Ensuring of international harmonization
i) Following in the footsteps of the UK, which now has "competition review" in place, EU member states will adopt "competition review."
ii) In the US, competition assessment reflecting variances by service/area is being implemented.
iii) In the global telecommunications business field, it is vital to ensure international harmonization in policies.

II. Basic stance

1. Evaluation of competition is to be implemented by the administration as part of the process of planning, developing and promoting policies.
2. Contents include "Decision of objectives for analysis," "Definition of market" and "Analysis/evaluation of competitive situation."
3. The following points shall be noted so as to improve transparency:
   i) Explain indices for analyzing competitive situations and the evaluation process, and the like.
   ii) Announce methods for analysis of data, etc. as much as possible
   iii) Procedures for invitation of public comments shall be employed. Public comment procedures will be taken upon publication of the Basic Approach (draft), Details for implementation (draft) and results of evaluation, respectively.

III. Flowchart concerning implementation



IV. Objectives to be analyzed in FY2003

The objectives market segment in FY2003 is "Internet connectivity."
Reasons are as follows:

1. The Internet connectivity markets are changing drastically.
2. In terms of policy measures, broadband and fiber-optic networks are used for Internet connectivity and are focus of attention.

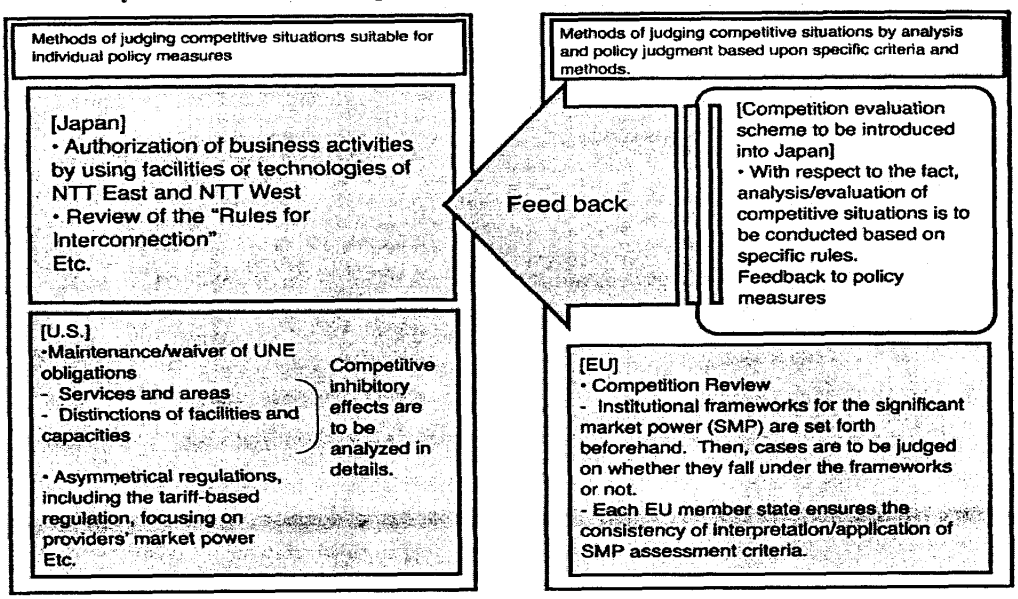
3. As for the Internet connectivity market, Japan is a leading country, running ahead of the U.S. and Europe. Thus, Japan shall develop an original approach for analysis of this domain.
4. In this service domain, different services are provided as one package or various services are integrated as an inseparable package. Analysis of individual services in the Internet connectivity market is a difficult task. Upon development of methods for competition evaluation, this market segment is suitable for developing definitions, for analysis/evaluation and for finding rational solutions.

V. Market definition
1. Market definition is to be implemented focusing on one market where identical services are transacted.
2. Markets are defined by i) setting a minimum unit of service among services for end-users as a starting point, ii) compiling services as one service group comparing with the minimum unit of service with similar and neighboring services, and iii) deciding a boundary of the market across service providers.
3. These works are part of a preparatory process for analysis of a competitive situation and will affect results of said analysis.
4. Markets will tend to overlap with each other doubly or triply. Accordingly, the market structure is neither systematic nor concrete unlike the Japan Standard Industry Classification (JSIC).

VI. Analysis/evaluation of competitive situation
1. Quantitative indices shall be analyzed in a multifaceted manner.
Grasping the factors that lead to the situations.
2. Indices shall be calculated by defined market, on a one-by-one basis.
3. Concrete indices, etc. analyzed according to the following flow:
i) Quantitative indices shall be analyzed for obtaining a bird's-eye view of competitive situation.
ii) Analyze trends in the number of contracts and shares of revenues, magnitude of entry barriers, the number of providers, trends in the numbers of new entries/withdrawals.
iii) Analyze qualitatively, including factors that lead to the situations concerned as indicated by quantitative indices.

VII. Analysis on qualitative factors
1. Competitive situation in a market between a telecommunications carrier and end users is strongly affected by transactions among telecommunications carriers. Thus, analysis on influences of transactions among telecommunications carriers is important.
2. Algorithms for qualitative factors are generalized as much as possible in order to apply to the Basic Approach and the Details for Implementation.
3. To this end, in particular for FY2003, algorithms were carefully developed on analyzing qualitative factors. Concretely, in the course of analysis, i) it was deliberated whether the algorithms have generality that could be applied to various markets in the "Internet connectivity" domain, then ii) applicability of the algorithms to other domains was tried.

VIII. Analysis/evaluation of competitive situations; Feedback to policy



4. Outline of "Guidelines for Radio Spectrum Reallocation"

On July 30, 2003, a report entitled the "mid- to long-term outlook of radio spectrum use and roles of the government" (Report on Inquiry No.7: "Radio Policy Vision") was submitted by the Information and Communications Council (Chair: Mr. AKIYAMA Yoshihisa). Based on the report, in order to realize a ubiquitous network society through wireless broadband environment, MPHPT developed the guidelines for implementing a drastic review of spectrum allocation in the future.
The outline of the guidelines is as follows:

I. Background and purposes

The Government:
1) aims at i) realizing a more comfortable and higher quality of life through realization of a wireless broadband environment, and ii) revitalizing Japan's industrial/economic activities through expansion of the ICT market;

2) upon realization of a ubiquitous network society, implements drastic review of spectrum allocation without adhering to the existing regulatory frameworks, so as to

ensure spectra necessary for facilitating introduction of core radio systems comprising the wireless broadband environment; and

3) upon the implementation, prepares basic regulatory frameworks for the concrete revisions of "frequency assignment plan."

II. Contents

Concrete contents of the "guidelines for spectrum reallocation" areas follows:

1) To ensure spectra necessary for facilitating introduction of the following core radio systems comprising a ubiquitous network society:

Mobile communications systems:

Within five years, to ensure a bandwidth of 330 - 340 MHz mainly in the 1.7-GHz band and 2.5-GHz band. Within five to 10 years, to ensure a bandwidth of up to 1.38 GHz mainly in the 5 - 6 GHz band.

Wireless LANs, NWA systems:

Within five years, to ensure spectra meeting demands for a bandwidth of 480 MHz mainly in the 5-GHz band. Within five to 10 years, to ensure spectra meeting demands for a bandwidth of up to 740 MHz mainly in the 5 GHz band to be ensured.

RFID, UWB, household electric appliance with ICT functions, etc.

To be studied in consideration of needs, technical requirements, trends in R&D, etc.

2) Main issues of fundamental view for implementation of drastic review of spectrum allocation

Encourage licensees to return redundant spectra not being used efficiently

Reallocation of radio spectra, which are used for radio systems actually replaceable with fiber-optic cables, etc., to other radio systems such as mobile communications, for which radio spectrum use is indispensable

Swift reallocation of radio spectra to new radio systems with higher demand

3) To promote measures for facilitating spectrum reallocations

Should reallocation need to be completed in a short term, e.g. three years from the formulation of a radio spectrum reallocation plan, incumbent licensees will be forced to dismantle radio facilities that the licensees purchased and constructed in the past and to purchase and construct alternative facilities.

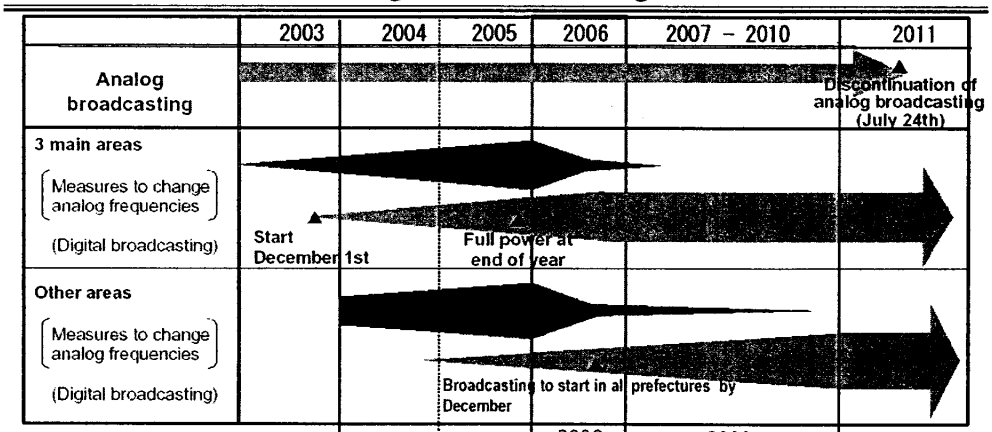
The Council recommends that MPHPT conduct studies on establishment of a scheme to compensate incumbent licensees for reallocation costs such as a portion of the remaining book value and the dismantling cost of the radio facilities, etc.

Take leadership in discussions on radio spectrum at ITU, etc.

5. Terrestrial digital broadcasting service has started

In December 2003, terrestrial digital broadcasting has started in Tokyo, Osaka, and Nagoya. Number of potential households in these area is approximately over 12 million. (Kanto area: Approximately 6.9 million households of direct reception + Cable TV reception; Chukyo area: Approximately 2.3 million households of direct reception + Cable TV reception; Kinki area: Approximately 2.8 million households of direct reception + Cable TV reception) Number of shipped devices are approximately 607,000 units (as of end of February). The broadcasting in these areas will become full-power in 2005 and broadcasting in the other areas will begin in the end of 2003 after changing analog-TV frequency. In 2006, service will be served in all prefectures in Japan and analog broadcasting will be discontinued in 2011.

Terrestrial Digital Broadcasting Schedule



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Korea's Regulatory Update

Doc no: telwg29/ PLEN/12

Plenary agenda item :

Plenary

Submitted by:

Korea

Recent Regulatory and Policy Development

- Korea -

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APEC Telecommunications and Information Working Group
29th Meeting | 21-26 March 2004 | Republic of Korea

1 Distribute free softwares to block indecent spam mails(2003-11-10)

The Ministry of Information and Communication(MIC) has developed a software, whic h can block more than 90% of indecent spam mails sent to adults, children, and adolesce nts, in order to raise public awareness online etiquette and protect people from indecent spam mails. It is available for free over the Internet starting from November 10, 2003.

This software called 'Indecent Spam Filter ' has a special feature of blocking pornogra phic images, Korean porn sites(URL)set up overseas and nasty words. It can be downlo aded from several websites such as www.mic.go.kr , www.icec.or.kr, www.kado.or.kr, www.kisa.or.kr, www.kispa.or.kr, www.cyberparents.or.kr, and www.naver.com. It is als o available in CD-ROM and will be distributed to public organizations for the disabled a nd teenagers.

2. Establish the Korea Internet Security Center (2003-12-17)

The Ministry of Information and Communication(MIC) has established 'Korea Internet Security Center' under the Korea Information Security Agency(KISA) on December 17, 2003 to detect security breaches, in particular, hacking and virus attacks at the early sta ge and to effectively cope with them.

With the cyber attack on January 25, 2003, the MIC realized that it is essential to establ ish a comprehensive and active system of collecting and analyzing information on virus attacks, and came up with a basic plan for the establishment of the Korea Internet Securi ty Center last March.

The Korea Internet Security Center is designed to monitor private information and co mmunication networks for ISPs, and it monitors network traffic 24 hours a day, shares i nformation with other organizations, and detects and analyzes potential security threats. Also, in case of emergency, it issues a public warning and alert and provides technical s upport for swift recovery.

The center is expected to help Korea respond pro-actively to security threats like the on e occurred last year.

3. Open an open-source software portal site (2004-2-11)

The Ministry of Information and Communication(MIC) has established an open-source portal site (http://www.oss.or.kr)on February 11, 2004 in order to facilitate the development and usage of open-source softwares. The website is consisted of 3 sections for users, and developers, and resources.

Firstly, a users site(http://user.oss.or.kr)provides basic information about open-source softwares such as open-source industry's latest news, recent research trends in the local communities and in the global market, and seminars.

Secondly, a developers site(http://developer.oss.or.kr)provides not only the development environment, but also a mailing list, which allows developers to easily share information. In addition, it provides CVS(Current Versions System) to make version management easier .

Lastly, a resources site (http://data.oss.or.kr) includes documents such as seminar presentations and excellent open-source softwares both in Korean and foreign languages. This section is expected to provide easy access to latest materials through site mirroring of the overseas prominent sites such as sourceforge.net in the near future.

Unlike closed-source softwares like Hangle and MS Office, open-source software with its source code open, such as Linux, can be freely reproduced and redistributed and easily upgraded. Since open source software programs were led by private companies, there were limitations to expanding software sharing. Yet, it is highly likely that Korea will establish open-source software portal sites like German's BerliOS, contributing to the expansion of open source software.

※ BerliOS : A German open-source S/W portal site set up by the German government, in which 5,000 developers have participated and developed about 900 open-source S/Ws.

4. Open a website for information security (2004-3-1)

The Ministry of Information and Communication(MIC) has opened a website for informat ion security called 'KrCERT(http://www.krcert.or.kr)' on March 1, 2004.

The website run by the Korea Information Security Agency (KISA) provides much info rmation about Internet security. This includes potential problems discovered in domestic Internet networks, worms· viruses, vulnerabilities, information of overseas and domest ic major DNS, top 5 types of attacks, and top 10 target ports and protocol.

Also, KISA has launched services provided by 'CERTCC-KR' for information shari ng with other leading companies and organizations' CERT.

With links to other related security websites, `KrCERT` website has provided lots of sec urity related information, including one stop service regarding Internet security.

Therefore, Information Service Providers(ISPs) can identify the comprehensive situatio n of the networks, and operate networks in a more stable way.

The MIC will continue to support KrCERT website to become a hub for information ex change and an internet security center so that it can provide information about security bre aches in real time and respond to them swiftly.

KR-Cert websites has 3 URLs, http://www.krcert.net, http://www.krcert.org, and http://www. krcert.or.kr.

5.Approach the era of 30M Internet users in Korea (2004-2-11)

According to an annual survey done by the MIC and the Korean Network Information C enter last December, most of the major indicators of informatization, including the num ber of Internet users, rates of computer and internet penetration, the number of e-mail h olders, and the number of hours spent for Internet access have all evenly increased.

The number of Internet users in Korea stands at 29.2 million, accounting for 65.5 percen t of the population as of December 2003, 6.1 percent up from the previous year. At this r ate, the number is expected to reach 30 million within this year.

It is noteworthy that the number of users over 30 years old, regarded as a poor user grou p, have increased dramatically, compared with that of people in their 20s.

Of all the age groups, teens and those in their 20s are still the predominant users as 94 p ercent of them uses the Internet. Those in their 30s and 40s, categorized as a poor user group, recorded 80.7 percent and 51.6 percent, respectively in the Internet usage rate, 1 1.3 percent up for 30s and 12.3 percent up for 40s from the last year.

Among the total population, 71.7 percent of males and 59.2 percent of females use the I nternet. This represents a 6.5 percent rise for males and 5.6 percent rise for females fro m 2002.

Office workers and students were the professional groups that showed the highest usag e rates of 92 percent and 97 percent, respectively. Housewives are also enthusiastically e mbracing the Internet, marking a 13.1 percent rise from the previous year to achieve 50. 3 percent user rate.

In addition to the numbers representing the degree of informatization such as the numbe r of Internet usage, there are other indicators showing Korea's move toward an informati on society including patterns of computer and Internet usage, and usage patterns of onli ne shopping and contents.

55.9 percent of users are using computer for over 10 hours a week. 76.5 percent of resp ondents cited Internet/e-mail as the primary reason for using computer, followed by play ing games(59 percent) and data management(41 percent). 46.9 percent of the people su rveyed are using the Internet for over 10 hours a week.

They use the Internet, mainly for information search(72.8%), games(52.5%) and e-mail (51.3%). In addition to these purposes, a growing number of people in their 10s, 20s and 30s uses the Internet as an aid to various activities, including economic activities (onli ne shopping, banking), communication(chatting, messenger service, community particip ations), and education.

The MIC has attributed the success of Korea's informatization to government-led progra ms, including IT training and measures to bridge the digital divide. The MIC will contin ue to provide IT training programs to about 550,000 underprivileged people.

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Regulatory and Policy Update, United States of America

Doc no: telwg29/ PLEN/05

Plenary agenda item : H

Plenary

Submitted by:

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Regulatory and Policy Update, United States of America

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APEC Telecommunications and Information Working Group
29th Meeting | 21-26 March 2004 | Hong Kong, China

TWENTY-NINTH MEETING
APEC WORKING GROUP ON TELECOMMUNICATIONS
MARCH 2004
REGULATORY AND POLICY UPDATE
UNITED STATES OF AMERICA

To Cover Activities From October 2003 Through March 2004

THE EXECUTIVE BRANCH

IPv6: A Commerce Department task force studying issues related to Internet Protocol version 6 (IPv6) invited interested parties to file comments on the costs and benefits of a transition from I.P. version 4 to I.P. version 6. Comments were due on March 8, 2004. Commenters were invited to provide information on a variety of topics, including IPv6 characteristics that will either enhance or possibly degrade network security, and affect network access and "traceability." Comments were also sought on the expected costs of upgrading and replacing hardware and software, and of maintaining security during transition to the new standard. The task force, called for by President Bush's National Strategy to Secure Cyberspace, is co-chaired by the Commerce Department's National Telecommunications and Information Administration (NTIA) and the National Institute of Standards and Technology (NIST) and will operate in consultation with the Department of Homeland Security and other federal offices and agencies. The task force will issue a report of its findings and recommendations to the President later this year. www.ntia.doc.gov/ntiahome/frnotices/2004/IPv6RFCFinal.htm & www.ntia.doc.gov/ntiahome/ntiageneral/ipv6/index.html

Broadband Over Power Lines: In February, NTIA stated formally that broadband over power lines holds promise to be the "Third Wire" into American homes - a competitive, facilities-based, cost-effective new way to deliver high-speed Internet services to American citizens. The NTIA is pleased that the FCC is moving forward on broadband over power lines. The Commission's proposed rules, as informed by the NTIA interference analysis, will provide policy makers with the rigorous technical data and measurements that will be necessary to accurately and fairly judge the prospects of this exciting, innovative new use of existing infrastructure.
www.ntia.doc.gov/ntiahome/press/2004/broadband_02122004.htm

E-Authentication

In February 2002, the U.S. Government launched the E-Authentication Initiative whose stated goal is to enable trusted electronic access to Government systems while preserving the trust and privacy of the American public. To do so the initiative is focused on meeting the authentication business needs of the E-Gov initiatives, building the necessary infrastructure to support common, unified processes and systems for government-wide use. Thereby helping to build the trust that must be an inherent part of every online exchange between the American public and the Government. The E-Authentication Architecture makes use of Security Access Markup Language (SAML) to assert identity in a Federated environment.

In December 2003, the U.S. Government's Office of Management and Budget released

the *E-Authentication Guidance for Federal Agencies*, which provides definitions for four levels of identity assurance in conducting electronic transactions. The guidance is intended to aid Federal agencies in determining their identity assurance needs when conducting web-based business. The definitions for each of the four levels were influenced by existing definitions published by the United Kingdom's Office of the E-Envoy. The guidance can be found at http://www.whitehouse.gov/omb/memoranda/fy04/m04-04.pdf. In support of this guidance the U.S. National Institute of Standards and Technology has drafted the *NIST Recommendation for Electronic Authentication, SP 800-63,* a companion technical guidance to the OMB document that identifies the minimum technical requirements at each defined level of assurance. It is important to note that this guidance includes the use of UserID/PIN/Password solutions as well as cryptographically based solutions for identity assurance. The NIST recommendation is available at http://csrc.nist.gov/publications/drafts/draft-sp800-63.pdf.

A key component for success of the E-Authentication initiative is identifying the level of assurance provided by a particular electronic identity credential. In response to this need, U.S. Industry has developed the Electronic Authentication Partnership, an industry-led, long-term strategy aimed at developing rules and guidelines for assessing and asserting the level of assurance inherent to individual electronic identity programs. Information concerning the Partnership is available at http://www.eapartnership.org/. Membership in the Electronic Authentication Partnership includes the Liberty Alliance, Internet2, and WS* programs, all of which are industry-sponsored federated identity initiatives.

At the RSA Conference in San Francisco, California, eleven companies partnered with the OASIS Security Services Technical Committee and the U.S. Government E-Authentication Initiative to demonstrate interoperability using SAML 1.1 for the exchange of authentication and authorization information. A press release concerning this demonstration is available at:

http://www.oasis-open.org/news/oasis_news_02_25_04.php.

The Federal Bridge Certification Authority (FBCA) is a component of the overall E-Authentication initiative, providing assertion of the level of assurance inherent to the Enterprise PKI solutions cross-certified with it. The FBCA basic and medium assurance certificate policies equate to Level 3 in the OMB Guidance, while the FBCA high assurance certificate policy equates to Level 4. The FBCA continues to provide interoperability among discrete Enterprise PKI domains. There are now eight organizations cross-certified with the FBCA including the first U.S. state participant, the State of Illinois. In addition, an on-going project between the National Institutes of Health and the Higher Education community (EDUCAUSE) continues to demonstrate the viability of Bridge-to-Bridge interoperability, allowing the validation of PKI signatures by employees of the National Institutes of Health, based on digital certificates issued by a University to a member of its faculty. Full path discovery is performed using a bridge-to-bridge relationship between the FBCA and the Higher Education Bridge Certification Authority. In addition to the Higher Education initiative, the Aerospace Industry is exploring the use of a Bridge to enable cross-organizational trust in the Aerospace community and cross-certification with the FBCA.

Finally, the U.S. Federal Government has launched an initiative to standardize the

issuance of identity credentials to Federal employees, contractors, and other affiliated personnel that will result in integrated physical and logical credentials across the Federal enterprise. The result will be a smart card used as a physical badge and carrying logical access capabilities including PKI. The U.S. Government's Smart Card Interagency Advisory Group and the Federal PKI Steering Committee have teamed up to develop policy and guidelines for implementing this initiative. The final drafts of two new policies are now available: The Common Federal PKI Policy and the Common Smart Card guidance have been published by the newly formed Federal Identity Credentialing Committee, www.cio.gov/ficc/.

E-Security

Computer Emergency Response Team (CERT): In 2003, the Department of Homeland Security's National Cyber Security Division established a new US-CERT capability to ensure a national 24x7 response and readiness capability. The Division is responsible for implementation of the President's *National Strategy to Secure Cyber Space.*

Critical Infrastructure Protection: In December 2003, the President issued Homeland Security Presidential Directive 7 (HSPD-7) on *Critical Infrastructure Identification, Prioritization, and Protection.* The directive updates the U.S. government organization for physical and cyber infrastructure protection, calling for the creation of a Critical Infrastructure Protection Policy Coordinating Committee to advise the President's Homeland Security Council on interagency policy related to physical and cyber infrastructure protection. The Directive also tasks the Department of Homeland Security (DHS) with developing a national plan for critical infrastructure protection (CIP) by December 2004. The **Critical Infrastructure Information Act of 2002** allows the Department of Homeland Security to receive and protect voluntarily submitted critical infrastructure information which may contain proprietary and confidential information not otherwise available to the Federal government and not customarily in the public domain.

Spam Legislation On December 16, 2003, President Bush signed into law the Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003 (CAN-SPAM Act), which establishes a framework of administrative, civil, and criminal tools to help America's consumers, businesses, and families combat unsolicited commercial e-mail, known as spam. The new law is a pro-consumer measure that allows consumers to choose to stop further unsolicited spam from a sender. It also provides a protection against spam containing unmarked sexually-oriented or pornographic material.

EXECUTIVE BRANCH SPECTRUM ACTIVITIES

U.S. Spectrum Policy Public Meetings: The Department of Commerce has arranged a series of public meetings designed to gather information from the private sector and state and local governments about better ways to manage the nation's airwaves. NTIA hosted the first meeting on December 9 and co-sponsored a February meeting with the National Academy of Sciences. NTIA also is planning a third meeting in cooperation with the former Public Safety Wireless Network (PSWN), now part of the Department

of Homeland Security (DHS) Project SAFECOM. The public meetings will be the first opportunity for interested parties from outside the federal government to participate in the Bush Administration's initiative to develop a U.S. spectrum policy for the 21st century promoting economic growth, ensuring national and homeland security and fostering new technologies. The President's spectrum initiative requires the Commerce Department to prepare legislative and other recommendations to (1) facilitate a modernized and improved spectrum management system; (2) create incentives for more efficient and beneficial use of spectrum and to provide a higher degree of predictability and certainty for incumbent users; (3) develop tools to streamline the deployment of new services and technologies, while preserving national security, homeland security, and public safety, and encouraging scientific research; and (4) develop means to address the critical spectrum needs of national security, homeland security, and public safety. www.ntia.doc.gov

Unlicensed Devices: NTIA invited interested parties to file comments on an expansion of the 3650-3700 MHz band to unlicensed devices for (rural) wireless broadband applications such as WiFi while protecting federal operations in those bands from interference or other adverse effects. Comments were due February 27, 2004. www.ntia.doc.gov/osmhome/broadband & www.ntia.doc.gov/ntiahome//frnotices/2004/RWBPTFinal.htm

Frequency Assignment Coordination Website: NTIA has established a website to facilitate frequency assignment coordination between federal and non-federal operations within the 70, 80, and 90 GHz bands. When fully operational, non-federal users of spectrum will be able to receive in minutes, as opposed to weeks or months, approval to operate in the 70, 80 and 90 GHz bands opened for commercial use by the NTIA and the Federal Communications Commission (FCC).. At these "millimeter wave" frequencies, data can be transmitted at extremely high speeds. http://ntiacsd.ntia.doc.gov/webcoord/status.cfm

Frequency Allocation Chart: Revised as of October 2003. www.ntia.doc.gov/osmhome/allochrt.html

FEDERAL COMMUNICATIONS COMMISSION

Web site: http://www.fcc.gov/headlines.html

February 12, 2004
FCC Proposes Rules for Broadband Over Power Lines
The FCC proposed changes to technical rules that will foster broadband deployment using the untapped capabilities of the nation's power grid, while safeguarding existing services against harmful interference. The Part 15 rule changes, proposed in a Notice of Proposed Rulemaking, set forth procedures to measure the radiofrequency energy emitted by equipment used to provide broadband service over power lines and establish particularized interference mitigation requirements. By facilitating access to broadband over power lines (BPL), the Commission takes an important step toward increasing the availability of broadband in rural and underserved areas because power lines reach virtually every home and community in the country. In areas in which

consumers already have broadband access, BPL enhances competition by providing another broadband alternative. These changes will also facilitate the ability of electric utilities to dynamically manage the power grid itself, increasing network reliability.

February 12, 2004
FCC Rules That Pulver.com's Free World Dialup Service Should Remain Free From Unnecessary Regulation
The FCC ruled that Pulver.com's Free World Dialup offering will remain a minimally regulated competitive option for consumers. The Declaratory Ruling emphasizes the FCC's long-standing policy of keeping these Internet services free from burdensome economic regulation at both the federal and state levels.

February 12, 2004
FCC Moves to Allow More Opportunities for Consumers Through Voice Services Over the Internet
The FCC initiated a major proceeding to examine opportunities that allow consumers greater choices created by voice services provided over the Internet. It is also designed to provide a measure of regulatory stability to the communications marketplace and to further promote the development of these Internet-based services. The Notice of Proposed Rulemaking recognizes not only that Internet services should continue to be subject to minimal regulation, but also that mechanisms to implement important social objectives, such as public safety, emergency calling law enforcement access, consumer protections and disability access, may change as communications migrate to Internet enabled services.

February 12, 2004
FCC Opens Proceeding to Streamline and Improve Network Outage Reporting
The FCC adopted a notice that proposes to require wireless, wireline, cable, and satellite telecommunications providers to report information electronically to the Commission about significant disruptions to their communications systems. For ease of reporting, the Commission proposed the use of an electronic template that would be used by communications providers to provide the requested information via the Internet. Taken together, these proposed actions would facilitate more reliable telecommunications throughout the United States and promote Homeland Security. This builds on the telecommunications industry's effort to date to improve outage reporting.

February 2, 2004
FCC Releases Tenth Annual Report on Competition in Video Markets
The FCC released the tenth annual report on competition in video markets. This report examines the status of competition, discusses changes that have occurred in the competitive environment over the last year, and describes barriers to competition that continue to exist. This report also examines the status of competition in the market for the delivery of video programming over the past decade and at various intervals in between.

Overall the report finds that, due to technological advances and investment in new platforms for delivering video programming, the vast majority of Americans enjoy more choice, more programming and more services than any time in history. In addition to an increase in the number of video channels, cable operators and other multichannel video programming distribution (MVPD) services also now offer advanced video services and many non-video advanced services. Cable television remains the predominant technology for the delivery of video programming. Ten years ago, cable operators served almost 100% of the nation's subscribers. Today, cable's share has fallen to approximately 75% of all MVPD subscribers.

Direct Broadcast Satellite (DBS) TV service has become the most significant national competitor to cable. Most consumers have the additional choice of at least two national

DBS providers that provide service similar to that of cable operators. DBS now serves almost 22% of all MVPD subscribers.

January 29, 2004
Caller ID Rules for Telemarketers Are In Effect
Beginning on January 29, 2004, the FCC required all telemarketers to transmit caller ID information when making telemarketing calls. Providing this information to those receiving telemarking calls will, in many cases, let consumers know in advance who is calling and allow them to make a do-not-call request, if desired. The Commission's caller ID rules for telemarketers were adopted in July, 2003 as part of its Telephone Consumer Protection Act (TCPA) proceeding. The Commission's rules provide that caller ID information must include either calling party number (CPN) or automatic number identification, and, when available by the telemarketer's carrier, the name of the telemarketer. CPN can include any number associated with the telemarketer or party on whose behalf the call is made, that allows the consumer to identify the caller.

January 27, 2004
FCC Proposes To Fine Clear Channel Communications $755,000 For Apparent Violations Of Indecency and Public Inspection File Rules
The FCC issued a Notice of Apparent Liability for Forfeiture against several subsidiaries of Clear Channel Communications for apparently airing indecent material over several broadcast stations during several days. The Commission proposed the statutory maximum forfeiture of $27,500.00 for each of 26 apparent indecency violations. This forfeiture is the highest ever proposed against a broadcast licensee. The Commission proposed the statutory maximum forfeiture amount because of Clear Channel's history of transgressions relating to the broadcast of indecent material over stations licensed to its subsidiaries.

January 15, 2004
FCC Proposes to Fine WCSS $560,000.00 for "Slamming" Violations
The FCC proposed a forfeiture of $560,000 against World Communications Satellite Systems, Inc. ("WCSS") for apparent violations of the Communications Act and the Commission's rules and orders prohibiting slamming. Slamming is the illegal practice of switching consumers' preferred long distance or other telephone service providers without their consent. After receiving a large number of consumer complaints, the Commission's Enforcement Bureau, along with the Public Utility Commission of Texas, launched an investigation into WCSS's practices. The Commission found that WCSS apparently submitted preferred carrier changes for 10 consumers on 13 occasions without their authorization and verification. The Commission found that in one of those instances, WCSS apparently misled the consumer by asserting that it has a verification tape for the switch when it apparently did not have such a tape. Because of the egregiousness of WCSS's behavior, the Commission proposed a forfeiture of $80,000 for that violation, as compared with $40,000 for each of the other 12 authorized carrier changes. WCSS is a reseller of long distance telephone service, located in Champaign, Illinois. The consumers whose service was switched without authorization are all located in Texas.

December 22, 2003
FCC Releases Data on Local Telephone Competition
The FCC released summary statistics of its latest data on local telephone service competition in the United States. Telecommunications service providers file data on lines in service to end-user customers and mobile wireless telephone subscribership twice a year in the Commission's local competition and broadband data gathering program. Reporting of state-level data is mandatory for carriers with at least 10,000 switched access lines, or at least 10,000 mobile wireless telephone service subscribers, in a state.

End-users customers obtained local telephone service by means of some 155.9 million incumbent local exchange carriers (ILEC) switched access lines; 26.9 million competitive local exchange carriers (CLEC) switched access lines, and 147.6 million mobile wireless telephone service subscriptions.

Nationwide, mobile wireless telephone subscribers increased 6% during the first six months of 2003 from 138.9 million to 147.6 million. During the full twelve month period (ending June 30, 2003), mobile wireless subscribers increased by 13%.

December 22, 2003
FCC Released Data on High-Speed Services for Internet Access
The FCC released summary statistics of its latest data on the deployment of high-speed connections to the Internet in the United States. Facilities-based service providers file data with the FCC on the amount of high-speed connections in service twice a year pursuant to the FCC's local competition and broadband data gathering program. The FCC adopted the local competition and broadband data gathering program in March 2000 to assist the FCC in its efforts to monitor and further implement the pro-competitive, deregulatory provisions of the Telecommunications Act of 1996. The FCC uses data from this effort to evaluate the deployment of advanced telecommunications capability.

High-speed lines connecting homes and businesses to the Internet increased by 18% during the first half of 2003, from 19.9 million to 23.5 million lines, compared to a 23% increase, from 16.2 million to 19.9 million lines, during the second half of 2002. For the full twelve month period (ending June 30, 2003), high-speed lines increased by 45%.

Of the 23.5 million high-speed lines, 16.3 million provided advanced services. Advanced services lines increased 32% during the first half of 2003, from 12.4 million to 16.3 million lines. For the full twelve month period (ending June 30, 2003), advanced services lines of all technology types increased by 56%.

High-speed connections in service over asymmetric digital subscriber line (ADSL) technologies increased by 19% during the fist half of 2003, from 6.5 million to 7.7 million lines, compared to a 27% increase, from over 5.1 million to 6.5 million lines, during the preceding six months. For the full twelve month period (ending June 30, 2003), high-speed ADSL increased by 50%.

November 13, 2003
FCC Begins Inquiry and Proposed Rulemaking Regarding "Interference Temperature" Approach for Interference Management
FCC adopted a Notice of Inquiry and Notice of Proposed Rulemaking that sets forth and seeks comment on a possible new way to qualify and manage interference among different services. Termed "interference temperature", this model for addressing interference takes into account the actual cumulative radiofrequency energy from transmission of spectrum-based devices, and would set a maximum cap on the aggregate of these transmissions. In contrast, the current approach for managing interference focuses on specifying and limiting the transmit powers of individual spectrum-based devices as the chief way to prevent interference. The "interference temperature" approach may facilitate more intensive use of the radio spectrum, creating the opportunities for new services and improving the predictability of any interference to existing services.

November 13, 2003
The FCC Adjusts Universal Service Rural Health Care Rules to Broaden the Benefits of Telemedicine Program
The FCC adopted new rules to improve the universal service program for rural health care providers. The program helps rural health car providers obtain access to modern

telecommunications and information services for medical and health maintenance purposes. The six-year-old program provides discounted telecommunications services to rural health care providers at rates equal to the rates charged for similar services in urban areas.

November 13, 2003
FCC Expands E911 (Emergency Calling) Rules
The FCC adopted an Order and Second further Notice of Proposed Rulemaking revising the scope of its Enhanced 911 (E911) rules and clarifying which technologies and services will be required to transmit E911 location information to public safety answering points (PSAPs), Phase I of E911 requires carriers, upon the request by a local PSAP, to report the telephone number of a wireless 911 caller and the location of the antenna that received the call. E911 Phase II requires wireless carriers to provide the precise location of a 911 caller within 50 to 100 meters. The FCC established a four-year Phase II deployment schedule for carriers, beginning in October 2001 and to be completed by December 31, 2005.

November 13, 2003
FCC Makes Additional Spectrum Available for Unlicensed Use
The FCC made available an additional 255 megahertz of spectrum in the 5.470-5.725 GHZ band for unlicensed devices. The additional available spectrum for U-NII (Unlicensed National Information Infrastructure) devices will enable continued growth and innovation in wireless broadband services, including services offered by wireless internet service and underserved areas. Although they are a relatively nascent industry, their deployment rates have been increasing rapidly.

November 10, 2003
FCC Clears Way for Local Number Portability Between Wireline and Wireless Carriers
The FCC reaffirmed that wireline carriers must port numbers to wireless carriers under its current rules. The Order provides guidance to the wireless and wireline industries on issues related to "intermodal" local number portability. The FCC clarified that porting from a wireline carrier to a wireless carrier is required where the requesting wireless carrier's coverage area overlaps the geographic location in which the wireline number is provisioned, including the rate center to which the phone number is assigned.

October 16, 2003
FCC Adopts Third Generation ("3G") Rules Making 90 MHz of Spectrum Available for Broadband and Advanced Wireless Services
The FCC advanced its efforts to provide new and existing wireless operators with additional spectrum resources and issued rules that will enable wireless providers to offer an array of innovative products and services, including wireless broadband Internet access. This action provides service rules for the 1710-1755 MHz and 2110-2155 MHz spectrum bands. As determined by the FCC in November 2002, these bands can be used to offer a variety of new and advanced wireless services, including voice, data, and broadband services-popularly referred to as third generation, or "3G", services- using high-speed fixed and mobile networks.

October 16, 2003
The DTV Transition Moving Forward
FCC said that the transition to digital television is moving forward as 1,061 TV stations, representing 81 percent of all commercial stations, are currently on the air with a DTV signal. The FCC noted that broadcast stations have made significant progress and that most of the remaining stations, have stations that filed a request for a third extension. Of these, the FCC granted 104 stations with an additional six months to begin broadcasting a digital signal. Seven stations were denied extensions and issued letters of admonishment.

October 8, 2003
Global Crossing Transaction Approved
Global Crossing received approval to transfer control of its FCC authorizations and licenses to GC Acquisition Limited (New GX). In a joint decision, the International Bureau, Wireless Telecommunications Bureau and Wireline Competition Bureau found that granting this application would be in the public interest, subject to certain conditions. Global Crossing subsidiaries hold FCC domestic and international Section 214 authorizations, interests in submarine cable landing licenses and certain radio licenses. Through its subsidiaries, Global Crossing, which is organized under the laws of Bermuda with principal offices in New Jersey, owns and operates a global fiber optic network that provides, integrated telecommunications services. The Bureaus found that the continued operation of the Global Crossing subsidiaries will benefit competition by preventing discontinuance of service and providing customers choices among providers of telecommunications.

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Singapore's Policy and Regulatory Update

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Plenary agenda item :

Plenary

Submitted by:

Singapore

Singapore's Policy and Regulatory Update

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APEC Telecommunications and Information Working Group
29th Meeting | 21-26 March 2004 | Hong Kong, China

REVIEW OF THE TELECOM COMPETITION CODE

To further enhance competition in Singapore's telecom market, the Infocomm Development Authority of Singapore (IDA) is currently reviewing the Telecom Competition Code. First introduced in September 2000, the Code sets out competition guidelines with the aim of accelerating competition in a liberalized telecom market. IDA expects to complete the review of the Telecom Competition Code in mid 2004.

This first triennial review of the Code is aimed to ensure its relevance in today's market environment. The proposed revisions will result in less regulation in market segments that have competition, and to enhance competition in segments that have yet to achieve effective competition.

In market segments where there is competition, IDA will scale back its regulatory role. Key revisions proposed by IDA include taking a less prescriptive approach towards consumer protection. For example, telecom licensees will have the flexibility in how to collect customer information, but will still be required to obtain customer consent prior to usage. Other proposed revisions include relaxing advertising rules so that licensees have increased flexibility to market their services and equipment, and allowing non-dominant licensees to resolve disputes through commercial negotiations. The approach adopted is to rely more on market forces and industry self-regulation, as these are more effective in sustaining competition in the long term.

However in markets segments that are not effectively competitive, IDA will continue to monitor developments and maintain regulatory oversight. This is to ensure that strategic areas or facilities essential for competition will be accessible by competing players.

In addition, IDA is also proposing modifications to the Code, such as reviewing the definition of a dominant licensee to one which has control over telecom facilities that are costly or difficult to replicate, or has the ability to restrict output or raise prices above competitive levels. This proposed revision would be in line with international practices. Another proposed refinement to the Code is specifying the process licensees follow to request reconsideration of IDA's decisions. This will increase clarity for licensees.

Details of the proposed revisions to the Code are in IDA's Telecom Competition Code Consultation Document. This is available from the IDA website at http://www.ida.gov.sg, under the "Policy & Regulation/Consultation Papers" section.

REVIEW OF THE ELECTRONIC TRANSACTIONS ACT

IDA and the Attorney-General's Chambers (AGC) are in the process of conducting a review of the Electronic Transactions Act (ETA)[1] and the Electronic Transactions (Certification Authority) Regulations ('CA Regulations'). This review aims to keep Singapore's e-commerce legislation relevant and robust. Proposed revisions will fine-tune the ETA and align the ETA to international developments and on-going work by the E-Commerce Working Group of the United Nations Commission on International Trade Law.

As the first stage in a three-stage public consultation exercise that will be carried out over the course of the year, IDA and AGC have issued a joint consultation paper on 19 February on electronic contracting issues. The second stage will address exclusions from the ETA and the third stage will focus on secure electronic signatures and certification authorities. The issuance of these joint consultation papers is part of on-going efforts to provide a platform for industry and members of the public to share their views, to take into account industry trends and developments.

IDA and AGC target to conclude the review of the ETA by the first quarter of 2005.

STREAMLINING OF TYPE APPROVAL PROCESSES FOR TELECOM EQUIPMENT

As part of its effort to facilitate market access for telecommunication equipment suppliers, IDA has simplified its approval processes for two categories of telecom equipment - low power radio devices and high power analogue radiocomm equipment on 15 December 2003. With this move, it will be faster, cheaper and more transparent for telecom equipment to be approved and licensed for sale and local use.

IDA's type approval and licence application processes were also recently awarded the ISO 9001:2000 Quality Management System certificate. This certificate is awarded for organisations that have implemented business systems that assure quality, consistency and transparency in its services to its customers.

With the move to relax type-approval requirements, low power radio devices presently under the Type Approval Scheme will come under a simplified Equipment Registration Scheme. The change means that suppliers only need to register the equipment with IDA and declare conformity with IDA's stipulated technical regulations. As such, suppliers no longer have to submit test reports and the manufacturer's declaration of conformity before their

[1] The Electronic Transactions Act (ETA) was enacted in July 1998 to create the legislative framework for electronic transactions in Singapore. The Act gives legal recognition, predictability and certainty to transactions on the Internet and facilitates electronic-commerce. It provides for the legal recognition and usage of electronic signatures and electronic records, and also covers the duties of certification authorities, duties of subscribers and the regulation of certification authorities.

equipment can be approved. This allows suppliers to get their product to market earlier, at lower costs and with less hassle.

In addition, high power analogue radiocomm equipment, currently under the Equipment Submission Procedure, will no longer need to be submitted to IDA for testing prior to type approval. Such equipment will now fall under the Manufacturer's Declaration of Conformity Procedure. Suppliers and manufacturers can now test their equipment themselves by using accredited laboratories.

With the relaxed requirements, savings are passed on to telecom equipment suppliers. The move will also cut the approval processing time by at least half; from 10 days now for low power radio devices to three days and from 10 days to five days for high power analogue radiocomm equipment.

For further details of the revised infocomm equipment approval schemes and procedures, please refer to IDA's Guide for Approval of Telecommunication Equipment available on the IDA website (http://www.ida.gov.sg) under the sections "Policy & Regulation", "Telecommunications Equipment Standards & Approval".

NEW ALLOCATION OF FREQUENCY FOR RADIO-COMMUNICATION & WIRELESS DEVICES FOR CONSUMERS

To support the growth of Singapore's infocomm market, IDA has allocated the 446 MHz and 5 GHz bands for low-powered walkie-talkies and wireless local area networks (WLANs) respectively. IDA has also reduced its Dealers (Individual) annual licence fee from S$400 per premise to S$250 per premise. These moves are in keeping with Singapore's continued commitment in creating a conducive business environment and to keep abreast of world telecommunication trends.

IDA has allocated the 446.0-446.1 MHz frequency band for low-powered walkie-talkies on a non-interference, non-protected and shared-use basis. The move will allow equipment suppliers to introduce innovative and cost-effective low-powered walkie-talkie into the market. This in turn, will present consumers with a wider choice of devices for their wireless communications needs.

In addition, IDA has increased the bandwidth for WLANs. Previously, only the 5150-5250 MHz and 5725-5850 MHz bands were allocated for WLANs deployment in the 5 GHz band. IDA has now also made the adjacent 5250-5350 MHz frequency band available for WLANs deployment with a power limit of 200 mW (e.i.r.p). Further, WLANs operating in this 5250-5350 MHz bands will be required to implement frequency-sharing mechanisms to prevent interference with other radio services.

Lastly, IDA has also increased the current power limit for the 5150-5250 MHz band from 100 mW (e.i.r.p) to 200 mW (e.i.r.p) to be in line with the recommendations by the International Telecommunications Union (ITU). All in

all, these moves will help to meet the growing demand for wireless LANs in Singapore. The additional spectrum will result in better performance and allow for more flexibility in implementing WLANs.

In addition to the spectrum changes, IDA has also reduced the annual Dealers (Individual) Licence fee by 38% for suppliers dealing in non-type approved telecoms equipment. The move which is effective immediately, translates to total annual cost savings of about S$200,000 for all 1,350 IDA licence-holders. The dealers will only need to pay an annual licence fee of S$250 per premise instead of S$400 previously. The move aims to ease business costs in view of the current economic situation and is part of IDA's regular review to streamline its licensing fee structure.

For more information on Singapore's spectrum allocation, please refer to the IDA website (http://www.ida.gov.sg) under the sections "Policy & Regulation"/ "Spectrum & Numbering" / "Spectrum Information". For more information on Dealers (Individual) licence fees, please refer to the section "Policy & Regulation" / "Licensing" / "More" / "Guidelines on Licensing Schemes" / "Telecommunications Dealers Licence".

SPECTRUM ALLOCATIONS FOR WIRELESS BROADBAND TRIALS AND COMMERCIAL DEPLOYMENT

IDA has allocated the 2.3 GHz and 2.5 GHz spectrum bands for trials and commercial deployment of wireless broadband on 23 February 2004. This move is timely as various wireless broadband technologies are now ready for trial or deployment. When deployed, these new technologies could provide Singapore with an additional broadband infrastructure, thus giving consumers more choices and options when going "broadband".

Companies interested to conduct trials for wireless broadband technologies in Singapore can approach IDA for details. IDA will also be seeking industry and public inputs soon on developments of wireless broadband, to better position Singapore to capture business opportunities in new areas.

NEW PREFIX '8' FOR MOBILE PHONE NUMBERS

As the rapid growth of mobile phone usage is fast depleting the current pool of unused mobile phone numbers beginning with '9' in Singapore, IDA will issue new phone numbers beginning with digit '8' to mobile phone operators by end March 2004 to gear up for the continual growth wireless applications and usage. This new number range will complement the existing mobile phone numbers with prefix '9'.

Currently, there exist only 160,000 mobile phone numbers starting with '9' left, whose usage includes emergency, paging and trunked radio services. The move to introduce mobile phone numbers with prefix '8' will create 10 million new numbers that IDA will gradually distribute to mobile phone operators.

As the new mobile numbers beginning with '8' will work in the same way as existing numbers beginning with '9', users need not change any settings on their mobile phones or purchase new handsets to support the new mobile phone numbers.

附件二

主席報告

APEC TELECOMMUNICATIONS AND INFORMATION WORKING GROUP 29TH MEETING

Draft Chair's Report, Version 1 (May 5, 2004)

INTRODUCTION

Hong Kong, China, hosted the twenty-ninth meeting of the Asia Pacific Economic Co-operation (APEC) Working Group on Telecommunications and Information (TEL). Eighteen economies of the APEC region were represented, including Australia; Brunei Darussalam; Canada; China; Hong Kong, China; Indonesia; Japan; Korea; Malaysia; Mexico; New Zealand; Russia; Singapore; Chinese Taipei; Thailand; United States of America and Viet Nam. Also attending were the Director (Program) of the APEC Secretariat and representatives of five Guests: APLAC, AOEMA, GBDe, INTUG and Macao, China.

Ms. Salma Jalife from Mexico chaired the meeting.

OPENING OF TEL 29

The TEL 29 Meeting was preceded by a number of workshops, meetings and a roundtable:

Sunday, March 21, 2004	Incident Response and Forensics Workshop
Monday, March 22, 2004	e-Security Task Group Meeting
	Regulatory Roundtable – Next Generation Networks
Tuesday, March 23, 2004	MRA Task Force Meeting
	Broadband Workshop
	e-Government Workshop

The first plenary meeting of TEL 29 was opened officially on the morning of Wednesday, March 24, 2004 by Mr. John Tsang, Secretary for Commerce, Industry and Technology from the government of the Hong Kong Special Administrative Region.

In his opening address, Mr. Tsang welcomed all participants to Hong Kong and expressed his wishes for a fruitful meeting. The Secretary also shared some views, particularly relevant to Hong Kong, as food for thought for the discussions at TEL 29. These views were related to three subjects; the first was productivity growth due to the increased use of ICT's. The second, the impact of rapid technological advancements. And the third, the value of mutual cooperation.

On the first subject, he said that the use of ICT's is crucial to enhance productivity and to strengthen business environments. He recognized that this also applies to the public

services, for example, by means of e-government programs. An important challenge is therefore to improve the quality and effectiveness of these programs.

On the second subject, Mr. Tsang noted that with extremely short technological cycles, business models need to be constantly re-invented. Furthermore, policies and regulations require a strong level of flexibility to keep up with the advancements in technology. He described the Digital 21 strategy as an example of how Hong Kong has addressed these rapid technological changes.

Regarding the third subject, Mr Tsang reaffirmed the value of mutual cooperation. He said that TEL 29 should go forward on the promotion of access to ICT's, e-security and e-government initiatives, free trade agreements in the region, mutual recognition arrangements and human capacity building efforts.

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The TEL Chair, Ms. Salma Jalife, thanked the Secretary Mr. Tsang for his opening address. She also thanked Hong Kong, China, for hosting a very well-organized event. She then said that, after almost 15 years of existence, the TEL Working Group is living in some way its adolescence. In its first meeting held in Singapore, only nine member economies, comprising 33 representatives, participated. In TEL 29, there are 18 economies, 5 guest members and more than 300 people participating.

Ms. Jalife praised the fact that, in spite of strong differences in culture, language, history, and geography, TEL members are continuously finding new ways to help their societies communicate better. In fact, TEL economies are perceptively moving from the Asia Pacific Information Infrastructure into the Asia Pacific Information Society. Consequently, in her opinion, TEL 29 initiatives should help to move forward into the next phase of the World Summit on the Information Society (WSIS) and, more importantly, towards the next Ministerial meeting, TELMIN 6.

The Chair thanked again Mr. Tsang and promised him that diversity, creativity and innovation of all participants will result in positive outcomes for TEL 29. The Secretary then departed.

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The Chair introduced the members of the presidium: Program (Director) from the APEC Secretariat, Ms. Monica Ochoa; the Vice- Chair, Dr. Inuk Chung from Korea; and her Assistant, Mr. Pablo Hinojosa. The Chair lamented the absence of Dr. Arnon Tubtiang from Thailand, also Vice-Chair.

A. REVIEW AND ADOPTION OF AGENDA

The Chair opened the floor for comments on the proposed agenda. There were no comments from members and the Agenda was adopted as follows:

A.		Review and Adoption of Agenda
B.		Introductory Remarks
C.		APEC Secretariat Report on APEC Developments
D.		Adoption of TEL 28 Chair's Report
E.	*	Steering Group and Task Group Meetings and Reports
		1.- Business Facilitation Steering Group
		1.1.- Electronic Security Task Group
		2.- Human Resources Development Steering Group
		2.1.- e-Government Workshop
		3.- Liberalization Steering Group
		3.1.- MRA Task Force
		4.- Development and Cooperation Steering Group
F.	*	Discussion/Approval of New Project Proposals/Priority Setting
G.	½	Recent Regulatory and Policy Developments (Presentations by Economies)
H.		Brief Voluntary Statements by Observers and Guests
I.	*	Discussion of Future Meetings – TEL 30; TEL 31; TEL 32; TELMIN 6
J.	*	Other Business

Items with (*) were discussed in the second Plenary meeting on Friday March 26, 2004. Items marked with (½) mean that discussions took place during both Plenary meetings.

B. INTRODUCTORY REMARKS

The Chair, Ms. Salma Jalife, talked about her views on the present and future activities of TEL. Highlights of her discourse are provided below:

➔ *From APII to APIIS*

TEL has to accomplish the transition from an Asia Pacific Information Infrastructure into the Asia Pacific Information Society. TEL should find practical solutions to work in this direction. APEC fora in general and APEC TEL in particular should work with efficiency and excellence to become the model region to follow.

➔ *Executive Committee*

The Executive Committee of TEL consist of a new group of people. These people will share their creativity and experience to allow TEL to achieve its objectives; both taking into account the actions and directions addressed by the Ministers of Telecommunications and also the priorities set up by Leaders to accomplish the Bogor Goals for a liberalized region.

➔ *Work Priorities of Steering Groups*

Convenors of the four TEL Steering Groups need to ensure that the objectives of all of its projects correspond to the recently adopted 11 APEC SOM policy priorites and 4

ECOTECH priorities. Attention should also be given to the conclusion of previous TELMIN directives and plans of action. It is important to find those areas where work will need to be extended. Additionally, Convenors need to encourage reflection in their own Steering Groups on new input for Ministers in terms of a Plan of Action or a Pathfinder initiative with the aim of setting the foundations to enter into the Information Society. The coexistence of Next Generation Networks, Wireless Communications and the Internet together with the traditional circuit switched networks ought to be an important focal point of this reflection.

→ *Dissemination of Information*

Workshops surrounding the program of TEL meetings have proved to be (and will sure continue to be) very useful. However, it is important to find alternative means to disseminate information such as the exchange of experiences through network applications such as Webinars and Virtual Forums. This will help to reduce the costs of the meetings. Efforts to improve the different means of inter-sessional communications should continue, for example, upgrading the process of presenting Regulatory Update Reports.

→ *Cooperation with other Fora*

TEL need to find ways to raise awareness on its work. For example in the WSIS process and the WTO Doha round.

→ *Participation of members*

TEL members need to be conscious to respond to surveys and questionnaires, to update matrixes and databases in order to be able to measure current status and evolution of the APEC region's telecommunications and IT environment. The success of TEL in finding practical solutions to the needs of the region, depends highly on the collection of relevant and accurate information. Without this information it might be impossible to measure the digital divide and to respond to Ministers' appropriately.

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The Chair reviewed shortly the objectives and work done by TEL. A summary of this review is presented in the matrix shown in **APPENDIX I**.

C. APEC SECRETARIAT REPORT ON APEC DEVELOPMENTS

The Chair called upon Ms. Monica Ochoa, Director (Program) from the APEC Secretariat, to review recent developments of APEC. A full copy of her report can be found at Document PLEN/09 and Presentation PLEN/09a.

The Director commenced her presentation by mentioning the new initiatives agreed last year in Thailand in the 11th APEC Economic Leaders' Meeting (11th AELM) and the 15th APEC Ministerial Meeting (15th AMM). These initiatives are inclined towards promoting

free and open trade and investment in the Asia-Pacific region and also include complementary measures related to counter-terrorism.

The Director said that APEC initiated the year 2004 in Chile with the theme "One Community, Our Future". In February-March, Senior Officials decided in Santiago during SOM I, the following eleven annual priorities:

Policy Priorities	Cross-Cutting Priorities
1. Support for the WTO 2. Inclusion of FTAs/RTAs discussions within APEC's work Agenda 3. Implementation of APEC Security Commitments 4. Implementation of the APEC Trade Facilitation Action Plan 5. Finalization and Implementation of APEC Transparency Standards 6. Implementation for the Structural Reform Action Plan 7. Preparations for the Mid-Term Review of the Bogor Goals	8. Capacity Building 9. Development of a Database on Implementation of APEC commitments 10. Interaction with APEC stakeholders 11. APEC Reform

These priorities for 2004 constitute an important criteria for fora to develop and rank funding proposals of APEC projects. Additionally, for CTI and ECHOTECH projects, the following priorities may also apply:

ECOTECH Priorities (agreed by Ministers in October 2003)	**CTI Priorities** (agreed by CTI in February 2004)
1. Integration into the Global Economy; 2. Counter-Terrorism Capacity Building; 3. Promoting the Development of Knowledge-Based Economies; 4. Addressing the Social Dimension of Globalization	1. Support for the WTO; 2. Trade and investment facilitation (including IPR); 3. Implementation of the APEC Transparency Standards; 4. Implementation of Pathfinder Initiatives; 5. Contribution to the APEC Structural Reform Action Plan

The main task for all working groups is to work out specific policies and measures to implement these priorities.

On the subject of management issues, the Director informed about decisions taken in the Budget and Management Committee Meting (BMC) of July 2003. With regards to the Operational Account, she said that for 2004 the budget was US$2 million. Members agreed that they would not consider projects from fora which exceeded 10% of this budget (US$200,000). With regards to the TILF fund, she said that there was no guarantee that the contribution from Japan in 2004 could be maintained at the existing level (#?). Also that Japan invited other member economies to contribute to the Account; however, no new contributors came forward. BMC also indicated that future project proposals will be scrutinized more thoroughly and will be evaluated based on the SOM and CTI priorities.

Continuing on the subject of project funding, the Director said that concurrently with the TEL meeting, the BMC convened in Singapore to decide on urgent projects which were to be implemented after April 2004. The money available in the Operational Account was US$ 125,830 and the money available in the TILF Special Account was US$ 632,223. Those projects which exceeded US$20,000 will had to be sent to SOM for inter-sessional approval. Projects will be ready for implementation by mid to late April 2004.

For 2005 projects, the Director informed that they will be considered by BMC II (24-26 August 2004). Completed and ranked projects from the TEL should be submitted to the APEC Secretariat by Friday, July 30, 2004. The Director would be pleased to comment on projects prior to the deadline.

Other issues that the Director addressed in her intervention were the following:

- Project Overseers are reminded of the need to give adequate time to identify participants and speakers being funded to attend workshops. It can take several weeks to process their travel and for them to obtain visas.

- Project Overseers should contact the Secretariat on a regular basis, at least once every two months for the duration of the project.

- The Evaluation Report should be submitted to the APEC Secretariat within eight weeks of the completion of the project with comments from the forum small group and the Chair/Lead Shepherd.

- The BMC would review the *Guidebook on APEC Projects* in a number of areas

- The new APEC Secretariat website, now conveniently located at www.apec.org, is available for use by APEC fora to communicate the benefits and outcomes of the process to appropriate audiences in member economies.

D. ADOPTION OF TEL 28 CHAIR'S REPORT

Since there were no comments to this document, the Chair's Report from the 28th Meeting of TEL was adopted.

E. STEERING GROUP AND TASK GROUP MEETINGS AND REPORTS

1. Business Facilitation Steering Group (BFSG) Meeting

The Chair asked the BFSG Convenor, Mr. YS Lee, to present his report. A full copy of his report can be found at Document PLEN/28.

The Convenor said that the BFSG meeting was very successful and it encompassed an enthusiastic participation from member economies. He briefly summarized BFSG activities, comprising the eSTG meeting and the CERT workshop. With regards to BFSG on-going projects, he informed that the Steering Group approved with satisfaction nine reports.

No new project proposals were put forward by the BFSG. However, the Convenor requested the organization of a one-day meeting of the eSTG and a one day workshop covering 'wireless security' and 'Computer Security Incident Response Team (CSIRT)' themes, both at TEL 30.

Finally, the Convenor made the following recommendations to the Plenary:

- That all new TEL project budgets seeking APEC funds be reviewed to ensure that the cost of uploading the relevant documents on the TEL website is reflected.

- That TEL, through the TEL Chair's office, should disseminate the results of the project BFSG/10 "e-University Network in HRD for e-Government", by Thailand and PECC, to the HRDWG of APEC.

- That there should be a TEL representation at the 2nd APEC High Level Symposium on e-Government to be held in 2004 in Mexico.

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The Chair, Ms. Jalife thanked the Convenor Mr. YS Lee for his report and confirmed her disposition to participate at the 2nd High Level Symposium in Mexico. Ms. Jalife then invited Mr. David Hickman, Chair of the eSTG, to give a report on his Task Group meeting.

1.1. Electronic Security Task Group (eSTG) Meeting

Mr. David Hickman, Chair of the eSTG, referred to his written report, included in Document PLEN/28, and commenced his oral presentation by mentioning the Incident Response and Forensics Workshop, held on Sunday, March 21, which dealt with issues relating to computer attacks and vulnerabilities, the proactive actions taken by various CERT teams to fight against these attacks, and the forensics methodology and tools to investigate these incidents.

Mr. Hickman also informed about the activities that occurred during the eSTG meeting, such as those related to electronic authentication and security of information and networks.

On the first topic, electronic authentication, Mr. Hickman talked about the progress report of Project eSTG/20 "PKI Interoperability Guidelines", whose aim is to facilitate cross border e-commerce by providing a basis for the legal recognition of electronic signatures from other jurisdictions. He said that it is hoped to have an agreed set of guidelines by TEL 30.

Also on this topic, the Chair of the eSTG alluded to a number of presentations given at the meeting concerning the use and evolution of PKI, electronic signatures and e-certification in different APEC economies.

With regards to security of information and networks, he mentioned that wireless security and Computer Emergency Response Teams (CERT) were given prominence. On the latter, he said that the project of CERT Awareness Raising and Capacity Building has completed initial in-country training in Thailand, Vietnam and the Phillipines. As a result of the allocation of new funds from APEC TILF (and additional resources from the United States), training is now ensured also in Mexico, Peru, Chile and Russia.

Regarding Project ESTG/07 "Cybercrime Legislation and Enfocement Capacity Building", Mr. Hickman indicated that both, a survey and a database have been completed (link?). One-on-one capacity building assistance is planned to four more countries (Thailand, Chinese Taipei, Vietnam and Peru).

Finally, the eSTG Chair reminded the agreement, cited by the BFSG Convenor, to organize in TEL 30 a full-day meeting of the eSTG and a full-day workshop covering 'wireless security' and 'CSIRT'.

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The Chair of the TEL, Ms. Salma Jalife, thanked Mr. Hickman and asked him to clarify if the workshop costs were guaranteed by a sponsor. He answered that the United States will fund the CSIRT workshop, but was not sure about the degree of its support.

2. Human Resource Development Steering Group Meeting (HRDSG)

The Chair of the TEL asked the HRDSG Convenor, Dr. Lang-Chee Chang, to present his report. A full copy of his report can be found at Document PLEN/28.

The Convenor asked the TEL to endorse three new project proposals agreed by HRDSG:

1. Project HRDSG/13, "Regulatory Training Implementation" by Australia, which is seeking US$144,000 from APEC TILF Special Account.

2. Project HRDSG/07, "APEC Telecenter Development Program" by Chinese Taipei, which is self-funded.

3. Project HRDSG/09, "Wi-Fi Connectivity in Rural and Remote Communities: Bridging the Digital Divide" by Canada, seeking US$33,550 from APEC Central Fund.

Also, Mr. Chang requested the preparation of two workshops at TEL 30: a half-day APEC Smart Community Development workshop (proposed by Canada) and a full-day APEC Telecenter Development Program workshop (proposed by Chinese Taipei).

With regards to Project HRDSG/04, "APEC-MRA HRD Project: Training Program Design for Phase II Implementation" by Australia, Mr. Chang said that it is expected to be completed in September 2004.

With regards to Project HRDSG/05 "e-University Network in HRD for e-Government" by Thailand and PECC, the Convenor said that the first activity during 2004 was the e-government workshop at TEL 29. This workshop will be followed by an on-line lecture, supported by JICA.net and destined for Phillipines (July), Indonesia (August), Vietnam (September) and Thailand (later).

To conclude, the Convenor asked other Steering Groups from TEL to provide feedback to Document HRDSG/10 "Matrix of TEL Activities - HRDSG". This matrix is based on the Program of Action of TELMIN 5 and is expected to be submitted for TELMIN 6.

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The Chair of the TEL, Ms. Salma Jalife, thanked Mr. Chang for his report and permitted Prof. Toshio Obi, to give a brief summary report about the Workshop on e-Government, held on Tuesday, March 23.

2.1. Workshop on e-Government

Prof. Obi said that the workshop was very successful. It comprised a full-day of activities and there were 48 participants. It was a very good example of cooperation between different Steering Groups, since both BFSG and HRDSG actively participated in this workshop. There were 11 speakers from different economies.

One of the main conclusions of the workshop was that e-government, together with (killer content) are core competencies of TEL. This working group should become a focal point for the formulation of e-government policies in the APEC region. [?]

Another issue of relevance was the continuity of coordination and cooperation between BFSG and HRDSG to enrich the APEC e-government work program.

Also raised was the need of a systematic CIO regional training program and the future creation of an APEC CIO council meeting.

Such topics as outsourcing, Open Source Software (OSS), accessibility, usability, public-private partnerships, information security, the shift from infrastructure to applications and policy reviews were also discussed during the workshop.

As a final point, Prof. Obi informed that a follow-up e-government workshop will be held in November in Tokyo.

3. Liberalisation Steering Group Meeting (LSG)

The Chair of the TEL asked the LSG Convenor, Mr. Colin Oliver, to present his report. A full copy of his report can be found at Document PLEN/25.

The Convenor thanked the hosts from Hong Kong for the organization of TEL 29. He began his report by saying that the LSG supported the proposal for a workshop on Next Generation Networks (NGN) and requested two half day sessions for the MRA Task Force at TEL. There were no new project proposals from LSG requiring APEC funding.

Regarding the Regulatory Roundtable on Next Generation Networks, held on Monday, March 22, he said that this was a very successful event organized by Hong Kong. The next step would be to take the work addressed at the Roundtable forward by having a workshop at TEL 30. For this workshop, he recommended a less formal approach to facilitate open participation; for example, a classroom style rather than open square setting.

On Document LSG/15 "Progress towards Adopting and Implementig the WTO Reference Paper", he said that a draft report prepared by Canada has been circulated. Economies are requested to verify their information and provide comments to Canada (Susan Johnston) by the end of April, in order for the TEL Chair to submit the report to the Committee of Trade and Investment in mid-May.

On Document LSG/16 "Best Practices to Implementing the WTO Reference Paper Guide", he said that a draft of the paper will be circulated inter-sessionally to all economies for comments, and there will be a discussion at TEL 30. The final document will be presented for discussion and endorsement at TEL 31 and will be presented to TELMIN 6 for ministerial endorsement.

Regarding Project LSG/02a "Stocktake of Progress Toward the Key Elements of a fully Liberalised Telecommunications Sector in the APEC Region" and Document LSG/11 "Liberalization Stocktake – Next Steps", both by Australia, the Convenor said that the purpose is to revisit the *Reference List of elements for a Fully Liberalised Telecommunications Services Sector* adopted by Ministers at TELMIN 2 (1996), to assess its scope an recommend if there are necessary adjustments or additional measures. The LSG agreed that the project, in charge of the Australian APEC Centre, had been successful,

confirming that the key elements are still relevant. LSG also agreed to allow further two weeks for economies to provide additional comments to the report before its publication.

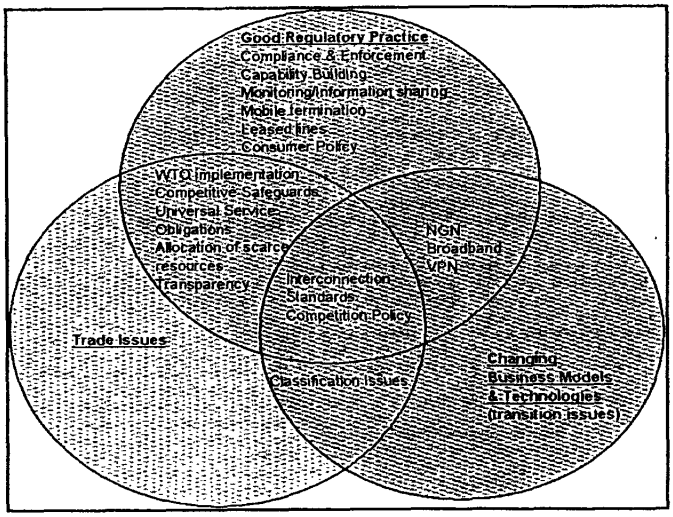
On Document LSG/08 "Effective Compliance and Enforcement – Draft Guidelines and Practices", Mr. Oliver said that the paper is now at an advanced stage. A further draft will be circulated at TEL 30. The final document will be presented for discussion and endorsement at TEL 31 and will be presented to TELMIN 6 for ministerial endorsement.

Based on the proposal from INTUG LSG/03 "Virtual Private Networks – Survey of current Regulation in APEC Economies", LSG agreed to create a short-term Task Group to develop and conduct a survey on VPN regulation in APEC economies. A report will be compiled for TEL 30 and will work as an input for the NGN workshop.

On the information exchange front, the Convenor mentioned an interesting presentation from INTUG and USA about pricing of leased lines (see Document LSG/06). LSG agreed to form a project group to develop a proposal for TEL 30 to advance further on this issue.

Related to the MRA Task Force Meeting, the Convenor reported that there is yet no nomination of a Vice-Chair for this Task-Force. Also Mr. Oliver said that China had made an announcement that it is prepared to implement Phase I in August 2004. Additionally, he briefly reported on the current status of Projects: MRATF/04 "APEC MRA-HRD Training Program Design for Phase II Implementation"; LSG/05 "MRA Management System (MRAMS)"; and the "Standards Equivalence Project".

Figure 1



His final remarks were dedicated to the Collective Actions (Figure 1), which comprise LSG priorities with particular attention to the areas of: a) good regulatory practice, b) trade issues and c) developing business models and technologies. At TEL 29 there was no need

to amend the current LSG Collective Action list; however, it will be reviewed again at the next meeting.

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The Chair of the TEL, Ms. Salma Jalife, thanked the LSG Convenor for his report.

Then China made the comment that it is important to be careful on how to proceed with the subject of NGN's. In its opinion, APEC TEL should not focus too much on this issue since it is not yet sufficiently developed in most economies. The risk with NGN's is to obtain low participation and distract resources from the TEL. In light of the coming TELMIN, the subject of broadband should have more attention.

The Chair of the TEL said that it is important to continue developing new discussions, however, it must be clear that the subject matter of [NGN's] is still in brackets. The TEL should agree in what NGN means and what should be the expectations. After thorough examination, then TEL will decide on the future course of action. For discussions at TEL 30, the Chair suggested to work inter-sessionally in a proper agenda.

3.1 MRA Task Force (MRA-TF)

The Chair of the TEL invited the MRA-TF Chair, Mr. Andrew Kwan, to make complementary remarks with regards to the MRA-TF meeting. A full copy of his report can be found at Document LSG/##.

Mr. Andy Kwan expressed hope that by TEL 30 a proposal will be made to embark into a new MRA. This would be an additional or a second approach to help further the liberalization of trade of telecommunications equipment.

4. Development Co-operation Steering Group Meeting (DCSG)

The Chair of the TEL asked the DCSG Convenor, Ms. Diane Steinour, to present her report.

Ms. Steinour reported that close to 43 delegates attended the DCSG meeting. She informed that there was good cooperation from delegates and that they provided positive feedback to project reports and new proposals. The Convenor gave an account of the following topics: digital divide, broadband, NGN's, and e-inclusion.

On the digital divide topic, three Documents were discussed: DCSG/07 "Matrix of TEL Activities in Support of the Digital Divide Blueprint for Action"; DCSG/08 "Digital Divide Blueprint: External Stocktake" and; DCSG/09 "Monitoring Internet Access". The Convenor asked all economies to pay attention to these documents and provide advice inter-sessionally. As more accurate information and statistics are reflected in these documents, better information will be provided to Senior Officials.

With regards to broadband, the Convenor said that based on the outcomes of the third Broadband Workshop, held on Tuesday, March 23, DCSG approved the creation of a group to draft key principles to promote rapid deployment of broadband. The group will work inter-sessionally and will bring draft principles to DCSG at TEL30 for approval and ultimate adoption by Plenary for the attention of TELMIN6.
Related to the topic of NGN's, DCSG supported two projects including three workshop proposals: i) DCSG/23a: "Asia Pacific Grid Workshop for Building New Regional Cyber-Infrastructure", by Korea, comprising one full-day workshop at TEL 30 and requesting $20,000 USD to host another workshop at TEL 32; ii) DCSG/11, "Killer Applications for APEC IPv6 Environment Project Proposal" by Chinese Taipei, which as component of this project, includes a full-day seminar/workshop at TEL 31 (requesting $20,000 USD in APEC Central Funds).

Also on the NGN topic, DCSG reviewed Document DCSG/27 "Advancing Work on Next Generation Networks", but decided not to endorse a joint workshop at TEL 30 with LSG. The Convenor explained that DCSG believes more exploratory work is needed in a greater level of detail on NGNs, and the two endorsed workshop proposals will promote this exploration. DCSG also will keep holding open and permanent discussions and information exchange on NGNs.

Her final remarks were dedicated to the e-inclusion activity. The Convenor informed that Canada presented a proposal for two workshops at TEL31 and TEL32 (see Document DCSG/15 "APEC e-Inclusion, Bridging the Digital Divide"). However, the DCSG expressed concern that it was not yet familiar with the target audience of the workshops. DCSG decided that Canada and other interested economies will prepare exploratory activities for the TEL30 DCSG information exchange session on this topic and will bring its proposal back to the table for consideration at that time..

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The Chair of the TEL, Ms. Salma Jalife, thanked the DCSG Convenor for her Report. She noted that the agenda of this Steering Group's meeting was very large and therefore appreciated the hard work done by the Convenor and Deputy Convenors. She also understood that some issues in the agenda could not been discharged because of lack of time. Being one of these issues a project report from an APEC funded project, the TEL Chair, due to accountability reasons, allowed time in this unique occasion for presenting this project report during the Plenary session.

Korea (Mr. Taesang Choi, from the Electronics and Telecommunications Research Institute, ETRI) then presented his report on Project DCSG/20, "Flow-based Internet Traffic Measurement and Analysis". This project consists of a system to measure and analyze flow-based Internet traffic. Today it is in its third phase, where a second workshop (first in TEL 28) will be programmed for TEL 30. The final report of the project is expected in October-November of this year.

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Australia (Mr. Colin Oliver), asked Korea (Mr. Taesang Choi) about the potential uses of the project, for example, commercial arrangements. Also it showed interest about security settings.

Korea (Mr. Taesang Choi) said that the project may also be helpful for security purposes and he would like to share an on-line demonstration.

The Chair of TEL said that if there is residual time after the Plenary, then she will consent to this demonstration.

F. DISCUSSION/APPROVAL OF NEW PROJECT PROPOSALS/PRIORITY SETTING

A short presentation was made, comprising new project and new workshop proposals:

New Projects

DCSG	
IPv6 Killer Applications, Chinese Taipei	TA $20,000

HRDSG	
Regulatory Training Implementation, Australia	TA $144,000
WiFi Connectivity, Canada	OA $35,550
APEC Telecenter Development Program, Chinese Taipei	SF

All these projects were approved by the Plenary and will seek a total sum of $164,000 USD from the TILF Account and $35,550 from the APEC Operational Account.

New Workshops

TEL 30		
BFSG	CSIRT + Wireless Security	f-day
BFSG	ESTG Meeting	f-day
DCSG	Regional Cyber-Infrastructure, Korea	f-day
LSG	MRA TF Meeting	2 h-days
HRDSG	Smart Community Development, Canada	h-day
HRDSG	Telcenter Development Program, Taipei	f-day

TEL 31		
DCSG	IPv6 Killer Applications, Chinese Taipei	f-day

TEL 32		
DCSG	Regional Cyber-Infrastructure, Korea	f-day

All these workshops were approved by the Plenary.

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The Director (Program) of the APEC Secretariat, Ms. Mónica Ochoa, made some initial comments on the outcomes of the BMC meeting, held in Singapore in parallel with the TEL meeting (March 24 - 25). She said that all projects seeking TILF funds, should have a substantial element (at least 50%) of self-funding. Also that projects which include an event/meeting element, are restricted by $50,000 USD coming from APEC. There should be a competitive bidding for the venue and efforts to keep hotel costs down. The APEC Secretariat is keen to provide any support to review proposals and accommodate them to the new criteria, in order to put them forward for re-consideration.

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USA (Ms. Elizabeth Shelton) expressed some concerns about the lack of a proper balance between the different proposals agreed by the Plenary. Without having any comment against any project, she proposed to find innovative ways to pair down the cost of the proposals and distribute them more equally between all Steering Groups. She suggested that for the next meeting, TEL should agree on new procedures to allocate funds more equitably.

G. PRESENTATIONS BY ECONOMIES OF THEIR RECENT REGULATORY AND POLICY DEVELOPMENTS

The Chair invited member economies to present brief updates of their recent regulatory and policy developments.

Australia, Phillipines, Hong Kong, China, Brunei, Canada, Korea and Chinese Taipei made short presentations on the first plenary meeting on Wednesday, March 24. New Zealand, United States, Viet Nam, Singapore, Malaysia and Mexico presented their reports at the second plenary meeting on Friday, March 26.

Most economies provided an electronic copy of their reports which have been loaded onto the TEL 29 website.

H. BRIEF VOLUNTARY STATEMENTS BY OBSERVERS AND GUESTS

1.- INTUG

The Chair of the TEL invited Ms. Rosemary Sinclair, representative from INTUG, to present a brief voluntary statement. A full copy of her statement can be found at Document PLEN/21.

Ms. Sinclair said that INTUG is very encouraged by the work of TEL because it is oriented towards the promotion of effective competition in the telecommunications sector. She said that users in the Asia-Pacific region have benefited significantly from TEL in the last 14 years because today there is more choice, greater innovation and better prices.

With regards to broadband, she said that the recent Workshop held on Tuesday, March 23, was excellent. Some of the case studies presented in this workshop reflected interesting issues from the end-users' perspective. She suggested the creation of a database on broadband contemplating statistics from different services (DSL, cable, fiber to the home and wireless), such as speed's availability, prices charged and the provision mode (business, residential).

Crucial for the provision of broadband services is the supply of national and international leased lines. INTUG strongly encouraged economies to take steps to measure the performance of incumbent operators in their provision of leased lines. This is necessary in order to ensure that they are provided in a non-discriminatory manner, including price.

On the topic of mobile services, Ms. Sinclair informed about a recent position paper by INTUG aimed to help companies reduce their spending on charges for international roaming charges. Additionally, she encouraged all economies to ensure that prices for termination of calls to mobile networks be cost-oriented. Where competition has not achieved this, then regulatory measures are necessary.

Finally, Ms. Sinclair said that INTUG will continue to work with OECD, the European Union, ITU and CITEL to improve regional cooperation and international understanding of the nature of the telecommunications industry for the benefit of users.

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The Chair of the TEL deeply appreciated the input from INTUG. She observed that most of their proposals somehow deal with the need to gather relevant information and measure different telecommunication services. She acknowledged that having good databases and statistics of services, costs and regulatory regimes is an important opportunity area for the TEL. She encouraged all the Convenors to introduce these ideas into the work of their own Steering Groups.

2.- GBDe

The Chair of the TEL invited Mr. Tomohiko Yamakawa, representative from GBDe, to present a brief voluntary statement.

Mr. Yamakawa introduced two documents related to the CEO GBDe Summit held in New York in November 2003 (PLEN/07 and PLEN/08). This summit entailed discussions between governments, businesses, consumers and international organizations. The main topics were: emerging trends, information society vision and future work of GBDe. Recommendations had been agreed on six issues: Internet payments, unsolicited electronic communications, ADR and trustmarks, future of the Internet, broadband, cybersecurity and RFID.

Mr. Yamakawa also spoke on the inevitability of convergence and it's various dimensions. He recalled, for example, Document BB/02, "The Ubiquitous Society", presented by Japan in the Broadband Workshop.

Finally, GBDe spoke on its intention to introduce a proposal in eSTG for a half-day workshop on e-commerce.

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The Chair of the TEL welcomed GBDe's initiatives and wished for a further exchange of ideas. She recommended Mr. Yamakawa to discuss his workshop proposal within the BFSG.

Japan (Mr. Eiji Makiguchi) appreciated the statements made by guests and also recognized the importance of including the private sector, for example, GBDe, in the organization of workshops.

3.- APLAC

The Chair of the TEL invited Mr. John Mitchell, representative from APLAC, to present a brief voluntary statement. A full copy of his statement can be found at Document PLEN/20.

He commenced his intervention by noting that few people are conscious of the nature and activities of a laboratory accreditation. He said that a key aim of APLAC is to minimize the volume of testing that is necessary for manufacturers to market their products in the APEC region. One of the most significant influence of APLAC in TEL has been the development of a Mutual Recognition Arrangement between accreditation bodies. He said also that APLAC has been the first sponsor of the MRA Management System and invited others to join this effort as well.

4.- AOEMA

The Chair of the TEL invited Mr. Yuichi Tosaki, Vice-Chairman of AOEMA, to present a brief voluntary statement. A full copy of his statement can be found at Document PLEN/19.

The representative spoke on the importance of SME's and how they can develop an efficient communications strategy. For this to happen, he said that it is important to count on good advice, first, on the options and implementation strategies, and second, in security matters. He confirmed that AOEMA is committed to help TEL to provide this advice through training, education and awareness-raising strategies.

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Ms. Salma Jalife joined AOEMA in stressing the significance of SME's and thanked its support to TEL.

5.- Macao, China

The Chair of the TEL invited Mr. Vai Hong Fong, representative from Macao, China, to present a brief voluntary statement. A full copy of his statement can be found at Document PLEN/22.

He thanked TEL for the renewal of Macao's guest status, and presented a brief update considering recent developments in the regulatory front.

6.- PECC

The Chair of the TEL invited Mr. David Parsons, representative from PECC, to present a brief voluntary statement.

He informed that PECC was given the task by SOM to monitor and assess the implementation of the e-APEC Strategy. The assessments of this strategy will be reported to SOM and various Ministerials. He invited TEL to consider some issues such as: security and trade, e-government, information economy and human capacity building. Any information that TEL could give in these lines will be must welcome. Specially useful would be the provision of case studies (stories of success), in different APEC economies, which could be included in the document that is being prepared by PECC.

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The Chair of the TEL thanked PECC for its contribution and encouraged Steering Groups to contribute to the e-APEC Strategy.

I. DISCUSSION OF FUTURE MEETINGS – TEL 30; TEL 31; TEL 32; TELMIN 6

Singapore (Mr. Muhd Hannafiah) confirmed that the next TEL meeting will be held from the 19th to the 24th of September in the Singapore International Exhibition and Convention Center.

The Chair of the TEL, Ms. Salma Jalife, said that she is expecting an official confirmation of the host for TEL 31.

Korea (Dr. Inuk Chung) informed that this economy will be very glad to host TEL 32. Dates and venue will be announced soon.

Regarding the next ministerial meeting, TELMIN 6, the Chair of the TEL informed that she is still discussing the issue with three potential economies which will probably host this important meeting. As soon as she has confirmation of one of these economies, she will let all know.

J. OTHER BUSINESS

Dr. Inuk Chung, Vice-Chair of the TEL, made some remarks on the progress and endeavors of the working group. He said that the Chair, Ms. Salma Jalife, has been working hard to secure a host for TELMIN 6. In the meantime, he encouraged each of the Steering Groups to start preparing for this event and work on identifying roadmaps for the future.

Dr. Chung moved for an improvement of the mechanisms to propose projects in TEL. He proposed to give the procedures more consistency, formality and efficiency. Also he asked all economies to submit new project proposals in advance of the meetings, in order to have sufficient time to review them and make proper consultations.

Regarding TEL Website, the Vice-Chair said that in spite of having two big sponsors, there are still additional slots available for sponsorship. He reminded also that it is necessary to include the cost for the uploading into the website in all projects.

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The Chair of the TEL thanked the Vice-Chair and complemented his remarks by establishing the following priorities for the setting of the agendas of each of the Steering Groups, Task Forces and Task Groups:

Priorities for setting SG, TF and TG Agendas	
FIRST	Progress Reports from On-going Projects
SECOND	New Project Proposals (with proper format)
THIRD	Discussions, Information Exchanges, etc.

She also spoke on the need to improve the procedure of submission and consultation of Regulatory Updates. This will be worked inter-sessionally.

Then she congratulated the Executive Committee for its hard work and thanked all the economies for their participation.

As her last remark, she expressed sincere appreciation to Hong Kong, China, for successfully hosting TEL 29. She thanked the Commerce, Industry and Technology Bureau (CITB) and the Office of the Telecommunications Authority (OFTA) for their support for hosting this meeting.

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The meeting adjourned at 13:00 hrs. on Friday, March 26.

APPENDIX 1.- MATRIX OF TEL OBJECTIVES, STRATEGIES AND ACTIONS

Objective	Strategies	Actions
INFRASTRUCTURE		
1. Development of advanced, secure and reliable Information Infrastructure, specially in remote and rural areas.	▪ Provide access at affordable prices ▪ Monitor ICT access ▪ Alternative policies and technologies	Broadband workshops, digital divide monitoring, statistics, CERT and legal frameworks.
2. Encouraging greater buildout of the Internet	▪ NAPs ▪ Broadband accessibility, availability and use	APII Cooperation Center, APII Technology Center, Development and Financial Resources Catalogue, Spectrum Policy and Management Database, Asia Pacific Grid Implementation Project, IP based WLL to bridging the Digital Divide in rural areas
3. Examining the impact of the Internet and broadband accessibility, availability and use on the economy.	▪ Particularly on SMEs	Broadband workshops, Regulatory Roundtable on NGN, Monitoring Internet Access, Technical Support to SMEs, SME Internet Safety Training Program.
4. Facilitating R&D activities and analyses.	▪ Technologies and applications to meet ICT needs ▪ Timely implementation and wide application of next generation technologies	Advanced Satellite Test-bed project, APII IPv6 R&D Test-bed project, APII Test-bed project, Test-bed service IPv6
5. Strengthening its participation and cooperation with the private/business sector.	▪ Development of information communication infrastructures and services ▪ Attention to appropriate standards for enhanced access, productivity, interoperability and security	MRA initiatives, Community Based Networking, Strategic Partnership, Global B2B interoperability

APPENDIX 1.- MATRIX OF TEL OBJECTIVES, STRATEGIES AND ACTIONS

Objective	Strategies	Actions
6. Promoting further the cooperation among governments, businesses, academic communities and social institutions in meeting these challenges.		Technology Center, APII Cooperation Center, Development and Financial Resources Catalogue, e-University Network in HRD for e-Government, Awareness Seminars, e-Government from a users perspective, e-mail practices for a Culture of Security-Safety Mail.
7. Implementation of NGN technologies	▪ Collaborative action	Regulatory Roundtable NGN

TELECOMMUNICATIONS AND INFORMATION POLICIES AND MARKET REGULATION		
1. Study further the challenges and implications of convergence.	▪ Exchange information on experience and practical responses to convergence	Regulatory Roundtables, Regulatory structure projects. Effective compliance and enforcement.
2. Commitments to the new WTO round.		Liberalization stocktake study and workshop, WTO workshops, WTO Reference Paper implementations,
3. Encourage adoption of commercially based and equitable arrangements for Internet connectivity.	▪ ICAIS related issues	Flow-based Internet traffic studies
4. Facilitate the implementation of Interconnection Principles		Interconnection training project
5. Continue the dialogue among policy makers and/or regulators	▪ Interconnection, NGN's, wireless, broadband	Regulatory Roundtables
6. Implement MRA on APEC-wide basis and develop MRA Management System	▪ Principles on the application of standards and regulatory arrangements	Guide and Management Tools for the MRA, Supplier Declaration of Conformity, Good Regulatory Practices for the development of Mandatory Telecom Standards, Regulations and Requirements, Comparison of the Equivalency of Selected Telecom Standards, MRA Management

APPENDIX 1.- MATRIX OF TEL OBJECTIVES, STRATEGIES AND ACTIONS

Objective	Strategies	Actions
		System, Proposed MRA on Telecom Equipment Standards and Requirements
7. Cooperation with other fora in related e-commerce policy issues	▪ Good practices . ▪ Establish trusted and transparent legal and regulatory framework for e-commerce ▪ Online information and transaction services offered by governments to be accessed by businesses and citizens	Collaboration with OECD on trust agenda issues, GBDe, AOEMA, e-government work workshop, seminar and program

INFORMATION COMMUNICATION AND NETWORK SECURITY		
1. Implement recommendations contained in resolution 55/63 UNGA	▪ Statement by ministers on the security of information and communication infrastructures	Work Program on cybersecurity and cybercrime (eSTG), Workshop on Legal frameworks combating cybercrime
2. Expand the scope of TEL's e-security activities	▪ Voluntary transfers of technologies	APEC Cybersecurity Strategy, Wireless Security, CERT, Forensics and Incident Reporting Workshop, Cybercrime legislation survey and database, CERT Capacity Building project, Cybercrime legislation and enforcement capacity building, one-on-one capacity building assistance
3. Framework for electronic authentication interoperability	▪ Electronic authentication and signatures	User of biometric applications, PKI interoperability guidelines, TEL-ESSI joint meeting, electronic signatures in e-trade, OECD implementation plan for OECD guidelines for the security of information systems and networks, OECD Global Forum on Information Security

APPENDIX 1.- MATRIX OF TEL OBJECTIVES, STRATEGIES AND ACTIONS

Objective	Strategies	Actions
HUMAN CAPACITY BUILDING		
1. Implement the Digital Divide Blue Print for Action		APII Technology Center, Active Partnerships for Internet Access program, Awareness Seminars
2. Cooperation among governments, businesses, educational and social institutions in human resource training	▪ Maximize existing training resources of apec economies ▪ Other regional for a and international bodies ▪ Gender and youth perspective ▪ Human capacity building ▪ Specifically addressing concerns of developing economies	e-government from a users perspective, awareness seminars, e-mail practices for a culture of security-safety mail, e-government work program, global B2B interoperability, e-University Network in HRD for e-Government,etc
3. Promote e-commerce related training programs and distance learning using ICT		e-University Network in HRD for e-Government, TEL e-commerce skills standard project, SME Internet Safety Training Program, Human Resource Development program of APII Cooperation Center, Vendor Training Material Database and Information Technology Awareness, Training and Education Materials, EduPACT an alliance for IT literacy and skills development, IT Security Training Material Project
4. Support training activities that assist member economies to develop pro-competitive regulatory frameworks		Liberalization Stocktake training, Regulatory Training Design Project, APEC-MRA HRD project for Phase II implementation.