參加亞太經濟合作(APEC)電信暨資訊工作小組
第二十三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	副局長	高凱聲
交通部電信總局	副處長	郭清福
交通部電信總局	簡任技正	許錫蘭
交通部電信總局	科長	瞿嘯文
交通部電信總局	技正	梁伯州
交通部電信總局	專員	盧美滿
行政院NII推動小組	副主任	蔡文振
行政院經濟建設委員會	專員	汪宗煌
台灣區電機電子工業 同業公會	副總幹事	陳文義
經濟部商業司	研究員	李淑燕
工研院電通所	組長	林宗葆
中華民國實驗室認證體系 秘書處	組長	周念陵

出國地點：澳洲坎培拉市
出國期間：九十年三月九日至十七日
報告日期：九十年四月十九日

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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二十三次會議(APEC TEL 23 Meeting)
2 會議日期	90 年 3 月 11-16 日
3 會議地點	澳洲坎培拉市(Canberra, Australia)
4 出席經濟體別及秘書處人員姓名、職銜	計有二十一個經濟體之代表、APEC 秘書處計畫主任(Program Director)、一位觀察員（太平洋經濟合作理事會(PECC)）、及三位賓客（亞太實驗室認證聯盟 APLAC、亞洲大洋洲電子信息協會 AOEMA 及哥倫比亞 Columbia)參加會議。
5 會議主席及主導成員（Lead Shepherd）姓名、職銜	Ms. Valerie D'Costa，新加坡資訊通信發展局（IDA）副處長
6 我國出席人員姓名、職銜	交通部電信總局　　　　　　　　高副局長凱聲 交通部電信總局　　　　　　　　郭副處長清福 交通部電信總局　　　　　　　　許簡任技正錫蘭 交通部電信總局　　　　　　　　瞿科長嘯文 交通部電信總局　　　　　　　　梁技正伯州 交通部電信總局　　　　　　　　盧專員美滿 行政院經濟建設委員會　　　　　汪專員宗煌 行政院 NII 推動小組　　　　　　蔡副主任文振 經濟部商業司　　　　　　　　　李研究員淑燕 台灣區電機電子工業同業公會　　陳副總幹事文義 中華民國實驗室認證體系秘書處　周組長念陵 工研院電通所　　　　　　　　　林組長宗葆 NII 產業發展協會　　　　　　　陳經理怡湞 台灣大哥大股份有限公司　　　　劉處長立三

和信電訊股份有限公司	黃協理世岱
和信電訊股份有限公司	洗協理伯昌
東森寬頻電信股份有線公司	周經理秀芳
新世紀資通股份有限公司	郭協理明琪
遠傳電訊股份有限公司	施副總經理義忠
遠傳電訊股份有限公司	喻副總經理芝蘭
遠傳電訊股份有限公司	尤協理琦

7 會議議程項目內容	一、議程之檢討與定案
	
	二、開幕致詞
	
	三、APEC 第十二屆部長會議、第七屆領袖會議
	第一屆資深官員會議、無紙化貿易研討會
	及聯合論壇會議報告
	
	四、電信暨資訊工作小組檢視之後續事宜
	
	五、新副主席選任程序之討論
	
	六、PECC-APEC-企業/私人部門對話
	
	七、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
	
	八、討論/通過新計畫提案/排定優先順序及其
	他預算管理事宜
	
	九、各經濟體報告最近監理政策發展
	
	十、觀察員及賓客發言
	
	十一、討論下次會議及其他事項
	
	十二、電信暨資訊工作小組主席及副主席之交接
	
	十三、主席報告之檢討與定案

8 重要討論及決議事項	1. 電信工作小組更名案經資深官員會議通過，確定改為「電信暨資訊工作小組（Working Group on Telecommunications and Information）」，縮寫 TEL 維持不變。 2. 通過下列計畫尋求 APEC 基金補助： （1）韓國之「APEC 測試基台及簡化商用網路最佳分佈計畫」（美金 19,000 元） （2）韓國之「基本電信技術遠距教學計畫」（美金 19,000 元） 3. 暫訂下列研討會與 TEL24 會議併同舉行： 電子安全專案小組會議（一日） 數位落差研討會（半日） 電信設備相互承認協定專案小組會議（一日） 電信設備相互承認協定聯合諮詢會議（半日） 網際網路議題專案小組會議（半日） 4. 舉行電信暨資訊工作小組主席交接，由副主席澳洲籍 Mr. Richard Thwaites 接任主席，墨西哥籍 Ms.Sallma Jaliffe 擔任副主席。 5. 電信暨資訊工作小組第 24 次會議預訂於 2001 年 9 月 17-21 日在韓國濟洲島(Jeju)舉行。
9 中共、香港之發言及提案情形	無

10 我國應配合辦理之工作與分工	A、共同推動之計畫	1. 持續推動電信自由化。 2. 擔任合作開發指導分組召集人。 3. 參與數位落差(Digital Divide) 及網際網路議題專案小組(IITG)之研究活動。

	B、相關會議	第五屆電信暨資訊部長會議預定於 2002 年 5 月在中國大陸舉辦。			
	C、政府機構應推動工作	議題一	持續推動電信自由化。	相關單位	交通部電信總局
		議題二	鼓勵民間部門積極參與電信基礎建設。	相關單位	交通部電信總局、行政院 NII 推動小組。
	D 其他民間機構應推動工作	議題三	積極參與電信基礎建設。	相關單位	電信業者
11 是否召開協調會議推動	否				
12 備註：					

目錄

APEC 第二十三次電信暨資訊工作小組會議

壹、會議地點

澳洲坎培拉市

貳、各經濟體與會員代表

共有二十一個經濟體（澳大利亞、汶萊、智利、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、巴布亞紐幾內亞、秘魯、菲律賓、俄羅斯、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)、以及三位賓客(亞太實驗室認證聯盟 APLAC、亞洲大洋洲電子信息協會 AOEMA 及哥倫比亞 Columbia)之代表參與。

參、會議主席

由新加坡資訊通信發展局副處長 Ms. Valerie D'Costa 擔任主席。

肆、大會

一、會議議程

(一)、 議程之檢討與定案

(二)、 開幕致詞

(三)、 APEC 第十二屆部長會議、第七屆領袖會議第一屆資深官員會議、無紙化貿易研討會及聯合論壇會議報告

(四)、 電信暨資訊工作小組檢視之後續事宜

(五)、 新副主席選任程序之討論

(六)、 PECC-APEC-企業/私人部門對話

(七)、 各指導分組會議及報告

　　　 1、商務便捷化指導分組

２、合作開發指導分組

３、人力資源發展指導分組

４、自由化指導分組

（八）、　討論/通過新計畫提案/排定優先順序及其他預算管理事宜

（九）、　各經濟體報告最近監理政策發展

（十）、　觀察員及賓客發言

（十一）、　討論下次會議及其他事項

（十二）、　電信暨資訊工作小組主席及副主席之交接

（十三）、　主席報告之檢討與定案

二、開幕致詞

APEC 電信暨資訊工作小組（以下簡稱 TEL）於 2001 年 3 月 13 日晚上舉行開幕式，由澳洲通信資訊工業及藝術部秘書長 Ms. Fay Holtyuyzen 代表該部部長致歡迎詞，並於次日賡續展開大會各項議程。

主席在會中介紹新上任之 APEC 秘書處計畫主任 Mr. Chutinton Gongsakdi，並祝其任職期間順利成功。主席繼而感謝澳洲主辦本次 TLE 會議。

主席表示，TEL 為遵循電信暨資訊部長們在坎昆宣言中所為指示，於 TEL22 會議時提出 TEL 活動矩陣表(the Matrix of TEL Actitivities)，以供 TEL 持續聚焦於重點工作上，該距陣表屬活文件(living document)，將持續有效。

主席提及 TEL 更名案，表示該建議案已獲資深官員會議認可，故 TEL 確定更改名稱為「電信暨資訊工作小組(the Working Group on Telecommunications and Information)」（縮寫 TEL 維持不變）以反

映 TEL 日益擴大之任務範圍。

在 APEC 組織中，許多由 TEL 負責檢視之議題目前已成為其他論壇之焦點，主席表示 TEL 將尋求與其他論壇（如電子商務指導小組、電子 APEC 專案小組等）之合作途徑，以減少工作上之重疊。

本次 TEL 大會併隨舉行多項講習會、研討會及專案小組會議，有關 TEL 此番囊括眾多議題，是否能吸引更多經濟體之代表與會，主席請大家提供意見。

本次會議另一重要事項為主席職位之交接及新副主席之選派，主席請加拿大 Ms. Kathy Fisher 就選派新副主席乙事與團長會議接洽協調。至於各指導分組之現任召集人則將在 TEL24 會議結束之際卸任，並由副召集人接任，主席亦請各經濟體在未來六個月內考量擔任新副召集人一職。

三、APEC 第十二屆部長會議、第七屆領袖會議、第一屆資深官員會議、無紙化貿易研討會及聯合論壇會議報告

繼上次 TEL22 會議及電子商務指導小組(以下簡稱 ECSG)會議之後，共舉辦下列數項重要之相關會議：2000 年 11 月在汶萊舉行之第八屆經濟領袖會議(AELM)、第十二屆 APEC 部長會議(AMM)、以及本年 2 月在中國大陸北京舉行之 2001 年第一屆資深官員會議(SOM 1/2001)。

目前「領袖會議及部長會議工作說明矩陣表(matrix of the AELM/AMM Tasking Statements)」登載於 APEC 秘書處之網站(www.apecsec.org.sg)，其中與 TEL 及 ECSG 有關之事項計有電信暨資訊部長會議、部門別部長會議倡議之推動、新經濟、電子商務、資訊及通信技術(IT)、開放式經濟、經濟及技術合作(ECOTECH)、APEC 交流、APEC 整合女性之架構(Framework for the Integration of Women in APEC)等，請各經濟體上網檢閱。

在 2001 年第一屆資深官員會議中，中國大陸提議 APEC 2001 年之主題為「迎接新世紀之新挑戰：參與合作達共榮(Meeting New

Challenges in the New Century: Achieving Common Prosperity through participation and Cooperation)」。

有關電子商務之未來工作計畫，資深官員同意未來重點在能力建立(capacity building)及人力資源開發上。有關新經濟行動議程(Action Agenda on the New Economy)，資深官員決議成立電子化APEC特別小組(e-APEC ad hoc Task Force)，由該特別小組負責與APEC相關論壇（尤其是TEL、ECSG及經濟委員會(EC)）密切合作。

另韓國通知資深官員會議，謂北韓對於加入APEC組織之提議尚未作回應，汶萊亦通知該會議，表示高棉、寮國及緬甸在ASEAN高峰會議中曾表達欲以賓客身分參加APEC活動之意願。

隨著e-APEC特別小組之成立及ECSG之展延存續期間兩年，TEL將留意與前述兩小組之工作有無重疊之問題。

主席總結本項議程，表示TEL應將本身活動作適當整理包裝、摘取重點、並以特定格式呈現予APEC組織，本項任務將由主席辦公室擔任，並由APEC秘書處協助之。

四、電信工作小組檢視之後續事宜

有關電信工作小組檢視(TEL Review)之後續事項如下：

網際網路議題專案小組(IITG)

TEL成立網際網路議題專案小組(Internet Issues Task Group, IITG)，專責協調各指導分組間之工作，並持續聚焦於國際網際網路頻寬收費協議(ICAIS)之核心事項。由主席辦公室所擬訂之IITG職掌草案(Terms of Reference)已獲各經濟體同意通過，主席請各指導分組充分討論該議題並報告討論結果。IITG之召集人由現任副主席(澳洲籍Mr. Thwaites)兼任，至新副主席選出後交接。

數位落差

TEL22會議時，TEL主席擬訂數位落差行動藍圖草案(Draft Digital

Divide Blueprint for Action），希望藉稀有資源之有效分配，以縮小亞太地區之數位落差。目前該行動藍圖係由合作開發指導分組負責更新。

APEC 秘書處在會中表示，中華台北在 2000 年 9 月之第三屆資深官員會議中提出之「化數位落差為數位機會(Transforming the Digital Divide into a Digital Opportunity」之倡議及計畫已獲部長認可，應將之納入行動藍圖中。目前由美國擔任數位落差計畫之管理人(overseer)，合作開發指導分組副召集人 Dr. Arnon Tubtiang(泰國籍）擔任本議題之協調人。

APEC TEL 贊助原則及自費計畫核准原則

為讓業界了解對 TEL 贊助之性質及規定以及自費計畫之核准原則，主席提出兩項原則(APEC TEL Sponsorship Guidelines 及 Guidelines for Approval of Self-funded Projects)之草案，請各經濟體於會後兩週內提出增修意見，俾便定案。

五、新副主席選任程序之討論

TEL 之主席、副主席係由各經濟體依共識決所選定，新副主席之人選經團長會議討論並作成決定後，將於大會中宣佈。

六、PECC-APEC-企業/私人部門對話

本次對話首先由太平洋經濟合作理事會(PECC)理事 Ms. Janet Pearce Stenzel 發言，S 氏表示 APEC 領袖指示應建立一政策架構，使所有人民於 2010 年前得以利用通信網路，TEL 及私人部門對此均負有重要任務，應致力於彼此之合作，以迎接該項挑戰。

兩位私人部門代表就普及接取義務(universal access obligations, USO)及技能教育(skills and education)兩項議題發表演說，詳細演講內容將登載於網址 www.pecc.org/ptiif。主席於總結本項對話時，要求各指導分組就 TEL 與私人部門合作事宜，特別是有關普

及服務義務、無線服務以及能力建立議題充分討論。

七、討論/通過新計畫提案/排定優先工作

本次電信工作小組會議共通過以下兩項新計畫，並將送交預算管理委員會，以申請 APEC 2001 年經費補助，申請經費之計畫其優先順序將於會後通知各經濟體排定之：

(一)開發合作指導分組之「APEC 測試基台及簡化商用網路最佳分佈計畫」(Optimal Topology of Testbeds (research networks) and Simplified commercial Networks in the APEC Region)，申請美金 19,000 元，

(二)人力資源開發指導分組之「基本電信技術遠距教學計畫」(Distance Learning Project on Basic Telecommunications Technology)，申請美金 19,000 元

另商務便捷化指導分組擬於會後傳送有關出版電子安全專案小組文件之計畫提案，以徵求 TEL 同意，該提案將申請美金 10,000 以下之經費補助。

要求與下一屆 TEL 會議(TEL24)併同舉行之研討會如下表：

指導分組	研討會	日程	TEL 通過
商務便捷化	電子安全專案小組	一日	是
	資訊技術工具(IT Tools)	半日	尚未通過
合作開發	數位落差(Digital Divide)	半日	是
自由化	MRA 專案小組	一日	是
	MRA 聯合委員會	半日	是
IITG 專案小組	網際網路議題講習會	半日	是

八、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.
tel23.org/documents.html)。

九、觀察員及賓客發言

太平洋經濟合作理事會(PECC)代表首先簡述該會與TEL之互動經
驗，並簡述雙方合作關係加強之道。

哥倫比亞代表簡介其有關電信及資訊通信技術之倡議，並重申其
加入為 APEC 正式會員經濟體之意願。

亞洲大洋洲電子信息協會(AOEMA)代表表達與 TEL 合作之榮
幸，並表示該協會自參加 TEL3 會議以來見證 TEL 之成功。

十、討論下次會議及其他事項

TEL 第 24 次會議預訂於 2001 年 9 月 17-21 日在韓國濟州島(Jeju)
舉行。

有關 INTUG 申請以賓客身分參加 TEL 活動乙案，團長會議已同
意送請資深官員會議認可，INTUG 可望於 TEL24 會中以賓客身分
出席。

十一、電信暨資訊工作小組主席及副主席之交接

本次大會結束之際，新加坡籍 Ms. Valerie D'Costa 卸下主席一職，
並由澳洲籍 Mr. Richard Thwaites 升任為主席。大會並一致通過由
墨西哥籍 Ms. Salma Jaliffe 擔任副主席。

十二、主席報告之檢討與定案

經 檢 討 及 通 過 之 主 席 報 告 如 附 件 二 。（ 登 載 於 網 址

http://www.tel23.org/documents.html）。

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.tel23.org/documents.html)

一、商務便捷化指導分組(Business Facilitation Steering Group, BFSG)

1. 議程檢閱和 BFSG 活動說明

會議召集人建議大家在這個會議中討論出人力資源開發前五大優先議題。另外，電信工作小組名稱更改為電信暨資訊工作小組。

2. BFSG 相關議題討論

(1)PECC 和 APEC 對話（PECC-APEC Dialogue）- 召集人

召集人表示BFSG應注意加強政府與私人企業的相互運作關係。

(2)網際網路議題講習會（Internet Issue Workshop）

BFSG所進行的電子安全包含了IP網路整合和網際網路訊息傳達，以及互運性，其頻寬的擴展是有必要性的。

(3)互運講習會（Interoperability Workshop）

互運講習會主席 Mr. Baker 表示互運性對大型企業相當有幫助，但對於小型企業卻是致命的一環，因為小型企業均利用其他仲介商如 ISP 來建置系統。對於互運性，小型企業還需要更多協助才能完成。會中同時建立各會員體的聯絡窗口，以便分享相關資訊。

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(4)電子化政府講習會（E-government Workshop）

電子化政府間的資訊交換已開始進行，其中 IT 技術是最受關切的，另外安全問題則請電子安全工作小組協助進行。由於政府和民間關係密切，因此應建立一個良好的溝通管道。會議召集人建議 BFSG 應建立多重溝通管道。政府服務評量工作已開始進行，這項評量工作將有助於 IT 技術投資的參考。美國報告了其商務部門製作了一片關於政府目前狀況和相關投資要點的光碟片，名為 The Information Technology management Planning Tool, Version 1.2，專門供商業使用。這片光碟也將製作成西班牙文和簡單的中文，對於互運性小組應有很大幫助，鼓勵大家多索取參考。

3. 相關計畫

(1)電子安全專案小組（eSecurity Task Group）

公開金鑰基礎建設互運性可以利用不同技術的認證使用者身份進行跨國交易傳輸，在制訂法律、政策及相關標準時，各經濟體要瞭解電子訊息系統的制訂應使數位簽章和原始訊息能相互融合。美國和澳洲共同擬出一個 IT 安全和標準組件課程訓練計畫，預計透過網路提供 APEC 會員體使用，同時將公佈於人力資源指導分組（HRDSG）報告中。初期訓練單元會在近期內放置網站上，並譯成西班牙文。

(2)Cybernet/INGECEP 計畫（Cybernet/INGECEP Project）- 日本

日本報告與消費者相關之 INGECEP 計畫，包括個人資料保護法律問題和不同文化間的商業規範差異。此計畫目前有 7 個會員體參與，暫訂的結論為：INGECEP 計畫目的為建立有利於企業執行媒介功能的環境以促進跨國電子商務發展，可利用這些功能作為廠商與消費者間的橋樑。

(3)B2B 全球互運計畫（B2B Agent Project）- 韓國

B2B 商業模式在不同國家和公司間存在著許多問題，韓國說

明此計畫將利用交易市場和交易市場間（MP2MP）的運作模式建立一個跨國性 B2B 交易環境。AOEMA 並鼓勵會員體協助並支持來自各會員體之參與公司。日本則建議要提出更清楚的說明。會中獲致三項結論：1.同意通過本自費計畫，2.本計畫必須能提供有效的 B2B 互運性交易環境，3.希望各會員體能積極參與。

(4)電子商務認知程度研討會（E-commerce Awareness Seminar）- AOEMA

AOEMA 說明為了方便其他無法出國參加會議的人，之後幾次的研討會計畫分佈在各地舉行。今年將會有一次研討會在斯里蘭卡舉辦，希望能配合各個會員體的需要。召集人強調這項議題的研討會有助於大家對電子商務的認知，尤其對小型企業更是優惠。

(5)電子商務能力建立（E-commerce Capability Building）- 泰國

泰國計畫於九月舉辦一場電子認證相關之專題研討會，希望得到各會員體的支持與參與。電子安全工作小組主席建議除了上述議題外，亦可將範圍擴大，不要侷限於某一個議題討論而已。澳洲表示支持此活動。

(6)TEL 網站計畫（TEL Website）- 韓國

韓國強調 TEL 網站是 APEC 活動的焦點之一。韓國政府提出負責網站維護更新的工作，提供會員體豐富的 APEC 資訊、資訊傳送服務和會員體間較低的資料蒐尋服務。網址已經過本指導分組核可更改為www.apectelwg.org。為避免部分使用者不知道新網址，韓國將設計使用者進入舊網址時會直接鏈結至新網址。韓國表示將負擔大多數經費，但仍尋求會員國的贊助以增加更多新功能。澳洲同意使用者可負擔部分費用，建議若需要經費支援應提出一個合適的計畫書，監察委員（包括韓國、澳洲、加拿大和 AOEMA）應協助計畫書之準備。韓國同時強調電信工作小組網站會朝功能性導向做設計，不會只注重網頁美觀。

(7)亞太經合會法規指南（APEC Legal Guide）- 會議召集人

美國 Baker and McKenzie 公司 Ms. Hugh 補充其網站
（www.bakerinfo.com/apec）法律相關資訊，除了 APEC 電
子商務法規指南外，亦提供電子法令最新通知和其他電子商
務相關法律條文資訊。網站上所有主題是集合各會員體相關
法律議題做報導。會議召集人表示這些資訊對中小型企業幫
助很大，重要法律資訊的經常提供與更新是有必要的。

(8)電子商務成熟度指南（E-commerce Readiness Guide）- 美國

藉由各會員體自行評估調查結果，美國已收到各會員體良好
的回應，OECD 和 World Bank 對於這項調查很感興趣，將
可能在拉丁美洲各國間進行同樣的評估調查。美國表示這項
評量的目的在於評估並增進每一個經濟體的電子商務成熟
度。加拿大則指出這項計畫自 1999 開始進行，當初也特別
針對沒有數據統計機構的會員體做設計，是業界與政府間共
同合作的一個很好範例，深受外界和 OECD 好評。

(9)中小企業資料庫（SME Database）- AOEMA

AOEMA 提供中小企業最新進展報告，並示範其網站鏈結至
有共通興趣的公司的功能。AOEMA 樂意協助各會員體間中
小企業資料庫的推廣。

(10) 多語言國際貿易計畫（Multilingual International Trade
Project）- AOEMA

AOEMA 說明"自動翻譯"和"人工翻譯"服務在商業上的使用
備受限制，AOEMA 提出一套名為 TigerTalk 解決方案，並
現場做示範。AOEMA 希望各會員體公開此消息給中小企業
團體參與此一計畫。

(11) APEC 使用者對電子商務系統整合需求之研究調查（Study of
User Requirements for the Integration of E-commerce Systems
in the APEC Region）- 澳洲

澳洲針對 IT 產業使用者需求、現階段標準和支援互運性的

基礎建設做了一個短期研究調查計畫。這一項報告預計於 2001 年 4 月底完成，將對未來電子商務工作有一個明確方向。召集人表示這項計畫提供了相當多且有用的資訊來源。

(12) 政府之電子商務作法（E-Commerce in Government）- Korea

韓國表示多數人對政府電子商務的定義是在網路上進行政府交易，而各國政府間資訊的分享也是一個很好的機制，這一項計畫草案將會在 TEL24 會議中提出。美國表示電子商務指導小組可能已有性質相同的計畫，應確認以避免重複。中國大陸表示支持此項計畫。日本建議在 TEL24 會議提出更具體的想法。

4. 新計畫活動和未來預計舉辦之研討會

(1)商務便捷化指導小組（BFSG）同意在 TEL24 會議時舉辦一天的電子安全專案小組會議（eSecurity Task Group）。

(2)電子安全專案小組文件之發行計畫需要適當的資金，有必要做慎重考量。香港建議也許有些私部門單位願意出錢來公開發行此文件。

5. 相關 APEC 活動

(1)電子商務和無紙化貿易座談會（2001 年 2 月 9-10 日）

澳洲表示這場座談會結果將會在電子商務指導小組會議中提出來討論。部分會員體建議可舉辦與法律議題相關的座談會。

(2)電子商務指導小組（ECSG 會議召集人）

美國表示 ECSG 將展延任務期間兩年，同時美國感謝澳洲為 ECSG 會議所作安排。

(3)預計舉辦的 APEC 座談會與研討會

2001 年 5 月將於中國大陸舉辦一場「建立 APEC 人才—以因應 21 世紀之需要」研討會。

6. 通知事項

   (1) OECD 有關 TEL 相關議題之討論（OECE discussions on TEL-related issues）-加拿大、澳洲

   密碼學指導方針之 5 年檢視任務已完成，此份文件將做為政策制訂參考資料。在近期的 OECD 會議中，加拿大報告 APEC TEL 的工作要項，而電子安全是最引起興趣的話題，並會在之後的 OECD 會議中繼續進行討論。

   (2) 亞洲區及東南亞國家聯盟相關電子商務研討會（Asia/ASEAN E-Commerce Conference）

   泰國計畫於本年 5 月 23-25 曼谷舉辦一場研討會。

7. 其他事項

   BFSG 建議 HRDSG 將下列事項列入討論：

   ● 安全議題

   ● 國際間對電子商務認知

   ● 電子化政府

   ● 互運性和標準

   ● 無線通訊技術

   ● 語言技能

   ● 高階層人員之意識提升

   ● 自小學開始之 IT 教育

8. 結論

   召集人建議目前所進行的各項工作，除了要讓 APEC 各會員體瞭解外，也應擴大讓 APEC 以外的相關組織瞭解，尤其網站間的相互鏈結亦相當重要。

二、合作開發指導分組(Development Cooperation Steering Group, DCSG)

合作開發指導分組會議於 3 月 14 日至 15 日舉行，由我中華台北電信總局瞿科長嘯文及泰國 Dr. Arnon Tubtiang 分別擔任正副主席。

1. 現行計畫

資訊服務與知識移轉

(1) APII 合作中心(APII Cooperation Center)（韓國）

APII 合作中心目前進行電子商務成功因素以及人力資源開發國際合作兩項研究。韓-日間及韓-星間之測試基台計畫目前正在進行中，預計本年將進行韓-美間及韓國-中國大陸間之測試基台計畫。

為提供一便利使用者之資訊庫，該中心將定期更新其網站之設計及架構。為因應創新及變更，該中心將準備一全球資源定址器(URL) http://www.apectelwg.org 作為 TEL 之網站。

合作中心預計於本年 3 月 27 日至 28 日與新加坡及歐聯共同舉辦一專家小組會議(Expert Group Meeting)，該會議為 ASEM 於 2000 年所通過之「橫歐亞資訊網路計畫」(Trans-Eurasia Information Network Project)之一部份。

(2) APII 技術中心(APII Technology Center)（日本）

APII 技術中心自 1997 年以來，已進行七項工程師訓練課程，受訓者來自 36 個經濟體，人數達 71 人，課程包括網際網路使用技術及下一代網際網路技術等主題。

自本年 1 月開始，該中心採用新系統，在 Ipv6 測試基台上

使用數位影像轉送系統(DVTS)連接日本偏遠地區。在網際網路通信協定(IP)上使用數位影像轉送頗具可行性，日本建議先進經濟體採用 DVTS 作為分散式授課資源。

(3) 開發及財務資源目錄計畫 (Development and Financial Resources Catalog)（美國）

本項計畫將持續進行，開發及財務資源目錄目前登載於 TEL 網站上。本計畫主要在提供有關開發，特別是電信方面之線上資訊。在 TEL22 會中，本分組建議該項計畫應擴大範圍涵蓋網際網路發展之議題，以作為數位落差行動藍圖之一部分，美國及召集人均要求各經濟體提供有關開發及財務資源之更新資料。

(4) 頻譜政策與管理資料庫計畫 (Spectrum Policy and Management Database)（美國）

本項計畫亦屬持續進行性質，主要在提供有關頻譜政策及發照之線上資訊。經濟體所提供有關頻譜政策與管理之更新資料目前已登載於 TEL23 網站上，美國請尚未提供更新資料者提供之。本項計畫之資料庫亦可支援自由化指導分組之商用無線計畫。

(5) 跨國智慧卡電子商務計畫(Cross-Country Smart Card-Based Electronic Commerce Project)（新加坡）

本計畫主要在探討跨國安全電子商務系統之安全性，以及研究採用智慧卡以支援電子商務交易之可行性。目前新加坡已成立一諮詢委員會以指導本計畫，日本及韓國已同意加入該委員會。新加坡邀請其他經濟體加入該委員會。

(6) 生產及技術之虛擬環境計畫 (Virtual Environments for Manufacturing and Technology, VEMET)（新加坡）

本計畫在尋求經濟有效之方式，利用網際網路分享製造設備及資源、縮短製造前置時間、及運用虛擬實境免費使用生產設備以訓練人力。本計畫將於 2001 年 3 月之預算管理委員會申請 2001 年緊急基金補助。

調查，研析及個別研究

(7) 技術經濟模式計畫(Techno-Economic Modeling)（澳洲）

本計畫主要在確認並分析影響電信策略及服務之社會、經濟及技術因素。澳洲表示兩項普及接取（無線及有線）講習會之舉辦時間有變動，分別於 2000 年 9 月及 12 月在印尼及香港舉行。本計畫最後報告預計於本年 5 月完成，並將登載於 TEL 網站上。

研究合作

(1) 網際網路連結積極合作計畫(Active Partnership for Internet Connectivity Program) (PECC)

本計畫旨在提供機會，使公私部門合作進行網際網路為主之計畫，以增加開發中經濟體對網際網路的有效使用。本計畫已依據合作可能性確認出八個開發中經濟體，並將建立一資料庫，作為合作關係交換中心之基礎。計畫之最後階段將尋求新方式以降低開發中經濟體之網際網路接取費用。墨西哥表達加入本計畫之意願。PECC 表示可協助印尼尋求合作夥伴，以建立網際網路連結模式。日本表示願提供其測試基台之相關資訊。

(2) 改善數位落差之政策資訊需求計畫(the Digital Divide Request for Information on Policies to Reduce the Digital

Divide) (美國)

本計畫相關活動包括問卷調查及講習會。有關之問卷已獲澳洲、加拿大、中國大陸、香港、印尼、韓國、新加坡、中華台北、泰國及美國等經濟體之答覆，美國將繼續就其他經濟體之答覆進行研析。數位落差講習會之演講內容將登載於本次會議之網站上(www.tel23.org/)。

(3) 賣方資訊科技教育訓練憑證課程計畫(Vender-Supplied IT Education, Training and Certification Programs and Projects) (美國)

本項計畫之進度報告另於人力資源開發指導分組中提出。計畫之宣佈事項及邀請函目前已上網。美國表示，領袖們支持建立 APEC 知識網路(APEC Knowledge Network)以連結 APEC 有關人力資源開發之重要計畫及活動，美國要求將賣方訓練課程登載於 APEC TEL 網站上，並透過該網站與 APEC 知識網路連結，會中同意該項要求。

測試基台服務

(8) APII 測試基台計畫(APII Test Bed Project) (韓國)

韓國-日本目前進行七項測試基台計畫，新加坡-韓國間則有四項。韓-日間目前正研議延長相互間測試基台運作期間至 2003 年 3 月(原運作期間為 1997 年 10 月至 2001 年 3 月)。韓國預計於本年 5 月與美國連結，並於 5、6 月與中國大陸連結。

(9) APII 互連及互運測試基台計畫(APII Test Bed Project for Interconnectivity and Interoperability) (日本)

目前在 APII 測試基台網路上進行有數項國際性合作測試。

本計畫之網路研究小組與日本通信研究試驗所(CRL)之下一

代網際網路計畫及 AI3 計畫(Asia Internet Interconnection Initiatives Project)共同利用 APII 測試基台之衛星作連結，共同進行數項國際性合作測試。韓國及日本準備展延計畫期間一年。加拿大建議日本將本計畫之資訊分享予人力資源開發指導分組。

(10) 先進衛星測試基台計畫(Advanced Satellite Test-bed Project)（日本）

日本表示將於下一次會議時報告本計畫進度。

2. 新計畫

(1) APEC 測試基台及簡化商用網路最佳分佈計畫(Optimal Topology of Testbeds (research networks) and Simplified Commercial Networks in APEC Region)（韓國）

本計畫旨在蒐集並分享各經濟體之網路資訊，將依據該資訊作網路最佳分佈之分析，以建立有效之網路結構，促進亞太地區網際網路基礎建設之發展。會中通過本項計畫，計畫期間為 2002 年 1 月至 2003 年 3 月，將申請 APEC 中央基金補助美金 19,000 元。

(2) IP 無線用戶迴路-縮小偏遠地區數位落差(IP-based WLL for Bridging Digital Divide in Rural Area)（日本）

本計畫提案為期四年（2001 年 4 月 2005 年 3 月），屬自費性質，主要在發展一 Internet 接取網路，供偏遠地區享有 Internet 服務。日本同意遵循 APEC 自費核准計畫原則，於下一次會議再行提出本提案，日本 PECC 將協助確定本計畫之時程、預算及參與經濟體等事項。

1. 討論事項

(1) PECC-APEC 對話

本次 TEL 大會在 PECC-APEC 對話議程中強調發展新計畫以實踐普及服務義務(universal service obligations, USO)之重要性。USO 不僅與自由化指導分組有關，同時亦與本指導分組密切相關，故本指導分組應重視衡平(equity)及數位落差議題，並應進行有關 USO 管理之討論。

(2) TEL 活動矩陣表有關開發合作指導分組之部份

會中建議在 TEL 矩陣表中增列數項活動之敘述，以納入本指導分組之現行計畫與本會議通過之新計畫。

(3) 數位落差行動藍圖草案

目前數位落差行動藍圖草案由合作開發指導分組負責管理，並由現任副召集人 Dr. Arnon Tubtiang 擔任協調人，相關之進展為舉行第一次數位落差講習會，以及進行數位落差政策問卷調查。有關該議題之進展及政策之調查將須呈交報告予本年之第二次資深官員會議(5 月 26 日)。

本分組決議成立一虛擬起草小組(virtual drafting group)，負責草擬致資深官員之報告，起草小組由美國主導，其他成員有加拿大、中國大陸、及日本等。

本分組提議於下一次 TEL 會議時併同舉辦講習會，以促進對數位落差及技能短缺議題之經驗分享與探討。

(4) 網際網路議題(IITG)

合作開發指導分組檢視自上次會議以來在網際網路發展議

題方面之相關進展。本分組除建議更新 TEL 活動矩陣表第 9
項(ICAIS Proposal Additional Task Areas & Activities) 有關
DCSG 之活動外，並建議在下次 TEL 會議時舉行網際網路議
題講習會，以促進資源分享。

3. 總結

本分組通過一項新計畫「APEC 測試基台及簡化商用網路最佳
分佈計畫」，該計畫將申請 APEC 中央基金補助美金 19,000 元。
另有關「IP 無線用戶迴路-縮小偏遠地區數位落差計畫」，日本
將遵循 APEC 自費計畫核准原則，於下一次 TEL 會議時再提出
該計畫提案。

本分組建議於下次 TEL 會議時舉辦研討會以討論數位落差議
題。

三、人力資源開發指導分組(Human Resources Development Steering
Group, HRDSG)

1. 計畫進度報告

(1) 遠距教學策略需求分析計畫(Distance Learning Strategic
Needs Analysis Project)（加拿大）

本計畫正進行第一階段，加拿大於本次會議中發送問卷調
查，請各經濟體傳發給相關之私人部門填答，俾供加拿大
彙整分析後於下次會議時提出完整報告。

(2) 電子商務技能標準計畫(E-Commerce Skills Standards
Project)（澳洲）

本計畫由澳洲提出，屬自費性質，旨在提供一架構及基準
以促進電子商務之接受程度。參與合作之經濟體有泰國、
菲律賓、中國大陸、印尼等，計畫時程訂為 2001 年 4 月
至 2002 年 5 月。

(3) MRA-HRD 訓練設計計畫(MRA-HRD Training Design Project)（加拿大與澳洲）

目前本計畫已對加入 MRA 之經濟體進行調查，調查結果將用以設計有關 MRA 之訓練，該訓練將包括 MRA 之進行步驟(roadmap)、依該步驟所設計之個別訓練模組(modules)、及針對擬進行 MRA 第一階段之經濟體所設計之訓練項目。計畫之完整報告可望於 2001 年 5 月完成。

(4) APEC TEL 網路互連訓練計畫(APEC TEL Interconnection Training Project)（澳洲）

本計畫將協助 APEC 經濟體發展有效之網路互連安排，以促進電信服務市場之競爭發展。計畫時程為於 2001 年 5 月前確定計畫之推動者(facilitator)、6 月前設立網站、7 月前完成訓練課程之設計、11 月前提出最後報告予計畫之管理委員及 APEC 秘書處。

(5) 亞太卓越中心計畫(Centre of Excellence Project for Asia and Pacific, CoE)（國際電聯會發展局，ITU-D）

本計畫已舉辦三項活動：菲律賓於 2000 年 10 月舉辦有關整合議題講習會、泰國於同年同月舉辦網路企劃策略講習會、及 2000 年 12 月在香港舉辦技能短缺研討會。會議之詳細資料登載於網站 http://www.itu2.or.th。

未來本計畫將與香港之電信研發計畫合作，亦可能與其他組織如 APT、ABU 及 PADMEN 進行合作。本計畫亦將與泰國合作，於 2001 年 4 月 23-27 日舉辦一週之政策及法規課程講習會，嗣後並將依同模式於菲律賓及巴布亞紐幾內亞舉辦講習。

(6) APEC TEL 性別議題進度報告(Progress Report on APEC TEL Gender Issues)（加拿大、菲律賓）

加拿大報告性別議題及性別整合計畫。目前已擬訂一項有關性別議題連絡人之詳細工作說明草案，並將職權分派予

兩位不同性別之負責人，由其負責指派工作並對 TEL 之性別分析報告提供兩種不同之觀點。

(7) 基本電信技術遠距教學計畫(Distance Learning Project on Basic Telecommunications Technology)（韓國）

本計畫有助於減低 APEC 之數位落差。韓國報告本計畫於 2000 年 10 月 1 日至 12 月 31 日進行有電信網路及傳輸技術兩項課程，內容包括 Internet、衛星、無線用戶迴路、行動交換、非同步傳送模式(ATM)、波長多工(WDM)及光纖等技術。會中建議應進一步發展遠距教學課程，本指導分組建議 TEL 持續推行本計畫。

(8) 人力資源開發/管理資源分享資料庫建置計畫(HRD/HRM Resource Sharing Program by Construction of the HRD/HRM Database)（韓國，菲律賓）

韓國將與菲律賓共同檢討本計畫，並將於 TEL24 時提出報告以結束本計畫。

(9) 賣方訓練課程計畫(Vendor Training Project)（美國）

本計畫將建立網站供傳佈 APEC 區域內有關教育訓練之課程資訊，目前須進行之工作為建立可供搜尋之資料庫及成立秘書處，美國感謝 PECC 志願擔任本計畫之秘書處。香港另提出其相關網站(www.trp.hku.hk)供本計畫參考。

APEC 領袖們支持「APEC 知識網路 (Knowledge Network) 」之倡議，該計畫將連結 APEC 區域內所有有關知識之活動。為回應上述呼籲，美國提出一相關文件「全球電子商務企業部門對話(GBDe-Global Business Dialogue on E-Commerce)」供參。

(10) 電信資費管制訓練計畫 (Telecommunication Tariffs Regulations Training)（印尼）

本計畫移至第 4(1)項，由澳洲併同報告。

(11) 資訊技術教育太平洋聯盟(the Pacific Alliance for the Use of Information Technology in Education, EDUPACT:) (PECC)

本計畫由 PECC 作報告，計畫之性質為公開之目錄計畫，旨在建立一有關目錄之目錄庫(directory of directories)，以協助連結資訊技術教育之需求與供應兩方。

2. 通知事項

(1) HRD 人員交流計畫(HRD Personnel Exchange)（泰國、韓國）

韓國表示本計畫屬自費性質，旨在縮短已開發及開發中經濟體間之資訊電信差距。計畫名稱將改為「人力資源開發計畫(Human Resource Development Program)」以反映計畫之實際目標及範圍。韓國進行有柬埔寨國際電信資訊技術訓練計畫，以及以下三項 HRD 計畫：國際電信訓練計畫、APT 訓練及參訪計畫、及中國大陸下一代電信領袖人員計畫。

(2) 資訊技術安全規範及訓練資料(IT Security Ethics and Training Material)（美國）

本項移至第 4(3)項。

(3) 資深官員之能力建置倡議(Human Capacity Building Initiative of the SOM)（TEL 主席助理）

TEL 主席助理 Ms. Ruth Edwards 報告上一次在中國大陸北京舉行之資深官員會議情形，並表示人力資源開發之工作有 60%以上非由人力資源開發工作小組(HRD Working Group)所執行，HRDSG 同意有必要成立一協調小組負責就上述情形進行協調。

(4) 性別議題(Proposed Gender Integration Plan)（加拿大）

加拿大報告性別議題行動計畫，本計畫主要在促進現有及未來 TEL 相關活動及計畫實踐兩性平等目標，尤其是鼓勵女性在業界之發展。本計畫獲 HRDSG 之支持。

3. 討論事項

(1) 數位落差及技能短缺講習會(Digital Divide & Skills Shortage Workshop)

召集人簡述數位落差及技能短缺講習會會議情形，香港表示準備將該講習會之資料登載於其網站上，以吸引各方之討論。

(2) 網際網路議題講習會(Internet Issues Workshop & TEL Chair's Task List)

本指導分組目前雖無具體之訓練計畫可供直接歸屬於網際網路專案小組(IITG)之相關活動，但是本指導分組所推動之相關計畫能提供 IITG 以基本之通信技術資訊。美國表示網際網路議題之探討有助於縮短 APEC 區域內之數位落差。召集人表示本指導分組有義務促進本區域內之知識轉移。

(3) 無線議題講習會(Wireless Workshop)

召集人就無線議題講習會之會議情形作簡短報告，本指導分組表示支持該講習會。

(4) 性別基準講習會(Gender Criteria Project Guidelines Workshop)

加拿大表示性別基準講習會之目的在提供方法，以評估性別基準列入為計畫指導原則(Project Guidelines)之適用情形，並表示有必要針對性別基準之適用給予技術上之支援。

(5) 電子化政府講習會(E-Government Workshop)

召集人表示香港及新加坡在電子化政府講習會有極佳之演講，安全議題及敏感資訊跨界傳輸等議題須藉由特定標準予以管制，電子安全講習會即在討論上述管制議題。

4. 新計畫及講習會

(1) 電信資費管制訓練計畫 (Telecommunications Tariff Regulation Training)（澳洲）

本計畫由印尼及澳洲共同進行。澳洲曾於上次 HRDSG 會中表示，本計畫將在澳洲 AUSAID 連結計畫(Australia AUSAID linkage program)項下獲經費補助，結果是本計畫並未獲補助。預期網路互連資源計畫(Interconnection Resources Project)會將費率管制一項列入為訓練需求並予以處理，倘該計畫未處理該項訓練需求，則澳洲將另提出一項有關費率管制訓練之提案，以申請 APEC 經費補助。

(2) APEC 電信技術遠距教學計畫(APEC Distance Learning Project on Telecommunications Technology)（韓國）

韓國表示上一次所提之同名計畫獲得許多經濟體之寶貴回應，並表示有必要繼續進行該類計畫，使 APEC 各經濟體藉由遠距教學方式分享資訊技術之發展訊息。韓國欲持續進行該類計畫並申請 APEC 經費補助，以充分利用上次計畫之課程內容，因若不繼續進行，則韓國及 APEC 前已投注之經費將歸浪費。經過討論後，HRDSG 同意通過本計畫。

(3) 資訊保護認知提升及教育需求計畫(Information Protection Awareness Raising & Education Requirements)（美國）

資訊保護認知提升及教育需求計畫為一自費計畫，目標在藉由一系列教育課程以處理有關資訊技術安全認知欠缺之問題，本計畫將擬訂教育模組(modules)以供高校以至學士後程度人員使用，該類模組將促使學生們以較具社會性

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回應之方式使用資訊技術。召集人表示本計畫應設立一網站，蒐納所有有關教育課程之 URL。本計畫獲 HRDSG 同意通過。

5. 其他事項

(1) 澳洲於本次會議期間展示 PKI 極其成功。

(2) 香港表示，從有線到無線通信之發展有極佳之前景，希望各經濟體考慮提出無線及行動通信之訓練課程計畫。

(3) 有關網際網路議題，召集人表示本指導分組目前雖無特定訓練計畫直接與該議題有關，但是多數計畫均或多或少與該議題相關，例如電子商務技能標準訓練計畫、資訊保護意識提升及教育計畫、及基本通信技術訓練計畫等。HRDSG 有責任促進經濟體間之知識轉移。本指導分組將與其他分組密切合作，以尋找該議題之訓練需求、鼓勵網際網路技術訓練計畫、及支援網際網路相關活動。

6. 總結及建議

HRDSG 通過「APEC 電信技術遠距教學計畫」並提交予 TEL 以申請 APEC 經費補助。本指導分組建議於下次 TEL 會議時舉行網際網路議題講習會。

四、自由化指導分組(Liberalization Steering Group, LSG)

(一)開幕

原召集人 Ms. Irene Wu 因故無法出席本次自由化指導分組會議，改由美國 Mr. Jack Deasy 擔任召集人，副召集人則仍由 Ms. Kathy Fisher 擔任。召集人首先歡迎各經濟體代表出席會議。接著討論及確認會議議程，澳洲指出本分組議程事涉項目相當廣泛，因此

提議在向大會提交之報告中將相關事項加以排定優先次序，本建議獲通過。

(二)現況報告

1. 整合(Convergence)

前整合專案小組(Convergence Task Force)監督者印尼對已回覆整合問卷調查的經濟體表示感謝，並指出其成果及該專案小組的功能均已於上次 APEC TEL22 會議時移交監理架構計畫(Regulatory Structures Project)及監理圓桌會議(Regulatory Roundtable)活動。印尼並指出，雖然整合已無正式之專案小組，但仍然是 TEL 之重要議題之一。

2. 監理架構計畫(Regulatory Structures Project)

澳洲回顧監理架構計畫的時程表，Ms. Liz Williams 並提供本計畫的執行進度等進一步資料。依其報告，本計畫第一階段已於今年 1 月開始執行，預期將對現行 APEC 經濟體之整合監理架構提出全面性的報告；第二階段將就第一階段所蒐集之資料，研析各經濟體監理架構之共通性及面對整合所遭遇的共通性議題與所採取的步驟；第三階段將與第二階段同時執行，並就各經濟體邁入整合時代之監理架構提出建議與指導原則。

3. 整合監理圓桌會議(Regulatory Roundtable on Convergence)

本計畫監督者新加坡在香港、中國、美國及國際電信聯合會(ITU)卓越中心(Center of Excellence)的支持下，已就本次電信工作小組會議所召開之監理圓桌會議提出報告。本次圓桌會議在藉由數個個案研究作為討論的基礎之背景下，獲致了許多正面的結果，包括各經濟體於會中所表達的各種意見，新加坡因此特別提醒各經濟體重視本會議的有用性。

召集人認同本會議的正面成果，並建議在未來的 TEL 會議繼續召開類似的活動，並將各經濟體監理單位的規劃需求考量在內。澳洲提議未來在此方面的活動應採更為互動的討論方式來辦理，並建議每年或每 18 個月召開一次此類活動。

印尼認同在 TEL24 時召開類似的圓桌會議，並建議討論廣播
與電信的跨業問題，以及技術整合的議題。印尼並指出，承辦
人層級(staff level)的討論在此方面也是很有幫助的，在監理單
位高層主管無法每次均參加的情況下。中國大陸也指出每年或
每兩年召開一次此類會議的重要性，並建議會議應更集中於某
一特定的議題。澳洲提議將監理單位的重要議題列入 TEL24
的作業議程中，俾利下次圓桌會議之準備工作，而舉辦時間則
於未來再作討論，本建議獲得自由化指導分組之同意。

召集人指出，將數個議題放在未來的圓桌會議中討論，包括廣
播與電信之整合、相關技術之整合、普及服務/接取義務、無線
議題及消費者/使用者觀點等。召集人邀請新加坡為未來圓桌會
議繼續擔任監督者角色；新加坡對此表示同意，並指出持續來
自澳洲、香港、中國大陸、印尼及美國之支持的重要性。

4. 電信設備相互承認協定(Mutual Recognition Arrangements,
MRA)

加拿大報告本次電信工作小組會議所進行的 MRA 活動，至今
已有 7 個經濟體正執行第一階段，至本年底預期至少有 4 個經
濟體將參與第二階段作業。

澳洲報告 MRA 執行支援計畫(MAR Implementation Support
Project)及 MRA 管理系統(MRA Management System)的現況，
並指出經由與 PEEC 的討論，已獲致建立一個支援 MRA 執行
計畫之提議；此提議係在 BFSG 指導分組下提出，並需要本自
由化指導分組之正式認可。加拿大指出 MRA 專案小組支持該
計畫；在這些討論的基礎上，本自由化指導分組認可該計畫。

5. 網路互連(Interconnection)

召集人指出 APEC 互連原則的成功建立及許多經濟體提交其
執行報告之情形，並建議經濟體們應就其國內互連政策的發展
提交更新報告；此建議獲本自由化指導分組之認可。

接著澳洲報告網路互連訓練計畫(Interconnection Training
Project)及網路互連資源計畫(Interconnection Resources Project)

之現況。紐西蘭指出，該資源計畫報告提出 4 項網路互連政策建議，並詢問是否該將渠等建議作全面性的應用，或僅適用於參與該計畫之經濟體。澳洲解釋，渠等建議可以做全面性的適用，資源計畫之目的在提供各經濟體在決策制定過程中的可能輸入值，並不暗示該計畫應會導致單一之建議。

本分組副召集人 Ms. Kathy Fisher 報告網路互連專案小組 (Interconnection Task Force)會議之進行情形，並感謝澳洲 Mr. Richard Desmond 簡報澳洲推動用戶迴路細分化的經驗。召集人感謝副召集人在他無法出席的情況下主持網路互連專案小組會議。

副召集人指出，有一提案建議要結束網路互連專案小組；澳洲提到網路互連仍持續是電信監理的重要功能，但該專案小組將功成身退，澳洲支持將該專案小組的工作回歸至自由化指導分組。美國 Ms. Anita Dey 認同該提案，並指出一旦相關工作回歸至自由化指導分組本身，期望在網路細分化與線路共用上能有進一步的討論。

PEEC 提議就私部門人員在網路互連協定之談判事務提供相關訓練，認為此類訓練將可使監理者更瞭解私部門在網路互連議題上之關切事項。針對此提議進行了相當多的討論，部分經濟體懷疑私部門會需要此類的訓練；部分經濟體則認為小企業可從相關資訊及訓練中獲利，以利其與較大的公司進行協商；數個經濟體提到明確指出參與的經濟體及訓練對象，以及擁有合適的計畫推動者之重要性。澳洲建議為該計畫成立一個督導小組，涵蓋可能於第一階段有興趣參與的經濟體。因為有些經濟體未參與自由化指導分組的討論，美國願意於此計畫開始之初擔任監督者，一旦參加的經濟體確定後，美國不必然繼續擔任該角色。

6. 無線商業服務(Wireless Commercial Services)

美國報告本次工作小組期間無線研討會的進行情形，並建議在下次自由化指導分組時以發照政策為主要議題。經過討論，通過以「促進投資之發照政策("Licensing policies for investment

buildout")」做為 TEL24 無線商業服務的主題。美國邀請各經濟體就討論之文件及可能參與的演說者名單提出建議。數經濟體則強調將會議的重點集中於市場管理功能的重要性，並應避免重複 ITU 在無線電頻譜管理上的努力。

7. 網際網路發展(Internet Development)

副召集人簡述 TEL22 會議時本指導分組對部長們的指示所做的回應(即本指導分組提交予 TEL22 大會之報告的附錄 B)。召集人提議本指導分組採用該附錄 B，做為考量 LSG 可對 APEC TEL 討論國際網際網路頻寬收費協議(ICAIS)所做的貢獻。本指導分組再次肯定以附錄 B 所含項目做為指導方針，以進行該領域中可能的工作，無須大幅度的增加或修改。

韓國要求本指導分組注意，在國際寬頻容量的提供上即便有更具競爭的市場之發展，亦與 ICAIS 議題並不相容；競爭雖降低成本，但並不會解決成本該如何分擔的議題。韓國希望附錄 B 加上一項聲明，指出相關收費協議需要特別的注意，因該問題已無法由市場自由化來導正。

澳洲指出，發展收費協議的任務係落於網際網路專案小組(Internet Issue Task Group)內。對於本指導分組而言，韓國的見解可被包括在會議紀錄中，而附錄 B 已由上次 TEL 會議通過，故無法再做修正。召集人以美國立場發言，認為韓國的聲明早已為大家所知道；市場力量，包括快速成長的海纜頻寬，正重塑亞洲/太平洋地區的訊務流；這些改變均已被廣泛地預期；美國懷疑這些變化將會與 ICAIS 協議相容。

網際網路專案小組(Internet Working Group)召集人澳洲 Mr. Richard Thwaites 指出，附錄 B 是一組全面性範圍的責任；為了避免只是在報告中重複該清單，他要求本指導分組確認相關項目的優先順序或應採取的特殊行動。召集人提議針對附錄 B 的 5 個項目進行檢討，並歡迎針對各個領域中現有或新增工作提出建言；透過此方式，本指導分組可產生網際網路專案小組所需要的工作清單。檢討後成果如下：

附錄 B 項目 1:鼓勵企業/私部門與政府間以合宜的方式進行對

談，來評估及酬賞在 APEC 經濟體間所交換的整合型網際網路服務所孕育的產品及服務價值：

● **LSG 意見**：LSG 的焦點係落於產品及服務整合所帶來的衝擊，監理圓桌會議及監理架構計畫反映在此領域所進行的工作。

附錄 B 項目 2：TEL 應鼓勵對網際網路系統及企業模型的關注，從自由化、商務便捷及人力資源發展的角度來看。

● **LSG 意見**：LSG 的焦點係落於監理/政策議題對消費者的影響；本次 TEL23 所召開之監理圓桌會議及無線電研討會，以及為 TEL24 所確認之後續工作，反映在此領域所進行的工作。

附錄 B 項目 3：持續討論網際網路之國際發展，包括收費協議，並注意由 ICAIS 專案小組所提出之初始建議。

● **LSG 意見**：LSG 的焦點係落於競爭的程度及私部門是否可進入國際頻寬市場。在回顧此項目時，LSG 接受召集人的建議，包括討論發照條件中對內陸鏈路設施之相關規定，其將影響國際海纜登陸之投資意願；TEL24 會議時加拿大將在網際網路發展議程下監督此項工作。

附錄 B 項目 4：TEL 應針對某些協議進行討論，以支援在 APEC 區域內高速頻寬之互達性。

● **LSG 意見**：LSG 已針對相關事項進行討論，如用戶迴路細分化；數個經濟體建議此項工作應持續進行，澳洲願意在 TEL24 負責監督此議程項目，並準備一份文件以集中討論網路細分化相關事項。

附錄 B 項目 5：主要工作應著重在收費協議及投資回收之關聯上，因為其反映出高速頻寬互達的發展，同時也應考量 APEC 網路互連原則在網際網路服務上之應用。

● **LSG 意見**：投資回收的角色及其與監理決策之相關性，已在監理圓桌會議 3G 議程中被探討，此仍將是 LSG 未來持續關

注的項目。

- **澳洲詢問**：是否 LSG 將執行附錄 B 之聲明，當其考慮到 APEC 網路互連原則在網際網路服務上之適用性仍是未知數時。對此召集人指出，附錄 B 已明確地提到，在此領域中的第一步努力是考量用戶迴路細分化對網際網路可取得性的影響，而此工作已順利進行。

在獲致附錄 B 的檢討結論後，澳洲指出 DCSG 已就 APEC 區域理想的網際網路架構研究計畫向網際網路專案小組提出報告，並建議 LSG 應注意 DCSG 與 LSG 協調的意願。主席同意將此建議包括在本指導分組向大會提交的報告中。

8. 數位落差(Digital Divide)

副召集人建議，本指導分組過去在普及服務所做的努力可做為對普及接取貢獻的基礎，相關討論應集中於自由化政策及普及服務義務(USO)基金之關聯性，而非嘗試去進行廣泛的討論屬於其它分組的工作。此提議獲本指導分組通過。

(三)工作優先順序及未來行動(Priorities and Future Actions)

澳洲指出本指導分組具有一個多變的議程，但主要係集中於促進競爭之政策的執行上，而非僅係關聯於「自由化」一詞之解除管制議題上；本指導分組可藉由減少其探討議題來恢復其清澈性，雖然似乎存在一個共識認為本指導分組正討論正確的議題。另一個選擇方案是變更此分組的名稱。

紐西蘭同意更名的提議，並建議將本分組稱為「競爭及監理政策指導分組(Competition and Regulatory Policy Steering Group)」。針對此建議，部分經濟體認為「競爭」只是一個工具，而非目的，故所提新名稱可能並不合適。召集人以美國立場發言，提到「自由化(liberalization)」並未造成美國認知上的混淆，因為執行是成功開放市場的主要因素。

本指導分組決定向大會報告其考慮於 TEL24 提出名稱變更議題，伴隨著紐西蘭的提案。

(四)性別認知(Gender Awareness)

召集人報告本次電信工作小組會議期間性別認知研討會(Gender Awareness Workshop)召開情形，他指出相關計畫應符合 APEC 新的性別原則(gender criteria)之重要性，以爭取 APEC 預算之資助。

(五)集體行動計畫(Collective Actions)

集體行動計畫經過檢討後，以 TEL22 所通過之方案在未做任何變更下被採納。美國將負責更新 LSG 轄下無電線發照資料庫(wireless licensing database)之發展情況，以因應項目 10 之要求。

(六)順利結束

召集人感謝參與者在本次會議的貢獻，並在他首次擔任召集人的情況下，對於本指導分組呈現的歡迎氣氛與副召集人的顯著貢獻表達特別的謝意。本自由化指導分組順利結束。

陸、研討會

(各研討會文件登載於網址 http://www.tel23.org/workshop.html#inter)

一、電信設備相互承認協定執行講習會(MRA Implementation Workshop)

- 本講習會於 3 月 11 日舉行，由亞太實驗室認證聯盟(APLAC)贊助主辦，主要目的在於爭取更多的經濟體能運用其 APLAC MRA 的架構來執行 APEC TEL MRA。講習會由 APLAC 主席紐西蘭籍 Dr. Llewellyn Richards 主持，共有九個經濟體三十七位代表參加。

- 講習會首先由 APLAC 三名講員分別闡述 APLAC 實驗室認證的體系、所採行的認證指引和標準、APLAC MRA 評估程序以及能力試驗計畫等。其中，本局所指派的 MRA 認證組織「中華民國實驗室認證體系」(CNLA)周組長念陵係以 APLAC 代表身分與會，並於會中報告 APLAC 委託 CNLA 辦理電信終端設備國際能力試驗計畫執行的現況。

● 由 APLAC 代表對測試實驗室認證體系作了非常精闢的專業性簡報後，出席的各電信監理機關也都對本身符合性評鑑架構模式、測試實驗室的指派及認可程序與執行情形提出簡要報告，最後並透過 APLAC 與各電信監理機關間的對話，提供了雙方良好互動及資訊交流的機會。

● APLAC 對電信設備 MRA 測試實驗室及認證機構係遵循國際標準組織(ISO)之 ISO/IEC Guide 25(17025)、43 及 58 等國際共同標準規範加以指派、認證及稽核，與 APEC TEL MRA 條款中對 MRA 符合性評鑑機構(Conformity Assessment Body, CAB)的認證及指派的規定一致。因此，如運用 APLAC MRA 的架構來執行 APEC TEL MRA 將可簡化測試實驗室的認證及指派程序。目前採用的經濟體有澳洲、香港、新加坡及中華台北。美國代表 Mr. Art Wall 則對 APLAC 在評審員、已認證實驗室及實驗室在運用標準方式的一致性上仍有存疑，並認為 APLAC 似乎尚未能將監理機關技術法規的特殊要求溶入在其認證體系內，同時 APLAC 對實驗室的認證偏重在品質及管理系統的評鑑而常輕忽各電信監理機關對實驗室技術能力的檢核要求，基於上述考慮，因此美國至今仍不願鬆口改採 APLAC MRA 的間接指派方式來執行其 APEC TEL MRA 。

● 有關符合性評鑑機構指派權責，各經濟體間雖已達成共識，因中共代表再度提起，MRA 召集人 Mr. Andrew Kwan 答復如下：

1. 原則上，請各經濟體僅提名一個指派權責機關，以不超過兩個為限。

2. 指派權責機關僅能指派其經濟體境內之符合性評鑑機構(CABs)。

3. 指派權責機關可指派經其他參與 MRA 經濟體認證機構所認證之符合性評鑑機構(該符合性評鑑機構仍應是在指派權責機關經濟體境內)。

二、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12日舉行,由 MRA 召集人加拿大籍 Mr. Andrew Kwan 主持會議,共有十一個經濟體三十五位代表參加。本次會議的主要目的是延續討論 APEC TEL MRA 之執行成效、分享並檢討上一次會議後各經濟體在 MRA 的發展及現況的報告。

● MRA 召集人 Mr. Andrew Kwan 首先報告3月11日由亞太實驗室認證聯盟(APLAC)所贊助主辦的「MRA 執行講習會」辦理情形。該講習會 APLAC 對其測試實驗室的認證體系作了非常精闢的專業簡報,同時出席的各電信監理機關也都對本身符合性評鑑架構模式、測試實驗室的指派及認可程序及執行情形提出簡要報告,最後並透過 APLAC 與各電信監理機關間的對話,提供了雙方良好互動及資訊交流的機會。

● 接著由各經濟體報告 APEC 電信設備符合性評鑑相互承認協定(APEC TEL MRA)第一階段(測試報告相互承認)執行情況,除韓國、日本表示其國內因指派權責尚有爭議,其原承諾實施時程必須分別由 1999 年延至 2001 年的第一季及第四季執行外,其他經濟體均維持原承諾實施時程順利進行中。其中已參與 APEC TEL MRA 第一階段的經濟體(澳大利亞、加拿大、新加坡、中華台北及美國)並進一步於會中分別報告其執行 MRA 測試實驗室認證、指派及相互交換認可測試實驗室名單之詳細狀況。主席特別要求上述經濟體將已指派及相互交換認可測試實驗室之名單以電子檔方式傳送至他的電子信箱及 MRA 資訊管理系統(MRAMS)。另加拿大、香港、中華台北及美國四個經濟體表示計畫於2001年參與第二階段之執行。

● MRA 資訊管理系統,負責本系統建置之 Colony Park Group 公司已與 APEC 秘書處達成書面協定,將正式開放系統供各經濟體使用,另為有效控管資料庫及識別各經濟體,召集人要求參與第一階段之經濟體儘速提交聯絡窗口資料予 Colony Park Group 公司。另為使本資料庫系統能永續發展,急需有贊助者提供長期的經費支援,截至目前,僅 APLAC 承諾提供

贊助，召集人懇請各經濟體提供可能贊助者名單以供 Colony Park Group 逕自洽詢。

● 任務編組於上一次會議臨時成立一特別小組(ad hoc group)起草聯合委員會章程及任務，該草案內容提交本次專案推動小組會議討論，經少許文字修訂後定稿。另任務編組決議第一次聯合委員會訂於 3 月 15 日下午召開，並交付聯合委員會擬訂致 CITEL PCC.1 工作小組的聯絡聲明書，以正式啟動雙方在 MRA 執行工作上的合作關係。

● 由於會前所分送予各經濟體的「APEC TEL MRA 指引及管理工具」文件非正確版本，會中主席提供了正確版本供專案小組成員討論，任務編組決議經本次會議修訂後之版本，請主席於出席下一次 CITEL PCC.1 工作小組會議時，提請 CITEL 卓參。

● 澳洲提出一項 APEC TEL MRA 推展計畫的建議案，本計畫案主要目的在告知電信產業及 MRA 符合性評鑑機構，APEC TEL MRA 的性質及為產業所帶來的利基所在，以擴大 APEC TEL MRA 的執行成效，本案業獲得任務編組的支持提交 TEL 申請中央基金 US$19,863.50 經費補助。

● 由加拿大與澳洲共同所主導的 HRD MRA 訓練設計計畫案提出其模組化設計的訓練計畫報告，並設計一份訓練需求的調查表，擬請各經濟體填寫所需的訓練模組及時程需求以提供其作為課程設計的參考。

● 任務編組決議下一次的 MRA 專案推動小組會議應著重在第二階段程序的執行，另一項新的符合性評鑑程序－供應商符合性聲明(Supplier's Declaration of Conformity, SDoC)將會納入下一次的 MRA 專案推動小組會議的議題中。

● 任務編組決議向 TEL 建議於 APEC TEL 24 大會前，安排為期一天的 MRA 專案推動小組會議，並規劃於 APEC TEL 24 會期中擇日舉行第二次的 MRA 聯合委員會，以持續討論 MRA 第一、二階段程序的執行，由於 APEC TEL MRA 的執行已進入實質工作層次，細節性的討論，召集人再次呼籲所有經濟

體的監理機關及指派權責機關均能派代表與會。另 MRA 任務
編組亦計畫於今年九月在美國與 CITEL 召開第一次的聯合
會議，以深度討論雙方合作之細節及作法。

三、MRA 聯合委員會(MRA Joint Committee)

- 本委員會於 3 月 15 日下午舉行，因聯合委員會主席人選未
  定，本次會議暫由 MRA 召集人 Mr. Andrew Kwan 代為主持。

- 本委員會主要成員依聯合委員會參考文件規定將由各參與
  MRA 經濟體的監理機關、指派機關、符合性評鑑機構及亞太
  實驗室認證聯盟(APLAC)代表組成，以解決 APEC TEL MRA
  執行中所遭遇到的問題並排解爭議為宗旨。

- MRA 專案小組與聯合委員會的區分，經討論後，經濟體共識
  如下：

  1. MRA 專案小組參加成員為 APEC 21 個經濟體；而聯合委
     員會參加成員則僅為參與 MRA 的經濟體。

  2. MRA 專案小組得處理所有有關 APEC TEL MRA 相關事
     務；而聯合委員會則係在 MRA 專案小組下所成立的一個委
     員會，以解決 APEC TEL MRA 執行中所遭遇到的問題並排
     解爭議為其宗旨。

- 有關 APEC TEL MRA 專案小組致 CITEL PCC.1 工作小組的
  聯絡聲明書(Liaison Statement)內容在會中完成草案，若各經
  濟體還有任何意見，MRA 召集人要求在 3 月 21 日前以 E-Mail
  方式併行通報各經濟體 MRA 聯絡窗口，以使其能足以充分
  代表 APEC TEL MRA 專案小組的共識將之遞交於 3 月 23-26
  日在巴西舉行的 CITEL PCC.1 工作小組會議。

- 有關 MRA 文件使用語言問題，與會經濟體共識如下：

  1. 有關符合性評鑑機構(CABs)的相關資訊(如技術法規名
     稱、認證資格條件、評鑑標準、檢核表及認證、認可、指

派程序等)除以當地語文表示外，均應將之翻譯為國際共通語言－英文，以利相互承認之執行。

2.有關測試報告、使用手冊等則得要求僅以當地語文表示，但應以各經濟體法規命令中所有限制者為限。

● 聯合委員會主席人選於本次會議結束前，MRA 專案小組召集人提名由澳洲代表 Mr. Ian McAlister 擔任，獲全體代表一致通過。並決議下一次的 MRA 聯合委員會擬於 APEC TEL 24 會期中擇日舉行。

四、互運講習會(Interoperability Workshop)

互運講習會於 3 月 12 日上午舉行半日。

議程：

分兩個時段，共有 6 個演講，以及討論。

時段一：APEC TEL 有關使用者需求之計畫及主要議題

(1) 演講人 Mr. Paul Greenfield (Senior Research Engineer, CSIRO, Australia)，講題為"Preliminary report by consultant providing an integrated view of IT (Integration and telecom (bandwidth/compression) issues including XML developments"

Mr. Greenfield 表示目前電子商務現勢為缺乏信心(Trust)與需求 (Needs) ，其研究報告登載於 http://www.noie.gov. au/publications/NOIE/NEAC/Publication_csir0608.pdf。研究之最後報告將於 2001 年 4 月完成。另 Mr. Greenfield 指出 APEC 相關之議題如：標準、語言及文化之支援、實地測試、法定架構等。Mr. Greenfield 的連絡電子郵址為 paul.greenfield@cmis.csiro.au。

(2) 演講人 Mr. Tom Boutin (Director, TIE Asia Pacific, Limited,

Hong Kong)，講題為"XML as a way forward"

Mr. Bontin 強調 ebXML 是電子文件通信之最佳途徑，並舉例何以 ebXML 將獲擴展。EbXML 概念之實證及規格將於 2001 年 5 月完成。(網址http://www.ebxml.org.com)

(3) 演講人 Mr. John Daly (Hong Kong, China)，講題為 "Interoperability in a Multi-Format and Multi-Protocol Environment"。

Mr. Daly 提出一種集中式信息仲介機制(a centralized message broker)以解決不同環境間之互運問題。

時段二：影響國際互運之不同企業模式及個案研究

(1) 演講人 Mr. Jan Gessin (Consultant, AOEMA)，講題為"Issues for business of transparency, trust, business standards, access to data, privacy etc. (including sectoral models and financial transactions)"。

Mr. Gessin 指出目前電子化企業之問題有：互連、信息標準之實施、技能、起始、持續之費用、法定系統等。Mr. Gessin 亦指出目前電子化企業較嚴重的問題有六個：非英語系經濟體中小企業之語言障礙、線上交易安全性、技能之短缺、Internet 接取/基礎建設之高額費用、消費者保護法規之不確定性、及金融交易等。

Mr. Gessin 指出當公司愈大對電子化企業愈有興趣，所以目前要加強中小企業的進入電子化企業。

(2) 演講人 Mr. Yoshi Kazu (Program Manager for Telecom Relations, IBM Japan, Ltd. Japan)，主講個案研究報告"Intermediaries – INGECEP"。

"INGECEP"計畫始於 1995 年 TEL15 會議，計畫著重在跨界電子商務議題，新加坡與日本間並已建立相關之先導系統。Mr.

Kazu 指出使用者對全球電子商務之意識依序為：語言(52%)、隱私(49%)、無吸引人之產品(37%)、運費(35%)、進口/付款(30%)、運送、電信安全等。

(3) 演講人 Mr. Jason Lee (Serior Manage, Strategic Planning Team, Commerce Net Korea)主講，講題為"Brief update on B2B Agent-based interoperability project"。

韓國於 1999 年開始 INGECEP 計畫，此演講大概介紹 Korea INGECEP 之進行狀況。

五、網路互連專案小組會議(Interconnection Task Group Meeting)

網路互連專案小組(Interconnection Task Force Meeting)會議於 3 月 12 日上午舉行，由自由化指導分組(LSG)副召集人加拿大籍 Ms. Kathy Fisher 擔任主席，重要事項分列如下：

1. 互連原則(APEC Principles of Interconnection)：

由美國報告 APEC 網路互連原則之檢視並徵求對該原則之修訂意見。

2. 網路互連訓練計畫(Interconnection Training Project)：

澳洲報告在人力資源開發指導分組(HRDSG)下此計畫之進行情形。會中建議各經濟體之業者們參與及提出簡報，並提供實務範例以作個案研究。

3. 網路互連資源計畫(Interconnection Resources Project)：

澳洲提交網路互連資源計畫之進度報告，承包該計畫之顧問公司(Lecom Associates)並簡報計畫之相關進展。

4. 網路互連原則在網際網路服務上的應用-用戶迴路細分化：

澳洲通信資訊技術暨藝術部 Mr. Richard Desmond 在會中作簡報，提出澳洲將用戶迴路細分化之經驗。

5. 專案小組未來工作

會中曾提議要結束網路互連專案小組之任務，且於該小組功成身退後，將該專案小組的工作回歸至自由化指導分組。該提議獲澳洲及美國之支持。至於網路細分化與線路共用等議題，則希望以後自由化指導分組能作進一步之研討。

六、數位落差及技能短缺研討會(Digital Divide & Shortage Workshop)

APEC 領袖們在 2000 年汶萊會議中指示，應使各經濟體之偏遠地區居民能於 2010 年前透過 Internet 享有資訊服務，在此之前則期許亞太地區內接取 Internet 服務之人口於 2005 年前增加為三倍。本項研討會於 3 月 12 日上午舉行半日，係回應上述領袖指示，旨在促進發展一套政策架構，以減低 APEC 區域內之數位落差。

研討會共有十二位講者分別就數位落差及技能短缺議題發表演說，議程及相關文件登載於網址：http://www.tel23.org/workshop. html#inter。

會中提及利用 Internet 及其他電子通信對 APEC 所有經濟體之未來發展有其重要性。在降低 Internet 接取費及刺激多樣服務方面，競爭及自由化是必要之政策。會中亦強調正面經濟環境之重要性，由於 Internet 服務之使用及新型應用之增加，可見有必要訂立公共政策以確保 Internet 之普遍利用。

在發展相關計畫以處理數位落差方面，講者認為應維持以商業為中心之觀點並提供相關應用，創造並擴大目標群體之服務需求，其中政府角色居重，應將政府相關計畫及服務上網，以協助創造前述需求。

在技能短缺議題方面，技能職工(skilled workers)之徵募亦普受關切。技能短缺影響經濟體之各階層，技能之可流動性亦造成留任、薪資上漲及人才流動等問題。教育及訓練是目前公私部門所

採取之因應方式。惟解決技能短缺並無單一靈藥，仍有賴公、私人部門之合作以求共同解決。

會中並認為，一項政策如欲有效處理數位落差及技能短缺議題，則該政策應具備下列特徵：領導、合作關係、政策一致性、以市場為中心、及持續性。另為促進經濟體間對相關政策及計畫之經驗分享，會中鼓勵各經濟體答覆數位落差之問卷調查。

七、網際網路專案小組會議(Internet Issue Task Group Meeting)及網際網路議題講習會(Internet Issues Workshop)

(一) 背景

1998 年 6 月於新加坡召開之第 3 次電信暨資訊部長會議(TELMIN3)建立了國際網際網路頻寬收費協議(International Charging Arrangements for Internet Services, ICAIS)專案小組。該專案小組於 2000 年 5 月向在墨西哥召開之第 4 次電信暨資訊部長會議(TELMIN4)提出報告，其中「APEC 國際網際網路頻寬收費協議原則」(*APEC Principles on International Charging Arrangements for Internet Services*)獲得通過，部長們也同意未來電信工作小組應針對網際網路收費議題提出進一步行動。其中，大部分的工作係由 TEL 各指導分組負責推動，並條列於 TEL22 會議主席報告之附錄中。

TEL22 建立網際網路專案小組來協調相關活動，及報告相關之進展。其授權事項(Terms of Reference)在 TEL22 出席代表的協助下，業經主席定案。本專案小組的第一個任務即是組織一個研討會，於第 23 次電信工作小組會議(TEL23)時召開。

(二) 網際網路議題研討會(Internet Issues Workshop)

本研討會於 2001 年 3 月 12 日召開，計有三場簡報：

1. 澳洲 Telstra 電信公司 Mr. Geoff Huston 以「在網際網路架

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構及協定上的發展」(Developments in the Architecture and Protocols of the Internet)為題提出簡報。

Mr. Huston 針對改變中的網際網路架構提出概述，特別是關於線路容量的快速發展、網路本質的改變及互連的趨勢等事項。他的結論提到，IP 傳輸市場已是十分普遍及生活化，「同儕」(peers)關係在許多層級已變成「客戶」(customer)間的關係，而底層的網路業者亦不再像過去那般占優勢，使得上層 ISPs 有機會避開互連瓶頸。此外，網際網路內容市場之演進也是一個重要的議題，必須與載送(carriage)市場分開考量。

2. 新加坡 Starhub 電信公司 Mr. Masao Fujita 以「從網路業者角度來看網際網路服務提供之發展」(Developments in Internet Service Provision from a Carrier's Perspective)為題提出簡報。

Mr. Fujita 描述 Starhub 以新進業者在競爭市場中運作的經驗。Starhub 的目標在成為新加坡的網際網路轉接站，以提供接取至區域及全球網際網路基礎架構的服務。Starhub 也注意到，隨著頻寬的增加及區域鏈路的發展，與美國的通信量已相對降低。Starhub 認為，西太平洋區域內之互連發展及區域內漸增的點對點連接，對成為有競爭力的網際網路業者將是相當重要的。同時，提高對線路擁有權的機會，以降低擁有線路之既有網路業者對價格設定的能力也是相當重要的。此外，由於新的應用服務對系統正常運作及延遲時間的嚴格要求，服務品質也變成一個漸受重視的議題。

3. 美國 CIX 公司 Ms. Barbara Dooley 以「大規模頻寬供給之發展」(Developments in large-scale bandwidth provision)為題發表簡報。

Ms. Dooley 描述近年來技術的發展，已快速促使容量增加及價格下降，特別是在美國及歐洲地區；而降低對衛星的選擇則是一個主要的因素，當線路容量之價格正已超過吾

人想像的速度持續下降時。她提出,「公眾點對點互連」(public peering),利用如 CIX 般的共同交換平台,在衰退數年後已漸呈復甦。針對服務之提供,新的安排如多點傳送(multicasting)是需要;交換設備(或網路接取點)則逐漸以固定頻寬分配方式來運作,而非以訊務流量來清算。新的光閘道協定(Optical Gateway Protocols)的可行已造成更多的直接點對點互連,也因此降低對現有骨幹提供者的依賴。

紐西蘭 Mr. Frank March 及墨西哥 Mr. Ricardo Rodriguez 隨後加入簡報者,一起進行小組座談,討論簡報者及聽眾所提的議題。主要議題包括:

● 對價格及其所導致的網路接取困難,特別是在較未開發的經濟體中。

● 國際連線的費用,以及發展區域網路中心(regional hubs)的需求。

● 相關議題及網際網路收費與經濟理論快速改變的複雜度。

● 基礎建設的高成本,及在此成本及最有利的監理架構中取得平衡的需要。

● 2000 年在技術及通信公司低迷下的不利影響,雖然整體產業仍是呈現成長的。

● 考量網際網路專案小組授權範圍之需要,以規劃電信工作小組未來方向。

(三) 網際網路專案小組會議(Internet Issues Task Group)

本專案小組會議於 2001 年 3 月 14 日晚間召開,主要是討論授權範圍及研討會之成果,並規劃後續活動及準備提交大會之報告。

1. 為本專案小組所建議之活動

本專案小組被賦予持續討論及發展國際網際網路頻寬收費協議之角色，並促進企業/私部門與政府間以合宜的方式進行對談，來評估及酬賞在 APEC 經濟體間所交換的整合型網際網路服務所孕育的產品及服務價值。對此，本專案小組決定採取兩個明確的行動：

- 線上(online)資訊及討論的啟動：本專案小組同意應由本小組召集人組織一個電子「虛擬論壇」(Virtual Forum)，透過電子郵件及網站，來交換及置放各經濟體之觀點與提案。本討論的第一個建議是將研討會簡報資料(在作者同意下)公開，其它的文件及貢獻也在歡迎之列。建議推薦一個小的監督委員會來協助召集人，並負責與網頁管理者連繫，成員包括韓國、中國大陸、美國、墨西哥、加拿大及澳洲。在專案小組會議之後，此委員會針對「虛擬論壇」的可能建立方式進行討論；澳洲被要求發展一些政策草案及實用的指導方針，提供予召集人。

- 網際網路研討會：本專案小組同意向大會提出在 TEL24 時召開一個研討會或講習會(seminar or workshop)的建議。此研討會應有公私部門的強力參與，並應儘可能包括來自廣泛地區的私部門參與，以呈現全面性及平衡的看法。

(四) 各指導分組之參與及本領域中其它相關發展

有關各指導分組提交之報告及本領域中其它相關發展，如國際電信聯合會(ITU)針對 IP 電話所召開之「世界電信政策論壇」(World Telecommunication Policy Forum, WTPF)，請參考附件一。

在大會中，美國繼 IITG 召集人之報告後，對 IITG 會議之討論摘要提出補充事項，即價格之降低與頻寬利用之增加意味著 ICAIS 已不再是各經濟體之主要經濟考量，該項補充獲 IITG 召集人之同意。有關 IITG 電子論壇(electronic forum)之運作方式，將由 IITG 召集人於 TEL 會後通知各經濟體。

八、監理者整合圓桌會議(Regulators' Round Table on Convergence)

配合 APEC 電信工作小組第 23 次會議，首次 APEC TEL 監理者圓桌會議於 2001 年 3 月 13 日在澳洲主辦下召開。澳洲通信管理局(Australian Communications Authority)主席 Mr. Tony Shaw 主持本次會議，計有來自 19 個經濟體的資深官員參加，包括 APEC 區域內 10 個監理機構。

本次會議主題為「獲取整合之利益」(Capturing the Benefits of Convergence)，並透過 Gilbert+Tobin 法律顧問公司所建立的一系列個案研究來促進討論，該公司同時也贊助 Ashley Brown 教授擔任專題演講者。其他的演講者包括來自澳洲電力及電子製造協會 Mr. Peter Waters 及來自 Gilbert+Tobin 公司的 Mr. Angus Henderson。本工作小組主席 Ms. Valerie D'Costa 也在會議中致詞。

(一) 綜合討論

討論的重點集中在監理單位的社會責任、監理的工具及監理單位在促進技術發展上的角色。此責任需在取得一種平衡，並考量短期上消費者的利益及長期上市場力量的發展。

基本上與會代表均認同不存在「一個適用於所有問題的方案」，且所有經濟體各有令人感興趣的議題，也各有其處理方法。主席在其結束致詞中加註，注意到在午餐的非正式討論中，意見的範圍及每個監理單位面對的主要議題之類似處是相當有趣的；他也提到電信工作小組可以協助促進對話，這是相當重要的，特別是資訊分享的價值不應被低估；電信工作小組應該也可以協助為新的監理單位建立最佳的實務模型、工具組及指導原則。

他歸納相關重點有：

1. 需要瞭解「什麼事正在發生」及「我們正在處理的市場」。

2. 經由本會議之討論，瞭解到什麼樣的監理工具是可得的，以及其中許多工具係被共用的；

3. 需要確定我們明智地使用這些工具。

本會議監督者新加坡，對香港、中國大陸及美國加入監督委員會表示感謝；同時對澳洲，特別是 NOIE、ACA 及 Gilbert+Tobin 的參與及辛勞表示謝意。另外也謝謝波音公司對本會議的贊助。

(二) 自由化指導分組的進一步行動

自由化指導分組之各經濟體代表若能夠從其出席本圓桌會議的代表獲得確認，是否本會議是有用及值得參加的，將是非常有幫助的。針對是否召開另外一個類似的會議，以及若要召開應採取什麼樣的方式進行，倘能獲得各經體的回應也將是相當有益的。

(三) APEC 監理展望：2001 (APEC Regulatory Outlook: 2001)

在本次圓桌會議期間，監理架構計畫(Regulatory Structures Project)特別要求與各經濟體進行一對一面談，以蒐集各經濟體中電信及整合產業之相關監理架構，我國針對其問卷所提交之資料，業經監理架構計畫承辦單位之確認，已相當完整，如有進一步需求將會再與我國相關人員或單位連絡。

九、無線議題講習會(Wireless Workshop)

根據 2000 年 5 月第四屆電信暨資訊部長會議之決議，部長們期待工作小組須對由於無線技術的改進所帶來的商業效益及競爭情形加以探討，而無線議題講習會為的正是了解無線技術的演進可能對社會、公共政策及經濟等各方面帶來的影響。

無線議題講習會於 3 月 12 日下午舉行，由 KPMG 代表 Mr. Bill Hendericks 主持，會中邀集包括業者、經營者及政府相關的講員，分別就技術、發照、應用進行演講與討論。

首先是由 Mr. Bill Hendericks 就行動商務的趨勢部份作一介紹，隨後來自香港、日本、印尼的學者分別由應用面說明行動商務在

不同地區的發展情況，尤其是日本已將無線通訊實際應用在社區與學校內，便利大眾的一般生活。

其後並有講員由技術及發照層面來討論 3G（第三代行動通訊）最新的發展極可能對大眾生活帶來的影響。

十、電子安全專案小組會議(e-Security Taks Group Meeting)

電子安全專案小組會議於 3 月 12 日下午召開。

<u>電子認證(Electronic Authentication)</u>

(1) 電子交易跨國認證之公開金鑰基礎建設形式 (PKI Demonstration of Cross Border Authentication of Electronic Transactions)--澳洲

Baltimore Technologies 提出一份報告就 PKI 網路互運形式與 TEL23 連結作整理，這形式包含在三個經濟體的 CAS（認證中心）產生金鑰及認證，並可運用在澳洲顧客申報稅，每一個 TEL 代表團擁有個別的金鑰對及認證俾便以此形式加入使用，此形式在以不同技術作跨國交易時可用來認證。

(2) 公開金鑰基礎建設網路互運專家小組報告(Report of PKI Interoperability Expert Group)--加拿大

加拿大感謝下列各經濟體回應有關 CA 認定大綱問卷：澳洲、中華台北、中國香港、日本、韓國、新加坡、泰國、及加拿大。

這報告研究在某些方面表現高度一致性，也揭示在下列方面的不一致性，如：網路互運及交互認證的方法、安全功能的績效(performance)、及政策功能及政策的存在。

(3) 多重格式及多重協定環境下的電子認證 (Electronic Authentication in a Multi-Format/Multi-Protocol Environment)--中國香港

在轉換不同系統時訊息的傳輸是重要的，任何格式或協定的改

變將導致數位簽章與原始訊息無效，信任(託付)訊息轉換服務或包含原始簽章訊息加上重新格式化訊息可以克服這項問題。這問題須政府制定法律或政策，特別要聯合私鑰的持有人。

專案小組同意將下列建議提給 BFSG(商務便捷化指導分組)：

當制定法律、政策及標準時，經濟體須明瞭電子訊息系統的格式化及協定需求將使附加原始訊息的數位簽章無效。

專案小組同意將此報告附加在電子認證議題 PKI 附錄報告中。

(4)政府公開金鑰基礎建設：計畫看門者(Government Public Key Infrastructure :Project Gatekeeper)--澳洲

澳洲提出看門者計畫概觀，全國均接受看門者計畫策略，此計畫概述澳洲商業數位簽章認證(Australian Business Number-Digital Signature Certificate：簡稱 ABN-DSC)，相關資訊置於網站上http://www.govonline.gov.au/projects/abn-dsc.htm

計畫概述看門者鑑定認證，為幫助全國性及國際性的網內互運而設計，這認證對於符合看門者鑑定規範標準(Gatekeeper accreditation criteria)者會發給 CAS，關於規範標準請參考http://www.govonline.gov.au/publications/CA-AccreditationCriteriaV8.PDF

專案小組同意將此報告附加在電子認證議題 PKI 附錄報告中，澳洲、加拿大及香港表示願加入此草案計畫。

(5)跨國交易之 PKI 認證信任清冊的使用方法(Use of Certificate Trust Lists in PKI for cross-border transactions)--主席、中國香港

主席說明 PKI 論壇已確認了「認證信任清冊使用方法」是認證中心對認證中心(CA-CA)網內互運可能的解決方法。延伸此觀念，PKI 網路互運專家小組正提出有關合格的管理機構使用數位簽章認證信任清冊能夠滿足某部分網內互運的議題。歐洲電子簽章標準創始亦表示對此觀念有興趣。

中國香港概述貿易連結，已核發 150,000 憑證協助食品的進出口，也提供資訊給泛亞洲電子商務聯盟(Pan-Asian eCommerce Alliance)。

工作小組同意將此議題納入電子認證議題 PKI 附錄報告中。

(6)身份的證明(Evidence of Identity)--澳洲

澳洲介紹有關身份證明的報告並紀錄依據交易的型式作個人身份變更的重要性及分辨一般平民或罪犯的程序，紀錄全國性的安全與 EOI（EDI Over Internet：網際網路電子資料交換）有高度的密切關係。專案小組同意將報告納入紀錄並將內容考慮附加於議題報告中。

(7)合法性(有效性)公信力(Validation Authorities)-澳洲

此議題的報告已於 TEL22 發表，此次係提出修訂版；專案小組同意將此修訂版納入電子認證議題 PKI 附錄報告中。

國際活動：

(1)OECD(世界經濟合作與發展組織)--澳洲

主席歡迎 Mr. Peter Ford，在 OECD 中負責資訊安全及隱私權方面，曾是澳洲代表團之一，他報告 OECD 對於有關未來在會員經濟體間 PKI 活動的研究將不再是機密，這研究證明在電子認證之合法承認上有良好的進展，他們仍有一些法令的形式需求，但傾向中央中立，幾乎所有國家已開始或計畫開始進行電子化政府的活動。

關於網路互運雖然仍有些問題，但大部分國家對外國認證已採取一個無差別待遇(non-discriminatory)的方法，此報告確定兩個領域可進一步研究：認證中心的識別、對照及連結，及收集更多網路互運決定性觀點的相關資訊。

(2)歐洲電子簽章標準組織：European Electronic Signatures Standards Initiative(EESSI)--主席

主席報告有關專案小組已和 EESSI 建立聯絡管道及獲邀加入

一起工作,特別是認證中心發行合格認證方面有關歐洲電信組織(ETSI:The European Telecommunication Institute)技術規格的政策需求 TS 101 456,此規格可參考 http://www.etsi.org/sec/el-sign.htm。

(3)歐洲電子訊息協會:European Electronic Messaging Association (EEMA):PKI Challenge—主席,AOEMA

主席致力於有關工作小組加入 EEMA 的 PKI Challenge 之研究,主席先前通知 EEMA,表示專案小組並非認證中心且無法參加技術方面研究,但能提供政策建議及從 PKI Challenge 獲得利益,如同政策商議的一部分。主席鼓勵各會員經濟體的認證中心加入此 Challenge。

AOEMA 概述此協會的歷史及其與 AOEMA 的關係,AOEMA 也鼓勵地域性的認證中心加入。

馬來西亞認為任何離型系統須包含數位簽章及電子簽章等。

(4)亞洲公開金鑰基礎建設論壇(Asia PKI Forum)--新加坡/韓國/日本

新加坡報告有關亞洲 PKI 論壇已成立,由新加坡、韓國及日本組成,此論壇的目標為實現會員體之間的網路互運及和歐洲、大洋洲及北美洲相似論壇之連結,為亞洲國家及地區建立共同的基礎設施。

韓國概述 PKI 的發展及韓國電子商務法,已於 2001/03 建立 PKI Forum,宣布將於 2001/04 舉行 PKI 會議,並邀請各代表團參加,詳細資訊可參考 http://www.kisa.or.kr/pki。

日本表示將於 2001/06 舉行亞洲 PKI 論壇第一次聯合大會,相關會議細節尚未完成,完成後將廣為宣傳。

中華台北表示將於 2001/03-04 間召開 PKI 論壇之籌備會。

(5)Identrus:世界銀行之 PKI 及其法令影響(PKI for World Banking and its Regulatory Impact)--澳洲

Identrus 是由銀行公會負責的線上財務服務交易信任架構，此架構包含國際根認證中心（Root CA）與參加銀行之合格認證中心，他們提供的主要附加價值為擔保服務。

(6)ISO 起草技術規格 17090:健康資訊學--公開金鑰基礎建設(ISO Draft Technical Specification 17090：Health Informatics--PKI)--主席

ISO 正起草技術規格 17090:健康資訊學--公開金鑰基礎建設，預期將在未來幾個星期內完成，包含 CP，CPS 詳細規格及健康部分的認證架構。

(7)公開金鑰基礎建設論壇報告認證中心與認證中心之網路互運(PKI Forum paper CA-CA Interoperability)--主席

主席告知有關 PKI Forum 已完成報告，利用不同的方法實現認證中心與認證中心間的網路互運，關於專案小組在交互認證上的工作成果亦包含在報告內，此報告亦提出部分研究如：交互認證、bridges、鑑定認證及認證信任清冊，專案小組將就 PKI 議題持續參與 PKI 論壇。

電子安全(eSecurity)

(1)電子安全的未來商業需求(Business Perspective of the Need for eSecurity)--美國

美國敘述網路安全如同 Y2K 沒有時間性，有不確定的威脅，不斷的警惕是需要的，電子商務降低時間的成本是可觀的，根據最近的調查指出：

• 佣金方面$6.5m/hour

• 信用卡權力中心系統$2.6m/hour

• 每台 ATM(自動櫃員機)$14,500/hour

私人的部分有責任按順序擁有自己的建築物，如同政府無法用立法來解決，然而政府並非旁觀者，必須經由示範引導，例如：

- 發展全國性的緊急系統的保護策略

- 監視及報導自己本身的進展

- 商業的促進/政府的合作

- 提供投資環境

政府與產業界應合作發展標準。

(2) 資訊科技安全訓練及倫理套案（IT Security Training and Ethics Packages）--美國

美國介紹二個加入計畫（美國及澳洲）並提給人力資源開發指導分組參考，計畫包含讓 APEC 會員能透過網站使用資訊科技安全訓練及倫理套案。

美國解釋資訊科技安全專業的技能短缺及成長，並指出待克服短缺的障礙如：

- 只有少數大學院/系/科開設特殊專業科目

- 業界招募少數已存在的大學院/系/科

- 加入畢業學生及大學學生

- 缺乏相關的課程及資料

- 須要重新教育工作中的全體人員

- 連結正研究進行中的教育成果失敗

下面設計的訓練模型可供參考：

- 資訊保護的介紹：5 小時

- 個人電腦及工作站的安全：4.5 小時

- 安全基礎：12 小時

- 法律及立法（法規）：9 小時

- 系統安全：15 小時

- 通訊安全：7 小時

- 團體的安全管理：17 小時

- 會計控制及電子資料處理稽核：18 小時

(3)建立在安全標準上之企業模式(Industry Module Based Security Standard)--韓國

韓國提出企業基準安全標準(Industry Module Security Standard：IMSS)，它允許高階標準依企業的不同需求而修改，此觀念可延伸至國際各經濟體，可依各自商業及文化習慣的不同而修改其高階標準，此項標準的管理由政府及企業代表組成的委員會管理。

資訊科技安全之國際發展(International Developments in IT Security)

(1)OECD (世界經濟合作與發展組織)--澳洲

OECD 正進行 1992 資訊系統安全指導方針的回顧評論，係描述網路社群的成長及網路互連的情形，OECD 期待建立網路俾以動態方式交換資訊，亦進行研究有關國家間使用者對資訊科技安全產品的需求。

日本亦報告將於 2001 年 9 月與 OECD 召開資訊安全聯合講習會，此講習會將訂出 OECD IT 安全指導方針，除 OECD 會員外，APEC 經濟體也將獲邀參加。

(2)國際標準--資訊安全管理(ISO 17799)--澳洲

ISO 17799 是由 10 種範疇 36 目標組成的實施碼，127 檢驗可從解釋資訊中選擇，它涵蓋所有資訊安全管理的範圍：

- 安全政策(security policy)

- 安全組織(security organisation)

- 資產分類及控制(asset classification and control)

- 職員的安全(personnel security)

- 實體及環境的安全(physical and environment security)

- 通訊及操作管理 (communication and operations management)

- 存取控制(access control)

- 系統開發與維護(systems development and maintenance)

- 商業連續性之管理(business continuity management)

- 符合性(compliance)

一個認證架構已發展成 ISO 17799，澳洲已有第一個公認的保證書。

澳洲目前正發展 AS/NZS 4444 簡介，它是 ISO 17799 澳洲的版本，是有關醫療及中小企業方面，已完成的簡介即將實施 IMSS，並將由韓國提出。

各經濟體資料的更新(Economy Updates)

澳洲(Australia)

澳洲概述有關該國國家電子認證會議(National Electronic Authentication Council：NEAC)的活動，該活動是由政府贊助，並由私人部門組織及部分政府部門組成。NEAC 為政府及私人部門間的橋樑，它發行一些報告刊登在網站上 http://www.noie.gov.au 。

澳洲提出有關澳洲的認證論壇已展開，包含紐西蘭及大洋洲認證論壇(Certification Forum Australasia)，已有 35 個會員，他們都是 stakeholders in PKI，辦理一些研討會展示 PKI、智慧卡及生物統計。

澳洲亦告知關於政府編列的國家資訊基礎建設計畫已變更，現在

由國家政府機關資訊經濟中的電子商務部門協調負責，關鍵性的元素是諮詢企業論壇(Consultative Industry Forum)，主要的議題為知識的提升及事件報導，非專業律師部門(The Attorney General's Department)負責國家安全方面。

加拿大(Canada)

加拿大報告有關 PKI 如何讓大多數人加入私有部分。相關資訊可參考http://www.ecom.ic.gc.ca

加拿大宣布國家防護措施部門的作品，即政府機關的關鍵性基礎建設保護及緊急事件的處理，加拿大的重要性策略為：

a. 將加拿大政府列入良好政府的發展

b. 建立創造性及可信賴的合作關係

c. 發展有效能的、有目標的計畫

d. 發展具全國性的操作能力

中國香港(Hong Kong, China)

已提供有 60-70 線上的電子化政府服務，20 個須數位認證，每天大約有 2,500 交易獲得電子化服務是令人滿意的。香港 CERT 已建立並提出網際網路安全議題。

新加坡(Singapore)

報告有關資訊通訊發展機關負責資訊通訊安全及研討保護公開部門系統的程序，SingCERT 已建立，新加坡資訊通信發展局(IDA)計畫與金鑰保管者工作，評估資訊通訊的信任。IDA 正在調查資訊通訊安全標準及指導方針，及辦理研討會及講習會。新加坡警察已有能力調查電腦犯罪活動及實施新加坡電腦犯罪法。

美國(United States)

美國政府發表關鍵性基礎建設研究及發展的報告，此報告指定八項優先 R&D 議題：

- 建立資訊基礎建設保護組織

- 員工關鍵性基礎建設保護(Critical Infrastructure Protection)研發 的教育及訓練研究

- 相互依存性分析(interdependency analysis)

- 威脅、弱點及風險評估研究

- 系統保護及資訊保險

- 受損復原或放棄系統

- 安全的自動基礎建設控制系統

- 干擾偵測及監控

它具有下列優點：

- CIP R&D 與其他優先權的協調

- CIP R&D 與技術發展同步

- 資深官員的簡報

- 加強大學方面有關 CIP 訓練及發展

PKI 論壇的合作安排（Cooperative arrangements with PKI Forum）--主席

主席報告有關電子安全專案小組（eSecurity Task Group）已獲邀成為 PKI 論壇的會員，表示二個團體間可以互相交換文件資料，電子安全專案小組可以參加 PKI 論壇會議，PKI 論壇代表可參加特定經濟體代表團的專案小組會議。

十一、電子化政府講習會(e-Government Workshop)

電子化政府講習會於 3 月 13 日舉行，由澳洲 Mr. Colin Oliver 主持，共分四個時程進行，共邀請 12 位代表到會演講。

時程一：

演說議題包括 APEC 經濟體有關電子化政府之策略性意義、策略的優先性、及推動相關計畫之管理與審查。演講人計有來自泰國、加拿大、及香港之代表。

1. 有關加拿大之政府線上服務(Government On-line)內容大致如下：

為制訂正確政策、立法以及完整的國庫架構協助電子商務發展，加拿大政府積極加強建立更多網路鏈結。加拿大政府與私人單位、有意願加入單位、大專院校、顧問公司及其他管轄單位共同合作建構更便利的線上連結。要建立加拿大成為全球電子商務中心有 7 個主要議題，包括公開金鑰基礎建設、安全與加密、消費者保護、標準、數位簽章、課稅中立和隱私權。加拿大政府將於 2004 年全面完成線上服務，希望與大眾有更密切的接觸。在過去 3 個月裡，已有 43％網路使用者拜訪過加拿大政府網站，而有 72％民眾支持電子化政府的行動。報告人 Miss McDonald 表示智慧型政府應與民眾保持良好互動關係，同時要提供民眾或企業更好的商業服務，扮演電子商務和知識經濟的催化劑。新的加拿大政府網站（www.canada.gc.ca）提供了更方便的捷徑進行所有功能操作，也更符合上網者的需求。以下幾個網站資訊提供大家參考：

● 加拿大政府網站：www.canada.gc.ca

● 民眾鏈結網站：www.connect.gc.ca

● 線上政府網站（指標和導引資訊）：www.gol-ged.gc.ca

● 最高資訊長（受予線上政府網站資訊的主要授權者資料）：www.cio-dpi.gc.ca

2. 有關香港之電子化政府服務內容大致如下：

香港在建立電子化政府過程有四個主要階段：

(1) 利用網路推廣政府各部門資訊

(2) 與民眾建立雙邊溝通管道

    (1) + (2) =Hong Kong later 1990s

(3) 建立交易傳輸能力

(4) 建立政府線上服務入口網站

    (3) + (4) = Kong Kong 2000/2001

香港在 2000 年頒佈了一項電子交易法案--Electronic Transactions Ordinance (ETO)，主要提供 PKI 和 CA 授權的數位簽章法律架構。B2C 交易需要數位認證這道安全措施，針對 G2C 部分香港政府成立一家 ESD 服務公司，目的在提供使用者更完整的服務，並希望透過 ESD 資訊系統架構進行電子商務發展。ESD 資料可參考www.esd.gov.hk。另外 G2B 部分，亦即政府電子採購法，香港政府亦有一項 GSD Online 計畫，前端設計電子招標系統 (Electronic Tendering System, ETS)，計畫在 2001 年擴展 ETS 系統，方便讓超過 100 萬購買金額的廠商運作並預計拓展電子型錄使用，所有公開招標文件於 2000 年 8 月均已製作成光碟，ETS 系統也於 2001 年產出。未來在技術方面，香港政府將加強行動商務和數位傳輸、磁帶 ID 卡和護照、EDI 海關出入許可證、電子付款、及所有產品後端庫存系統；而在交易市場方面將加強與大陸的合作關係、地區性交易市場、金融中心作業系統，並鼓勵更多線上供應商的直接交易進行。

時程二：

演說議題為政府互運(包括網站、XML、標準、單一窗口、入口窗口等)，由新加坡、印尼等發表演說。

時程三：

市民及資訊服務之個案研究。韓國倡議發表其電子化政府：G4C 計畫。澳洲報告其企業交易服務：電子化採購之個案研究。

有關澳洲之電子採購服務(Government e-Procurement)內容大致

如下：

澳洲在電子採購作法的策略目標是要在 2000 年底達到全面性電子付款，任何要與供應商進行生意往來廠商均需接受電子付款方式，另外則希望在 2001 年底讓所有供應商都能以簡單的電子採購方式進行交易。澳洲政府對電子採購有幾項行動，包括電子付款、電子招標及電子買賣，其中電子招標又包括建置全國電子招標系統 (Commonwealth Electronic Tender System, CETS)及建置獨立招標搜尋網站。全國電子招標系統功能在於減少費用支出、容易擷取所需文件、快速傳輸、以及建立安全投標環境。獨立的招標搜尋網站則能提供民眾一個進入政府單位的搜尋入口捷徑，目前雛形已發展出來。政府採購目的是要在安全及便利的前提下達到公開的貿易環境。澳洲政府希望在共通的標準如 OBI、XML、EAN、ABN、PKI 之下，建立一個整體性架構。以下相關網站鏈結提供參考：

● 政府網站鏈結：www.govonline.gov.au

● 全國電子招標系統：www.tenders.gov.au

● 澳洲採購和建置協調會：www.apcc.gov.au

● 交易入口站：www.business.gov.au

● 西澳政府採購網：www.gem.wa.gov.au

● 南澳政府採購網：www.tenders.sa.gov.au

時程四：

包括私人部門、消費者及學術部門之意見表達，隨後並就 APEC 經濟體之優先事項、合作領域(如電子化政府之準備性、先進機構之技能發展、以及人員交換等)進行討論。

有關韓國發表的電子化政府，倡議 G4C 計畫，其目標是利用資訊技術做行政部門的創新，以提供人民更快速及更高的品質服務。目標有四項：

(一) 建立行政部門的高階電子商業模式

(二) 建立資訊分享的基本模式及基礎建設

(三) 建立政府電子服務的入口網站

(四) 加強環境整備如法規的修改及標準的制定。

另外，韓國積極推動寬頻網路到府的政策，這些都值得我國在推動電子化政府的借鏡。

有關安全電子化政府議題方面，美國由 Department of State 的 Mark E. LeBlanc 作簡報，電子化政府服務在安全方面區分為三大項：

(一) 全球資訊網站資訊服務

　　1. 在政府的全球資訊網站增加資料的可信賴度和資訊的準確度。

　　2. 因全球資訊網站是公開給全國大眾，所以政府資訊網站的安全性應更高。

　　3. 在全球資訊網站的資訊服務的領域中，主要的安全目標是資料的可攜性和整體性。

　　4. 當資訊雙向流通的時候，其機密性、不可否認性、可辨識性、可認證性等四項是非常重要的。

(二) 政府和產業電子採購

　　1. 電子商務採購所引發的新資訊安全危機，是很值得注意的。

　　2. 因採購的增加而引起的安全性及整體解決方案顯得越來越重要。

(三) 政府財務金融交易

　　1. 在線上公開採購方面，可能引起的財務、財務資訊的安全危機。

2. 應訂定不同的電子財務交易的安全優先順序。

柒、感想與建議

一、 互運講習會之主席(Mr. Michael Baker，AOEMA)在大會報告時強調互運不僅對大企業非常有用，但是對小型企業而言亦非常重要，因小型企業必須配合使用其他企業所指定之系統。我國大部份是中小企業，因此政府在互運議題上應更加著墨，建議相關單位如商業司或中小企業處在中小企業電子商務議題上應提出新計畫、或在現有電子商務計畫中強調中小企業之應用與輔導。

二、 電子化政府工作範圍龐雜，應先挑選電子採購，電子契約等與企業較有關之應用優先推動，俾帶動企業以及個人上網風潮。電子化政府規劃及推展時，應講求方法與技巧，並以"政府如何節省開支"及"企業如何拓展商機"之實質效果為導向，俾避免無謂之阻礙與困擾。另外，電子化政府之推展時應爭取時效，由於立法(如電子簽章法)程序冗長，可考慮研訂一套管理辦法俾規範政府與企業間之相關權利義務，加速推動。

三、 美國的電子化政府服務在安全方面的相關推動措施及策略，都值得我國在推動電子化政府安全服務以及建立 PKI 機制環境來借鏡，而我國甫成立之「國家資通安全應變中心」也將在電子化政府中扮演一個非常重要的角色。不僅如此，「國家資通安全應變中心」的成立，更可建立資通安全事前預警機制與通報體系，並協調產官學研單位提供技術服務，做好國家資訊與通信安全建設，使人民權益、企業經營、經濟發展與國家安全獲得最佳保障。

四、 電子商務(Electronic Commerce ，EC)係 21 世紀全球企業進行產業上下游分工整合，俾提昇其總體競爭力之重大趨勢；美國經濟之得以重振，大企業能體認此一潮流而快速轉型為電子化企業(e-Business)，不僅有效節省成本，更能倍速擴張，實為成功關鍵。目前我國產業電子化偏重 SCM、ERP 等 B2B 電子化商務，未來應更重視創造產業之知識經濟價值，透過國際合作(如 APEC)引進電子化市場(E-Marketplace)之專業諮詢服務機制，以利我國電子商務的蓬勃發展。

五、 有關電子商務之推動工作，可以參考國際企業(如 IBM、Cisco)快速發展經驗，其委外服務在不增加人力而達到營運經濟規模且大幅成長之效益下，我國可參考此一模式，在各重點領域加速推展上中下游供應鏈(Supply Chain)之應用，進而發展適合我國產業特性之網路化供應網(Networked Supply Network)。另外，為有效掌握我國電子商務發展之契機，俾加速產業順利轉型為 21 世紀全球化營運之電子化企業（e-Business），我國可以仿日本之 INGECEP/CyberNet 的 B2B2C 先導模式，再據實擬訂以網際網路為核心之國家發展策略。

六、 由於 APEC 採取「共識決」的議事規則，在爭議問題難以形成共識的情況下，已造成許多議題一直缺乏實質進展，例如國際網際網路頻寬收費協議的擬訂等。有鑑於此，APEC TEL 會議所帶來的實質價值，或許正是經濟體間的意見交換、資訊交流及經驗分享等活動；而與會代表則擔負有「窗口」的責任，一方面須蒐集其他經濟體的資料、經驗及意見，另一方面也須在會議中適時向其他經濟體表達我國的立場與意見，甚至即時表達對相關活動積極參與或貢獻的意願。本乎此，建議平日即應強化出席各指導分組之代表對相關議題的瞭解，以利相關事務之推動。

七、 TEL 之指導分組或專案小組所處理之議題日益增多，如電子商務、數位落差、互運、電子安全、電子化政府及 Internet 等議題，其最近之發展均頗值我方參考，建議國內相關權責單位如行政院 NII 推動小組，經濟部國際貿易局、商業司等持續派員與會以密切注意相關議題之發展，並統合國內相關議題之推動工作及資源，以積極參與 TEL 合作計畫及研提計畫提案。

附件一

各國最近監理及政策發展報告

中華台北電信監理及政策發展報告

澳洲坎培拉

2001 年 3 月 12-16 日

一、規劃成立「電信資訊傳播委員會」

　　為因應資訊化社會之發展趨勢及資訊通信技術的革新與整合，中華台北已於本年二月成立一規劃小組，著手研擬未來單一的新管理機構「電信資訊傳播委員會」，以統籌電信、資訊及傳播之政策與相關監理事項。

二、電信自由化之進展

（一）制修訂重要電信法規：

　　為公平有效運用稀有公共資源，中華台北刻正研擬修正電信法，擬在電信法中增訂有關電信號碼之核准、調整及收回等事項，且要求第一類電信事業應提供號碼可攜服務及平等接取服務。

　　而於八十九年一整年間，新訂定三項電信子法，即：1.第一類電信事業會計處理準則 2.第一類電信事業資費管理辦法 3.第三代行動通信系統網路研發實驗設置使用暫行管理辦法。另亦修正固定通信業務管理規則、行動通信業務管理規則等共十七種重要電信相關子法。

（二）全面檢討電信自由化政策：

　　因應全球電信自由化及科技整合趨勢，中華台北於本年二月成立工作小組，全面檢討現行各項電信法規及發照政策，以研擬未來電信自由化政策與監理機制。

（三）固定通信網路業務：

　　去年三月核發的三家新綜合網路業者已完成相當規模的建設，於今年第一季末將陸續開始營運。

（四）國際海纜電路出租業務

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於 2001 年 1 月 20 日核發 5 張國際海纜電路出租業務執照。

（五）規劃開放第三代行動電話業務

顧問公司已完成第三代行動通信執照釋出整體規劃之研究，中華台北即將於近日決定執照張數及釋照方式並預定本（90）年於六月間完成相關法規作業。

（六）轉售業務開放之規劃

中華台北預計於 2001 年 7 月開放轉售業務並受理申請。

三、執行 APEC TEL MRA 之進展

為順利推展 APEC Telecom MRA 第二階段「相互承認驗證機構和相互接受設備驗證證明書」，中華台北業已完成「電信終端設備審驗辦法」修正及「電信終端設備驗證機構認可管理要點」訂定和法規公布等法制作業，自此，中華台北已可將電信終端設備審驗業務開放由民間驗證機構辦理。另為促進 APEC TEL MRA 驗證機構對中美驗證法規的瞭解及建立中美雙方對民間驗證機構的信心，DGT 獲得 FCC 的協助，預定 90 年 3 月 19-23 日於台北圓山大飯店舉行為期五天的中美電信設備驗證機構訓練，屆時歡迎 APEC 會員國的代表參加，俾利落實 APEC TEL MRA 驗證機構的相互認可。

四、持續推動「電波偵測能量計畫」

中華台北為能長遠維持電波秩序，目前正積極推動「電波偵測能量計畫」建設案。本建設案以無線電頻譜監測系統為主要架構，並以無線電定向系統為輔助架構，並於北、中、南三區各設立區域管理中心加以監督、控制。無線電頻譜監測系統可透過網路與無線電定向系統連接以構成綿密之電波監測網，俟無線電頻譜監測系統及無線電定向系統建設完成，電波資源管理將能發揮最大使用效率。

五、推動廣播電視數位化，擴大媒體經營空間

數位科技帶動二十一世紀社會文化再一次的演進，數位音訊廣播是繼調幅、調頻廣播之後的第三代廣播，是廣播領域中數位式的革命；電視數位化更已是時勢所趨，各種媒體在數位化後，將可提昇收視品質，並可充分利用有限的頻道資源，擴大媒體之經營空間，未來數位電視將可提供地面廣播、有線電視和衛星電視共同經營的媒體空間。因此，中華台北已將推動廣電數位化列為跨世紀重要建設計畫，積極推動，預計九十年十二月起開始數位電視全區廣播。

六、縮小數位落差

為因應知識經濟時代，並減少經濟轉型產生之數位落差，中華台北於八十九年八月三十日通過「知識經濟發展方案」，擬定數項具體措施，隨後於十一月四、五日召開「全國知識經濟發展會議」，提出減少數位落差的規劃方案，內容包括：

（一）普及服務之規劃

制訂「電信普及服務管理辦法」，並自九十年起實施。藉由電信普及服務制度之建立，讓全體國民皆能按合理價格公平享有一定品質的必要電信服務。

而為普及網際網路服務，縮小城鄉數位落差，我國除讓偏遠地區民眾皆可透過電話撥接方式上網外，現階段以提高學校及公立圖書館寬頻連網普及率為目標，未來將逐步推展至社區。

（二）加強偏遠地區中小學資訊教育

對偏遠地區學校加強經費補助，並加強其教師資訊基本技能之培訓，使教師具備利用電腦及網路教學之能力，將資訊科技融入各科教學，以減少學生獲取知識的差距；另外，建立配套措施，藉由民間團體的協助，預防資訊教育推動時產生的差距。

在資訊內容方面，藉由「學習加油站」（http://content.edu.tw），充實各領域輔助教材，以豐富的內容供教學及學習使用，達到資源共享。

（三）推動原住民接受資訊教育訓練

普設各級學校網路，並加強鼓勵原住民教師與學生使用網

路，此外，編列預算協助部落社區設立網路教室或公共資訊站，開辦各類訓練班以提昇原住民資訊能力。

（四）推動勞動階層資訊訓練計畫

透過輔導勞工第二專長及資訊訓練，以協助傳統產業自動化及電子化，振興傳統產業及提昇競爭力。政府規劃結合職業訓練機構、大學院校、專業團體及民間企業等資源，針對勞動階層，規劃基礎資訊訓練，以協助傳統企業轉型，預計每年可培訓1200人次，提昇人力素質，並補足職場各類人才之需求。

（五）其他弱勢族群的資訊學習計畫

透過補助身心障礙者特殊電腦輔助器具，並與研發單位合作，發展適合身心障礙者使用之特殊電腦輔助器具，此外，編列經費汰換資訊設備以提供低收入戶之婦女、女性單親低收入家庭及年長者接受資訊教育，以減少數位落差。

七、電子商務之發展

進行「製造業電子化應用推廣計畫」，執行情形如下：

（一）推動資訊業電子化計劃

本計畫又分Ａ、Ｂ兩類計畫，在Ａ類計畫中，已有三家資訊公司通過計畫審查，預計將帶動國內四十餘家資訊大廠建立電子化作業能力；Ｂ類計畫共有十五家公司加入，預計兩年內將帶動約一千八百家供應商導入電子化作業。此計畫預計將降低營運成本、節省人力、提高生產力及增進庫存週轉率等效益將達上百億元。

（二）重點產業體系企業間電子化輔導計畫

優先推動石化、車輛及紡織等三個重點產業，預計將帶動產業體系廠商約一千七百家投入應用企業間電子化之作業

（三）電子化網站

建構製造業電子化資訊服務網站，內容包括推動計畫之介紹、顧問諮詢、閱讀博覽、成功範例、活動報導、焦點新聞及最新活動訊息之報導，藉此宣導企業導入電子化之相關資訊，供業者上網查詢，進而加速製造業導入電子化，以提昇製造業整體競爭力。

PLEN agenda item:	**Plenary**	Submitted by: Chinese Taipei

Policy and Regulatory Update:
Chinese Taipei

Contact: **Vivien B L Wang**
Email: **dgt40@dgt.gov.tw**

APEC Telecommunications and Information Working Group
23ʳᵈ Meeting | 12-16 March 2001 | Canberra, Australia

Policy and Regulatory Update

March 2001

Chinese Taipei

1. Planning to Set up a Telecommunications, Information and Broadcasting Commission (TIBC)

In response to the development trend of information society and the innovation and integration of information and communication technologies, Chinese Taipei has set up a task force to devise a new unified regulatory body—TIBC, which is responsible for policy and regulatory administration of telecommunications, information and broadcasting industries.

2. The Progress of Telecommunications Liberalization

(1) <u>Enactment and Revision of Regulations</u>

In order to effectively make the most of scarce public resources, Chinese Taipei is planning to revise the current Telecommunications Act, enacting the provisions governing the allocation, adjustment and withdrawal of telecom numbers. In the meantime, Type I Enterprises are required to provide the services of number portability and equal access.

And during the year of 2000, Chinese Taipei instituted three new regulations under the Telecom Act : (a) Accounting Principles for Type I Telecom Enterprise, (b) Administrative Regulations Governing Tariffs of Type I Telecom Enterprises, and (c) Temporary Regulations on Network R&D and Experiment for 3G communications services. Furthermore, 17 regulations including the Administrative Rules on Mobile Communications, Administrative Rules on Fixed Network were revised.

(2) <u>Overall Review of Telecom Liberalization Policy</u>

In response to the global trend of telecom liberalization and technology

convergence, Chinese Taipei organized a Telecommunications Liberalization Working Group in February 2001 to review the telecom regulations and licensing policy and to develop the liberalization policy and regulatory mechanism for the future.

(3) Fixed Communications Network Service

Having completed the required scale of network infrastructure, the three fixed-line operators, licensed in Mar. 2000, are going to launch their services in this first quarter.

(4) International Submarine Cable Leased Circuit Service

Five licenses for International Submarine Cable Leased Circuit Services were issued on Jan. 20, 2001.

(5) Planning for the Deregulation of 3G Mobile Communication Services

The commissioned consulting firm has completed the study on licensing process for 3G Mobile Communication Services. Chinese Taipei is going to determine the number of licenses and licensing process. The relevant regulations is scheduled to complete in June this year.

(6) Planning for the Deregulation of Resale Services

Chinese Taipei will open up resale services and begin to accept applications in July 2001.

3. **Implementation of APEC TEL MRA**

In order to smoothly promote Phase II of APEC Telecom MRA, " Mutual Recognition of Conformity Assessment Bodies (CABs) and Mutual Acceptance of Equipment Certifications", Chinese Taipei has revised the "Compliance Approval Regulations on Telecommunications Terminal Equipment" and instituted the "Accreditation and Administration Guidelines for Certification Bodies on Telecommunications Terminal Equipment". Since then, Chinese Taipei has been ready to release and commission the equipment certification work to the private sector. Furthermore, to enable all CABs to better understand the certification regulations of both Chinese Taipei and USA, and build the confidence in fulfilling the implementation of the APEC TEL MRA Phase II,

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Chinese Taipei and US will jointly hold a 5-day comprehensive training course at the Grand Hotel in Taipei during the period of March 19-23, 2001. Chinese Taipei encourages the representatives from APEC economies members to join the training course.

4. Continuous Implementation of the Spectrum Monitoring Project

To assure the long-run continuation of the radio wave order, Chinese Taipei is actively promoting the Spectrum Monitoring Project. This infrastructure project uses a radio spectrum monitoring system as its primary framework, and a radio direction finding system as an auxiliary framework. Three regional regulatory stations were set up in northern, central, and southern Taiwan to supervise and control the operations of the radio monitoring stations within their areas of jurisdiction. Completion of this project will enable the utilization of Chinese Taipei's radio wave resources to the greatest efficiency.

5. Promotion of Digital TV Broadcast to Expand Operational Scope for the Media

Digitalization technology will spearhead another advancement of social culture in the 21st century. Digital Broadcasting is the 3rd generation broadcasting after the ages of AM and FM. It is an emerging trend. The digitalization of various media will not only promote the quality of content but also make good use of scarce channel resources to expand the business scope of all media. In the future, digital TV will provide great opportunity for operating ground broadcasting, cable TV and satellite TV services. Therefore, Chinese Taipei has put forth this project as the first priority for the turn-of-the-century infrastructure building. Islandwide digital broadcasting is expected to begin in Dec. 2001.

6. Bridge the Digital Divide

In response to the advent of knowledge-based economy age and to bridge the digital divide resulting from the transition of the economy, Chinese Taipei passed the "Program for the Development of Knowledge-Based Economy" on Aug. 30, 2000, devising several concrete measures. On Nov. 4-5, a "National Knowledge-Based Economy Meeting" was convened, the following measures were adopted to bridge the digital divide :

(1) Planning for Universal Service

The DGT has instituted "Regulations on Universal Service", and put it into effect since 2001. As a result, all civilians will enjoy the necessary service of quality at a reasonable price. Furthermore, in order to make the Internet available to all the people and hence reduce the digital divide between city and country, Chinese Taipei is endeavoring to help people in remote areas dial up the Internet. Currently, our goals are focused on promoting the penetration of broadband Internet services for schools and public libraries, and then for communities in the future.

(2) Strengthening Information Education for Elementary and Middle schools in Remote Areas

Chinese Taipei increases its subsidy for schools in remote areas and to train the teachers to be competent in incorporating information technology into all subjects in order to narrow down knowledge divide. In addition, we have taken accompanying measures to prevent the digital divide from broadening by promoting information education through the cooperation with private groups.

(3) Promoting Information Education and Training for the Aborigines

We have set up information networks at all levels of schools, and encouraged aboriginal teachers and students to make the most of those networks. In addition, we have also allocated budget to set up Internet classrooms or public information stations in aboriginal communities, and to hold various kinds of training courses to equip the aborigines to have the competence of using information technology.

(4) Implementing Information Education and Training Programs for Laborers

We assist and instruct our laborers to undertake the second-vocation courses and information training, so as to promote the automation and computerization of our traditional industries, and to further renovate the traditional industries to raise their competitiveness. We plan to incorporate resources from vocational training institutes, universities, expert groups and private sector to provide laborers with basic information training and assist traditional enterprises in transforming to modern ones .The number of trainees will exceed 1,200 person-time per year so as to upgrade the

quality of our manpower and to satisfy the demand for various kinds of manpower in every vocation.

(5) Promoting Information Education and Training Program for Other Disadvantaged Groups

We are developing special computer-aided equipment suitable for use by physically/mentally disabled people through cooperation with R&D organizations. In addition, we have also allocate budget for renewal of information equipment to provide low-income women, single-parent families and senior citizens with information education to bridge the digital divide.

7. **The Development of E-Commerce**

Chinese Taipei is undertaking a project to promote the electronization of industries including :

(1) Promoting the Electronization of Information Industry

There are two projects in this promotion program. i.e. Project A and Project B. Three information companies are incorporated in Project A. Through this project, more than forty companies will be competent in joining e-transaction.

In the Project B, initially there are 15 information companies. It is expected that a total of 1,800 information companies will be electronized within two years. This project is expected to reduce operation cost, save human resource, promote productivity and raise inventory turnover up to NT$ 10 billion.

(2) Fostering Priority Industries in B2B e-Commerce

Petrol chemicals, automobiles and textiles are three priority industries in the project, and 1,700 companies will benefit from this project through e-transaction.

(3) Setting up Manufacturing Websites

Information service websites of manufacturing industries have been set up. Their content include the introductory information of the project, consulting, information browsing, successful cases, activities report, focus news and the latest activities. By visiting the websites, manufacturers will speed up their e-transaction and thus raise their overall competitiveness.

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Policy and Regulatory Update:
Australia

PLEN agenda item: **Plenary**   Submitted by:
Australia

Policy and Regulatory Update: Australia

Contact: **Colin Oliver**
Email: **colin.oliver@noie.gov.au**

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AUSTRALIA: REGULATORY UPDATE

HIGHLIGHTS

- On 11 October 2000, the Government expanded the roles and functions of the National Office for the Information Economy (NOIE) to develop and coordinate government policy relating to the information economy and to promote the benefits of online technologies to business and the community.

- Sixty-eight carrier licences were issued by 22 February 2001.

- Pilot schemes will begin in 2001 for provision of Universal Service Obligation services with benefits from pricing competition, service innovation and service improvements.

- The Telecommunications Service Inquiry has reported and the Government is considering its full response to the report.

- The Minister for Communications, Information Technology and the Arts used powers under the *Telecommunications Act 1997* to direct the Australian Competition and Consumer Commission to inquire into Telstra's current price control arrangements.

- The Government expanded the Productivity Commission review into telecommunications specific competition regulation to include competition issues affecting rural, regional and remote areas.

- In November 2000, the Government released *The Current State of Play*, prepared by NOIE, which demonstrates Australia's advanced Internet uptake and readiness to build on developments in the information economy.

- In December 2000 the Government released its latest results in meeting the Prime Minister's 1997 *Investing for Growth Statement*, indicating that 90 per cent of agencies expect all appropriate services to be online by the end of 2001.

- In December 2000, Parliament passed the Government's *Privacy Amendment (Private Sector) Act* which, when it comes into force in December 2001 will support and strengthen self-regulatory privacy protection in the private sector, based on the National Principles for the Fair Handling of Personal Information.

- The *Copyright Amendment (Digital Agenda) Act*, set to come into operation on 4 March 2001, updates the *Copyright Act 1968* to take account of technological developments, including new broadcasting services and the Internet.

- The *Copyright Amendment (Moral Rights) Act 2000* was passed on 7 December and commenced on 21 December 2000.

TELECOMMUNICATIONS

National Office for the Information Economy

On 11 October 2000, the Government expanded the roles and functions of the National Office for the Information Economy (NOIE) by establishing it as an Executive Agency, with responsibility to develop and coordinate government policy relating to the information economy and to promote benefits of online technologies to business and the community.

The previous Office for Government Online (OGO) was absorbed into NOIE, recognising the potential for government online services to drive consumer take-up and the need for coordinated policies to address technical, regulatory and social issues affecting both government and business.

Telecommunications carriers (as at 22 February 2001)

Infrastructure (carrier) licences are available on application from the industry regulator, the Australian Communications Authority (ACA). There are no limits on the number of carriers. Carriers must have an industry development plan that has been approved by the Communications Minister. Licence fees are cost-based. The provision of content services does not require licensing. There were sixty-eight licensed carriers on 23 February 2000. They are listed at *http://www.aca.gov.au/licence/carrier/carriers.htm.*

Untimed Local Calls

Following a competitive process, Telstra has been selected as the preferred bidder in a $150 million tender to provide untimed local calls in the 'extended zones' in rural and remote areas covering 80 per cent of Australia.

As a result of the tender, customers will enjoy untimed local calls within each extended zone, calls to their community service town at a new 'preferential rate' of 25 cents per 12 minutes, and untimed call access to the Internet. Tenderers will also be encouraged to offer other benefits to maximise the attractiveness of their tenders. These benefits could include improved Internet access speeds, additional services such as television, lower prices and improved quality of service.

Universal Service Obligation (USO) Contestability pilots

On 1 July 2000 new universal service arrangements came into force, providing for the progressive introduction of competition for subsidies to supply USO services.

USO contestability will be trialed in two pilot areas in south-west Victoria and south-east South Australia and north-east New South Wales and south-east Queensland. Under the Government's USO contestability model, service providers approved by the Australian Communications Authority (ACA) will be able to compete with the incumbent universal service provider, Telstra, for per service subsidies to supply loss-making services.

To enhance consumer choice, competing services providers will be able to supply both standard and ACA-approved alternative telecommunications services in fulfilment of the USO. To ensure existing services remain accessible, Telstra will be required to remain in the market as the primary universal service provider. The pilots are scheduled to commence in early 2001. The pilots will enable the Government to test and develop USO contestability with a view to its further deployment.

Independent inquiry to assess the adequacy of telecommunications services

On 19 March 2000, the Government announced the establishment of an independent Inquiry to assess the adequacy of telecommunications services in metropolitan, regional, rural and remote Australia. The Inquiry consulted widely with the Australian community and interested parties and received over 1000 submissions. It reported to the Minister for Communications, Information Technology and the Arts on 30 September.

In response to some of the inquiry's recommendations the Government asked the Productivity Commission to consider two issues. Whether a greater recognition of the differing levels of competition across Australia should be incorporated into competition regulation; and the implications of current pay television programming arrangements for the development of telecommunications competition in regional Australia. The Government has also appointed Mr Allan Horsley to the Australian Communications Authority in response to a recommendation that a member of the ACA be appointed to be responsible for its activities in monitoring and investigating quality of service issues, with particular regard to regional, rural and remote issues. The Government is currently considering its full response to the Inquiry's report.

ACCC review of price controls

The Minister for Communications, Information Technology and the Arts has used powers under the *Telecommunications Act 1997* to direct the Australian Competition and Consumer Commission (ACCC) to conduct a public inquiry into the current price control arrangements on Telstra. The ACCC is required to conduct a thorough assessment of all aspects of the price controls and to consult with the telecommunications industry, business, small business and residential customer organisations and rural and regional organisations.

A draft report was released in December 2000. It recommended the removal of some sub-caps, targeting assistance to low-income groups based on measures of income rather than usage; introducing limits on the speed with which Telstra can increase the process of residential line rental; and questioned the retention of the local call pricing parity requirement.

Spectrum Auctions

Four auctions of spectrum are programmed for 2001. These are:

- 3.4GHz (Wideband wireless local loop) - most likely use will be for high speed internet applications and/or voice applications;

- 27GHz Broadband Local Multipoint Distribution System (LMDS) - most likely use will be for broadband applications;

- Datacasting – for use for datacasting services as defined in legislation; and

- spectrum for Third Generation Mobile Services (3G).

Review of competition regulation in Australia's telecommunications sector

On 6 June 2000 the Government announced arrangements for a Productivity Commission review of the telecommunications specific provisions of the *Trade Practices Act, 1974*. The review will also examine and report on:

- the operation of Parts XIB (anti-competitive conduct and record–keeping rules) and XIC (access regime) of the *Trade Practices Act 1974* and the operation of certain provisions of the *Telecommunications Act 1997*;
- the community and economic benefits and costs flowing from those provisions;
- whether those provisions are sufficient to prevent integrated firms taking advantage of their market power with the purpose or effect of substantially lessening competition in a telecommunications market, or whether alternative arrangements are required or appropriate; and
- whether any or all of these provisions should be repealed or amended.

In response to the recommendations of the independent inquiry into telecommunications services the Government asked the Productivity Commission to also consider:

- whether a greater recognition of the differing levels of competition across Australia should be incorporated into competition regulation; and
- the implications of current pay television programming arrangements for the development of telecommunications competition in regional Australia.

The Commission is to report to the Government in June 2001.

4

ONLINE ECONOMY

Progress in Australia's Digital Information Economy

The Government's vision and national direction for Australia's future in the information economy was set out in *A Strategic Framework for the Information Economy* released in December 1998. The framework identified key issues and priorities for action, including increasing significantly the use of e-commerce by Australian business.

In November 2000, the Government released *The Current State of Play*, prepared by the National Office for the Information Economy (NOIE). Data from this report, in addition to more recent data from the ABS, demonstrates Australia's advanced Internet uptake and readiness to build on developments in the information economy.

Highlights include:

- in the year to November 2000, an estimated 50 per cent of Australian adults used the Internet (up from 44 per cent a year ago);

- Australian cities compared favourably with US cities in terms of the proportion of their adult populations online. 62 per cent of Canberra's adult population was online compared with the top US figure of 61 per cent for San Francisco;

- Australian youth were major adopters of the Internet compared with other countries. 82 per cent of 12 to 14-year olds accessed the Internet by April 2000 compared with 85 per cent for the US and 70 per cent for the United Kingdom;

- at November 2000, 37 per cent of Australian households were online, an increase of 48 per cent since November 1999. Growth was highest in regional Australia, 88 per cent compared with 33 per cent for metropolitan areas. By November 2001, it is expected that 50 per cent of Australian households will be online;

- Australia compares favourably in terms of prices for Internet access, with only Canada, Finland, USA and Iceland having cheaper Internet access prices;

- 1.4 million Australian adults shopped online in the last 12 months to November 2000, an increase of 67 per cent in the last 12 months; and

- Australians were world leaders in terms of paying for their Internet purchases online, equal with the US, each having an estimated 74 per cent of Internet shoppers paying for purchases online.

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Other Commonwealth Government initiatives such as the highly successful Networking the Nation (NTN), Information Technology Online (ITOL) and Building IT Strengths (BITS) programs will continue to see the take-up of the Internet at a rapid rate which can only facilitate growth in employment, education, industry and export industries throughout Australia.

Full details of *Current State of Play* are available at the NOIE website:
http://noie.gov.au/projects/information_economy/ecommerce_analysis/ie_stats/StateOfPlay /index.htm

E-Government Australia – Online

In December 2000 the Government released the results of the second round of reporting on agencies' progress in meeting the Prime Minister's 1997 *Investing for Growth Statement* – to provide all appropriate services online by 2001.

This latest survey indicated that 90 per cent of agencies expect all appropriate services to be online by the end of 2001. Work is currently underway to determine common impediments to online enablement for the remaining agencies, including the identification of potential solutions.

Agencies identified a total of 1822 services as appropriate for online delivery by December 2001, with some 60 per cent (1131) of these services already online.

The survey data also showed that the types of services offered online are changing, with future services increasingly offering a higher level of sophistication and functionality. Currently 51 per cent of services that are planned for implementation by December 2001 allow advanced functions such as data interchange between users and agencies; 27 per cent allow the downloading of data by users; and 21 per cent provide static information only.

A third round of online reporting is planned for March 2001, with the fourth and fifth rounds planned for September 2001 and March 2002, respectively.

Administration of the .au domain

In December 2000, the Government endorsed the .au Domain Authority (auDA) as the appropriate body to take over the administration of the .au domain. AuDa aims to be self-funding and to promote an open and competitive environment

The Customer Focused Portals Framework

To greatly improve ease of access, in November 2000 the Government endorsed a whole of government online portals framework to provide a customer focussed, coordinated approach to the Commonwealth's online presence.

The framework consists of developing a set of portals based on customer groupings and topics. The framework is about improving the user experience in getting to the online

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resources that they require. This approach will see new portals initially developed to an agreed minimum requirement and over time grow through to offer more sophisticated capabilities.

Agency consortia are being established and it is planned to launch nine portals* during the third quarter 2001 and a further nine portals are to be established by June 2002. The portals are based on customer groupings and topics:
- Business*; Regional*; Women; Seniors; Youth*; Indigenous; Families*; Community Groups
- Education*; Agriculture*; Environment; Culture & Recreation*; Health; Science & Industry*; Government; Law and Justice; Employment*; Immigration.

Electronic Security and Authentication

The need to engender a greater sense of confidence in online transactions through effective security and authentication systems is now well-recognised in Australia.

The CommonwealthGovernment has therefore established the National Electronic Authentication Council (NEAC) to enhance user and consumer confidence in authentication technologies and promote their take-up. NEAC is a joint industry-government body, representing industry providers and users of authentication products and services, consumer organisations, the small business and retail sectors, banking and finance, professional services, academe, the legal sector and relevant government agencies.

NEAC provides a national focal point on authentication matters, encouraging interoperability between different systems and the development of relevant technical standards, and providing information and advice to industry, government and consumers. Its interests are channeled through three working groups covering legal issues, systems integration and technical issues, and enhancing consumer confidence.

Two reports commissioned by NEAC have recenty been published in an effort to raise awareness and understanding of authentication issues. The reports, "Legal Liability and E-Transactions" and "E-Commerce Security", are available from the NEAC website at http://www.noie.gov.au/projects/consult/NEAC/index.htm.

NEAC has an ambitious ongoing work agenda which includes:

- encouraging the development of relevant nationalstandards for PKI frameworks, including the possible development of a *national* framework which migyt in time integrate the Gatekeeper Scheme. Specfically, this will take the initial form of a discussion paper for a National Framework;

- facilitating the use of authentication products issued by Government agencies for a wide range of electronic transactions;

- further research into the legal liability and reliability/enforceability of PKI E-Transactions; and

- providing further advice to Government, industry and consumers on authentication issues, eg a Small Business Guide to e-security (focusing particularly on authentication technologies).

Privacy and Data Protection

Privacy concerns are thought to be a significant constraint on e-commerce and other online operations by individuals. These concerns were a significant factor in the negotiation and finalisation with industry and consumer representatives in 1998 of the National Privacy Principles. The Principles have formed, and are likely to continue to form, the basis of several industry codes of practice.

In December 2000, Parliament passed the Government's *Privacy Amendment (Private Sector) Act*. This legislation, when it comes into force in December 2001 will support and strengthen self-regulatory privacy protection in the private sector, based on the National Principles for the fair Handling of Personal Information.

Copyright in the Digital Environment

The *Copyright Amendment (Digital Agenda) Act*, set to come into operation on 4 March 2001, updates the *Copyright Act 1968* to take account of technological developments, including new broadcasting services and the Internet.

The most significant change introduced by the Act is the creation of a new technology neutral right of communication. This enables copyright owners to control how their work is made available online or transmitted electronically to the public. Telecommunications carriers and carriage service providers, including Internet Service Providers, will not be liable for infringing communications made via their services, unless they control the content or have authorised another's infringing act. The copyright protection currently available to wireless broadcasters under the *Broadcasting Services Act 1992* is also extended to include cable operators.

The Act extends, as far as practicable, the current exceptions to the exclusive rights of copyright owners to the digital environment. These include the fair dealing and library exceptions, and the educational statutory licence. It also creates several new exceptions, including a statutory licence covering the retransmission (though not over the Internet) of free-to-air broadcasts, and extends the current library exceptions to include electronic uses of material for preservation, administration and research purposes.

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Finally, the Act introduces several changes to provide copyright owners with adequate protection of their works in the digital environment. Except in certain specific circumstances, it is now illegal to supply devices and services for the circumvention of technological protection measures such as access codes and encryption. It is also illegal to remove or tamper with copyright information attached to works (eg Rights Management Information). Most significantly, the Act increases penalties for offences involving digital uses and grants courts the right to award higher civil damages for infringements involving digitisation.

Moral Rights Legislation

The *Copyright Amendment (Moral Rights) Act 2000* was passed on 7 December and commenced on 21 December 2000.

The Act incorporates legislation to protect creators' moral rights into the Copyright Act 1968. The moral rights included in the Act are the Right of Attribution: that is, the right of a creator to be recognised as the creator of a work (and associated rights to prevent false attribution of the creator's work to others, or to be false attributed for others' work); and the Right of Integrity: that is, the right of a creator to object to derogatory treatment of a creator's work. Derogatory treatment is any action which is prejudicial to the creator's honour or reputation. There is no infringement if the act or omission occurs with the creator's consent, or if it can be shown that the act or omission was reasonable under the circumstances. Different consent regimes apply to the film industry and to works not used in films.

The legislation creates a moral rights regime which leads the English speaking world. The Act reflects a balance between the competing positions of the various interested groups and attempts to be fair to creators, producers and users of copyright material. The legislation has been particularly welcomed by artists, who have been campaigning for moral rights for a considerable time. Indigenous artists in particular will benefit, as the legislation will greatly assist in the enforcement of indigenous copyright. The right of integrity in particular gives Indigenous artists greater control over the use of their works. This will assist them in protecting the cultural integrity of their work.

Second Six Month Report on Online Content Regulation

The Minister for Communications, Information technology and the Arts will shortly table in Parliament the Second Six Month Report on the Co-regulatory Scheme for Internet Content Regulation, covering the period 1 July 2000 to 30 December 2000. The content of the report will be addressed in the next Regulatory Update.

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RELEVANT WEB SITES

Department of Communications, Information Technology and the Arts:
http://www.dcita.gov.au/

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/
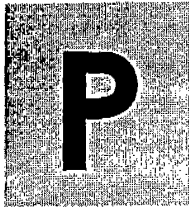
PLEN agenda item:	**Plenary**	Submitted by: Brunei Darussalam

Policy and Regulatory Update: Brunei Darussalam

Contact: **Mutalib Yusof**
Email: **mutalib_yusof@mincom.gov.bn**

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

CONTRIBUTION OF BRUNEI DARUSSALAM: RECENT DEVELOPMENTS IN REGULATORY, POLICY & INFRASTRUCTURE
APECTEL23, Canberra, Australia
12-17 March 2001

1. Policy and Regulatory in Telecommunications

1.1 There are currently 2 operators in the country, namely JTB, a government department, as the fixed-line services provider, and DST Comm Pte. Ltd, a locally owned private company offering mobile phone services. Both operators provide International Services in the country.

1.2 The Ministry of Communications has also recently liberalized some segments of the telecommunications services namely:

> Public Phones; *By JTB and DSTCom*
> Lease Lines Services ; *By JTB and DSTCom*
> VoIP Services; *By JTB and DSTCom*
> Internet Services Provision (ISP); *By JTB, DSTCom and three additional licences to IBB, RBTS and QAF*

2. Current developments in legislation

2.1 In accordance with Brunei Darussalam's commitments under the TRIP's Agreement, new TRIP's compliant laws have been enacted. They are :

> *Emergency Layout Designs Order*,
> *Emergency Industrial Designs Order* and
> *Emergency Trade Marks Order*
>
> which all came into force on 1st June 2000

> In addition, *Emergency Copy Right Order* has also been enacted in line with the provisions of the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty, which seek to address some Internet IPR issues.

2.2 New *Emergency Computer Misuse Order* to address issues on computer crime has also been enacted.

2.3 Further, a new *Emergency Electronic Transactions Order* to address issues on Electronic Transactions including provisions for the establishment of Certification Authorities in Brunei Darussalam is under consideration for enactment by 2001.

2.4 In anticipation of the eventual official separation of operational from regulatory functions a new law will soon be enacted establishing a new telecommunications authority.

2.5 Last but not least, a new Telecommunications Act is now being drafted and we hope to enact it soon. This new act will replace the current Telecommunications Act of 1984 (Rev.). The Ministry of Communications is now drafting new laws on the establishment of a statutory telecommunications regulatory authority and targeted to be enacted by end of this year. In the meantime, all telecommunications regulatory and policy development functions are currently assumed by the Ministry of Communications.

3.   Telecommunications Infrastructure

3.1   The Government of Brunei Darussalam has invested heavily in building our National Information Infrastructure. In this aspect, we have achieved the following:

➢   A telephone household penetration of over 95%. The national telephone switching network has long been 100% digital with the recent upgrade to SDH technology. This switching network is capable of accommodating more than 132,000 lines (more than twice the present number), which translates to more than 45 per 100 in fixed line penetration.

➢   A mobile phone penetration of 25% - with a prospect of very rapid growth. The number of mobile subscribers including pre-paid subscribers has recently hit the 100,000 mark.

➢   A Nation wide broadband network (RaGAM 21);The SEA Games 1999 in Brunei Darussalam saw part of the phased implementation of the "Rangkaian Global Aliran Multimedia" in accommodating   a nation wide, better and faster digital communications network. At the core of RaGAM 21 is a high-speed switching ATM-based network. This multimedia national information infrastructure will deliver a whole spectrum of multimedia services and applications to the nation. This was particularly significant in meeting the information network and multimedia needs during the APEC 2000 meetings.

➢   International connectivity through fibre-optic SEA-ME-WE3 digital submarine cable system and satellites;

4. Formation of the Brunei Darussalam National IT Council (BIT Council) and Operation of the BIT Secretariat

4.1 Formed in the year 2000, the BIT Council serves to advise His Majesty's Government in policy matters pertaining to IT and communications development in Brunei Darussalam. The Council is Chaired by the Minister of Communications, with the Deputy Minister of Finance as Deputy Chairman, and Council members comprising of Senior Officers, Permanent Secretaries, High Level representatives from the private sector, the academia, and a Secretariat. The BIT Council plays a leading role in the implementation of the goals underlying the National IT Strategic Plan *–IT 2000 and Beyond*; and in assisting the Nation to realize the vision of becoming a *Cyber hub* in the ASEAN region.

4.2 In a recent Press Release dated 8th March 2001, the BIT Council held its Second Meeting and highlighted the following action plan:

   a. BIT Council Website

   A feature highlight agreed by the Council is the planned launching of the BIT Council official website, targeted sometime in early April 2001. The website, among others, will showcase the following:

       i. The Council's Corporate and Business Development functions;
       ii. The latest news and development pertaining to the Council's events and activities; and
       iii. Informational and interactive tools to promote public awareness and interactive participation with regard to the Council's establishment and its schedule of activities.

   b. A presentation on Strategic Framework on E-Government Program to Council members.

   The Council adopted the Strategic Framework of E-Government Program, which aims to advance IT diffusion in the public service, and advance the development of e-related services or activities currently being undertaken by various ministries and government agencies in Brunei Darussalam.

   c. Terms of Reference for an E-Business Program Executive Committee - (Draft).

   The Council's agenda on e-Business development will exercise its following functions of coordinating the IT application drives of the private and the public sector; identifying linkage-building strategic opportunities for local IT businesses with others; and directing the

necessary assistance to the private sector in the IT sector.

d. Terms of Reference for the International Advisory Panel (IAP) – (Draft).

The Council reviewed an initial draft of a Terms of Reference for an International Advisory Panel (IAP) to the BIT Council. The IAP aims to attract a variety of prominent global prospects comprising of IT industry leaders, well-known academia, world economists and venture capitalists.

e. Establishment of Brunei Darussalam Information Technology (BIT) Corporation: A Framework - (Draft).

The advanced formation of the BIT Corporation will be the Council's agenda to establish an incorporated government owned body responsible for IT and communications (ICT) investment in Brunei Darussalam within the year 2001. This will be one of the Council's flagship projects in jumpstarting the enhanced development of the ICT growth sector.

f. Project Proposal Submission Guidelines for the Private Sector – (Draft).

The Council adopted a set of guidelines for the submission of Project Proposals, which is expected to be a significant starting milestone for the encouraging private sector drive in e-related projects.

5. The Brunei Eco-Cyber Park

5.1 In Brunei Darussalam's effort to meet the rapid development of e-commerce, several initiatives that can bring significant changes to the country's economy, have been initiated. As mentioned earlier, the Ministry of Communications have introduced a more competitive environment in the provision of Internet Services. This is part of the Ministry's preparation to fulfill our vision to become a cyber hub in the ASEAN region.

5.2 Being a small country, strategically situated in a fast growing region, and looking at the huge possibilities, the Ministry of Communications plans to achieve the above vision through the development of the Eco-Cyber Park. Potentially to be built on the concept of the Eco-Tourism Industry in Brunei Darussalam, and because of the Park's natural location amidst the national forestry park and the beaches of Brunei Darussalam, the Eco-Cyber Park will be built on a designated area, consisting of office blocks, shopping malls, R&D manufacturing plants, a small exhibition center and others. The physical development of the Eco-Cyber Park will be linked by a road network to nearby strategic locations like the learning centers, the national theme park, housing estates, the international airport, the deep water port and the business centres. A high-speed telecommunications infrastructure – the RaGAM 21 – a

broadband high-speed fibre optic cable network - will link the Eco-Cyber Park to the Asia-Pacific Information Infrastructure (APII) and the Global Information Network (GII). Among the significant activities in the Brunei Cyber Park are:

> Incubation for an in IT Hub for e-commerce trading

> A base for e-commerce, virtual shops, business portal hub or Internet marketing

> A test bed for Internet related and multimedia services

> High tech IT-related manufacturing

> A showcase for ICT

> Software Development

5.3 The Government will help to facilitate and create an environment which will make it attractive to investors. We envisage that when this is built, it will serve as one of the regional hubs for Information and Communications development, complementing the initiatives of others in the region.

Related URLs for reference

www.brunet.bn/
www.brunei.gov.bn/
www.bit.gov.bn/
www.apec2000.gov.bn
www.brunet.bn/telecom/jtb/
www.mincom.gov.bn/shutt/
www.dstcom.com/

Contact Points

Mr. Song Kin Koi, Ministry of Communications
kinkoi_song@mincom.gov.bn

Mr. Abdul Mutalib Yusof, Corporate Alliances Group, BIT Secretariat
mutalib_yusof@mincom.gov.bn
mutalib_yusof@bit.gov.bn
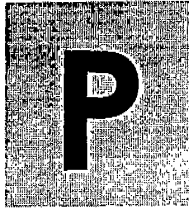
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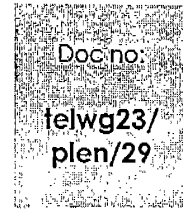
Policy and Regulatory Update:
Brunei Darussalam
[Part 2]

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PLEN agenda item:	**Plenary**	Submitted by: Brunei Darussalam

Policy and Regulatory Update: Brunei Darussalam [Part 2]

Contact: Mutalib Yusof
Email: mutalib_yusof@mincom.gov.bn

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

BROADCASTING (CLASS LICENCE) NOTIFICATION, 2000 INTERNET CODE OF PRACTICE NOTIFICATION

To encourage the development of the Internet and internet-related services in this country and especially to the development of more local participation on the World Wide Web, it is announced that with the consent of His Majesty The Sultan and Yang Di-Pertuan of Brunei Darussalam, the Government of His Majesty The Sultan and Yang Di-Pertuan of Brunei Darussalam have introduced the BROADCASTING (CLASS LICENCE) NOTIFICATION, 2000 and the INTERNET CODE OF PRACTICE NOTIFICATION effective 12th February 2001.

The BROADCASTING (CLASS LICENCE) NOTFICATION, 2000 is a subsidiary legislation under the Broadcasting Act (Chapter 180) and it introduces a new Class Licensing Scheme, which covers the following licensable broadcasting services: Value Added Network (VAN) computer on-line services Computer on-line services that are provided by Internet Content Providers and Internet Service Providers

The new scheme will mean that Internet Service Providers and Internet Access Resellers will no longer need to apply fOr a licence under the Broadcasting Authority (Chapter 180) as was previously required. This does not however exempt operators of Internet Access Service Providers (IASPs) from any other licensing requirements under any other Act, such as under the TELECOMMUNICATIONS ACT (Chapter 54).

The Class Licensing scheme does however require some categories of service providers to register with the Broadcasting Authority. This registration procedure is to ensure that these service providers be responsible for the services and content they put up. The Minister responsible for Broadcasting Matters as the Internet content regulator is responsible with ensuring that the content provided on the Internet is not against public interest or national harmony or which offends against good taste and decency.

The Class Licensing Scheme requires the following service providers and certain internet content providers to register with the Broadcasting Authority WITHIN 14 DAYS of the date of commencement of this Notification:

Internet Service Provider (ISP), which shall include: An Internet Access Service Provider licensed under Section 3 of the Telecommunications Act (Chapter 54) A localised Internet Service Reseller; A non-localised Internet service reseller;

Apart from the registration requirement all 1SPs that come within the above definition shall be subject to an annual fee as follows:

Internet Access Service Provider $1,000 per annum Non-localised Internet Service Reseller $250 per annum Localised Internet Service Reseller $250 per annum for each premises at which the computer on-line services are provided

Certain Internet Content Provider shall also be required to register with the Broadcasting Authority WITHIN 14 DAYS of the date commencement of this Notification: An internet Content Provider who is or is determined by the Minister responsible for broadcasting matters, to be a political party registered in Brunei Darussalam providing any programme on the World Wide Web through the Internet: or An Internet Content Provider who is or is determined by the Minister responsible for broadcasting matters to

be a body of persons engaged in the propagation of political or religious issues relating to Brunei Darussalam or the World Wide Web through the Internet

An Internet Content Provider however IS NOT subject to any annual fee as imposed on the ISPs.

In addition, the regulation also allows for any on-line newspaper, and any individual providing a programme for the propagation, promotion or discussion of political, religious or social issues relating to Brunei Darussalam, on the World Wide Web, to be registered under this Scheme.

It is therefore important that all Internet Service 2roviders (ISPs) end Internet Content Providers mentioned above to note that, failure to register is an offence under the BROADCASTING ACT (Chapter 180) as amended by the BROADCASTING (AMENDMENT OF SECOND SCHEDULE) NOTIFICATION 1998, and punishable on conviction to imprisonment for a term not exceeding three years, a fine up to two hundred thousand dollars or both, and, in the case of a continuing offence, to a further fine up to ten thousand dollars for every day or part of a day during which the offence continues after conviction.

The BROADCASTING (CLASS LICENCE) NOTIFICATION 2000 also requires that all Internet Service and Internet content providers in Brunei Darussalam comply with the Internet Code of Practice as announced in the INTERNET CODE OF PRACTICE NOTIFICATION. Failure to comply would also subject the licensee to the same penalties as above.

The Internet Code of Practice is introduced to ensure that content on the Internet provided in Brunei Darussalam is lot against the public interest or national harmony. Or which offends against good taste and decency. The Broadcasting Authority in Brunei Darussalam is concerned that content provided on the Internet from Brunei Darussalam comply with a set of basic content requirements that are in line with Brunei Darussalam's religious values, social and societal mores and that the content do not offend the Islamic religion, society and do not incite social disharmony and instability in Brunei Darussalam.

The BROADCASTING (CLASS LICENCE) NOTIFICATION 2000 supersedes all other licensing requirements for Internet and Interriet related services previously enforced in Brunei Darussalam under the Broadcasting Act. All previous licence holders are required to comply with this regulation.

Due to the borderless nature of the Internet, which transcends national jurisdiction, the Broadcasting Authority is taking a realistic view of its ability to regulate the Internet content. It DOES NOT view itself as having extra territorial jurisdiction over content providers which are not based in Brunei Darussalam, notwithstanding that the content provided can be accessed in within Brunei Darussalam. The Broadcasting Authority is merely concerned with regulating broadcast by local content providers of certain materials, which it deems as unsuitable for consumption by the general public in Brunei Darussalam.

Licensees can register with the Broadcasting Authority by writing to the Director of Broadcasting, Prime Minister's Office, Istara Nurul Iman, Bandar Seri Begawan BA1000.
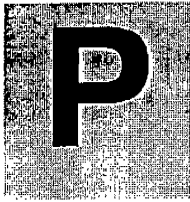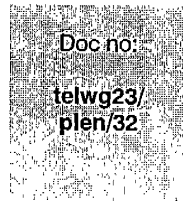
PLEN agenda item: **Plenary**

Submitted by:
Canada

CANADA

Policy and Regulatory Update

Contact: **Kathy Fisher**
Email: **fisher.kathy@ic.gc.ca**

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

CANADA
Policy and Regulatory Update
APEC TEL 23 – March 12-16, 2001
Canberra, Australia

CONNECTEDNESS AGENDA INITIATIVES

1. High-Speed Broadband Internet Services

On October 16, 2000 the Minister of Industry announced the Government of Canada's commitment t achieving the goal of high-speed broadband access to all communities by 2004.

In an effort to bring high-speed broadband Internet services to all Canadian communities, a National Broadband Task Force was established to advise the Government of Canada on how best to achieve its commitment. The Task Force's mandate includes consideration of and advice on:

- The needs and characteristics of communities which without government involvement will not likely gain access to private sector-delivered high-speed services by 2004;
- The technical, institutional and financial barriers which could delay provision of such services by the private sector;
- The roles governments might play in overcoming these barriers; and
- The carriers and other organizations who may be receptive to deploying these services in such communities and what the Government of Canada would need to engage them.

Canada must ensure that it has a high-speed, high-growth economy and an improved quality of life. Access to high-speed broadband networks will translate into strong investments across Canada and opportunities for all Canadians. It will address the digital divide that separates urban from rural and remote communities. Small communities which stand to benefit the most from high-speed broadband services may be the last to have these services available to them without government involvement. Access to high-speed broadband will provide the foundation for improved services such as distance learning and telehealth as well as provide small business with access to broader markets.

2. Strategy to Promote Cyber-Safety

On February 15, 2001, the Minister of Industry and the Minister of Justice launched the Canadian Strategy to promote Safe, Wise and Responsible Internet Use. This new initiative will equip Canadian teachers and parents with tools and resources to help them protect children against the dangers of illegal and offensive Internet content.

The strategy invokes the support of Internet service providers and other companies that manage the creation of, or access to online content. In response, the Canadian Association of Internet Providers created a voluntary code of conduct to help protect consumers in the event that illegal content is inadvertently hosted on their computer systems. By encouraging an open dialogue between consumers and Internet service providers, the strategy seeks to further engage the support of these companies in addressing illegal and offensive online content.

TELECOMMUNICATIONS POLICY AND REGULATORY UPDATE

1. State of Telecommunications in Canada

The Canadian Radio-Television and Telecommunications Commission (CRTC) is undertaking the first of five annual reports on the state of telecommunications in Canada. A preliminary report is expected by the end of March 2001. The report will fulfil a Cabinet directive issued in June 2000. This directive requires the CRTC to produce a report on the status of competition and deployment and accessibility of infrastructure and services, both rurally and inurban areas. An annual study will be released each year for the next five years.

2. Spectrum Policy Developments

PCS Spectrum Auction

The Minister of Industry announced the provisional licence winners of the Personal Communications Services (PCS) spectrum auction in February 2001. Five of the seven original bidders are eligible to receive licences in the two gigahertz (GHz) frequency band.

The licensing of this spectrum will facilitate the development of new wireless telecommunications services, bringing the Internet and other communications services, such as e-mail and mobile commerce, closer to all Canadians.

The spectrum auction demonstrates the Government of Canada's goal to improve the Canadian information infrastructure and encourages growth in the range of wireless telecommunications services available to Canadians. The additional spectrum will also foster the development of third-generation PCS services enabling more Canadians to connect to the information highway from anywhere, at anytime.

3. Regulatory Update

Changes to the Contribution Regime

The CRTC recently issued a decision (Decision 2000-745, November 30, 2000) in which it changed the way it collects the subsidy provided to basic residential telephone rates in high-cost serving areas. The decision took effect on January 1, 2001. In this decision, the CRTC adopted a revenue-based mechanism under which Canadian telecommunications service providers must pay a percentage of their gross telecommunications revenues into a national fund used to subsidize affordable residential telephone service in high-cost areas. The Commission exempted providers with $10 million or less in revenues from paying contribution, and ruled that revenues

from retail Internet services, retail paging and terminal equipment are not contribution eligible.

This new mechanism replaces the previous regime under which long distance service providers along paid into regional subsidy funds. Their payment were based on a per-minutes charge assessed against their total minutes of originating and terminating traffic in each region.

The CRTC established 2001 as a transition year. It has initially set the new levy at 4.5% of eligible revenues, with the intention that it be fine tuned during 2001 and adjusted annually thereafter.

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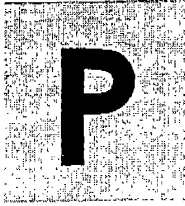
POLICY STATEMENT

PLEN agenda item:	**Plenary**	Submitted by: **China**

POLICY STATEMENT

Contact: **Ziping Liu**

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

POLICY STATEMENT

P.R.CHINA

In the Year 2000, for the Chinese information industry, remarkable progress has been made in the aspects like the separation of government from the enterprise, telecom restructuring, global offering of telecom entities, legislation, informatization drive of national economy as well as the construction of computer network and the management mechanism for information security, technological breakthroughs, etc..

Today, the Chinese telecommunications network has already completed the migration from manual to automatic switching, analogue to digital technology, small to large capacity and single to multi-services. Diversified technical means have been used ranging from fiber-optic, digital microwave, satellite transmission, SPC switching, cellular, data communications, Internet, etc.. The total length of fiber optic cables across China has reached 1.25 million kilometers. The capacity of office exchanges totals 179 million lines. In 2000, the newly-added of telephone subscribers was 77.57 million and the number of users across the country totaling 229 million, of which fixed-line users, 144 million including the newly-added 35.60 million; mobile users, 85.26 million including the newly-added 41.97 million. Now the nation-wide average penetration rate is 20.1% (39% for cities and 6.7% for mobile telephony) and 80% of the administrative villages in China are connected by telephones. Therefore, China's telecom industry has witnessed an amazingly high growth rate in the world.

Meanwhile, in China the information technology level as a whole has been constantly increased with the new developments emerging in the areas of computer, system integration, information processing and the relevant applications. Great breakthroughs have been made in the research of SPC switching, mobile communications, fiber optic transmission and other technologies. The communication and electronic equipment of world-class level made in China is widely used in various sectors of our national economy. The newly-added exchanges in our communications network are fully localized. Nowadays, the outputs of our exchanges, telephones, etc., rank No. 1 around the world, and the research and the production of integrated circuits, software, new components and others have also achieved a certain scale and level.

With the great support and promotion from the Government, the information and network provisioning industries are growing rapidly, especially the development of Internet in China is quite amazing and unexpected. In the Year 2000 alone, the rate of the backbone network for China's Internet was raised by 16 folds and bandwidth was increased over 100 times, which greatly accelerated the connection speed of Internet. Through the public communications network, the nation-wide information system, distance learning, telemedicine, network media and other various information applications have been initiated in the sectors of finance, foreign trade, customs,

taxation, etc.. Now there are 890,000 connected computers, 260,000 Chinese web sites and 22.50 million Internet users in China. E-commerce of various types are growing quite fast and the number of on-line enterprises increased very fast. In some cities, the personal credit records began to be established. The browsing of on-line goods, the on-line negotiation, order and payment as well as delivery have all reached a certain scale. The value of on-line transaction is growing gradually.

Great changes have also taken place in the administration structure of China's information industry. Catering to the needs of market-oriented economy and international competition, the Government has undertaken the separation between the government and enterprise functions and the reorganization in the information and communication industry. Monopoly has been removed and competition has been introduced in all fields including basic telecommunications, value-added telecommunications and information services. There are 7 operators providing nation-wide basic telecommunications services and over 3,000 companies engaging in Internet and other value-added services. The new entrants are growing rapidly and their market shares are further expanded. The relevant laws and industry regulations have been enhanced. Especially a series of administrative laws such as the Telecommunications Regulations of the People's Republic of China and the Regulations on Internet Content Provisioning have been issued recently, marking the beginning of China's information industry to be ruled by laws and regulations. The pace of following international practice is also accelerated.

In the following 5 years, China's information industry is expected to continue to grow at a speed higher than 20%, moreover, the scale of the market will be doubled based on that of the Year 2000. The added value of the information industry will account for over 8% of the gross domestic product. By 2010, the scale of the market for the information industry will be doubled again, that is to say, in the next 10 years, we will guarantee the realization of the target for doubling the national economy by means of quadrupling the information industry, so that the leap-frog development of social productivity will be stimulated by the similar growth in information industry and technologies.

PLEN agenda item:	**Plenary**	Submitted by: Hong Kong, China

Policy and Regulatory Update: Hong Kong, China

Contact: **KS Wong**
Email: **kswong@ofta.gov.hk**

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

APEC TEL 23
Update on Regulatory and Policy Developments
Hong Kong, China
(March 2001)

A.   Licensing Framework for Third Generation Mobile Services

The Telecommunications Authority (TA) conducted two public consultations on the licensing framework for third generation mobile services (3G) in March and October 2000, followed by an industry workshop on the Open Network requirement of 3G licensee in January 2001. Having considered in full the public and industry responses received, the Government announced the licensing and regulatory framework for 3G on 13 February 2001.

The Government decided to conduct a pre-qualification exercise followed by spectrum auctioning to select four 3G licensees, and adopt a royalty-based approach which will require the bidders to pay a certain percentage of their annual 3G revenue turnover determined by the auction. The royalty payment will be subject to a guaranteed minimum payment. The Government has also announced a number of important regulatory conditions decided by the TA, including the Open Network requirement that the 3G network licensees should make available at least 30% of their network capacity for access by non-affiliated Mobile Virtual Network Operators and/or content providers.

The Government plans to formally invite licence applications after the enactment of the Telecommunications (Amendment) Bill 2001, which was introduced to the Legislative Council on 14 February, and the subsidiary legislation relating to the spectrum utilisation fee for 3G. Licences are expected to be awarded in mid-2001.

B.   Carrier Licences

To simplify the licensing procedures, the Government is putting in place a new licensing regime under the Telecommunication (Amendment) Ordinance 2000 enacted in June 2000. Licences to be issued will be categorised broadly into four types, namely, exclusive licences, carrier licences, class licences and licences that fall outside the former three categories. In January 2001, the Government gazetted the Telecommunications (Carrier

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Footnote: The web sites of the Information Technology and Broadcasting Bureau (ITBB) 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/itbb and www.ofta.gov.hk.

Licences) Regulation which prescribes the general conditions, period of validity and fees for a carrier licence. According to the Regulation, there are three categories of carrier licences: fixed carrier, mobile carrier and space stations carrier. The aim is to provide a fair and transparent licensing and regulatory environment. The new carrier licence regime will commence operation on 1 April 2001.

C.   Digital Terrestrial Broadcasting

The Government has examined the feasibility of introducing digital audio (DA) broadcasting and digital terrestrial television (DTT) in Hong Kong since 1998. A consultancy was commissioned to study the key considerations from the technological, economic and policy perspectives. Technical trials of DA and DTT broadcasting were also conducted in Hong Kong. With the benefits of the results of the above, the Government has drawn up policy and regulatory proposals for digital terrestrial broadcasting in Hong Kong. A consultation paper was issued in December 2000 inviting comments from the public and the industry on the proposals until 28 February 2001. The consultation paper covers regulatory proposals and licensing regime for DTT, transition from analogue to digital terrestrial TV and DA broadcasting.

The Government proposed licence application for DTT services to be invited following policy endorsement with a view to commencing simulcast of analogue and digital terrestrial television services in end 2002 or early 2003.

D.   Implementation of the Electronic Transactions Ordinance

The Electronic Transactions Ordinance (ETO), 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 Hong Kong Post which commenced operation in January 2000. Private companies, both local and overseas, are free to set up CAs to serve the needs of the community.

We have also 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.

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. For instance, Hong Kong has developed a web-based government procurement system where companies can make use of the PKI technology to submit their tender applications electronically. 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.

E. Electronic Government

The Government pledges to take full advantage of information technology to enhance the quality of public services and reduce the cost of their delivery. The Government launched the Electronic Service Delivery (ESD) scheme in December 2000 to provide round-the-clock online services through electronic means. People in Hong Kong can now access over 60 types of public services (e.g. submission of tax return, renewal of driving and vehicle licences, payment of Government bills, voter registration, etc.) via the Internet and public information kiosks at convenient locations (e.g subway stations, shopping malls, supermarkets, Government Offices, etc.). The system adopts advanced PKI technology and electronic payment methods. It was funded and developed by a private sector operator, which charges the Government on a per transaction basis. The innovative business model of public-private sector collaboration minimised the capital investment of the Government, and provided incentives for the operator to continuously enhance the system. The operator is allowed to deliver private sector services through the same information infrastructure, and provide one-stop-shop electronic public and private sector services for the citizens. We will implement a series of new services under the ESD scheme in 2001.

Within the Government, an integrated information infrastructure, which includes backbone network, Government Intranet, central mail gateway and Internet connectivity, has been established and continuously expanded. We are also developing various applications to enable inter-departmental and intra-departmental information exchange through electronic means.

F. Hong Kong's Cyberport

The Cyberport is a key information infrastructure that we are developing in Hong Kong. This project progresses well, and is scheduled for phased completion starting from early 2002. Upon full completion by end 2003, the Cyberport will provide about 110,000 m^2 first class office space for

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accommodating some 150 – 200 companies of different sizes, a cybercentre providing cyber-related educational entertainment and retail facilities, a hotel and some houses to accommodate the professionals working in the Cyberport.

Our vision is to create in the shortest possible time a strategic cluster of companies and a critical mass of professional talents specialising in information technology (IT), information services and multimedia content creation. The companies will benefit from a range of common facilities and services such as multimedia equipment, content centre, business centre and exhibition and demonstration areas, and many useful services (e.g. interface with universities and liaison network with venture capitalists). Facilities and services will be supported by a state-of-the-art telecommunications network with excellent broadband connectivity to the rest of the world. We will also provide a campus like environment where the like-minded professionals will be able to unleash creative synergy.

The Cyberport project is our IT flagship project which symbolises our determination to keep Hong Kong in the forefront of the IT developments. The project has successfully attracted a lot of global and local attention. To date, more than 250 companies have already registered interest in becoming tenants, and 15 of them such as Cisco, Hewlett Packard, IBM, Microsoft, Oracle and Yahoo! have signed letters of intent to become anchor tenants. We will seek advice from an advisory committee comprising overseas and local IT experts on the selection and admission of tenants. We aim to announce the detailed application procedures by April 2001, so that the companies can start moving into the Cyberport in early 2002 and building up a new IT centre there.
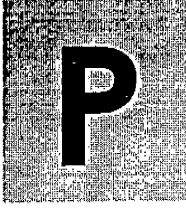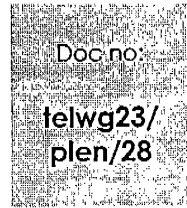
PLEN agenda item:	**Plenary**	Submitted by: Japan

Recent Regulatory and
Policy Development in Japan

Contact: **Yutaka Saida**
Email: **y-saida@soumo.go.jp**

**APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia**

3 Rules for Interconnection Fee

In May 2000, Telecommunications Business Law was amended so as to introduce a calculation method of interconnection fee based on the long run incremental cost (LRIC) model. Upon the amendment, a Ministerial Ordinance on interconnection fee was enacted in October 2000. The interconnection rate that is subject to Minster's approval is listed In the Ordinance.

(http://www.mpt.go.jp/pressrelease/japanese/denki/001020j607.html(Japanese Only))

4 Promotion of e-Commerce

The law of Electronic Signature and Authentication was enacted in May 2000 and is to come into force in April 2001 together with related Ministerial orders. The law covers the following points.

a) Legal effect of electronic signature

The law gives the same legal effect to the electronic signature as hand-written signature.

b) Voluntary Accreditation for Certain Certification Authority (CA)

The law introduces voluntary accreditation system to the CAs.

c) Cross-border Certification

The law enables to formulate harmonized legislation with other economies.

(http://www.mpt.go.jp/top/ninshou-law/law-point.html(Japanese Only))

5 Basic IT Strategy

On 27 December 2000, Prime Minister's IT Strategy Council (Chair: Mr. Nobuyuki Idei, CEO of Sony Corp.) released "Basic IT Strategy". The objectives of the strategy are expressed in its foreword as follows:

On the threshold of the 21st century, Japan must take revolutionary yet realistic actions promptly, without being bound by existing systems, practices and interests, in order to create a "knowledge-emergent society," where everyone can actively utilize information technology (IT) and fully enjoy its benefits. We will strive to establish an environment where the private sector, based on market forces, can exert its full potential and make Japan the world's most advanced IT nation within five years by:

1) building an ultra high-speed Internet network and providing constant Internet access at the earliest date possible,
2) establishing rules on electronic commerce,
3) realizing an electronic government, and
4) nurturing high-quality human resources for the new era.

(http://www.kantei.go.jp/foreign/it_e.html)

6 e-Japan Strategy

Based on "Basic IT Strategy", IT Strategy Headquarters chaired by Prime Minister adopted "e-Japan Strategy" on 22 January 2001. The strategy establishes concrete targets in

Recent Regulatory and Policy Development in Japan

Presented by
Ministry of Public Management, Home Affairs,
Posts and Telecommunications (MPHPT), Japan

1 Enhancement of Pro-competitive Policy in the Telecommunications Field

On 21 December 2000, Minister of Posts and Telecommunications received the first report from the Telecommunications Council (Chair: Mr. Sho Nasu, ex-President of Tokyo Electric Company) in response to his inquiry of 26 July 2000 on "Desirable Pro-competitive Policy in the Telecommunications Field for Promoting IT Revolution".

Minister made the inquiry to introduce new measures to further promote competition with an eye to expansion of the IT-related infrastructure. Having received the report, Minister is to take appropriate measures, paying due respect to the report. Some major points of the report are:

i) Formulation of administrative guidelines on poles, ducts, conduits owned by NTT and electric companies, etc,

ii) To promote unbundling of optical fibers by NTT regional companies,

iii) To introduce wholesale rates for resale of local telecommunications services,

iv) Setting "firewall" restrictions between the major supplier that owns "bottleneck" facilities and its subsidiaries,

v) Applying a duty on major suppliers in the mobile telecommunications market to establish and disclose interconnection tariff,

vi) To strengthen dispute-settlement functions for the purpose of promoting fair competition,

vii) Positioning of Universal Service Policy (Integrated study of competition policy and universal service policy, study of the Internet and mobile services from the standpoint of bridging the digital divide, scope of universal service),

viii) Measures to enhance international competitiveness, and

ix) Pro-competitive programs for the IT age.
(http://www.mpt.go.jp/eng/Releases/NewsLetter/Vol11/Vol11_21.pdf)

2 Unbundling Local Loop

Based on the report from the Telecommunication Council to Minister of 31 August 2000, amendment of Ministerial Ordinances to introduce local loop unbundling for cupper cables came into force in October 2000. The amendment enabled new carriers to interconnect their networks to NTT regional companies' network at MDF (MDF connection) and to locate their equipment in NTT regional companies' building (co-location). In accordance with the amended ordinance, NTT regional companies started provision of MDF connection from 18 December 2000 after Minister's approval on amendment of interconnection agreement. With these measurements, several new carriers and NTT regional companies commenced DSL services in line-sharing mode in full scale in December 2000.
(http://www.mpt.go.jp/pressrelease/japanese/denki/001218j601.html(Japanese Only))

four priority areas and government actions to achieve the targets. Detailed action programs are to be prepared by the end of March 2001. Some major points of the strategy are as follows:

Establishment of an ultra high-speed network infrastructure and competition policies

a) The Government promotes establishment of one of the world's most advanced Internet networks within five years, and enable all the people who need it to have ultra high-speed access networks (30-100Mbps as a standard) at affordable rates.

b) In the short term, Government take measures to enable all the people to have unlimited access to the Internet at extremely low rates within one year.

c) The Government promotes shift to the Internet networks based on IPv6.

Facilitation of Electronic Commerce

d) Necessary legislation should be submitted to the ordinary session of the Diet in 2001 with regards to the rules concerning electronic contracts and information property contracts, such as the clarification of the dates of contract conclusion, and rules concerning responsibilities of Internet service providers.

e) Necessary legislative measures should be taken to win the confidence of consumers, including submission of a bill to protect personal data to the ordinary session of the Diet in 2001.

Realization of electronic government

f) The Government is requested to realize an electronic government, which handles electronic information in the same manner as paper-based information, by fiscal 2003, and even expedite digitization of citizens and businesses widely. Public administration should be intensively reformed to digitize documents, promote paperless, and share and utilize information through information networks.

Nurturing high-quality human resources

g) The Government takes measures to improve the information literacy of all public, with due considerations to seniors and the disabled.

h) The Government takes measures to increase masters and doctors in IT-related fields both in number and quality to secure advanced technical experts and researchers at colleges, national and private institutions. In addition, it takes measures to receive approximate 30,000 outstanding foreign IT experts by 2005.

i) In order to foster creators who can produce the world-best digital content and thus strengthen Japan's ability to transmit it to the world, the best environment for those creators should be realized by the facilitation of incubation schemes.

(http://www.kantei.go.jp/foreign/it_e.html)

7 Recent Topics of Telecommunications Business

Thanks to the sector reform to promote competition, the number of telecommunications carriers reached 8,790 including 303 Type-I carriers as of 1 November 2000. Under the severe competition, carriers are making effort to reduce the

rate as well as to introduce new services especially broadband access to the Internet with a frat rate. DSL services are provided in full scale in major cities. The first broadband access services by fiber optic (FTTH) up to 10 Mbps commenced in December 2000 by NTT regional companies. A new Type-I carrier, Yusen Broad Networks, Inc., also started FTTH services up to 100Mbps in March 2001. The Government has set a target to complete nationwide optical fiber network by 2005 and supports carriers for its investment.

The number of mobile phone subscribers exceeded 65 million at the end of February 2001. Among them, more than 31 million users had access to the Internet via cellular handset. The number of the i-mode users was about 20 millions. The first 3G services are expected to start at the end of May 2001. This will be the first case in the world.

8   Establishment of the Ministry of Public Management, Home Affairs, Posts and Telecommunications (MPHPT)

Through the reorganization of central government agencies on 6 January 2001, the Ministry of Posts and Telecommunications (MPT) was reorganized into the Ministry of Public Management, Home Affairs, Posts and Telecommunications (MPHPT).
Within MPHPT, Information and Communications Policy Bureau and Telecommunications Bureau are responsible for all the issues on information and communications including broadcasting and radio frequency management.
(http://www.mpt.go.jp/eng/InsideMPT/Reorganization/index.html)

PLEN agenda item:	**Plenary**	Submitted by: Korea

Policy and Regulatory Update: Republic of Korea

Contact: **Jurng, Chul-Joong**
Email: **jurng@mic.go.kr**

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

Recent Regulatory and Policy Developments

March 2001

Republic of Korea

In its continuous efforts to promote user benefits through increased competition, the Korean Government (Ministry of Information and Communication, MIC) has revised the Telecommunications Business Act in September 2000. The revised Act will come into effect starting April 9 this year.

The main revised contents of the Act are as the following:

- Increasing Foreign Ownership Ceiling for Korea Telecom

Foreign entities can own up to 33% of Korea Telecom today. This ceiling will be increased to 49% starting April 2001. Additionally, foreign DR issuance is to be pursued during the first half of year 2001 as one of the steps toward a 100 percent privatization by June 2002 of Korea Telecom

As could be seen, Korea is continuously pursuing deregulation needed not only for the early realization of commitment according to the WTO Basic Telecommunications Agreement but also to promote user benefits through increased competition.

		WTO Commitment	Current Status/Plan
Single person ownership limit	KT	3% from 1998	15% from Jan 1999
	The other suppliers	33% from 1998	Abolished in Sept 1998
Aggregate ownership limit	KT	20% from 1998 33% from 2001	49% from Apr 2001
	Others	33% from 1998 49% from 2001	49% from Jul 1999
Foreign largest shareholder	KT	Not permitted	Not permitted
	The other suppliers	Allowed from 1999	Allowed from Jan 1999

Resale	Voice resale	49% from 1999 100% from 2001	100% from Jan 2001
	Others	100% from 1998	100% from Jan 1998

- Calling Line Identification Presentation (Caller Information)

Legal foundation was established for the implementation of the Caller Information services in coming May. Upon request of the receiving party, the information of the calling party, e.g., telephone number, will be displayed on receiving party's terminal. The right to refuse the transmission of phone number shall be guaranteed to protect the privacy of the caller. However, this right may be waived in the case of emergency, e.g., report of crime, fire or disaster, or telephone violence.

- Number Portability

Legal foundation will be established for the implementation of number portability. The topics under consideration include type of services, time frame for introducing each service and cost-sharing scheme. This service is to be offered from 2002.

- Sharing the Local Loop

Facilities-based service operators will be required to share the local loop if other telecommunications service operators so request. This measure is to be implemented in the 1st half of 2001.

- Sharing Wireless Telecommunications Facilities (Roaming)

Facilities-based telecommunications service operators will be allowed to share wireless telecommunications facilities (roam) if other facilities-based service operators so request by negotiating contracts. This measure is to be implemented in the 2nd half of 2001.

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- Selection of the 3rd Generation Mobile Communication Service Providers

Through fair examination, the third generation mobile communication service operator license has been given to the two W-CDMA providers, SKT IMT and KT IMT service operators. As for the selection process for the cdma2000 service provider will be undertaken this year.

- Digital Terrestrial Broadcasting

In accordance with the world-wide trend for digitalization of broadcasting, Korea is scheduled to service digital broadcasting in the 2nd half of 2001 following the licensing of the digital TV broadcasting System in June.

- Digital Satellite Broadcasting

Digital satellite broadcasting has first operated in August 2000 on a trial basis and the digital satellite broadcasting provider will be selected in April this year. According to the timeframe, official broadcasting will commence in the 2nd half 2001.

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APEC TEL 23
POLICY AND REGULATORY UPDATE
MEXICO
MARCH 2001

Doc no:
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plen/26

PLEN agenda item:	**Plenary**	Submitted by: Mexico

APEC TEL 23
POLICY AND REGULATORY UPDATE
MEXICO
MARCH 2001

Contact: **Pablo Hinojosa**
Email: **hinojosa@cft.gob.mx**

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

APEC TEL 23
POLICY AND REGULATORY UPDATE
MEXICO
MARCH 2001

In the last six months there have been two main government actions related with telecommunications regulation and policy in Mexico. The first one is the continuation of the procedure to consolidate local areas for telephone services. This procedure started in July 1999 and has been developed gradually. At that time, there were 1,464 different geographical areas. Between these areas, communication was charged as long distance calls. In 2002 this number will be reduced to 406 local areas (almost 30% of the original number), which means that they will be expanded in order to include more locations. As for February 2001, 200 areas have been consolidated, which means that 49% of the process has been already completed.

The second action is the launch of the **e-Mexico** system. This system has been proposed by the new Mexican administration that just took hand of the government last December. The **e-Mexico** system is composed by a set of projects oriented towards the promotion of access and development of telecommunications infrastructure and Internet applications in Mexico. As a system, **e-Mexico** will work as a coordinating body between public and private actors to implement these projects. This coordination has been done through the Ministry of Communications and Transportation. So far, projects that have been proposed vary from online education, infrastructure, e-government (G2C), telemedicine, e-Commerce (SME's) and improvement of the regulatory framework. The most important project of the **e-Mexico** system is the construction of a "Mega-network" that will conclude with the connection of all 2,428 municipalities within the Mexican territory.

Policy and Regulatory Update: New Zealand

Contact: **Mark Holman**
Email: **mark.holman@med.govt.nz**

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

APEC TEL 23: POLICY AND REGULATORY UPDATE: NEW ZEALAND

TELECOMMUNICATIONS POLICY

Policy response to Ministerial Inquiry into Telecommunications

The Ministerial Inquiry into Telecommunications reported to the Minister of Communications on 29 September 2000. The Inquiry was charged with:

> assessing the extent to which the current regulatory regime in New Zealand meets the Government's objective for the telecommunications services markets; and

> making recommendations for any amendments to the policy and regulatory framework in order to achieve the Government's objective.

The Government's key objective for telecommunications in New Zealand is to ensure cost efficient, timely, and innovative telecommunications services on an ongoing, fair and equitable basis.

The Inquiry's final report (available on the Inquiry's website www.teleinquiry.govt.nz) identified scope for improving the existing regulatory regime. In response to the Inquiry's report, the Government took a number of decisions in December 2000 to implement a new regulatory regime for telecommunications (public announcements and a full summary of decisions are available at www.med.govt.nz/pbt/telecom/response). The key feature of the regime is the creation of the post of Telecommunications Commissioner to resolve industry disputes over regulated services. This approach moves New Zealand away from its previous sole reliance on generic competition law and the threat of regulation.

Legislation is currently being drafted to give effect to the new regime. This legislation will come into force later this year. Key aspects of the new regime are set out below.

PROMOTING ECONOMIC OBJECTIVES

New regulatory institutions	• New Telecommunications Commissioner located in the Commerce Commission
	• Key functions of Commissioner to:
	- resolve disputes between parties that arise in the course of negotiations over access to regulated services (including the power to impose a regulated price for 'designated' services in the event of a dispute relating to price)
	- report to Minister of Communications on desirability of regulating any additional services in the future
	- monitor and enforce Kiwi Share obligations (New Zealand's universal service obligations)
	• Industry Forum not mandatory but expected to be established

	- Commissioner can approve codes of practice submitted by the Forum

New forms of regulation	• *Designation* – obligation on an access provider to provide the service on request from an access seeker; prescribes access obligations, particularly the pricing principles to be applied by the Commissioner in the event of a dispute over the access price.
	
	• Services to be designated initially are:
	
	  - Interconnection with Telecom New Zealand Ltd's fixed telephone network
	    ➢ pricing principle: cost-based (TSLRIC) or bill and keep
	
	  - Wholesaling of Telecom's fixed network services
	    ➢ pricing principle: retail price minus net avoidable costs saved
	
	  - Number portability, including 0800 (toll free) number portability
	    ➢ pricing principle: system and cost allocation to be determined using economic efficiency principles
	
	• *Deferred designation* (with deadline) - sets a deadline for industry to resolve particular issues, or the service will be designated.
	
	  - Fixed-to-mobile carrier pre-selection from Telecom's network will be given deferred designation status with a deadline of 31 December 2001 for industry to resolve the issue.
	
	• *Specification* - an obligation to provide the service, but no pricing principles are prescribed (i.e, the Commissioner does not have the power to set a price for access to the service in the event of a dispute) – sends a strong signal to industry that the Government considers access to the service to be important, and that the service is being monitored.
	
	  - no services to be specified immediately

Process for regulating additional services in the future	• Minister of Communications or Telecommunications Commissioner may initiate the statutory process • Commissioner studies the desirability of regulation and reports to the Minister • Minister considers and, if agrees, designates by Order-in-Council (Regulations)
Process for resolving disputes *Disputes not relating to price* *Disputes relating to price*	 • Determination by Commissioner within 20 working days • Initial price determination by the Commissioner on application by any party seeking access to a designated service (within 30 working days) • Full pricing review if requested by one of the parties • Appeal on full pricing review only; initial price determination binding meantime

PROMOTING SOCIAL OBJECTIVES

Kiwi Share	• Upgraded Kiwi Share requirements
	
	  - extends geographic coverage to current (2000) levels
	  - clarifies that free local calls include dial-up data (e.g. Internet) calls
	  - extends 9.6kbps to 99% and 14.4kbps to 95% of residential fixed lines over two years. (Telecom to bear capital cost of this upgrade – industry to contribute to any ongoing Kiwi Share losses)
	
	• Improved funding mechanism – industry continue to contribute, but more transparent and competitively neutral
	
	  - Telecom to undertake costing of Kiwi Share
	  - final cost determination made by Commissioner
	  - Telecom seeks Commissioner's approval to oncharge proportion of net operating costs to competitors
	  - Commissioner determines what proportions firms should pay

	• Improved monitoring and enforcement - Commissioner to monitor performance against agreed standards - Commissioner withholds Telecom's right to oncharge competitors in the event of non-performance.
Electric fence interference	• Government to work with key stakeholders to facilitate solutions to electric fence interference with Internet access in rural areas
Universal service obligations for higher speed data	• Monitor the uptake of higher speed data services and new technologies • Consider in 18 months the case for: - a universal service obligation for higher speed data - competitive tendering of Kiwi Share/USO

2G/3G spectrum auction

The auction of management rights over spectrum in the 2 GHz band concluded in mid-January. The total amount bid on management rights for second and third generation spectrum (and other 'fixed point to point' spectrum) in this band was NZD $133 million.

The provisionally successful bidders for 2G and 3G management rights were as follows:

Bidder	2G (MHz)	3G (MHz)
Vodafone Mobile New Zealand	15 x 2	10 x 2 and 5 (TDD)
Telecom New Zealand	25 x 2	15 x 2
Clear Communications	15 x 2	10 x 2 and 5 (TDD)
Telstra Saturn	10 x 2	10 x 2 and 5 (TDD)
Northelia	10 x 2	

As noted in the last update, the Government also decided to withhold one 15 MHz (paired) block of 3G spectrum from the auction for acquisition by a Maori trust following the auction. This acquisition process will not commence until after the completion of the auction of licences (as opposed to management rights) in the 2 GHz band.

IT/E-COMMERCE

E-commerce Summit and Strategy

In November, the government organised a major E-commerce Summit, hosted by the Minister for Information Technology. This was the first such event on this scale in New Zealand, with a number of overseas keynote speakers and an address by the Prime Minister.

A number of smaller events are planned during 2001/2, to take the message of the summit to regional centres around New Zealand, with an emphasis on practical awareness and application of e-commerce.

In addition to a comprehensive programme of workshops, the Summit also saw the launch of the E-commerce Guide for Business and the E-commerce Strategy. Both publications can be found at www.ecommerce.govt.nz.

The principles which will guide the government in implementing the strategy include:

- leadership is a shared responsibility between government, business and the broader community;

- human capability is the key area for investment;

- there should be an open domestic and international regulatory approach that facilitates the development of infrastructure and interoperability, and avoids undue restrictions and costs being imposed on e-commerce;

- choices about new technologies and their exploitation must be led by the private sector;

- there should be a predictable, simple and consistent legal environment for e-commerce.

Subsequently, a number of initiatives are under way to take the strategy forward, on the basis that it is a living document. These include requiring government agencies to sharpen the delivery of initiatives contained in the strategy, and to develop 6-quarter action plans for e-commerce implementation.

E-commerce Action Team

The government has set up a mechanism for extending the public/private sector e-commerce partnership through a three-pronged measure known as the E-commerce Action Team (ECAT) network. A core group comprising industry group representatives and selected individuals has been established. The core group reports to the Minister for Information Technology on measures to support business and the wider community in taking a shared leadership role with government in advancing e-commerce in New Zealand. Its first meeting is due to be held in early March.

The core group is being supplemented by regional and sectoral ECATs, and by a comprehensive website which is in the process of being set up.

The Ministry of Economic Development is working with other key agencies, such as Statistics New Zealand and universities, to identify and improve on-going research and statistics on e-commerce. Recent research indicates that New Zealand SMEs are well-advanced in exploiting the potential of the internet, eg over a third of the businesses surveyed have their own domain name and/or website (this rises to over two-thirds for firms employing more than 20 staff. However, only about 10% of businesses have yet integrated e-commerce into their internal business systems. ("Electronic Commerce in New Zealand- A Survey of Businesses on the Internet")

Digital Divide Issues

As with most APEC economies, the coordination of issues relating to e-commerce, e-government and digital divide/human capital is an increasingly complex task. For instance, the State Services Commission's E-government Unit is finalising the e-government strategy (www.ssc.govt.nz), while the Department of Prime Minister & Cabinet has been tasked with coordinating the range of digital divide/information society concerns and initiatives.

Further material on technology aspects of the digital divide and the development of a New Zealand response to it can be found at: www.executive.govt.nz/minister/maharey/divide.

Other policy initiatives are also linked to e-commerce uptake, for instance, the creation of a ministerial panel on the reduction of business compliance costs, which held its first meeting in February (www.businesscompliance.govt.nz).

Legislation

The Electronic Transactions Bill, which is expected to be passed into law in June 2001, will assist the uptake of e-commerce by supporting an equivalent legal environment for both paper-based and electronic transactions. The Crimes Amendment Bill is dealing with cyber crime issues, and development is being undertaken on the Evidence Code.

Consumer Issues

In April, the Minister of Consumer Affairs will launch the Marketing Standards Authority, which is a joint initiative with the Direct Marketing Association and the Advertising Standards Authority, with policy input and seed funding from the Ministry of Consumer Affairs. The new Authority will enhance consumer confidence by administering codes of practice and a complaints resolution mechanism for B2C electronic commerce.

Ministry of Economic Development
Wellington
February 2001

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Policy and Regulatory Update:
Indonesia

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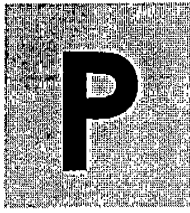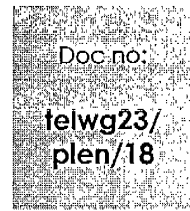
| PLEN agenda item: | **Plenary** | Submitted by:
Indonesia |

Policy and Regulatory Update: Indonesia

Contact: **Yayat Hidayat**
Email: **yayat@postel.go.id**

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

Update
Recent Regulatory and Development
Indonesia

Telecommunication Law No. 36/1999

A new telecommunication Law has very recently been enacted, Law No. 36/1999, effective on the 8th of September 2000, replacing Law No. 3/1989 which has been in force for ten years.
To provide a clear pathway of the telecommunication's sector development in Indonesia, the Ministry of Communications has adopted a "Blue Print" or Government Policies on Telecommunications. The document is essentially to implant dynamics in its content for the elaborated government plan in achieving the sector reform, including the restructuring of the telecommunications industry, the liberalization Law combined with the Blue Print is expected to initiate a new era in telecommunications development in the country, providing a new vehicle and creating attractive conditions to both existing as well as new investors.

The future Indonesia Telecommunication profile should carry the following features:
- Strengthening the existing regulatory body
- Having fair competition climate and efficient service provision
- Having non-discriminatory access to telecommunications services for all customers
- Supporting telecommunications development, quality of services, affordable rates and plenty of choice.

In support of the telecommunication law No.36/1999, the government has issued the Government Regulation No. 52/2000 on service provisions and No. 53/2000 on frequency management.

Regional Autonomy Law

Promoting decentralization, the government decided to delegate authority to regional or district level in a number of areas. The legal basis of this program is mainly established with two law provisions, Law No. 22/1999 on Regional Authority and the Fiscal Balancing Law No. 25/1999. Above

provisions prescribe the delegation of authority and sharing of greater proportions of revenues generated by the exploitation of natural resources in those regions. The Telecommunication Law (No. 36/1999) and its related Government Act No. 52/1999 have also interest in the speedier deployment of telecommunications infrastructure in those regions because of their need for such facilities, accrued from the greater revenues and expansion of development activities.

E-Government

Information technology application wrapped as E-government is one way to support Regional Autonomy policy by speedy access to information and ease to communicate, features needed to cope with global competition. Risti (Research arm on infocom technologies) of PT. Telkom, has to some extend implemented the system in collaboration with a number of municipalities which proofed to be a great help in the monitoring and supervision of the government administration toward a better service to society.

CYBERLAW

The Government – c.q. Directorate general of Posts and Telecommunications – is now initiating an Information Technology Law. This law is expected to be an umbrella provisioning for IT implementations in Indonesia. The draft of the Law will be soon proposed to Parliament (DPR). Until recently, D.G. Postel has done with several preparations, such as:

1. Cyberlaw seminar has been conducted to acquire inputs, views and opinions from experts, academicians, and infocom societies around the use of Information Technology and its regulation. One of its recommendations was there is a need and urgency to establish a Law of Information Technology as umbrella provisioning and regulation platform.

2. An academic draft for information technology law has been accomplished together with some experts and academicians, as a platform for establishing the draft of Information Technology law.
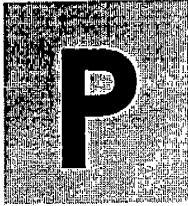
PLEN agenda item:	**Plenary**	Submitted by: Papua New Guinea

POLICY & REGULATORY UPDATE –
Papua New Guinea

Contact: Kila Gulo-rui
Email: kgbv@datec.com.pg

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

APEC TEL 23
POLICY & REGULATORY UPDATE - Papua New Guinea

1. National Government Structural Adjustment Program

Last year, the PNG government established a structural adjustment program in order to realize more of the country's economic growth and improve on the past poor performance. The structural reform program consists of specific initiatives to achieve the objectives of:

- promoting good governance;
- sustaining macroeconomic stability;
- improving public sector performance; and
- removing barriers to investment and economic growth.

Under the objective of removing barriers to investment and economic growth, two major initiatives including the review of Competition and Regulatory Policy and the Privatisation Program for public enterprises are being pursued.

1.1 Competition Policy and Regulatory Review

The review of competition policy involves the formulation of competitive conduct rules and the review of barriers to entry and price controls in PNG. Under this policy initiative the following actions are being taken:

- a legislative review to identify competitive conduct rules in PNG (including a review of the proposed Consumer Affairs and Trade Practices Bill);
- recommendation of appropriate competitive conduct rules for PNG;
- review of barriers to entry in the provision of services;
- review of regulatory arrangements; and
- identification of universal service obligations on State Owned Enterprises (SOEs)

The objective is to establish a comprehensive and appropriate competition policy that sets rules for business behaviour, removes barriers to the competitive operation of markets through deregulation and to ensure that competition is not undermined by the anti-competitive behaviour of some firms. The policy review is also to establish an appropriate regulatory framework that will maximise the ongoing value of the SOE, protect legitimate business and customer interests and which will provide for the flexibility needed to accommodate future changes in the SOEs and their industries going forward.

The review of the national competition policy and regulatory frameworks has just been completed, and the Report on the findings will be tabled before the National Executive Council (NEC) this month. The NEC is expected to decide on the policy recommendations arising from this review by the end of next month. Undoubtedly, the decisions from the policy review will have a significant bearing on the telecommunications liberalisation program.

1.2 Privatisation Program

As part of its structural adjustment program, the government has embarked on a program of State Owned Enterprises (SOE) reform and privatisation. The program has a number of objectives including:
- the servicing and reduction of public sector debt;

- improving the provision of essential services in accordance with priority policy objectives;
- promoting economic efficiency and encouraging competition; and
- improving the performance of the SOEs to reduce the need for further tax or prices on an already depressed private sector.

Accordingly, the passage of the Privatisation Act established the Privatisation Commission to be responsible for the entire privatisation program. The Privatisation Commission with the approval of the NEC appointed an International Advisory Group to provide advisory services to the Commission.

The NEC further made the following decisions to support the privatisation program:
- established a Working Group to review and develop, a Regulatory framework for the existing SOEs prior to privatisation process;
- the identification and definition of Community Service Obligation currently provided as a condition of sale;
- the privatisation of various government assets including Telikom PNG Limited;
- establishment of a Listed Unit Trust to enable PNG citizens to acquire state owned shares; and
- implementation schedule to be followed during the privatisation program.

Under this policy it is viewed that privatisation should be accompanied by the introduction of effective regulation and the need for the fulfillment of important social and community service functions.

2.0   Liberalization Program

In light of the liberalization of the telecommunications market late this year, PANGTEL, the regulatory authority of telecommunications in PNG is preparing a regulatory framework to ensure the effective transition from monopoly to a more competitive supply market. The development and implementation of a regulatory regime has now taking priority as PNG moves towards the market liberalization. Amongst the key policy initiatives completed and or nearing completion include:

2.1 Customer Services Guarantee: A customer services guarantee policy has been adopted following exhaustive consultation with the industry. The policy is aimed at providing incentives to service providers to improve their services, as well as providing a measure of redress where customers are inconvenienced. The intention is to develop standards which telephone suppliers must meet in relation to the time in which new services must be connected and faults rectified. The service supplier may pay damages to the customer if it fails to comply with these standards.

2.2 Universal Service Obligations: A draft policy on universal service has also been completed and is now going through a consultative process. The draft proposal proposes designation of national universal service provider in Telikom PNG as the incumbent operator. Further, the draft proposes the establishment on a universal service fund with all telecommunications operators and licensees required to contribute to the fund to support the universal service program. The details of the universal service program are expected to be drawn up following the adoption of this universal service policy.

2.3 Interconnection: A draft regulatory framework on Interconnection is currently the subject of consultation with the industry and other interested parties. The consultation process is

scheduled to end this month with policy decisions on the framework made next month. The framework seeks to provide the regulatory arrangements pertaining to interconnection and access arrangements.

2.4 Telecommunications Industry Framework: A draft telecommunications industry framework has also been released for industry and public comments. The consultation process is scheduled to end by this week with policy recommendations finalised by the end of the month.

2.5 Review of Legislation: Work is continuing on the revisions to the *Telecommunications Act 1996* and *Radio Spectrum Act 1996* the two laws governing telecommunications in PNG. It is expected that any revisions and or amendments to these laws will be introduced in Parliament mid this year.

2.6 Termination of Internet Service Monopoly Rights: The National Executive Council (NEC) late last year decided to terminate Telikom PNG's exclusive rights to provide Internet gateway services. In keeping with the NEC decision, the *Telecommunications Act 1996* is being reviewed with a view to accommodating this change.

2.7 Other key policies that are nearing completion include the National Numbering Plan, Spectrum Policy and Licensing and Market Access Policies.

3.0   Other Developments:

3.1   Review of the *National Policy on Information and Communication 1994* (NPIC): The current policy on information and communication which was adopted in 1994 is outdated and is currently reviewed to take account of advances in technology, market developments and global and regional developments in telecommunications, broadcasting and information technologies. The new national policy is scheduled to be completed by the end of this year.

3.2   *Award of Additional License(s):* The award of additional licenses for public basic telecommunications services and certain other classes of licenses has been temporarily put on hold pending the consideration by the NEC of policy recommendations arising from the national review on competition and regulatory frameworks. The NEC is expected to consider and deliberate on the policy review by the end of next month.

Policy and Regulatory Update: Peru

Contact: **Flavio Ausejo**
Email: **fausejo@osiptel.gob.pe**

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

REGULATORY AND POLICY UPDATE: FEBRUARY 2001

PERU

The main telecommunications facts in the Peruvian telecommunications sector by February 2001 are summarized below.

License and Spectrum Management

The objective of the licensing policy is focused on achieving a sustained growth in the sector and eliminating the barriers to entry in the telecommunications market place. Up to February 2001, the Peruvian Ministry of Transport and Communications has awarded 244 concession according to the following details.

TELECOMMUNICATIONS PUBLIC SERVICES CONCESSIONS GRANTED				
	1994	August 1998	Up to December 2000	Up to February 2001
Long distance carrier	1	1	49	47
Local carrier	1	4	22	25
Fixed telephony	1	1	6	7
Mobile	3	4	5	5
Paging	7	32	32	32
Trunking	0	12	7	7
Cable Television (included MMDS)	4	51	111	112
Mobile Satellite	0	2	3	3
Public Telephony (Pay-phones)	0	1	5	6
TOTAL	17	110	240	244

REGISTRATIONS OF VALUE ADDED SERVICE GRANTED				
Registered firms	3	103	169	171

REGISTRATIONS OF TRAFFIC AND/OR SERVICES RESELLERS				
Registered firms	0	0	17	20

The Peruvian license policy establishes equal treatment for national and foreign investors, legal stability agreements in taxation matters, non-state intervention in direct business activities and no restrictions concerning profit remission and foreign exchange transactions. There are no restrictions concerning foreign ownership in telecommunications public services. They can be 100% foreign owned, in which case they should have a legal representation settled in Peru.

Since March 2000, some events have occurred in the telecommunications market place:

- The public bid for the nationwide PCS band "A" assignment was carried out in a public act, allowing the entrance of a third mobile operator. The winner firm was Stet Mobile Holding N.V., part of Telecom Italia Group, commercially known as TIM Perú S.A.C., which offered US$ 180 millions; being the established price bases US$ 47 millions. TIM started operations in December 2000 with programmed investment for US$ 250 millions in the next two years.

- Two Fixed Wireless Access (FWA) bands for fixed telephony and local carrier services were awarded to Telefónica del Perú and Millicom Perú (two blocks in the 3.400 to 3.600 MHz band). The amounts paid by these firms were US$ 9'850,000 and US$ 9'700,700, respectively. Another band was granted in December 2000 for the fixed telephony and local carrier services to Orbitel Perú (Stet Group) which obtained a block in the 3,4 – 3,6 Ghz (C-G pair). The amount paid was US$ 10'301,000.

Therefore, these companies will be able to offer fixed telephony services without having to deploy wired networks. Also, they will be able to offer local carrier services that provide high speed data transmission and support added value services as Internet.

- In June 2000, 22 additional channels for trunking services were granted to Nextel Perú. The price bases was US$ 250,000, being Nextel the company that offered the highest economic proposal: US$ 3'301,000 to operate in the Lima and Callao area

Mutual Recognition Arrangement (MRA)

The "Policy Guidelines for Telecommunications Market Liberalization in Peru" established that Peru should follow the APEC Mutual Recognition Arrangement regarding homologation of telecommunication equipment and devices. Therefore, any piece of equipment or device that intends to be connected to a local network needs an homologation certificate, which is issued by the Peruvian Ministry of Transport and Communications. A Homologation certificate is also required for importing, manufacturing and selling telecommunication equipment or devices.

Peru began the implementation of Phase I of the Mutual Recognition Agreement in April 2000. Peruvian standards of certification are those proposed by the International Telecommunication Union (ITU).

Peru still does not have a Conformity Assessment Body (CAB). However, it is planning to accept the verification of conformity assessment bodies proposed by party's designating authority, according to APEC recommendations. In the designation process, international guides will be used for verifying conformity with technical rules on the import side in order to determinate the technical competition of a CAB.

Currently, Peru does not have rules to determinate the technical competition of a CAB.

Fixed Local Telephony Service

In December 2000, a second telecommunications operator, AT&T, started to offer fixed local telephony service in Lima additionally to Telefónica del Peru. A third operator, Bellsouth, is expected to offer it in the first semester of this year.

The development of the fixed local telephony service by Telefónica del Peru has been as follow:

Telephone lines	December-1999	December-2000	Variation %
Installed lines	2.000.689	2.021.689	1,00 %
Lines in service (1)	1.688.619	1.717.118	1,70 %
Public Phones (2)	60.789	81.253	33,70%

(1) Including public phones but not cellular public phones.
(2) Including cellular public phones.

Long Distance Services:

Carrier pre-selection for long distance services started in November 1999. Currently, there are 47 companies that have the license to provide long distance telephony services and 7 firms offering these services under pre-selection system. Competition among long distance carriers is now a fact and has had its effects on the long distance tariffs. Overall, new carriers have entered into the market place offering tariffs lower than the incumbent and some long distance carriers have been more aggressive than others.

According to the "Policy Guidelines for Telecommunications Market Liberalization in Peru", in 2001, two years after the implementation of the carrier pre-selection system, telephone users will be able to access a long distance carrier whether carrier pre-selection and call-by-call system.

Interconnection

OSIPTEL continues monitoring the interconnection agreements among firms. Until February 2001, 39 of these negotiations reached an agreement, mostly with the incumbent operator, Telefónica del Peru. Up to January 2001, the status of the interconnection agreements was as follows:

Interconnection agreements	
Approved Contracts	39
Awaiting OSIPTEL's Mandate	4
In negotiation by the enterprises	7
In evaluation in OSIPTEL	8
TOTAL	58

In January 1, 2001, a new reduction in the interconnection charges for call termination in the local networks was in place. The new charge was established in US$0,0168 as average price cap per second. A new reduction is due from July 1, 2001 according to the following schedule:

From	To	Average Charge US$
July, 2000	June 30, 2001	0,01680
July 1, 2001	December 31, 2001	0,01400
January 1, 2002	June 30, 2002	0,01150
July 1, 2002		0,00960

From March 1, 2001, OSIPTEL took steps to regulate the mobile market, setting an average price cap for ending calls in mobile, trunking and PCS networks. This charge is per minute, appraised to the second and without taxes.

Competition Policy Enforcement

From October 2000 to February 2001, OSIPTEL has been working in the solution of two lawsuits that are related to possible anti-competitive practices that could affect the telecommunications market place.

The first involved TV cable operators named Tele Cable S.A. and Telefónica Multimedia S.A.C. (also known commercially as Cable Mágico). According to Tele Cable, the exclusivity contracts signed by Telefónica Multimedia with the programming companies Turner Broadcasting System Latin America Inc. and Fox Latin American Channel Inc violated the Competition Act (Legislative Decree 701). Those contracts obliged these firms to stop broadcasting cable channels such as CNN International, CNN en Español, TNT, Cartoon Network, Canal Fox, Fox Kids and Fox Sports Americas to operators other than Telefónica Multimedia.

The Ordinary Board responsible of the case considered that those exclusivity contracts indeed infringed the Competition Act, and Telefónica Multimedia was ordered to cancel the clauses that conceded to this company any exclusivity rights on the transmission of those channels. Telefónica Multimedia challenged this decision and an OSIPTEL's final resolution is pending to be issued.

The second case also involves a cable television operator, however this lawsuit is related to possible anticompetitive behaviour committed by the Lima Electricity Company Luz del Sur. This company has denied the cable operator V.O. Cable request to sign a contract in order to use its poles to lay the company's network. According to V.O. Cable, Luz del Sur's denial to sign a contract is a case of Abuse of Dominant Position prohibited by the Competition Act. As of February 2001, this case is being analysed by the Ordinary Board in charge of it.

Universal Access

OSIPTEL manages an investment fund (FITEL) which primary goal is to promote telecommunication services in rural areas. FITEL identified six regions (North, North Rainforest, North Central, East Central, South Central and South) in the Peruvian territory, and designed a telecommunication project for each area.
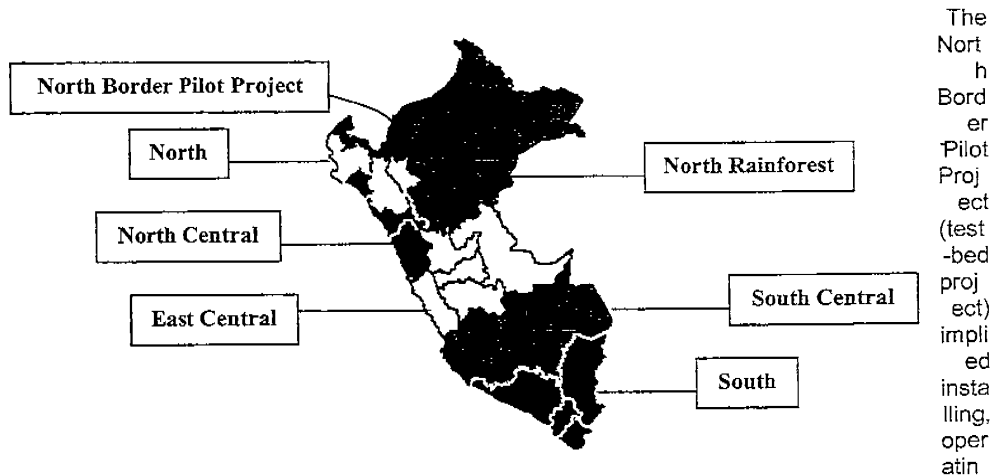
The North Border Pilot Project (test-bed project) implied installing, operating and given maintenance to publics phones in each of the 213 rural villages incorporated in the plan. This project was carried out in the Peruvian northern border and was implemented by Gilat To Home del Peru (formerly Global Village Telecom). The first supervision of the project was made between June and July, 2000, after one year of Gilat To Home del Peru operations.

4

In November 1999, three projects were auctioned: South, South Central and North Rainforest. TELEREP was the winner of this tender and it is currently in the implementation phase. This firm is implementing a VSAT network that will offer telecommunications services through public phones in 1.937 rural villages, including access to Internet in 236 district capitals in telecentres. During the first semester of 2001, more than 900 public telephones in this areas will begin its commercial operations.

The second group of regions -North, North Central and East Central- which bid was announced in March last year, was tendered in September, 2000. In this occasion, the winner was the Peruvian-North American consortium CIFSA Telecom SAC-STM Wireless Inc Associates. According to the project, public phones will be installed in 2.290 rural villages, including 255 district capitals with Internet access through telecentres. The firm is applying for a concession in the Ministry of Transport and Communications in order to begin the implementation phase of the project.

Given that access to Internet is a complementary goal of the universal access policy set up in the "Policy Guidelines for Telecommunications Market Liberalization in Peru" , OSIPTEL is developing a nationwide strategy for Internet access through telecentres in all capitals of rural districts ("district" is the smallest geographic division in Peru and "capital" is the main town in each district; there are more than 1.800 districts). The first phase of this strategy, which will be implemented on the last quarter of 2001, include a Test-Project of 40-50 telecentres located in provinces throughout the country.

Also, OSIPTEL is implementing other strategy to promote Information Technology focused in rural areas called the Pilot Projects Program. The goal of this program is to promote and test projects with innovative technologies for information services in rural villages located in small areas which could be replicate throughout the country. Currently, there are two trial projects is process to be implemented. The first project will offer telephony and medical information in 40 health centers in rural areas of Alto Amazonas, a rainforest area in the north part of Peru. The second project consists in set up information centers that will be able to give information tailored for the requirements of seven villages in Cajamarca, a mountain range in the North of Peru.

Finally, OSIPTEL manages other strategy focused to rural villages with not enough access to public phones. The main goal is to install additional public phones in those villages that already have phone services but only have few (in some cases one) public booths which are not enough to provide good service to the population.

E-commerce:

In August 1999, an E-commerce Law Proposal was submitted to the Peruvian Congress. The proposal includes most of the Model Law of E-commerce of the United Nations Committee for Mercantile Law (UNCITRAL). The main characteristics of this proposal that regulates electronic contracts are:

- Regulation of requirements that a data message should comply in order to be considered as signed,
- Establishment of the admissibility and force of a data message as well as the validity of a contract, whose offer and acceptance has been expressed in a data message.

The Digital Certificates and Signature Law was approved in June 2000. The Law main purpose is to regulate electronic signature use, granting the same validity and effectiveness that the hand written one.

PLEN agenda item:	**Plenary**	Submitted by: The Philippines

Policy and Regulatory Update: The Philippines

Contact: **Amy Rubio**
Email: **aarubio@@i-manila.com.ph**

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

VOLUNTARY REPORT
PHILIPPINES

This updates the Philippine Voluntary Report presented in TEL22 in Bali, Indonesia.

The Philippine Government, with its new Administration, strongly supports the Information Communications Technologies (ICT) sector. In one of her earlier declaration, President Gloria Macapagal-Arroyo stated that:

> "ICT will be our leading sector for economic growth...We expect ICT to be the key
> to finding our proper niche in the global village in the 21st century."

> "We should therefore continue to enhance our competitive edge [and] there are three
> areas that we should work on ...building physical infrastructure, enhancing the policy
> and legislative environment and enhancing ICT human resource development..."

The Information Technology and E-Commerce Council (ITECC) was created by Executive Order 64 last year to oversee, review and update government's plan and strategies on Information Technology and e-commerce by, among others, harmonizing public initiative, promoting strategic partnerships, supporting research and development and funding. ITECC was formed to include strategic government agencies involved in IT and E-commerce as well as individual organizations or associations that are critical in the development of these areas.

The Government Information System Plan (GISP), which was approved by the President on July 12, 2000, is being pursued. GISP is a framework and guide for the computerization of key frontline and common service operations of the government to enhance overall governance and improve efficiency and effectiveness of bureaucracy.

Another major milestone is the issuance last year of the Internet Strategy for the Philippines (ISP.com). ISP.com provides a comprehensive set of strategies to develop an environment conducive for investments and growth of e-commerce. It identifies a focus market where Filipinos can maximize its inherent advantage. It outlines how government will create physical, educational, financial, logistics and legal/institutional environment conducive for IT development.

The Department of Transportation and Communications (DOTC) has come-up with a consultative paper on Infocomme Policy for the Information Economy in December 2000. The Department believes that a national strategy to ensure that Filipinos will reap the benefits of the information economy must be adopted to address issues related to (1) human development (2) creation of favorable policy and regulatory environment and (3) harnessing the benefits of technological advances in ICT. The Department is in the process of consolidating inputs and views on the consultative paper.

Another program being worked on by Department is the Alternative Communications Program (ACP). Co-proponents of this program are the Department of Education, Culture and Sports, Department of Agriculture and Department of Health. The ACP is designed to provide universal access to telecommunications and information services by installing telecenters in every municipality and public payphones accessible to all barangays. The objective of the Program is to correct the imbalanced access to said services and to upgrade existing government and privately-owned Public Calling Offices (PCOs) into multipurpose telecenters.

The ACP is a private sector activity, wherein it shall undertake to finance, build, install, operate and maintain telecommunications facilities and provide basic telecommunication services and other related services in unserved and underserved areas of the country, with the government providing the necessary incentives to encourage the private sector to undertake the program.

PLEN agenda item:	**Plenary**	Submitted by: United States of America

Policy and Regulatory Update
United States of America

Contact: **Diane Steinour**
Email: **dsteinour@ntia.doc.gov**

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

TWENTY-THIRD MEETING
APEC WORKING GROUP ON TELECOMMUNICATIONS
MARCH 2001

REGULATORY AND POLICY UPDATE
UNITED STATES OF AMERICA

To Cover Activities From October 2000 until March 2001

THE EXECUTIVE BRANCH

Electronic Commerce/IT

Electronic Commerce Working Group. Leadership for the New Millennium,
Delivering on Digital Progress and Prosperity," the third and final annual report of the
Electronic Commerce Working Group was released in January 2001. America's
economy and society has been transformed by new information and communications
technologies. The information technology sector has accounted for almost one-third of
U.S. economic growth, and has helped spark an increase in U.S. productivity and
global competitiveness. The report details the Working Group's accomplishments
over the past three years promoting electronic commerce and sets a vision for the
future. At www.ecommerce.gov.

Electronic Signatures: The Commerce Department's National Telecommunications
and Information Administration (NTIA) and the Federal Trade Commission (FTC)
will host a workshop on April 3, 2001 to explore the impact on consumers of a
requirement to obtain the consent of consumers to receive information electronically.
The Workshop was prompted by a provision in legislation passed by Congress last
June that required the Secretary of Commerce and the FTC to study the benefits of the
consent requirement to consumers and the burdens on electronic commerce.

In June 2000, Congress passed the Electronic Signatures in Global and National
Commerce Act, designed to facilitate the use of electronic records and signatures in
interstate and foreign commerce and to remove uncertainty about the validity of
contracts entered into electronically. Under the Act, businesses that are required to
provide or make available information to consumers in writing may provide them
with that information using electronic records only if the consumer consents in a
manner that reasonably demonstrates the consumers' ability to access the electronic
record.
In addition to the workshop, NTIA and the FTC will seek white papers and comments
to determine the benefit of the consent requirement to consumers and business; the
burdens imposed on consumers and businesses; whether the benefits outweigh the
burdens; whether the absence of the consumer consent requirement would increase
consumer fraud and whether the requirement should be revised. See
www.ntia.doc.gov/ntiahome/press/2001/esign020701.htm.

E-Government: The first-ever government website to provide the public with easy,
one-stop access to all online U.S. Federal Government resources has debuted.
FirstGov uses the wonders of information technology to bring government closer to

the American people, to expand the reach of democracy and make government more responsive to citizens. FirstGov allows users to browse a wealth of information — everything from researching at the Library of Congress to tracking a NASA mission. It also enables users to conduct important business online —such as applying for student loans, tracking Social Security benefits, comparing Medicare options and even administering government grants and contracts. This monumental breakthrough in one-stop shopping for government services will help Americans across the country and around the world find the information and resources they need at a click of a mouse — quickly and easily. See www.firstgov.gov.

Digital Divide:
For more extensive information, please refer to the Digital Divide Website at www.digitaldivide.gov. Also, the USA has submitted to the Development Cooperation Steering Group (DCSG) an extensive answer to the DCSG's digital divide questionnaire project.

In October 2000, *Falling Through the Net: Toward Digital Inclusion*, was released by the Commerce Department's National Telecommunications and Information Administration (NTIA) and its Economics and Statistics Administration (ESA). The report found that virtually every group has participated in the sharp upward trend of Americans to connect their homes to the Internet, suggesting that the digital divide may be starting to narrow. The latest report is the Department's fourth in a series that measures the gap between Americans with access to information technologies and those without access. The report for the first time provides data on high-speed Internet access as well as data on the connectivity of people with disabilities. The Department measured the level of digital inclusion by looking at households and individuals with Internet and computer access. Already NTIA and Census are working on the fifth report, for release in 2001, to quantitatively document how many Americans have access to electronic communications are on-line, what applications they are using, and what network access devices they are using.. The fifth report will also focus on access for the disabled and for senior citizens. Report at www.ntia.doc.gov/ntiahome/fttn00/contents00.html.

Technology Opportunities Program Grants: Approximately $42.5 million in grants will be awarded in 2001 by NTIA to state, local, and tribal governments, colleges and universities, and non-profit entities. The purpose of the matching grants is to extend the benefits of advanced telecommunications technologies to all Americans, especially those in inaccessible, rural and underserved urban communities. The grants, awarded annually since 1994, are made to local organizations that use advanced telecommunications technology to bridge the digital divide by helping disadvantaged groups. The TOP program promotes the widespread availability and use of advanced telecommunications technologies in the public and non-profit sectors. TOP grants are provided for model projects demonstrating innovative uses of network technology to benefit communities across the country, especially those in rural and underserved areas. Information about the program's regulations and procedures can be found in the Notice of Availability of Funds, published in the Federal Register on January 11, 2001. Copies of the Application Kit, including the Notice and guidelines for completing an application, can be downloaded from the TOP web site, at www.ntia.doc.gov/otiahome/top/. For more information about TOP, e-mail to top@ntia.doc.gov.

Wireless Innovations in Communications Initiative (WICI): This initiative aims to promote innovative developments in communications technologies and facilitating their timely application to satisfy communication needs in both Federal agencies and the private sector. www.ntia.doc.gov/osmhome/wici/index.html

Minority Broadcast Ownership: Minorities have made small gains in ownership of commercial broadcast outlets, according to a government report entitled: *Changes, Challenges, and Charting New Courses: Minority Commercial Broadcast Ownership in the United States.* The report provides the latest data on minority ownership, assesses the impact on minority ownership of the recent trends in industry consolidation, and highlights the challenges facing minority owners as they seek to maintain or expand their broadcast properties. The report, produced by NTIA, found that 3.8 percent of full power commercial radio and television stations are licensed to minorities, 0.9 percentage points over 1998, when the last survey was conducted. The report also found that while minority broadcasters owned about 4 percent of commercial AM and FM stations, about 426 stations, minorities owned less than 2 percent of commercial television stations in the United States. www.ntia.doc.gov/reports.html.

Internet Domain Names
NTIA maintains a website on the management of Internet names and addresses, to include information on ICANN, InterNIC, and country code domains. www.ntia.doc.gov/ntiahome/domainname/domainhome.htm.
On January 8, 2001, the Department of Commerce and ICANN reached a licensing agreement for use of the InterNIC service mark in continuance of the InterNIC concept as a neutral network information resource. www.ntia.doc.gov/ntiahome/domainname/agreements/internic10801.htm

Critical Infrastructure Protection (CIP). The Department of Commerce now hosts a website on pertinent information surrounding CIP for the Information and Communications (I&C) sector. www.ntia.doc.gov/osmhome/cip

II.   SPECTRUM ACTIVITIES

Ultra Wideband Systems: NTIA is conducting a measurement program to evaluate ultra wideband (UWB) systems, a promising new telecommunications technology. NTIA is reviewing how UWB devices can be authorized to operate without causing interference to other radio communications or sensing systems. UWB transmits very low power radio signals with very short pulses, often in the picosecond (1/1000th of a nanosecond) range using very wide signal bandwidths. UWB has shown promise for many commercial applications, including wireless communications within buildings and the locations of objects on the other side of walls or other barriers. UWB will be using the same spectrum that is presently being used by conventional radiocommunication devices, including emergency services. The NTIA measurement plan has been placed for public review and comment at www.ntia.doc.gov/osmhome/uwbtestplan. In January 2001, NTIA announced the results of the first part of the ultrawideband testing, dealing with devices other than

Global Positioning System (GPS). The NTIA Office of Spectrum Management and Institute of Telecommunication Sciences (ITS), are still conducting the study of ultrawideband devices and GPS . The conclusion based on these tests is that it there is a potential to operate ultrawideband devices in the 3 GHz-6 GHz range. Distance, pulse repetition frequency and power levels are the three major variables in the various scenarios that were tested. Some of the services in this area that will need further discussion are the fixed satellite services at 3.7 GHz-4.2 Ghz; microwave landing services, at 5.03 GHz-5.091 GHz and Doppler weather radar, at 5.6 GHz-5.65 GHz. NTIA plans to release a report, *Assessment of Compatibility between Ultrawideband (UWB) Systems and Global Positioning Systems (GPS) Receivers*, on March 9, 2001. www.ntia.doc.gov/reports.html

3rd Generation/Advanced Wireless Systems: In response to an Executive Memorandum, NTIA, in cooperation with the FCC and other federal agencies, issued a plan to select spectrum that could be used by 3G systems in the United States. On November 15, 2000, the FCC and NTIA released Interim Reports that show it may be difficult to implement 3G systems in the two principal bands identified at the 2000 ITU World Radio Conference (WRC-2000). Final reports from NTIA and FCC are due in March 2001. The FCC adopted a NPRM on December 29, 2000, that begins the formal domestic notice and comment process relating to the identification of spectrum that could be used for advanced wireless systems including 3G systems in the United States. An FCC Report and Order, coordinated with NTIA, is expected in July 2001. For further information see: www.ntia.doc.gov/ntiahome/threeg/index.html

FEDERAL COMMUNICATIONS COMMISSION

The United States Federal Communications Commission (FCC) regulates interstate and foreign commerce in communication by wire and radio to all the people of the United States. Following are descriptions of recent major actions and announcements by the FCC since the last APEC Telecommunications Working Group meeting in March 2000. For more information on all these initiatives, please consult <www.fcc.gov.>

Powell Named New FCC Chairman: January 22, 2001
On January 22, 2001, President Bush named Michael K. Powell to be the Chairman of the Federal Communications Commission. Powell replaces William Kennard, who resigned January 19, 2001. Chairman Powell, a Republican, was originally nominated to the FCC by President Clinton on July 31, 1997 and sworn in as a member of the Commission on November 3, 1997. As Chairman, he presides over the five-member Commission and administers the 1900-person professional staff. In addition to his normal duties, Powell served as the FCC's Defense Commissioner and was responsible for overseeing all National Security Emergency Preparedness functions for the Commission. He also served as the FCC representative to the President's Council on Year 2000 Conversion which was established to address the Year 2000 computer problem. Powell serves on the Georgetown University Law Center's Board of Visitors and is also a 1999 Henry Crown Fellow of The Aspen Institute. Powell's past speeches and statements are available at <<www.fcc.gov/commissioners/powell>>.

Unlicensed International Operators Offered 90-Day Amnesty: January 31, 2001

The FCC's International and Enforcement Bureaus have given carriers and operators 90 days to turn themselves in if they have been offering international services or facilities without proper authorization. Cases of noncompliance discovered after the three-month period will be referred to Enforcement Bureau. Section 214 of the Communications Act of 1934, as amended, requires carriers to obtain FCC authorization before they begin providing international telecom services.

The bureau's actions were prompted by requests from carriers seeking authorization to provide international services that they had already begun offering. They also cited instances of carriers belatedly seeking permission to assign or transfer control of their authorizations to provide international facilities or to land submarine cables in the United States. The full text of the Public Notice can be found at <<www.fcc.gov/Bureaus/International/Public_Notices/2001/da010188.doc>>.

C and F Block Broadband PCS Spectrum Auction Raises Nearly $17 Billion: January 26, 2001

The FCC's C and F Block broadband Personal Communications Service (PCS) spectrum auction ended on January 26, 2001, raising a total net revenue of $16,857,046,150. The auction began December 12, 2000, and ended after 101 rounds of bidding. A total of 422 licenses covering 195 markets across the country were offered.

PCS authorizations may be used to deploy innovative wireless communications services across the United States. The additional deployment of PCS service will benefit consumers by raising the overall level of competition in wireless telecommunications markets. Further details about this and other FCC auctions are at <<www.fcc.gov/wtb/auctions/>>.

America Online-Time Warner Merger Approved with Conditions: January 11, 2001

The FCC approved the joint application filed by America Online, Inc. and Time Warner Inc. for approval to transfer control of certain licenses and authorizations to AOL Time Warner, Inc., the company created in the merger. The approval allowed AOL, the world's biggest Internet services provider, to close its $106.2 billion purchase of the media and cable conglomerate Time Warner, to create an unparalleled company spanning television programming, movies, magazines and cyberspace.

However, the commissioners voted 3-2 to place restrictions on the new company's advanced instant messaging system when it runs over Time Warner's cable lines. They also voted to force further access to the cable pipeline by competing Internet services. If the new AOL Time Warner launches advanced instant messaging services like video conferencing across its high-speed cable pipeline, it will have to make it interoperable with rival instant messaging services, the FCC said. The commission stopped short of forcing AOL to make its current popular instant messaging software – which allows real-time chats via typed messages – interoperate with that of rivals like Microsoft and ExciteAtHome.

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As for access for rival Internet service providers (ISPs) to the new company's cable lines, which can offer consumers high-speed Internet service, the companies were required to allow consumers to have their pick of ISPs carried on the cable lines. AOL Time Warner cannot pressure consumers to subscribe to its own Internet service and must allow the unaffiliated ISPs on the system to choose the content of their opening page. The rival ISPs can also have direct billing with their customers. The FCC said it expects the new company to negotiate in good faith with small and regional ISPs as well as big ones. AOL Time Warner already has signed up EarthLink Inc., the No. 2 ISP in the United States, to offer its own Internet service. The Memorandum Opinion and Order, Public Notice, and FactSheet are available at <<www.fcc.gov/aol_tw.html>>.

FCC Looks to Allocate Additional Spectrum for Advanced Wireless Systems: January 4, 2001
The Federal Communications Commission adopted a Notice of Proposed Rulemaking (Notice) to explore the possible use of frequency bands below 3 GHz to support the introduction of new advanced wireless services, including third generation as well as future generations of wireless systems.

This proceeding will explore the types of advanced mobile and fixed communication services that will likely be provided in the future, including the technical characteristics of such systems, and the spectrum requirements needed to support the introduction of such services. This proceeding also will explore the possibility of introducing new advanced mobile and fixed services in frequency bands currently used for cellular, broadband Personal Communications Service, and Specialized Mobile Radio services.
Full text of the Notice is available at:
<<www.fcc.gov/Bureaus/Engineering_Technology/Notices/2000/fcc00455.pdf>>.

FCC Releases Two Studies on Inter-Carrier Compensation: December 13, 2000
The FCC's Office of Plans and Policy (OPP) released two papers in its OPP Working Paper Series – "Bill and Keep at the Central Office as the Efficient Interconnection Regime" and "A Competitively Neutral Approach to Network Interconnection." Both papers propose new ways of analyzing inter-carrier compensation given the significant problems facing existing interconnection regimes as competition and new technologies are introduced. These papers represent the individual views of their authors and do not necessarily reflect the views of the FCC, any FCC commissioner, or other staff.

Both papers challenge the traditional view of inter-carrier compensation, under which the calling party's carrier, whether local or long-distance, must pay the called party's local carrier to transport and terminate the call. While approaching inter-carrier compensation problems from different perspectives, both papers question the traditional economic analysis requiring inter-carrier compensation, and both provide alternative justifications for bill-and-keep arrangements.
"Bill and Keep at the Central Office as the Efficient Interconnection Regime" is available at <<www.fcc.gov/Bureaus/OPP/working_papers/oppwp33.pdf>>, and "A Competitively Neutral Approach to Network Interconnection" is at <<www.fcc.gov/Bureaus/OPP/working_papers/oppwp34.pdf>>.

FCC Makes Spectrum Available for New Fixed Satellite Services at Ku-Band: November 30, 2000

The FCC adopted a First Report and Order to permit non-geostationary satellite orbit (NGSO) fixed-satellite service (FSS) providers to operate in various segments of the Ku-band, and adopted rules and policies to govern these operations. NGSO FSS can provide a variety of new services, such as high-speed Internet access, plus other types of high-speed data, video and telephony services. Because of its ability to serve large portions of the earth's surface, NGSO FSS can also bring advanced services to rural areas. The FCC also adopted technical criteria so NGSO FSS operations can share spectrum with incumbent services on a co-primary basis without causing interference and without constraining future growth of incumbent services or NGSO FSS system flexibility.

The Commission's actions provide for the introduction of new advanced services to the public, consistent with the obligations under section 706 of the 1996 Telecommunications Act, and promote increased competition among satellite and terrestrial services. The First Report and Order/Further Notice of Proposed Rulemaking (FCC 00-418) is available at <<www.fcc.gov/Bureaus/Engineering_Technology/Orders/2000/fcc00418.pdf>>.

FCC Privatizes Standards-Setting and Certification Process for Telephone Equipment: November 9, 2000

The FCC has eliminated regulations governing the development of technical standards and certification procedures for telecommunications equipment, such as telephones, fax machines, or modems. Specifically, the Commission privatized the process for establishing technical criteria for these products, referred to as customer premise equipment (CPE), and eliminated the requirement that manufacturers of CPE seek Commission approval of the equipment. This action eliminates 125 pages of federal rules, leaving it to the telecommunications industry to self-regulate. This Report and Order is a part of the FCC's second comprehensive biennial review of regulations to eliminate rules that are no longer necessary. The full news release is available at: <<www.fcc.gov/Bureaus/Common_Carrier/News_Releases/2000/nrcc0057.html>>.

Plenary	PLEN agenda item:	Submitted by: **Singapore**
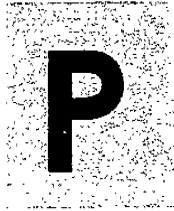
Policy and Regulatory Updates
Singapore

Contact: **Melinda Tan**
Email: **melinda_tan@ida.gov.sg**

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

SINGAPORE

RECENT REGULATORY AND POLICY DEVELOPMENTS
(TEL 23)

A number of significant announcements have been made and initiatives put in place since the APEC TEL last met in October 2000. Highlights are briefly summarised below. Further information on the initiatives listed here and other programmes run by the Info-communication Development Authority (IDA) of Singapore can be found at http://www.ida.gov.sg

1   E-Commerce

    i   <u>Building Trust and Confidence in Electronic Commerce for Businesses and Consumers</u>

        IDA, in consultation with other government agencies, released a consultation paper entitled ' A Proposed Framework on Building Trust and Confidence in Electronic Commerce' on 26 September 2000.

        The issuance of this consultation paper is part of IDA's on-going efforts to provide a platform for industry and members of the public to share their views on the appropriate frameworks to be put in place, taking into account industry trends and Electronic Commerce (EC) developments.

        The Government has identified four key strategic thrusts and accompanying initiatives:
- Establishing a secure EC environment
- Building confidence in E-business
- Building confidence in consumers to transact on the Internet
- Educating and increasing awareness of the benefits of EC

    ii   <u>e-Business Industry Development Scheme (eBIDS)</u>

        To further strengthen the adoption of e-Business and increase Electronic Commerce (EC) transactions among businesses in Singapore, IDA and the Singapore Productivity and Standards Board (PSB) has put in place a S$30 million incentive programme, known as 'e-Business Industry Development Scheme' (eBIDS), launched on 19 October 2000.

It aims to assist local enterprises and start-ups in their e-Business knowledge acquisition, technology transfer and e-Business value creation.

2   E- Lifestyle

IDA launched the 'Active Corporate Citizens respond to Initiatives to bridge Digital Divide' programme on 18 October 2000.

Together with the corporate citizens in Singapore, it seeks to facilitate the nation's transition into an infocomm-savvy society and enable every citizen to reap the benefits of an e-lifestyle.

Collectively, six corporate citizens have committed S$3.12 million towards IDA's initiatives to bridge the Digital Divide, specifically in reaching out to needy households and late ICT adopters.

i   E-Ambassador

Infocomm-savvy volunteers in Singapore can now contribute to the society through the e-Ambassador programme.

The programme aims to recruit 2,500 volunteers over the next three years. Early adopters of Infocomm technology will be trained as e-Ambassadors to guide the late adopters and the uninitiated to be comfortable and adept at using technology.

Recognising the importance of community participation in dot-coming the people sector, the e-Ambassador programme involves partnership with ten strategic lead agencies from self-help groups, grassroots organisations, senior citizen groups, women groups, uniform groups and religious organisations.

More details can be found www.ecelebrationssingapore.com

ii   Malay & Tamil Internet Steering Committees

These committees were formed to facilitate the development of local multilingual content and to promote Internet usage among the local May and Tamil communities to assist them become net-savvy.
Some of the initiatives include, It training programs, development and aggregation of local multilingual content, and e-commerce adoption programs for business and consumers.
More information is available at www.ecelebrationsingapore.com and www.singtisc.org

3   E-Government

On 1 January 2001, the National Archives of Singapore (NAS) together with the Heritage Conservation Centre (HCC), announced the development of "Archives and Artifacts Online Singapore" (a²O), a one-stop portal site on heritage information. a²O allows users to seamlessly search for information across the National Heritage- Board's various independent databases, view selected photographs, maps and plans, listen to oral history interview samplers and watch snippets of audio-visual recordings, round the clock. More details can be found www.a2o.com.sg.

4   Regulation of ICT Sector

i   3G Licensing Framework

IDA announced on 20 October 2000, that a total of four 3G mobile licences for Singapore will be awarded via an auction.

The introduction of 3G into Singapore is just one step the Government is taking to aggressively develop .and promote Singapore as a broadband wireless hub. The Government is committed to re-investing some part of auction revenues back to the industry through developmental grants and incentives.

The detailed licensing framework for third generation (3G) mobile services was released on 22 January 2001. This framework will objectively allocate scarce 3G spectrum and develop a healthy competitive market for 3G services.

The 3G auction will take place around the second quarter of this year.

ii   Fixed Wireless Broadband Licensing Framework

IDA announced on 30 November 2000, that Singapore would auction up to five lots of spectrum for provisioning of Fixed Wireless Broadband (FWB) services.

The benefits of deploying FWB technology compared to the wire-line alternative, include rapid deployment of the network with minimal disruption to the community and the environment, as well as better reuse of the spectrum resources. FWB services are expected to complement the existing infrastructure and will be attractive to the corporate SME market and multi-tenanted buildings.
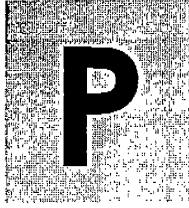
PLEN agenda item:	**Plenary**	Submitted by: Vietnam

RECENT REGULATORY AND POLICY DEVELOPMENT IN VIETNAM

Contact: Dr Phan Tam
Email: ptam@dgpt.gov.vin

APEC Telecommunications and Information Working Group
23rd Meeting | 12-16 March 2001 | Canberra, Australia

RECENT REGULATORY AND POLICY DEVELOPMENT IN VIETNAM

1. Policy and regulatory updates

- Policy proposals under preparation and consideration are as follows:

  - Posts and Telecommunications Law;

  - The Strategic Development Plan of Posts and Telecommunication sector until the year 2010 and guiding directions toward the year 2020;

  - The Plan of Development of National Infrastructure Information;

  - Adjustment of tariffs for various telecoms services.

- Number of policies and measures to encourage investment and development of Internet:

  - New Decree for Internet;

  - Promulgating policies that enable lecturers, teachers, students and pupils of all education organs in the national education system to enjoy Internet access charge reduction or exemption in education and training facilities.

  - Making concrete policies and regulations so as to enhance the competition environment:

    - Creating favorable conditions for software enterprises to take part in telecommunications and Internet service activities;

    - Providing telecommunications and Internet services fully and conveniently to users at high speed and with high quality, at charges lower than or equal to those in regional countries;

    - Encouraging concentrated software parks to set up private Internet gates connected to the international Internet gateway so that all software enterprises based in these parks as well as other software enterprises registered to use Internet services via these parks can have a full and easy access to Internet services at competitive charges compared to other countries in the region.

- Transfering the Internet regulatory function from the National Co-operation Board (combined members from several Ministries) to the DGPT.

- Besides the existing licenses, other new licenses will be issued for EVN (Electric Vietnam Corporation) to provide telecommunication services;

- Some licenses will be issued to existing national telecom operators to provide long-distance services using VOIP, mobile services.

2. Telecom network development

- The number of telephone subscribers with all categories included has reached more than 3.4 million. The telephone density of the country is more than 4 sets per 100 inhabitants.

- Almost all villages and communes in the country have access to the telephone service.

3. Internet Access

- Total number of Internet subscribers is increased up to about 115,000.

- Maximum capacity to oversea is 34 Mb/s.

附件二

主席報告

ASIA-PACIFIC ECONOMIC COOPERATION
Telecommunications and Information Working Group

TWENTY THIRD MEETING
(TEL 23)

CHAIR'S REPORT

12 to 16 March 2001,
Canberra, Australia

TWENTY-THIRD MEETING of the
APEC WORKING GROUP ON
TELECOMMUNICATIONS AND INFORMATION

CANBERRA, AUSTRALIA
March 12-16, 2001

CHAIR'S REPORT

Attachment A   **Business Facilitation Report to Plenary**
Revised Matrix
Minutes of the e-Security Task Group Meeting

Attachment B   **Development Cooperation Report to Plenary**
List of Participants
Agenda
Digital Divide
       Chair's Report from Digital Divide/Skills Shortages Workshop
       Matrix of TEL Activities
       Digital Divide Workplan

Attachment C   **Human Resource Development Report to Plenary**
Agenda
List of Participants

Attachment D   **Liberalisation Report to Plenary**
Agenda
Report of the Interconnection Task Group Meeting

GENERAL

Australia hosted the twenty-third meeting of the Asia Pacific Economic Co-operation (APEC) Working Group on Telecommunications and Information (TEL) in Canberra, Australia, from 14-16 March, 2001. Twenty economies from the APEC region were represented. The Director (Program) of the APEC Secretariat, one Observer (from the Pacific Economic Co-operation Council (PECC)); and four Guests (APLAC, AOEMA, Colombia and GTAC) attended.

Ms Valerie D'Costa of Singapore chaired the meeting.

OPENING OF TEL 23

The TEL was preceded by a number of workshops, seminars and Task Force Meetings. The program of all the associated meetings of the TEL is contained in **Annex A.**

The 23rd Meeting of the APEC Telecommunications and Information Working Group was officially opened on the evening of 13 March 2001 with Ms Fay Holthuyzen, Deputy Secretary of the Department of Communications, Information Technology and the Arts, welcoming delegates to Canberra on behalf of the Minister for Communications, Information Technology and the Arts, Senator the Hon Richard Alston, who was unable to attend. She informed the gathering of the significance of the timing of the meeting, given that it is the Centenary Year of Federation for Australia and the Canberra Day weekend for the city. Ms Holthuyzen also read a message from the Minister to the meeting congratulating the TEL on its achievements to date and commending the group on the important work that it will do during the week. She closed by giving personal thanks to the TEL Chair for her work and commitment to realising the goals of the working group and all it has done for the region.

In her response, the TEL Chair, Ms Valerie D'Costa, expressed her deep personal appreciation to the organisers of the meeting. She also introduced the new Program (Director) from the APEC Secretariat, Mr Chutintorn Gongsakdi, to the TEL, thanking him for the assistance he has already offered to her office and wished him well for his association with the working group.

A. Review and Adoption of Agenda

The following agenda was adopted by the meeting:

A.   Review and Adoption of Agenda

B.   Opening Remarks

C.   Report on 12 Ministerial Meeting and 7th Leaders Meeting (held in Brunei Darussalam, November 2000), APEC SOM I, Paperless Trading Symposium and Joint Fora Meetings: Implications for TEL.

D.   Follow up on TEL Review: IITG, Outreach, Name Change, Digital Divide

E.   Discussion Process for Selecting new TEL Vice Chair

F.   PECC-APEC Business/Private Sector Dialogue

G.   Steering Group Meetings and Reports
      1.   Business Facilitation Steering Group Meeting (BFSG)
      2.   Development Co-operation Steering Group Meeting (DCSG)
      3.   Human Resource Development Steering Group Meeting (HRDSG)
      4.   Liberalisation Steering Group Meeting (LSG)

H.   Discussion/Approval of New Project Proposals/Priority Setting and other Budget and Administration Matters

I.   Presentations by Economies of their Recent Regulatory and Policy Developments

J.   Brief Voluntary Statements by Observers and Guests

K.   Discussion of Next Meeting and Other Business

L.   Transition to new TEL Chair and Vice Chair*

M.   Review and Adoption of Chair's Report*

*These two items were taken in reverse order on the final day.

B.   Opening Remarks

(Document Plen/24)

In her opening remarks, the Chair thanked the hosts very much for their organisation of the meeting and the efforts of the organising team was greatly appreciated by all delegates to the meting.

At the previous meeting, held in Bali, the plenary had examined the directives from Ministers contained in the Cancun Declaration and from this had sprung the matrix of TEL Activities, submitted to this meeting as document number **plen/06.** The matrix should serve as a living document, to be used as a tool to help the TEL stay focused

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and aligned, particularly since the number of TEL's activities and participants seem to grow with each meeting.

One of the decisions taken in Bali was to seek endorsement to change the name of the working group from Telecommunications to Telecommunications **and Information.** This reflects the wider range of work and participation of the TEL. Senior officials agreed to the name change at SOM 1. The Chair thanked all participants for their input during the name change discussion.

Within the larger APEC organisation, many of the issues examined by the TEL are now the focus of many other fora, such as the APEC Electronic Commerce Steering Group (ECSG) and the new e-APEC task group. The TEL should look to ways to coordinate with these groups to avoid duplication of effort. The ECSG is to meet at the end of the TEL meeting and it is hoped that there will be useful 'cross-fertilisation' of ideas between the two groups as a result.

In conjunction with this meeting of the TEL, a total of 11 workshops/seminars/task group meetings were held. The Chair asked for any comments on this number – whether the range of topics discussed made it easier to attract delegates or in fact made it more difficult.

The significant issue for the meeting was the transition of Chair from Singapore to Australia and the election (or selection) of a new Deputy Chair of the TEL. The Chair explained that she had asked Kathy Fisher of Canada to speak to all Heads of Delegation about this matter, to see if there was a preferred candidate and to make sure there is consensus for the selection of any candidate that came forward. All being well, the Chair said she would be able to inform the plenary of the decision at agenda item L (on Friday). The Chair also reminded the meeting that there will be another transition at the end of TEL 24 when the current convenors of Steering Groups hand over to their deputies and new deputies are to be selected. The Chair asked all delegations to consider these positions over the next six months.

C. Report on 12th Ministerial Meeting and 7th Leaders Meeting (held in Brunei Darussalam, November 2000), APEC SOM I, Paperless Trading Symposium and Joint Fora Meetings: Implications for TEL.

Since the last TEL and ECSG Meetings, several important policy meetings have taken place, namely the 8th APEC Economic Leaders Meeting (AELM) and the 12th APEC Ministerial Meeting in November 2000 in Bandar Seri Begawan, Brunei Darussalam, and the 1st Senior Officials Meeting for 2001 (SOM 1/2001) in February 2001 in Beijing, the People's Republic of China.

A matrix of the AELM/AMM Tasking Statements may be reviewed in full on the APEC Secretariat website (www.apecsec.org.sg) under SOM 1/2001 documents. The tasking statements relevant to the TEL and ECSG could be summarized as follows.

- TELMIN: Leaders support the actions of TELMIN in the Cancun Declaration and the relevant Program of Action and Principles. In addition, Ministers noted commitments on advancing the APII, APIS and on implementation of the Reference Framework for Action on E-Commerce. Ministers also noted the role of

TELMIN in promoting a pro-competitive environment and cooperation with the business sector in broad areas.

- Implementation of Initiatives from Sectoral Ministerial Meetings: In ensuring the overall effectiveness of the APEC process, Ministers requested a review on the implementation of initiatives that were endorsed in APEC Sectoral Ministerial Meetings.

- The New Economy: Leaders gave instructions to develop and expand the Action Agenda on the New Economy. Ministers endorsed the following initiatives: Readiness Evaluation Action Partnership; Transforming the Digital Divide into a Digital Opportunity; APEC Guide to Enact Legal Framework for Electronic Commerce; Cyber Education Cooperation; Human Capacity Building in APEC – Meeting the Needs of the 21st Century; Use of Information Technology in a Learning Society; Network of Skills Development Centers; and, the Knowledge-Based Economy Project.

- Electronic Commerce: A High Level Symposium on E-Commerce and Paperless Trading has been convened. Ministers emphasized the need to make progress on capacity building, consumer protection, network security, favorable and compatible legal framework, and the role of e-commerce in trade facilitation. Ministers endorsed a proposal on APEC-Wide Action Plan to Support Use of Electronic Commerce by SMEs. Ministers instructed updating of the Inventory on E-commerce Activities in APEC, while at the same time to consider widening the scope of APEC's e-commerce work program, with relevant recommendations by the ECSG.

- Information and Communications Technology (ICT): Ministers acknowledged the importance of accelerating the adoption of ICT in the context of education, training and human capacity building. In this context, the value of partnerships with stakeholders, including non-government representatives was recognized and encouraged.

- Open Economies: Ministers instructed the intensification of work to assist economies pursue open economic policies, including with respect to institutional capacity-building and adopting strategies to manage change.

- ECOTECH: Ministers stressed that ECOTECH should be more focused and properly prioritized. A review of the Joint Activities/Dialogue sections of the Osaka Action Agenda will take place in 2001. (The SOM Sub-committee on ECOTECH will seek the assistance of relevant APEC fora.) The possibility of establishing IAPs on ECOTECH will also be considered. Ministers also encouraged APEC fora to utilize the ECOTECH Clearing House.

- APEC Interaction: Ministers instructed enhanced interaction with the business community and other relevant stakeholders. In this context, an Ad-hoc Study Group of Officials on APEC Interaction has been established to consider how best to benefit from the interests, expertise and insight of stakeholders. APEC is also developing a communication and outreach strategy.

- Framework for the Integration of Women in APEC: Ministers tasked APEC fora to implement the Framework.

At SOM 1/2001, China proposed the following theme for APEC 2001, "Meeting New Challenges in the New Century: Achieving Common Prosperity through Participation and Cooperation", which embodies the following sub-themes:

Sharing the Benefits of Globalization and the New Economy;

Advancing Trade and Investment; and,

Promoting Sustainable Economic Growth.

SOM agreed to rename the TEL as the Telecommunications and Information Working Group with the abbreviation "TEL" unchanged.

In reviewing the mandate of the ECSG, which was established two years ago at SOM 1/1999, SOM agreed to extend its term for another two years. In this context, SOM noted the value of the ECSG's role in coordination of e-commerce issues in APEC. It is SOM's intention for the ECSG to continue to do so in the context of work on the New Economy.

Regarding the future work program in relation to electronic commerce, SOM agreed that capacity building and HRD remain the focus of APEC's future efforts. SOM also took note of the proposal to expand into policy-oriented actions and suggestions for enhancing research work.

In discussing the issue of follow-up on the Action Agenda on the New Economy, SOM decide to establish an Ad hoc Task Force for e-APEC. The Task Force will work closely with relevant APEC fora, in particular the ECSG, TEL and EC.

SOM tasked the ECSG and other relevant fora to evaluate, and where appropriate, incorporate the recommendations of the High-Level Symposium on Electronic Commerce and Paperless Trading in their work programs on electronic commerce to be developed this year.

SOM agreed the Human Capacity Coordinating Group under the SOM Sub-committee on ECOTECH channel its work towards developing a strategy that would enable member economies to meet the challenges of the New Economy and report to SOM 3/2001. In carrying out this task, the Coordinating Group should also take into account the outcomes of the High Level Meeting on Human Capacity Building in May 2001 in China on "New Economy, New Strategy: Cooperation and Innovation to Build Human Capacity for Common Prosperity".

On other issues, Korea advised SOM that North Korea had yet to respond to its proposal to participate in APEC activities subject to relevant guidelines. Brunei Darussalam informed SOM that Cambodia, Laos and Myanmar had indicated at the recent ASEAN Summit their interest in participating in APEC working group activities with guest status.

Observations

1. The challenge of coordinating of New Economy and e-commerce issues in APEC will be very real in 2001. The APEC Secretariat will endeavor to play a strong supportive role to the coordination efforts of the designated APEC fora (permanent and ad hoc).

2. Both TEL and ECSG have several opportunities to push their work forward in 2001 under the overarching theme of the New Economy and other taskings by the AELM and AMM.

(N.B.: this report was tabled at the plenary as document number **plen/16**)

In the discussion that followed the Chair added that the creation of the e-APEC Task Group and the extension of the ECSG mandate was good news in that the work the TEL has been doing is now on the radar screen of the political leaders. This can translate into action in being able to get funding for our projects. The other side of the coin is that as these issues become more focussed on other fronts there could be a duplication of efforts and the TEL should be aware of that. The Chair therefore emphasised the need for all economies to strengthen links back to the main APEC structure, for example SOM, Economic Committee, CTI etc. In some economies the links are strong but in others there is little coordination between working group delegates and SOM representatives. Points of Contact in each economy should be aware of this and make efforts to increase or enhance those links. The TEL Chair has the responsibility to highlight our work as a whole, and the Secretariat has a part to play in that as well. The TEL Chair's office can look to improving these mechanisms in some way.

The floor was open for discussion on these issues.

The US mentioned it would be interested in looking at how the TEL can package its activities to fit into the larger APEC framework. The TEL has a couple of success stories, the MRA for example, which gets little or no recognition further up the APEC ladder. An endorsement from SOM leaders could help.

New Zealand added that there was a need to avoid over creation of other APEC fora which look at the same issues and this is a risk as Ministers take an interest in the issues we look at in TEL. As for all the activities associated with this TEL meeting, the range of workshops offered does help attract a larger number of people, as it is a comprehensive and attractive package. As for outreach, there are a number of things we need to do and a range of audiences we are trying to address. Selling ourselves to the Leaders and the Ministers is new but a good message for us to take back to capital. It is usual practice in most economies for Senior Officials, Ministers and Leaders to be briefed by generalists not specialists, which means that the contribution made by working groups can be overlooked. The central APEC machinery is one audience and within our economies there is a need for each TEL POC to make an effort. Then there is our own working group audience. He added that there were good ideas contained in the Contact paper and coupled with the useful resources held in the TEL and on the website and publications, it could be wasted if we don't sell it in our own economies. In the short term this could create more work and effort for the POCs but in the end it may provide more participation as well.

Canada asked for the dialogue to be kept open and asked that work be done on outreach activities between now and the next TEL meeting to look at specific projects and activities.

China added that the main thing discussed at the first SOM and for the Leaders will be e-APEC so it was important for the TEL to keep contact with the Chair of the e-APEC Task Force .

Singapore added that in order to get the message to the leaders, some priority of the issues that the leaders will be interested in was needed. Looking at the matrix of

activities and distilling the information contained within it to make it appealing to the lay person was necessary.

Chair summarised by saying that there are developments that have been outlined for the TEL in the larger APEC machinery. The new economy, and other topics close to our hearts, is becoming more important to the larger APEC audience, including Leaders and Ministers. This is a positive thing and their consideration of these issues is different from ours, as it is more macro in perspective and will take into account the broad sweep throughout APEC, not just TEL. Their wider vantagepoint will be good for the TEL. We need to package our work better and take the elements that are key and find a way to put this in a form that is more palatable at APEC. This responsibility rests with the TEL Chair's office with assistance from the Secretariat. There are different audiences we need to address and in the correct way. Particularly the ECSG and e-APEC to avoid duplication and contribute to the overall APEC goals. The Chair offered to undertake to come up with a couple of key milestones and current activities of the TEL, to which others may add, which may contribute to the APEC process and promote the work of the TEL.

D. Follow up on TEL Review: IITG, Outreach, Name Change, Digital Divide

Internet Issues Task Group (IITG): At TEL 22 (Bali) the TEL Chair undertook to look at the terms of reference for the new task group to give it a renewed focus and way of working. The instruction from Ministers was to involve the steering groups in order to look at the broader issues and approach this in a holistic fashion. She asked Convenors to place the issue on the agenda and discuss in the groups when they meet and to report back to the TEL at what issues they are looking at and how it fits into the whole. A Task Group was also formed to be chaired by the deputy Chair of the TEL. The purpose of the task group was to collate opinions and views on Internet issues and to undertake a continued analysis of the ICAIS issue. This can be done in a variety of ways. Information seminars, e-mail discussion, outreach to industry for example. The terms of reference were circulated to POCs and approved, and the task group established.

Public Sector Outreach: The document 'Contact!' (Plen/05) was developed as a result of Ministerial directive and in an attempt to get the TEL message across to the general public, the industry and to APEC. The document is for economies to use to encourage outreach. Several economies have contributed their experiences which have been compiled in this document which is put forward for information at this point. The Chair thanked all those who contributed to the document. The Chair informed the meeting that at the last few meetings a press release has been issued on the last day of the meeting. The press release issued for this meeting is something all economies can take home with them and distributed if they so wish.

The issue of the name change has already been covered in the Chair's opening remarks.

Digital Divide: this has been highlighted at Leaders and Ministers to which the TEL can contribute in a meaningful way. The Blueprint has been prepared and put on the web and Dr Arnon has been nominated as the coordinator for the ongoing activities in the various steering groups and housed in the DCSG. Useful for convenors to liaise

with Dr Arnon regarding digital divide issues. Continue to raise it through the APEC Channels. Brought up over the past two days in the various workshops, particularly at the Regulators' round table and of course the Digital divide seminar. The APEC Secretariat added that one of the initiatives endorsed by Ministers was the Chinese Taipei work on Making the Digital Divide a Digital Opportunity which the TEL into which can feed. The DCSG Convenor added that all Steering Groups have activities, which feed, into the Digital Divide and the USA is overseer of the digital divide project so that the discussion at DCSG will be fruitful. The Chinese Taipei project will have a very close relationship with the BFSG as it is largely e-commerce enhancement. We need to coordinate from the TEL to the larger APEC fora and as there are often different delegates to the different fora, please brief the relevant delegates about this project. Dr Arnon was asked to report back to the plenary when it resumes on Friday on this issue.

Sponsorship and Self-Funded Guidelines: (Documents Plen/11 and plen 12 refer) At TEL 22 it was decided that reflection on certain TEL processes was required. Included in this reflection were the issues of sponsorship and self-funded projects and how they can contribute to the TEL process. Both issues reflect industry interest in our work and the number of activities that we have on our plate

Sponsorship guidelines (doc. Plen/11) These guidelines were drafted not to reflect the monetary considerations but rather the contributions sponsors can make to the TEL. In other words they can let the industry understand how they can contribute to the TEL.

This document will be left for further consideration from all delegates and in two weeks time if there are no further comments it will be posted on the website as an official TEL document. (The USA suggested removing "as possible" from the second page, first paragraph.)

Guidelines for Self-funded projects (Plen/12) Attention was drawn to page 2, item 5 with questions of project management. Self-funded projects are encouraged and the guidelines should be seen in a positive light. The Chair asked for comments on these draft guidelines to be sent to her office within two weeks and after that they will be posted as an official TEL document.

E. Discussion Process for Selecting new TEL Vice Chair

The Chair of the TEL is selected by consensus among delegations. Heads of Delegation were briefed earlier in the week about the process and at the end of the meeting a candidate will be announced and selected by the plenary via acclamation.

F. PECC-APEC Dialogue

The dialogue was launched by an introduction by the PECC Director who directed people to the APEC leaders statement that commissioned the establishment of a policy framework that would allow all persons access to communications networks by the year 2010. It was pointed out that the TEL had a critical role to play in achieving these objectives and that the private sector had an equally important role in assuring that the TEL officials developed an agenda of public-private partnerships to meet these challenges.

A representative of Lateral Economics then gave a presentation on the work being done to find more effective policies to achieve universal access obligations. He pointed out that the days of a "one size fits all" USO had long since disappeared and that governments and communication service providers now needed to better define what the constituents really wanted and what they would be able to pay for their needs. His research in alternatives ways of "cashing out" service provisions was presented and a discussion on how governments could improve the transparency and equity of USO provision was given. His presentation will be available on the PECC/TIIF website – www.pecc.org/ptiif

Following his presentation delegates from Brunei addressed the second part of the challenge posed by the dialogue – How to take the development of access and develop skills and education processes that would empower all persons to benefit from the emerging communication networks. A presentation was made on the APEC High Level Meeting on Human Capacity Building for the New Economy. The representatives stressed the importance of using this high-level dialogue to further the TEL's objectives and encouraged members to further their work on the mobilization of resources for information infrastructure development and utilization. The importance of leveraging partnerships between the public and private sector were stressed. An overview of this meeting can be found on the PECC/TIIF Website.

Following the two presentations a number of delegates offered their comments. These included:

- A recommendation that the TEL make use of the REAP programme endorsed by ministers late in 2000. It was advised that this programme could showcase not only the work of the companies being identified as partners to the process but also the regulatory issues they had faced in developing their business and the efforts they were making to work with governments to overcome the hurdles before them

- The active partnerships for internet connectivity project being developed by PECC was also highlighted as an initiative that addressed the concerns of the TEL ministers in Cancun regarding reduction of cost for internet services. Delegates were urged to contribute case studies to this initiative.

- The discussions at the regulators roundtable were reviewed and it was agreed that the information exchange on licensing and auction decisions was very valuable to both the regulators involved and those observing from the floor. It was suggested that TEL should continue to support such gatherings of regulators and work to integrate the private sector both in defining the agenda and in to the meeting itself.

- The need to better integrate the input of the consumers in to regulatory reform discussions was stressed. It was also pointed out that APEC might assist in providing guidelines for communication service selection so that TEL user groups could better define their needs and then more effectively chose tools to address these needs.

- The work of the ITU private sector advisory group was reviewed and private sector representatives to the TEL were encouraged to participate in this effort in order to further both their own interests and the work of the TEL.

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- A brief overview of the wireless workshop was provided and delegates were encouraged to further study how APEC could discuss licensing processes and spectrum allocation regimes of member economies so as to foster a more robust IT/TEL network development agenda for the future.

- A delegate from Hong Kong, China discussed the manifestation of the Edupact programme currently being developed in Hong Kong, China. It was noted that this was an attempt to translate the human capacity development discussions in to a real resource for persons wishing to learn about policy and regulation in the region.

The TEL Chair then closed the meeting by asking all officials to note the emphasis that the dialogue had placed on partnerships with the private sector. She also asked that steering groups discuss how the universal service obligation, wireless service agenda, and capacity building issues that had been identified during the dialogue could be progressed in the TEL.

G. Steering Group Meetings and Reports

After the PECC-APEC dialogue the TEL divided into the four Steering Groups which reported back to the Plenary on Friday morning.

The Business Facilitation Steering Group (BFSG) Convenor, Mr Colin Oliver of Australia, took the floor to report on the outcomes of the meeting. (Plenary document number plen/33 refers. Full report contained in Attachment A.)

At the conclusion of his verbal report to the Plenary, the USA added information about the US Department of Commerce Information Technology Tool, developed with SMEs in the US and which has been made available on a non-proprietary basis. The USA would like to offer to organise a seminar in conjunction with TEL 24 to focus on this tool. The objectives would be to provide SMEs with information on investment and e-commerce adoption and to further the BFSG work of uptake of e-commerce throughout the region. The tool was mentioned at the BFSG but not the idea of a seminar. The tool could feed into the work currently underway on interoperability.

The offer was noted by the Chair who asked the USA to work in consultation with the BFSG Convenor and the ECSG Chairs on the idea of the seminar and its possible goals and scope. She also asked the USA to keep points of contact, and particularly Korea, informed of developments.

The Chair sought clarification on the publication proposal and the BFSG Convenor explained there are gaps in economies where the good work of the e-Security task force is needed. He felt there is a case for printing documents and making sure they are available to other groups in APEC and groups in economies who may not know to look at the TEL website for documents on the issue of e-security. Some private sector sponsorship may be sought to help defray costs.

The Development Cooperation Steering Group (DCSG) Convenor, Mr Sean Chu of Chinese Taipei, then gave his report from the meeting, followed by an update on Digital Divide work in the TEL by Dr Amon. (Plenary documents numbered plen/36 and annexes a, b and c refer. See also Attachment B to this report.)

The Digital divide report was commended by the Chair who added that this issue is one of the most important for the TEL and it is imperative that all delegations assist Dr (Digital Divide) Amon in his work, especially the convenors of the other task groups.

The Deputy Chair sought clarification about the APII Cooperation Centre regarding the association of the Centre with ASEM. He asked if this item was for our information only, given the links to other international organisations, which do not have formal recognition in APEC. He sought clarification that this was an independent activity and not a formal APEC activity. Collaboration with other organisation is to be encouraged but according to the established guidelines.

Korea confirmed that this item was for information for the APEC TEL only.

New Zealand asked if there are mechanisms in place for other organisations listed in the external stocktake to be informed of the work APEC TEL is doing and it was agreed that delegates to APEC TEL who also attend other fora should be aware of opportunities to inform those fora of the work of the TEL. The TEL Chair, Sean and Dr Amon and the Secretariat could work together on this issue.

The APEC Secretariat added that all the guidelines that the APEC Secretariat administers are drawn up by the member economies initially and are set at the level of sensitivities that may exist. They are not there to restrict the cooperation at all.

The aim is to undertake meaningful collaboration and cooperation. Establishing formal links is not perhaps the best way to do this but to utilize the links that exist within our economies and spreading the word informally in other fora. Where the issue is sensitive, the advice and guidance of the Secretariat and TEL Chair's office should be sought. The overriding aim is to spread the message and not duplicate efforts.

As no further comments were forthcoming, the TEL Chair then asked Professor Ma Yan, Convenor of the Human Resource Development Group (HRDSG) to make his report. (Plenary document number plen/35 refers. See also Attachment C to this report.) As the conclusion of Professor Ma's report, the floor was open for discussion.

Clarification was sought on the Telecommunication Tariffs Regulation training project and it was explained that it is not to be a bilateral project. It is being developed between Indonesia and Australia. If and when funding becomes available other economies would be able to participate.

The USA brought delegates' attention to paragraph (5.3) regarding URLs of educational course work. There are several other references in other steering group reports, which also relate to collections of URLs. Leaders called for APEC to establish the knowledge network and the USA suggested that the TEL invite the Secretariat and the Korean host of the web site to work on this issue and bring it to the attention of Leaders, including the vendor training site as part of our larger efforts to have our activities recognised by the larger APEC network. The Chair added that there has been little guidance about the knowledge network and, taken broadly, it could encompass all the work of the TEL. As it is not yet known how the Knowledge

Network is actually going to work, the assistance of the APEC Secretariat was therefore required.

Indonesia added their support to the Korean proposal for another distance learning project on basic telecommunication technology. They added that it would be most helpful for them if this project were held within the next year.

The Chair thanked Professor Ma for his work again as convenor of this group.

Mr John Deasy of tThe USA and acting Convenor of the Liberalisation Steering Group (LSG) then reported to the plenary. (Plenary document number plen/34 refers. See also Attachment D to this report.)

At the end of the verbal report the floor was open for comments. New Zealand offered to help progress discussion on the possible change in name of the Liberalisation Steering Group to "Competition & Regulatory Policy Steering Group" by setting down the reasons for seeking the change and sending them to the Convenor of the LSG.. The chair recognised that this would be a good way to begin discussion on this topic between now and TEL 24.

Report from the IITG

The Chair of the Internet Issues Task Group was also asked to report to the plenary on the progress the group has made. Document plen/31 refers. At the conclusion, the USA added a point to the summary of the discussion held at the workshop dealing with the fact that the fall in prices and the increase in availability of bandwidth has meant that ICAIS is no longer relevant to the economic concerns of economies. This change was accepted by the Chair of the IITG. In response to the US' comments on bandwidth, China commented that although bandwidth prices tend to be decreasing, one of IITG's tasks is supposed to study ICAIS, which is currently not fair, and this group should further study ICAIS and report back to TEL 24 on the progress, and make appropriate recommendations to the next TELMIN. A copy of the amended report is at **Annex C** to this report.

China asked for clarification on the way the group will work and the processes of the electronic forum. The Chair of the IITG added that draft processes for using the electronic forum will be circulated shortly.

The TEL Chair asked about the notation on what other groups are doing on this issue and asked if the OECD is also participating in this discussion. Peter Furguson took that on board and will report to the TEL. USA added that the OECD is holding a workshop in June which on this topic.

H. Discussion/Approval of New Project Proposals/Priority Setting and Other Budget and Administration Matters

Three project proposals were presented to the TEL for endorsement to be sent to the BMC for consideration in August for 2001 funding. They are "Optimal Topology of Testbeds (research networks) and Simplified Commercial Networks in the APEC Region", put forward by Korea through the DCSG. This project is seeking $19,000 from the APEC Central fund. The second project is the "Distance Learning Project on Telecommunications Technology", again put forward by Korea, through the

HRDSG. This project is seeking $19,000 from the APEC Central Fund. The BFSG mentioned that it will be preparing a project proposal to seek APEC Central Funds for publication of the e-Security Documents which are currently only housed on the web. In order to draw the various organisations in all economies to the excellent work undertaken by the e-Security Task Group, it is felt that other outreach methods should be employed. This project will seek no more than $10,000 and the draft project proposal will be circulated to points of contact intersessionally.

There were also two projects for the TEL which have already been submitted to the BMC for consideration from the remaining 2001 budget allocation. They were the VEMAT project from Singapore and the MRA Outreach project. The MRA Outreach project was submitted pending TEL approval. That proposal was endorsed by the Plenary and the BMC will be notified of this.

The amount being sought from the BMC in July is within the TEL cap. Projects will still need to be prioritised closer to the time.

Time at TEL 24 for the following seminars/workshops was also requested:

Steering Group	Subject	Time requested	Status
BFSG	e-Security Task Group	1 day	Approved
	IT Tools	½ day	Pending
DCSG	Digital Divide	½ day	Approved
LSG	MRA Task Force	1 day	Approved
	MRA Joint Council	½ day	Approved
IITG	Seminar	½ day	Approved

I. Presentations by Economies of their Recent Regulatory and Policy Developments

Copies of the full text of each economy's presentation can be found on the APEC TEL and TEL 23 web sites. (www.apectelwg.org and www.tel23.org) A list of the documents and their numbers is attached at Annex B.

J. Brief Voluntary Statements by Observers and Guests

The PECC representative began by summarising the PECC experience with APEC and specifically the TEL and gave a brief account of how the current strong relationship can continue. The Chair thanked the PECC representative for her contribution to the APEC TEL as this was her last meeting in this capacity. Personally, the Chair thanked Ms Pearce Stenzel for her contribution to the TEL over the years, by getting representation and participation in the dialogue sessions and in the general role of the TEL. The meeting expressed its appreciation with applause.

The Chair then welcomed the representative from Colombia who addressed the meeting giving his thanks to the Chair and Deputy Chair and reaffirming Colombia's interest in becoming a full member of APEC as a whole. He briefly informed the meeting of some of the initiatives in the telecommunications and ICT areas in his country. Colombia is the third largest internet market in Latin America, after Mexico and Brazil. On line education, as evidenced in the "educatel" project that was presented at TEL 22 and other leading implementation initiatives that go beyond APEC economies within the South American region were sited. Colombia's goal as guest is to work with the member economies to further the goals of APEC. The Ambassador added three key objectives:

1. To work closely with the BFSG and build a network to help private sector take advantage of the underway in that group;

2. The possibility for guest economies to present to Colombia on their regulatory updates; and

3. For a study visit team to visit Colombia to assess their telecommunication market so that if and when Colombia becomes a full member of APEC it will be able to begin participation on the same level.

The last guest to address the meeting was AOEMA. A copy of their address is contained below.

APEC TEL has come a long way.

AOEMA staff have been involved in APEC and APEC TEL meetings since TEL 3 in Tokyo Japan. In those days it was called WGT which means Working Group on Telecommunications.

In the early years, a lot of time was spent in discussing the real purpose of the TEL and the structure of its work groups. This time was not wasted as it provided an opportunity for all economies to understand each other's view. Also it helped to develop the camaraderie which runs throughout the TEL today.

TEL 7 was held in Surfers Paradise in Queensland, Australia in 1993 and this meeting was the first time that all economies were represented at the meeting. There were 15 economies around the table at that time.

Electronic Commerce (which AOEMA staff were encouraging in the TEL) was almost completely unknown at that time. No one had email.

Mr Tosaki added this quote from the TEL 7 chair's report

> "The WGT is viewed by many as the flagship sector within APEC with a work program focussed on both policy and practical results. Both approaches have proved to be appropriate, complementary and correct."

This approach is clearly still in evidence and I believe it is the 'secret' to the TEL's success.

We have all come a long way since then and it has been our honour and our pleasure to work with all of you on the development and use of our Telecommunications Infrastructure.

K. Discussion of Next Meeting and Other Business

Korea invited us all to the Jeju, the Honeymoon Island of Korea, from 17-21 September 2001 and provided information on the location and the meeting through publications. The Chair thanked Korea for their kind invitation and hoped that the meeting would be successful, in all ways.

The Chair then announced that the application from INTUG for guest status of the TEL was approved by Heads of Delegation and, pending SOM approval, INTUG would be a guest of the TEL from the next meeting. INTUG's representative, Mr Ernie Newman from New Zealand, was delighted with the decision and added that he looks forward to sitting at the table and contributing to the work of the TEL.

L. Transition to new TEL Chair and Vice Chair

Before announcing the nominated candidate for the Vice Chair position, Ms D'Costa spent a few moments once again thanking the Australian organisers for their management of this successful meeting. She asked the plenary to join with her in thanking the members of the APEC TEL 23 Secretariat by acclamation.

The Chair then informed the meeting that unanimous support has been achieved for one delegate to become the new Deputy Chair of TEL. The person chosen has the personal respect of many people at the TEL. Salma Jaliffe has accepted the position to become Deputy Chair of the TEL. The plenary showed its support by acclamation. In Salma's absence Mr Jorge Arreloa said a few words on her behalf and on behalf of Mexico. He said that it was a great honour for Mexico and for Salma and thanked the meeting for the nomination. He added that he saw great advantages in taking on the position for Cofitel and Mexico in having closer association with the TEL. He also assured the support of Cofitel to Salma to ensure she will be able to carry out her duties.

The Chair then said a few words to mark the end of her term as Chair saying that one of the greatest joys of the job was being able to represent her economy of Singapore, of which she is extremely proud. She added that it is a great honour to represent one's economy and give something back to Singapore. She especially thanked her seniors at IDA who unstintingly provided support to enable her to undertake her various duties as Chair, and to do them well.

Of her staff in Singapore, Ms D'Costa particularly thanked Ms Melinda Tan and Ms Ruth Edwards for their support. She also thanked Mr Vernon Vasu who assisted her in the early years prior to and after becoming Chair, adding that he will always have her gratitude. She also expressed her gratitude to Richard Thwaites for his contribution and help as her deputy Chair.

Ms D'Costa also went on to thank all who have contributed to the work of the TEL, including all host economies, past and present steering group convenors and deputies,

task force and project chairs, guests and observers. She again took a few moments to thank Janet Pearce Stenzel and PECC for all their help.

After a few more reflections, Ms D'Costa handed the Chair to Mr Richard Thwaites of Australia.

Mr Thwaites thanked the meeting for entrusting him with the task of TEL Chair. He also thanked Salma and Mexico for their acceptance of the position of Deputy Chair and added that he will rely heavily on his deputy for many important tasks. Adding that there will be greater opportunity to thank both Valerie and Janet tonight he asked for any comments from the floor. New Zealand spoke, expressing warm thanks and appreciation to both Valerie and Janet for their work over the years and apologised for not being able to join in the dinner this evening.

Mr Thwaites then congratulated all present for an extremely successful meeting.

M. Review and Adoption of Chair's Report

The Chair's Assistant, Ms Ruth Edwards of Singapore, informed the Plenary that the first draft of the Chair's report will be distributed in limited numbers at the function to be held at the National Museum of Australia later that evening. An electronic copy will be sent to all APEC TEL points of contact by 20 March 2001. Comments on the document are due to the outgoing Chair's office by 30 March 2001. The final report will be sent to points of contact by email and placed on the TEL web page by 10 April 2001.

WORKSHOPS AND SEMINARS
HELD IN CONJUNCTION WITH THE
23RD MEETING OF THE APEC TELECOMMUNICATIONS AND INFORMATION WORKING GROUP

Sunday 11 March	MRA Workshop
Monday 12 March	Digital Divide/Skills Shortages Workshop
	Interoperability Workshop
	Interconnection Task Group Meeting
	MRA Task Group
	Internet Issues Workshop/Task Group
	e-Security Task Group
Tuesday 13 March	Regulators' Round Table
	e-Government Workshop
Wednesday 14 March	Gender Awareness Workshop
Thursday 15 March	MRA Joint Committee

(Saturday 17 March – APEC ECSG meeting)

LIST OF REGULATORY UPDATES SUBMITTED TO TEL 23

Document Number	Economy Update
Plen/02	New Zealand
Plen/03	Hong Kong, China
Plen/04	Singapore
Plen/08	USA
Plen/09	Australia
Plen/10	Chinese Taipei
Plen/13	Korea
Plen/14	Philippines
Plen/15	Peru
Plen/17	China
Plen/18	Indonesia
Plen/21 and Plen 29	Brunei Darussalam
Plen/26	Mexico
Plen/27	Papua New Guinea
Plen/28	Japan
Plen/30	Viet Nam
Plen/32	Canada
Plen/38	Thailand

(Missing: Chile, Malaysia and Russia)

INTERNET ISSUES TASK GROUP

Report to Plenary, TEL 23

Background

The third APEC Telecommunications and Information Industry Ministerial Meeting (TELMIN3) in Singapore, June 1998, set up an International Charging Arrangements for Internet Services (ICAIS) Task Force. The Task Force reported to the fourth APEC Telecommunications and Information Industry Ministerial Meeting (TELMIN 4), in Mexico, May 2000. TELMIN4 adopted a set of *"APEC Principles on International Charging Arrangements for Internet Services"*, and agreed on further actions for the TEL related to Internet charging issues. Much of this work is being undertaken within TEL's Steering Groups, as set out in Attachments to the TEL Chair's Report of TEL22.

TEL22 established the Internet Issues Task Group to coordinate activities and report on progress. The Terms of Reference were finalised by the TEL Chair in consultation with delegations since TEL22, and are available in the TEL23 papers, Internet Issues Task Group, document number telwg23/n/01. The IITG's first task was to organise an Information Seminar to take place at TEL23.

Internet Issues Workshop Monday 12 March 2001

The workshop heard three presentations

- Geoff Huston – Telstra – Australia: "Developments in the architecture and protocols of the Internet"

- Masao Fujita – Starhub – Singapore: "Developments in internet service provision from a carrier's perspective"

- Barbara Dooley - CIX – USA: "Developments in large-scale bandwidth provision"

Mr Huston gave an overview of the changing structure of the Internet, particularly in relation to the rapid development of cable capacity, the changing nature of the network itself as shown by network metrics, and trends in interconnection. His conclusion was that IP transmission is now a commodity market, that "peering" relationships are more normally "customer" relationships at many levels, but that the position of the Tier 1 carriers was no longer so dominant and there were many opportunities for lower-level ISPs to bypass interconnection bottlenecks. However, evolving Internet content market is a significant issue that must be be considered separately from the carriage market.

Mr Fujita described the experience of StarHub as a new entrant to a competitive market. StarHub aims to become an Internet gateway for Singapore, providing access to regional and global Internet infrastructure. It has noticed a relative decline in US traffic as bandwidth increases and regional links are developed. Starhub sees the development of interconnectivity within the Western Pacific region, and increased

intra-regional peering, as essential for competitive Internet carriers. More opportunities for cable ownership are also important in order to reduce the price-setting power of the established carriers who own the cable systems. Quality of Service is also a significant rising issue as new applications require guaranteed uptimes and latency.

Ms Dooley described recent technical developments which are rapidly increasing capacity and lowering prices, particularly in the USA and Europe. She noted a decline of the satellite option as a major factor, as cable capacity prices are coming down faster than anyone anticipated. She suggested that "public peering", using common exchange facilities such as CIX, was showing some revival after declining in recent years. New arrangements are needed for services such as multicasting, and exchanges (Network Access Points) increasingly operated on the basis of fixed bandwidth rationing, rather than traffic flow accounting. New optical gateway protocols (OBGP) would make feasible much more direct peering, thus reducing dependence on established backbone providers.

Frank March (New Zealand), and Ricardo Rodriguez (Mexico), joined the presenters in a panel to discuss a range of issues raised by the speakers and from the audience. Some of the matters raised were

- concerns about costs and resulting difficulties of access, particularly for lesser developed economies

- the expense of international connections; the need to develop regional hubs

- the complexity of the issues and the rapid changes in Internet charging and economics

- the still high absolute cost of infrastructure and the need to balance this cost against the most favourable regulatory regimes

- the unfavourable effect of the 2000 downturn in tech and communications companies, in spite of continued overall growth

- the need to consider the Internet Issues Group Terms of Reference in planning a way forward for APEC-TEL

- the possibility that declines in overall bandwidth costs might reduce the need for economies to develop positions on Internet charging arrangements

Internet Issues Task Group Wednesday 14 March 2001

The Task Group met to consider the Terms of Reference, the outcomes of the Seminar, to plan activities and to prepare a report to Plenary.

Suggested activities for the Internet Issues Task Group

The Task Group has been charged with the role of continuing to discuss and develop international Internet charging arrangements, and foster discussion between business/private sector and government parties on the appropriate means to assess and reward the value of products and services exchanged in the provision of converged Internet services among APEC economies. To this end the Group decided to undertake two specific activities.

Initiation of online information and discussion

The Task Group agreed that the Task Group convenor should organise an electronic "Virtual Forum" utilising email and website posting of views and proposals from economies. Suggestions for the initiation of discussion included publishing of the presentations to the seminar (with permission of the authors). Other papers and contributions would also be invited. A small oversight group was nominated to advise and assist the convenor and liaise with the website administrators, consisting of Korea, China, USA, Mexico, Canada and Australia. This group met following the Task Group meeting and discussed possible ways in which a "Virtual Forum" could be established. Australia was asked to develop some draft policy and practical guidelines to be passed to the incoming convenor of the Task Group.

Internet issues seminar/workshop

The Task Group also agreed to propose that a workshop or seminar be organised at TEL 24. This seminar should have strong involvement of both public and private sectors. It was agreed that it should involve as wide a range of private sector bodies as possible, and present a comprehensive and balanced view of the issues.

Reports from each Steering Group on its involvement

Business Facilitation Steering Group

BFSG has a focus on the needs of business users of communications and information services. The work of the eSecurity Task Group including electronic authentication, encryption and critical infrastructure protection addresses broad issues that concern the integrity of IP networks and internet-based communications.

E-security technologies also have bandwidth implications. So also do issues such as data management and integration of e-commerce systems which support interoperability. They are being examined as part of a study of user needs for integration of e-commerce systems in the APEC region. This project will take an integrated approach to interoperability issues looking at both IT and communications issues. It will review potential solutions such as compression technologies and business models that are appropriate to different circumstances, recognising both the need for bandwidth to be increased, and the need for users to be able to work effectively within existing bandwidth limits.

In a preliminary way, possibilities for public-private sector partnerships have been mentioned as a possible area for fruitful discussion, for example in the context of e-government. This may be developed further in future.

Development Cooperation Steering Group

At TEL23, the DCSG reviewed progress made since October 2000 on working themes and current/new projects in support of the TELMIN4 ministerial guidance on Internet development and ICAIS issues. The DCSG noted the two theme areas of general Internet development, and work on ICAIS, and agreed to try to keep these areas in balance. The group reaffirmed prior work areas identified at TEL23, as follows with revisions, and added a new item from Japan:

1. Promote greater information sharing. The DCSG endorses additional seminars on ICAIS/IITG issues.

2. Promote greater international Internet development.

3. Assess dynamic business conditions to promote greater public and private investment and increase awareness.

4. Assess trends in growth of available bandwidth within and between APEC economies.

5. Assess implications of ICAIS arrangements on Internet infrastructure development (cause and effect relationships).

6. Track growth of local traffic management techniques (including caching and mirroring).

7. Track high-speed bandwidth development within and between economies and to project needs.

8. Track the variety of cooperative arrangements and their impact on high-speed bandwidth development.

9. Provide empirical measurement data on breakthroughs based on next-generation Internet research, to seek out new applications and activities in the APEC region.

10. Continue with the following existing and new projects/activities:

    a) Optimal Topology of Test-beds: Research Networks and Simplified Commercial Networks in the APEC Region (Korea: endorsed by DCSG at TEL23)

    b) APII Test Bed Project (Korea)

    c) APII Test Bed Project for Interconnectivity and Interoperability (Japan)

    d) Development and Financial Resources Catalogue Project (USA: to expand to include Internet resources)

    e) Techno-Economic Modelling Project (Australia)

Human Resource Development Steering Group

The HRDSG Convenor repeated the call of the Chair of the TEL, urging all steering groups to pay attention to the Internet related issues which the Internet Issues Task Group (IITG) will be specially in charge of at the meeting. HRDSG noticed that although there are no specific training programs with links directly to IITG, many current projects in HRDSG have already in a way or other related with Internet related issues, such as E-Commerce Skills Standards Training Program, Critical Information Protection Awareness Raising and Education, Basic Communications Technologies Training programs.

HRDSG will fully cooperate with other Steering Groups to investigate the training needs for Internet related issues, promote the Internet technology training projects and support other Internet related activities.

The HRDSG Convenor commented that HRDSG has strong responsibilities to promote knowledge transfers within member economies.

Liberalisation Steering Group

During APEC TEL 23, the LSG reviewed Annex B (Contribution of the Liberalisation Steering Group to the APEC TEL discussion on International Charging Arrangements for Internet Services (ICAIS)). This document was included in the LSG report to Plenary at APEC TEL 22, October 11-12, 2000, Bali, Indonesia. It provides a guide to work underway or planned for the LSG which the LSG believes addresses the mandates developed regarding the ICAIS issue.

The LSG determined that Annex B continues to serve as a useful guide to the LSG's activities in this area. No specific additions or modifications to the menu of possible work items envisioned by Annex B were proposed during APEC TEL 23.

In reviewing Annex B, the LSG noted several priority work areas conducted during APEC TEL 23 or planned for APEC TEL 24. In implementing the request of the Convenor of the Internet Issues Task Group for an overview of LSG priority developments, rather than a comprehensive listing, the following items are of particular interest. (A full discussion of the status of implementation of Annex B is included in the LSG Report to Plenary.)

1. The Regulators Roundtable on Convergence held during APEC TEL 23 examined implications of convergence for the policy environment. The LSG decided to include an agenda item on issues of importance to regulators in its agenda for APEC TEL 24 and to name an overseer to explore the possibility of holding another Regulators Roundtable at APEC TEL 24.

2. The Regulatory Structures Project is currently developing a descriptive map of common issues and optional approaches that can be used for reference by economies in response to developing convergence issues.

3. Regulatory Policies on Backhaul that Affect Investments on Submarine Cable Landing was identified during the Internet Issues Workshop as a potentially significant issue given market changes that are dramatically increasing bandwidth in the Asia/Pacific region. The LSG has included discussion of this issue in its agenda for its meeting at APEC TEL 24.

4. Local Loop Unbundling was consistently noted as an issue of concern to regulators during the Regulators Roundtable. Annex B notes that the first step to considering the applicability of the APEC Principles of Interconnection to Internet Services is consideration of the impact of unbundling the local loop on availability of Internet services. The LSG has undertaken a series of discussions to examine industry and regulatory views on this issue, including during the Regulators Roundtable on Convergence. At APEC TEL 24, the LSG plans to accelerate this discussion by identifying those unbundling issues that can usefully be addressed by the LSG.

Other current developments in this field.
International Telecommunication Union

WTPF: The ITU held a World Telecommunication Policy Forum on IP Telephony on 7-9 March 2001.

The Convenor drew the meeting's attention to the Chairman's Report dated 9 March 2001, which had been distributed to delegates. He drew particular attention to Opinion A, which noted the potential benefits of IP-based networks and applications, and Opinion D, which called for the facilitation of the introduction of IP telephony by,

among other things, identifying the cost elements of international IP connectivity with respect to the introduction of IP telephony.

WTSA-2000 Recommendation 50 on International Internet Connection: At its meeting in April 2000, Study Group 3 (SG3) decided to refer a draft recommendation to the World Telecommunication Standardization Assembly (WTSA) on International Internet Connection. The draft recommendation was accepted (with some reservations) by the WTSA meeting in September 2000, and reads:

WTSA Recommendation D.50 – International Internet Connection

The World Telecommunication Standardization Assembly (Montreal, 2000)

Recognizing

The sovereign right of each State to regulate its telecommunication, as reflected in the Preamble to the Constitution,

Noting

a) the rapid growth of the Internet and IP based international services;

b) that international Internet connections remain subject to commercial agreements between the parties concerned; and

c) that continuing technical and economic development require ongoing studies in this area,

recommends

that administrations* involved in the provision of international Internet connections negotiate and agree to bilateral commercial arrangements enabling direct international Internet connections that take into account the possible need for compensation between them for the value of elements such as traffic flow, number of routes, geographical coverage and cost of international transmission amongst others.

(* the expression "administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.)

WTSA and Study Group 3: The mandate of SG3 for the 2001-2003 Study Period was set by the World Telecommunications Standardization Assembly (WTSA-2000).

– WTSA-2000 assigned four Study Questions to SG3

– Question 1/3 concerns Internet charging directly, dealing primarily with settlement problems arising from convergence and Internet issues. The agreed work item agenda for Question 1/3 is:

1. IP Telephony - implications for charging and settlements

2. IP Network Interworking - cooperation with other technical study groups on accounting related issues

3. Internet-based services - following up on the Recommendation recently adopted by the WTSA concerning taking into account distribution of cost elements in interconnection of international Internet services

4. ATM - refinement of existing Recommendations on accounting for ATM services

5. IMT-2000 - working with other study groups on 3rd Generation Mobile implications for accounting and settlements (eg interface of broadband and narrowband services, accounting for dynamically-assigned bandwidth, international roaming).

- At the December 2000 meeting of SG3, the relationship between the activities related to the preparation of WTPF and the activities of SG3 was discussed

- The substance of these issues will be advanced at the next meeting of SG3 (11-15 June 2001) on the basis of contributions received from the members.

A-P Regional Questionnaire: The ITU Regional Office in Bangkok is currently preparing a questionnaire to seek the views of regional stakeholders (such as Internet service providers, telecom operators, Internet users, user associations, regulators) of the Internet market of Asia-Pacific region. A forum is planned by ITU to follow up issues raised in the questionnaire.

Asia-Pacific Telecommunity
The APT held a Seminar on IP-based Networks Management and Internet Charging 22 - 24 February 2001, Bangkok, Thailand. Documents are at:

http://www.aptsec.org/astap/IP-based_Networks/Documentation/Papers/ASTAP01.EG.NM.AD.01_List-of-Documents_revised.doc

Organisation for Economic Cooperation and Development

The OECD published a report on Internet pricing and the development of Internet entitled "Local Access Pricing and E-Commerce" on 26 July 2000.

Indicators of the Internet infrastructure supporting electronic commerce, examined in this report, continue to show high growth rates in the OECD area.

The report can be found at:
http://www.oecd.org//dsti/sti/it/cm/stats/newindicators.htm

Inter-American Telecommunication Commission (CITEL)

The XIII Meeting of the Permanent Consultative Committee I: Public Telecommunication Services held in Lima, Peru, October 30 to November 3, 2000 considered a draft Questionnaire to serve as a starting point for gathering information which could be of use for the study of international arrangements on charges in Internet Services. The responses to this questionnaire were to be returned by 1 March 2001. A full analysis of international Internet charging arrangements was to be held at the XIV PCC.I meeting in March 2001. Further information is at:

http://www.citel.oas.org/pcc1/docs/p1-1194r2_i.doc

Business Facilitation Steering Group

Report to Plenary, TEL 23

1   Review of the Agenda and BFSG Matrix of Activities

The Convenor, Colin Oliver, welcomed participants. He briefly discussed the context of the meeting and the work for the day of the Business Facilitation Steering Group (BFSG). He noted that as there were no proposals at this stage that required funding, the BFSG could discuss work on current projects. In addition, the TEL chair has requested BFSG's contribution to internet issues.

Dr Jack Truehaft (Canada) requested that participants complete and return the HRD Survey. The Convenor suggested that this meeting may wish to discuss the top five priorities for HRD.

The Convenor noted that the change of name from Telecommunications Working Group to Telecommunications and Information Working Group is recognition of the work that BFSG is doing in business facilitation. Electronic business is a priority for the APEC Chair, China, with an emphasis on capacity building.

The Convenor introduced the draft agenda (TELWG/23/BFSG/01) and suggested the addition of new item 3 (m) E-commerce in Government (Korea). The Convenor made some suggestions on the order of work under item 8. These suggestions were agreed. The Convenor also suggested that the meeting consider issues for inclusion in the media release to be issued on conclusion of the Plenary Session.

2.   Discussion of Issues Raised for BFSG in

a   PECC-APEC Dialogue (Convenor)

The Convenor commented that the discussion of partnerships between public and private sectors is a matter that BFSG should consider. He noted the suggestion that users in economies can identify their needs was also relevant.

b   Digital Divide & Skills Shortage Workshop

There were no comments.

c   Internet Issues Workshop

BFSG work on eSecurity covers the integrity of IP network and internet communications. Work on interoperability is also relevant at the local and business levels to assist users to make wise investments and work efficiently within available bandwidth. It will also clarify cases where expanded bandwidth is required for interoperability and look in an integrated way at relevant IT and communications technologies. In future, the BFSG may have more to say about public-private sector partnerships.

d   Wireless Workshop
The Convenor asked whether anyone could provide a report.
USA reported on the wireless workshop at TEL 23 and indicated that wireless
technology would be a very important aspect of future work by APEC TEL.

e   Interoperability Workshop
The Chair of the Interoperability Workshop (Michael Baker, AOEMA) was invited to
report on matters discussed. He suggested that while the interoperability is useful for
big business it is vital for small business as small business is obliged to work with the
systems dictated by others. Small business needs assistance with interoperability
issues. This workshop assisted with definition of issues and planning for future work.

The Convenor suggested creating a list of contact people from member economies so
that the issues can be shared across APEC. This was done.

f   E-government Workshop
The Convenor found the issues most interesting. They included diverse levels of
access, economic development, the structures of societies, cultural and language
issues, and fragmentation of government services. The process of information
exchange on e-Government has begun. IT skills are a major concern. Security
concerns are being assisted by the eSecurity Task Group. He strongly recommended
that work in e-security be communicated to those developing government services.

The presentation by Hong Kong, China, showed a particular public-private sector
model that might be helpful to some economies moving forward on issues of e-
government.

In relation to the citizen and consumer end of e-government the consideration of some
mix of communications channels may be important. The Convenor suggested that
BFSG should be open to the possibilities of multiple communications channels.

Multilingual services pose great problems in some economies, and less so in others.
Work is starting on measurement in government services that will assist wise and
sustainable investments in information technology.

The Convenor invited comments.

Canada suggested that this topic be revisited later in the day once some informal
discussion has taken place.

USA reported that their Department of Commerce has created a CD-ROM for
businesses to use in analysing their current state and to identify needs for investment.
The use of the CD-ROM was encouraged. A copy will also soon be available in
Spanish and simple Chinese. The Convenor noted that this resource would be useful
for the Interoperability Group. The title of the CD-ROM is *The Information
Technology management Planning Tool*, Version1.2. It is available from the USA
delegation.

3. Project Reports:

a eSecurity Task Group   TELWG/23/BFSG/18

The Steering Group Chair, Steve Orlowski, reported that the PKI interoperability demonstration showed that it is possible to use certificates from different technologies in cross-border transactions.

The eSecurity Task Group agreed to recommend to BFSG the following:

> When framing laws, policies and standards, economies should be aware that formatting and protocol requirements of electronic messaging systems may invalidate digital signatures attached to original messages.

BFSG agreed that this should be supported by the TEL.

The Steering Group Chair drew attention to requests for liaison with APEC TEL e-Security Task Group by the international organisations mentioned in the paper. The requests by these organisations emphasised the importance of the work being done by APEC TEL.

A joint proposal from USA and Australia involving making IT Security Training and Ethics Modules available to APEC economies through a website is to be presented to the HRDSG at this TEL.

The Convenor thanked Steering Group Chair for the presentation. The suggestion that the eSTG's collected papers be published may be a matter for consideration by the Plenary Session.

USA commented on the IT security and ethics packages – the first module will be posted on the website shortly and will also be translated into Spanish.

Korea advised that there may be an Asian PKI forum in Korea around the time of TEL 24.

The meeting agreed that the eSecurity Task Group Report be included in BFSG's report.

The Convenor thanked the Chair of the eSecurity Task Group for his work and the work of the Group.

b Cybernet/INGECEP (Japan)   TELWG/23/BFSG/11

Japan introduced the report and referred to consumer concerns such as the illegal use of personal data and the differences in business practices across different cultures. The Japanese Government supports the INGECEP project as a means to resolve these issues. There are now seven member economies involved in the project. Japan explained the need to identify issues in relation to Japanese customers and invited the TELESA representative to give a presentation on development of project and referred

to the issues, solutions, Phase 3 Pilot System and Future Plan of Action detailed in the paper.

The provisional conclusion to the INGECEP project is that "cross border e-commerce can be facilitated by creating an environment favourable to businesses who want to perform the intermediary functions, acting as the bridge between the merchant and consumer economies.

The Convenor invited questions and comments

Korea thanked Japan for the work done and requested that the work be continued and that a presentation be made to TEL 24.

New Zealand noted that the project centred on small businesses and their needs. The delegate commented that this means of facilitating access to markets was very important.

The Convenor noted the importance of this work and wished Japan well for its ongoing work.

c   B2B Agent Project (Korea)   TEL WG/23/BFSG/10.

Korea outlined the problems with the existing B2B model and proposed a possible solution for B2B among countries and companies. The delegate indicated that some improvement has been demonstrated using the MP2MP model and reported that a global working group had been established. The proposed scope and direction of the working group was explained. The Convenor noted that "global" in this context means "cross border".

Convenor thanked Korea for the presentation and invited questions and comments.

AOEMA provided further clarification of progress so far and thanked the companies assisting the working group. Discussion on Sunday helped to clarify what the group is to achieve and how to do it. The group invited inputs that can help with interoperability, especially in B2B, and urged member economies to assist in enlisting the assistance of companies from member economies.

Australia thanked Korea for the work and noted the importance of adhering to international standards

Japan thanked Korea and offered its continuing contribution but asked that first there be some more study to clarify the scope of the project.

Hong Kong, China, noted that the funding arrangements intended that funding is to be a matter for each economy.

The Convenor welcomed the project proposal and thanked member economies for their support. He noted that the Japanese request for clarification was important. It may be met as work goes forward, given that the project was cooperative,

developmental, open and transparent, encouraging, information sharing, and private sector based with government support.

Convenor drew attention to three recommendations contained in the paper. The meeting agreed to accept the project as a self-funded project in BFSG. It would provide a useful focus on B2B interoperability issues, and participation by all economies is encouraged.

Korea thanked the member economies for their support and thanked AOEMA for assisting to make the project successful.

d   E-commerce Awareness Seminars (AOEMA)   TELWG/23/BFSG/05
AOEMA introduced the item and noted that the most recent seminar was held outside a capital city for the first time. This was very beneficial for those who cannot easily travel to cities. Further seminars will be held outside capital cities where possible. Later this year a seminar is to be held in Sri Lanka, outside APEC. The AOEMA delegate invited economies to take advantage of the availability of seminars and emphasised that they are tailored to individual economy's needs.

Australia thanked AOEMA for their continuing work on e Commerce awareness.

The Convenor reiterated the need for improving awareness of e-Commerce, particularly for small business.

e   E-commerce Capability Building (Thailand)   WG/23/BFSG/04
Thailand spoke to the paper and sought support of member economies in participation in the forthcoming survey. The delegate invited comments and suggestions on the tentative program included as an appendix to the paper.

The project proposal has been submitted to the APEC Secretariat and the oversight committee for comment. There are plans for a workshop in November and the delegate invited member economies to note the changed date.

The eSTG Chair thanked Thailand, and indicated a concern at the proposal that authentication be conducted by certification authorities only. He noted that other tracks are available.

The Convenor praised the open and transparent way that Thailand is conducting the project. Australia will be supporting Thailand's efforts in capability building through a staff placement and support for an ASEAN conference led by the Electronic Commerce Resource Centre in Bangkok.

f   TEL Website (Korea)   TELWG/23/BFSG/09
Korea introduced the paper and noted that the APEC TEL website is a focal point for APEC activity. The Korean Government is committed to maintaining the website. The advantages of the website are that it provides a repository for APEC information, a means of transferring information, and a reduction in research costs for member

economies. These advantages contribute to more effective work by member economies. The Korean delegate referred to the recent survey on website matters and reported on the continued effort to improve the site. The URL is to be changed to www.apectelwg.org, with the approval of the BFSG. BMC has indicated that there are no funds available for websites.

Korea indicated that it will meet most of the costs but also seeks assistance from member economies. Projects that require web publication should use the site with appropriate support for project funding. Korea's request that other member economies approve the creation of linkages to APEC site was agreed.

The Convenor thanked Korea for the presentation and for the work on the website. Papers for TEL 23 will shortly be loaded to the Korean site. Convenor invited questions and comments.

Australia thanked Korea for the usefulness of the site and indicated its support for the change of URL address. Australia proposed that financial assistance be contingent on submission of a suitable business plan. The delegate had some concerns about ongoing maintenance and the increasing complexity of the site which reduces accessibility especially for the developing member economies. Australia may support a user pays system but would not wish to see any charge for uploads of TEL meeting documents to the site.

Hong Kong, China, thanked Korea for their establishment and maintenance of the website. Websites do not solve all communications problems. Hong Kong, China, proposed making it more widely known that the site exists and suggested that consideration be given to the printing of some documents. Business links to the APEC site were also suggested.

The eSTG Chair thanked Korea and reported that the electronic authentication papers on the website already were linked from many international sites.. The delegate expressed concern about the changeover references from the old to the new URL. Korea indicated it has been considering the possibility of broken linkages, suggesting that the old URL would take users to the new site.

The Convenor noted the appreciation for Korea's work, the support for the change of URL and support of maintaining existing links, the support for budget proposals to include an item for funding of uploading of documents, and the need for a business plan. The oversight committee should assist with preparation of a business plan. The Convenor noted that there was no mention of sponsorship during the discussion on funding, but that this could be considered further.

The oversight committee includes Korea, Australia, Canada and AOEMA.

Korea thanked member economies for their support and noted Australia's comments regarding financial support. Korea advised that any charges would be government rate charges and not at commercial rates. The emphasis would be on functionality of

the site. Member economies agreed to the linkages of member economies' home pages to the APEC TEL site.

g   APEC Legal Guide (Convenor)

Ms Barbara Hugh, of Baker and McKenzie, provided an update. The site is maintained by Baker and McKenzie. In addition to the APEC E-Commerce Legal Guide (www.bakerinfo.com/apec), Baker and McKenzie also provide an E-Law Alert and other guides to E-Commerce law.

Topics are grouped under economies according to relevant issues in those economies. Ms Hugh explained the hierarchy of information within the sites. The site includes an email facility.

The Convenor thanked Ms Hugh and invited questions and comments. The Convenor commended Part 1 of the Guide as a useful introduction to the legal issues of e-commerce.

Mexico thanked Ms Hugh and asked what are sources of information for the site. Ms Hugh indicated that the information is provided from Baker & McKenzie's US site.

Canada indicated that there are contact points for corrections and amendments to information.

Australia proposed that the existence of the site be brought to the attention of member economies at the Plenary Session and Attorney's-General departments in each economy so that information can be monitored.

Indonesia expressed similar concerns as Mexico in relation to how up-to-date the information was. Indonesia (MASTEL) offered to be a source of information in that economy.

The Convenor noted the evolution of site from the originally intended resource for small business to the current structure that contains a greater depth of information on legislation and government information. He encouraged the use of the site as a resource.

Australia noted that, as the site is useful for SMEs, summaries should also continue to be maintained for accessibility purposes, as intended from the beginning of the project.

The Convenor warmly thanked Baker and McKenzie for their work in updating the site and urged delegates to make sure the resource is well known within their economies, and among the APEC groups with an interest in E-commerce.

h   E-Commerce Readiness Guide (USA)

USA reported that it had received a very good response from member economies with the self assessment tool. There has been interest from OECD and World Bank for possible use in Latin America. The guide has been translated into Chinese for use at

the local and provincial level. APEC's leadership on this issue was recognised by the G8 meeting at Okinawa in 2000.

It was agreed that links between websites should be reviewed to ensure items like the guide can be readily found.

Korea advised that the document used the term "Readiness" instead of 'E-Commerce Readiness' and added that E-readiness would not usually be considered synonymous with E-Commerce readiness. Japan sought clarification of methods of dealing with responses to the assessment of readiness to e-commerce. USA advised that the basis of the survey was self-assessment done behind borders and with no expectation of publication of assessment outside the individual economy. Some economies have chosen to publish their assessments. The purpose of the assessment was to assess and improve e-commerce readiness within each economy.

Canada explained that the project began in 1999 and was designed especially for the benefit of those economies without statistical agencies. This ties in with the OECD's interest in developing internationally recognised indicators. The project has been a very good example of partnership between the private sector and government.

The Convenor noted that this initiative was very well known outside APEC. USA spoke briefly on the achievement of the wide distribution of knowledge of the project and noted the importance of partnerships between business and government as the key to acceptance.

i   SME Database (AOEMA)   **TELWG/23/BFSG/08**
AOEMA provided an update of progress since TEL 22 and a demonstration of the site's capabilities to link companies with common interests.

Hong Kong, China, sought information on any charges for listing by SMEs. There is no charge at present but funds may be required for maintenance in the future. The Convenor noted that AOEMA would appreciate assistance with promotion of the database to SMEs in member economies.

j   Electronic Commerce Good Practice in the APEC region (AOEMA)
                                                            TELWG/23/BFSG/06
AOEMA spoke to the paper circulated to delegates and indicated that the guide book now contains a good inventory of APEC e-commerce work. It is not yet ready for publication. The delegate drew attention to the case study of Thaigem.com, a success story arising from the EC Good Practice strategy.

k   Multilingual International Trade Project (AOEMA)
                                                            TELWG/23/BFSG/07
AOEMA introduced the paper and drew attention to the current limitations in the business use of both 'automatic translators' and 'human' translation services. AOEMA explained a proposed solution and gave a demonstration of the TigerTalk method. AOEMA asked that member economies inform their small and medium

business constituents of the project and actively encourage them to become part of the process.

The Convenor thanked AOEMA for their very valuable work as guests of APEC.

l   Study of User Requirements for the Integration of E-commerce Systems in the APEC Region (Australia)

Australia introduced this short-term project that will study users' requirements for IT, the current standards, and the infrastructure available to support interoperability. The report from CSIRO was expected to be completed by end April 2001. It is hoped that the survey of current standards and technologies, many of which are competing, will point to any 'winners' and provide some direction for future work.

The study recognises the diversity of member economies and will look at the critical issues relevant to different economies. The project team is keen to have consultation with member economies and has commenced development of a list of contacts. The Convenor thanked the CSIRO project team Australia (?CSIRO), and commended the project as providing a very useful and broadly based information resource.

m   E-commerce in Government (Korea)   **TELWG/23/BFSG/12**

Korea briefly explained the background and purpose of the paper which was to follow-up the agreement reached at TEL 22 to produce an issues paper for e-commerce in government to be presented at TEL 23. The paper proposes that a draft action plan for e-commerce in government be produced by TEL 24. The delegate advised that E-commerce in government is usually understood as online commercial transactions by government.

The proposed action plan would try to avoid specific prescriptions but would try to mention mechanisms to share information on member economies' progress on e-commerce in government including obstacles member economies may face that could provide input to further action. Korea mentioned that it would be desireable to utilize existing information-sharing mechanisms, namely the 'policy and regulatory update' which each economy submits at each TEL. The action plan is to be a living document with revisions made by consensus reached on specific matters. Korea wishes to receive contact list for each economy to assist with development of the action plan. Korea proposed that the draft action plan be prepared for tabling at TEL24.

Convenor invited questions and comments.

USA agrees with the plan but indicates that ECSG may already be planning a similar activity and that duplication of effort should be avoided.

Indonesia expressed its wished to participate in the development of the action plan.

Canada commended the project as worthwhile and questioned whether it will be discussed at ECSG. Work in TEL would of course be reported and discussed in the ECSG.

China indicated that the project is very useful and expressed its willingness to participate.

The Convenor indicated that he was not aware of any ECSG interest in this matter. He advised that while BFSG's focus is on platforms, technologies, and interoperability issues, the group does not claim to be expert on the various activities of government. He emphasised that the BFSG can do useful work, and needs to be clear about the contribution it might make to the e-government work.

Japan proposed further discussion and clarification of the idea in the lead up to TEL 24.

USA indicated its willingness to discuss the project in BFSG and ECSG and to contribute where possible.

Korea thanked those economies that made suggestions and offers of assistance.

The Chair thanked Korea for agreeing to lead work on development of the draft action plan for TEL 24.

4.   New Project Activity and Future Workshops

a   The meeting agreed to request a full day eSecurity Task Group meeting at TEL 24

b   Publication of eSecurity Task Group papers may require modest funding. The mechanism for putting forward this proposal requires consideration. The options are to submit a project proposal or to deal with it through the APEC Secretariat. Hong Kong, China, suggested that some private sector organisations may wish to pay to publish the papers.

5   Related APEC activities
a   E-commerce & Paperless Trading Symposium 9-10 February 2001
Australia advised that the outcomes of the symposium will be discussed in detail at ECSG, and thanked China for the opportunity to co-chair the symposium, an important exercise in cooperation between public and private sectors.

Australia expects that some proposals from the symposium will be followed up in ECSG.
A suggestion was made by some economies that a similar workshop on legal issues be held.

b   Electronic Commerce Steering Group (ECSG Convenor)
USA advised that the ECSG mandate had been renewed for the next two years. The delegate thanked Australia for facilitating the conduct of the meeting scheduled to immediately follow this TEL. USA outlined the matters for discussion.

The Convenor of the BFSG will provide a report to ECSG on TEL 23 meeting and workshops held this week.

c   Planned APEC Workshops and Conferences
The Convenor mentioned the May 2001– Human Capacity Building in APEC – Meeting the Needs of the 21st Century to be held in China.

6   Information items
a   OECD discussions on TEL-related issues (Canada, Australia)

Canada advised that the OECD inventory of e-commerce work will be availably in matter of weeks.

The Cryptography Guidelines five year mandatory review is due. It is unlikely that the review will proceed, but cryptography documents will continue to be useful as background policy documents.

In a recent OECD meeting Canada gave an overview of APEC TEL's work generally and, in particular, e security which generated interest. Further discussions and cooperation with OECD are expected.

b   Active Partnerships Project (PECC)
Not discussed as PECC not present.

c   Asian/ASEAN E-Commerce Conference
Thailand advised members of a planned conference in Bangkok on 23-25 May 2001.

Other Business

1   The Convenor introduced document TELWG/23/BFSG/03

The Convenor indicated that no major changes to the matrix of activities is required at present. The matrix will be reviewed after the meeting.

2   Suggestions for consideration by HRDSG:
The following list of priority areas for HRD was prepared during discussion at the BFSG:
• security
• e-commerce – broad awareness
• e-government
        trade documentation including customs clearance – business facilitation
        e-procurement
• interoperability and standards
• wireless technology

language skills
high level awareness raising
• IT education from elementary school onwards

8   BFSG Report to the TEL – Summary of Priorities and Recommendations

C. Report to Internet Issues Task Group

The issues reported to the IITG were reviewed and confirmed.

BFSG work on eSecurity covers the integrity of IP network and internet communications. Work on interoperability is also relevant at the local and business levels to assist users to make wise investments and work efficiently within available bandwidth. It will also clarify cases where expanded bandwidth is required for interoperability and look in an integrated way at relevant IT and communications technologies. In future, the BFSG may have more to say about public-private sector partnerships.

Digital Divide
Elements of NFSG work that support the digital divide agenda include the following:
1. Interoperability work to support sustainable investment.
2. E-commerce capability building work being led by Thailand
3. The E-commerce Good Practice Guide and the SME awareness workshops led by AOEMA.

Conclusion
In concluding the work of the meeting, the Convenor thanked delegates for the interesting work. He suggested that the challenge is to make sure that the work is well known within and outside APEC, and that weblinks within and between sites are available.

Delegates were invited to attend the ECSG meeting on Saturday.

The Convenor thanked all members of the BFSG for their positive contributions.

Revised Matrix of Business Facilitation Steering Group Activities
[Based on the *Cancún Declaration*, the *Reference Framework for Electronic Commerce* and the *Blueprint for Action*]

OBJECTIVES	D. Task Areas	CURRENT PROJECTS AND ACTIVITIES
Development and Access Objectives	**Improving Access**	
1 to enhance the development of electronic commerce infrastructure as well as services and applications relevant to Asia-Pacific users and to promote the use of emerging applications and the development of electronic commerce products and services 2 to ensure that the telecommunications and information infrastructure continues to develop in a manner that supports electronic commerce	Cooperation between the public-business/private sectors Encouraging competition Discouraging market access restrictions Study domestic charging models Consider the opportunities and benefits arising from wireless technology in the expansion of both basic telephony and convergent services Consider additional initiatives to support accessibility, especially to enhance access to schools, hospitals and small and medium enterprises to ensure that the APEC communities, people and businesses as a whole benefit	[Completed] Report of the Task Force for Clarifying the Key Elements Necessary for Promoting Business/Private Sector Participation in Telecommunications Infrastructure Development Interconnection Framework [LSG and HRD projects] Critical information infrastructure protection - information sharing Wireless issues workshop

		Consider user requirements for high speed bandwidth connectivity, and business models to meet the needs of users and increasing internet demand	
3	to ensure that economies that rely on existing telecommunications and information systems are supported in the transition to electronic commerce	Identifying economic costs that inhibit increased uptake of electronic commerce, including those imposed by regulatory and market environment Economic and technical cooperation activities to maximise benefits to members (defined to support economies in transition)	Study of International Charging Arrangements for Internet Services

Harmonisation Objectives	Developing compatible approaches to the electronic marketplace
4 to harmonise the region's electronic commerce policies, legal and regulatory practices and ensure that policy and regulatory environments better foster the uptake of e-commerce, facilitate the electronic delivery of services and enhance the development of e-commerce infrastructure.	Reviewing different approaches to authentication

Identify the essential elements of a legal and regulatory framework for electronic commerce

Encouraging economies to avoid legal, regulatory and other barriers

Provide assistance to economies in implementing policies and regulations favourable to e-commerce

More attention to be given to user requirements for open standards and systems to support interoperability | Electronic Authentication

Overview of Electronic Commerce Law

Guide to Regulatory Environments in APEC Economies / Data Compilation Project

[Completed] Guidelines on Document Retention

Electronic Commerce Good Practice in the APEC region

Multilingual International Trade Project

User Requirements for Interoperability |

Promotion and Awareness Objectives	Raising Awareness
5 to promote electronic commerce for use by businesses and by consumers and to facilitate the electronic delivery of government services	knowledge base on the economic and social benefits

demonstrate the practical benefits

promoting awareness among SMEs work to develop measures and | Electronic Commerce Awareness Seminars

SME Electronic Commerce Survey

SME Data base |

to promote a stronger role throughout APEC for Small and Medium-Enterprises (SMEs) encourage information sharing and collaboration on Internet services	indicators on electronic commerce uptake and use encouraging governments to act as model users	Support for APEC Electronic Commerce conferences and workshops Consumer and gender issues – information sharing EDI Surveys in the APEC region Electronic Commerce Readiness Indicators Information sharing on electronic government initiatives E-commerce in Government Issues paper
Building Confidence and Trust	Developing appropriate strategies International approaches for protecting privacy Digital transactions and authentication projects Promoting best practices Encourage information sharing and collaboration on critical information protection	Cybernet/INGECEP (Integrated Next Generation Electronic Commerce Environment Project) Database of Existing Certification Authorities Challenge 2000 Secure Electronic Commerce project E-commerce capability building Web Site Authentication Technology (Internet Mark) B2B Agent Project (Korea)

Collaboration Objectives	Other Work Items	
7 to avoid duplication of efforts by * Enhancing collaboration and linkages with other fora * Taking advantage of mutually beneficial activities * Ensuring that the unique perspectives and needs of APEC economies are considered and met	Collaboration with relevant APEC fora Support electronic networking of relevant information Contact with relevant work in other international organisations including OECD and UNCITRAL)	TEL supports other APEC activities and fora including Electronic Commerce Steering Group and the APEC paperless trading objectives Domain name registration survey APEC TEL Web Site Advice on electronic publication rules Monitoring developments on privacy Working level co-operation on electronic authentication issues with the OECD

BUSINESS FACILITATION STEERING GROUP
eSECURITY TASK GROUP

MINUTES

E. Electronic Authentication

PKI Demonstration of Cross Border Authentication of Electronic Transactions – Australia

Baltimore Technologies provided a report on the PKI interoperability demonstration being conducted in conjunction with TEL 23. The demonstration involves CAs in three economies generating keys and certificates that can be used to sign an example of an Australian Customs declaration. Each delegate to the TEL has an individual key pair and certificate that can be used to participate in the demonstration. The demonstration showed that is possible to use certificates from different technologies in cross-border transactions.

The Task Group expressed its appreciation to Baltimore Technologies for conducting the demonstration and sponsoring the workshop.

F. Report of PKI Interoperability Expert Group – Canada

Canada reported that the following economies had responded to the questionnaire on CA accreditation schemes in their economy:

- Australia
- Chinese Taipei
- Hong Kong China
- Japan
- Korea
- Singapore
- Thailand
- Canada

While the survey exhibited a high degree of consistency in some areas, it did reveal inconsistencies in the following areas:

- approach to inter-operability and cross-certification;
- performance of security function; and
- policy function and existence of policies.

It was noted that these findings were consistent with previous studies. The work on certificate trust lists and accreditation certificates should address the first issue. The development of international IT security standards such as ISO 17799 and accreditation schemes for those standards should address the second issue. The adoption of documents such as RFC 2577 and a glossary of PKI terms could address the final issue.

It was noted that there were some inconsistencies in format between responses and it was agreed that the survey be repeated. It was also noted that the OECD will be undertaking a similar survey and that the surveys could be coordinated. The US indicated it that it would participate in the next mapping survey.

Electronic Authentication in a Multi-Format/Multi-Protocol Environment – Hong Kong, China

Hong Kong, China explained that where messages were required to transit multiple systems, any changes in formats or protocols could invalidate the digital signature associated with the original message. Trusted message translation services or inclusion of the original signed message with the reformatted message could overcome the problem. This problem could require attention of governments in respect of the way laws and policies are framed. This is particularly the case were presumptions are associated with the holder of the private key. In the case of trusted translators it is the translator, rather than the originator, who holds the private key that signed the final message.

The Task Group agreed that the following recommendation be forwarded to BFSG:

> *When framing laws, policies and standards, economies should be aware that formatting and protocol requirements of electronic messaging systems may invalidate digital signatures attached to original messages.*

The Task Group agreed that the paper be published as an appendix to the PKI Annex of the Electronic Authentication Issues Paper.

Government Public Key Infrastructure: Project Gatekeeper – Australia

Australia provided an overview of Project Gatekeeper, the Australian Government Public Key Infrastructure. It noted that the States and Territories had agreed to adopt the Gatekeeper strategy. It outlined the Australian Business Number-Digital Signature Certificate (ABN-DSC). Details of the ABN-DSC are available at http://www.govonline.gov.au/projects/publickey/abn-dsc.htm
It outlined the Gatekeeper Accreditation Certificate, which is designed to facilitate interoperability both nationally and internationally. The certificate would be issued to CAs that meet the Gatekeeper accreditation criteria. These criteria are available at http://www.govonline.gov.au/publications/CA-AccreditationCriteriaV8.PDF

The Task Group agreed that it prepare an appendix to the PKI Annex of the Electronic Authentication Issues Paper on accreditation certificates. Australia, Canada and Hong Kong, China offered to participate in the drafting.

Use of Certificate Trust Lists in PKI for cross-border transactions – Chair; Hong Kong, China

The Chair introduced this item by explaining that the PKI Forum had identified the use of certificate trust lists as a possible solution to CA-CA Interoperability. Extending this concept, the use of digitally signed certificate trust lists issued by competent authorities could address some of the interoperability issues being addressed by the PKI Interoperability Expert Group. The European Electronic Signatures Standards Initiative had also expressed an interest in this concept.

Hong Kong, China outlined Tradelink, which has issued 150,000 certificates to facilitate the import and export of goods. It also provided information on the Pan-Asian eCommerce Alliance. It identified a number of issues relating to international interoperability and suggested the use of certificate trust lists as a means of identifying CAs that were recognized by another scheme.

The Task Group agreed to include this topic in the appendix to the PKI Annex of the Electronic Authentication Issues Paper agreed to above.

Evidence of Identity - Australia

Australia introduced its paper on Evidence of Identity and noted that the importance of individual identity varied according to the type of transaction and whether disputes were likely to be resolved in civil or criminal proceedings. It also noted that national security implications required high EOI. The Task Group agreed that the paper be noted and the contents be considered in preparing annexes to the issues paper.

Validation Authorities – Australia

Australia introduced its paper on validation authorities that was a revision of the previous paper presented at TEL 22. The Task Group agreed that the revised paper become a revised appendix to the PKI Annex of the Electronic Authentication Issues Paper

International Activities:

OECD – Australia

G. The Chair welcomed Mr Peter Ford, Chair, OECD Working Party on Information Security and Privacy who was part of the Australian delegation. He reported that the OECD would declassify its study of PKI activities in member countries in the next few weeks. The study showed good progress on the legal recognition of electronic authentication. There are still a number of form requirements in legislation but there is a trend towards media neutrality. Almost all countries have started or plan to start eGovernment activities.

Most countries have adopted a non-discriminatory approach to foreign authentication although there are some problems in respect of interoperability. The report identifies two areas for further work:

- identifying and mapping CAs and linkages; and
- collecting more information on crucial aspects of interoperability.

The OECD will continue to work with APEC on these issues.

European Electronic Signature Standards Initiative (EESSI) – Chair
The Chair reported that the Task Group had established liaison links with the European Electronic Signatures Standards Initiative and had been invited to participate in its work. In particular they invited comments on ETSI Technical Specification on Policy Requirements for CAs Issuing Qualified Certificates – TS 101 456. This specification is available at http://www.etsi.org/sec/el-sign.htm

The Chair will examine the standard in the light of the Task Group's work. Economies are also invited to provide comments.

European Electronic Messaging Association (EEMA): PKI Challenge – Chair, AOEMA
The Chair advised that he had been approached by the European Electronic Messaging Association regarding Task Group involvement in their PKI Challenge. The Chair had advised EEMA that the Task Group was not a CA and could not participate in technical aspects but could provide policy input and benefit from the output of the Challenge as part of its policy deliberations. The Chair encouraged CAs in member economies to participate in the Challenge.

AOEMA outlined the history of electronic messaging associations and their relationship with AOEMA. AOEMA also encouraged regional CAs to participate.

Malaysia commented that any pilots should include digital and electronic signatures and should include use of the non-repudiation function.

Asia PKI Forum – Singapore/Korea/Japan
Singapore advised that Singapore Korea and Japan agreed to establish the Asia PKI Forum. It will be a grouping of PKI fora established in each economy. The objective of the Forum is to achieve interoperability between members of the Forum and with similar forums in Europe, Oceania and North America.

Korea outlined developments in PKI and eCommerce law in Korea. It advised that it established a PKI Forum in March 2001. It announced that it would be holding a PKI Conference in April 2001 and invited delegates to attend. Details are at http://www.kisa.or.kr/pki

Japan advised that it would be holding an Asia PKI Forum in June 2001. Details are not yet complete. They will be widely circulated when finalised.

Chinese Taipei advised that it would be launching a PKI Forum about April 2001.

The Chair welcomed the development of the Forums, which should assist in achieving cross border recognition of digital signatures in the APEC region.

Identrus: PKI for World Banking and its Regulatory Impact – Australia

Australia explained that Identrus is a transactional trust framework for online financial services operated by a consortium of banks. The scheme involves an international root CA and accredited CAs of participating banks. A major value add is the warranty service they provide. Identrus seems suitable for the certificate trust list approach.

ISO Draft Technical Specification 17090: Health Informatics – Public Key Infrastructure – Chair

The Chair advised that ISO was developing Draft Technical Specification: 17090: Health Informatics – Public Key Infrastructure. The draft is expected to be finalised in the next few weeks. It includes detailed specifications for CP, CPS and certificate profiles in the health sector.

PKI Forum paper CA-CA Interoperability – Chair

The Chair advised that the PKI Forum had completed a paper on various approaches to achieving CA-CA interoperability. The Task Group's work on cross recognition was included in the Paper. The paper had also addressed approaches such as cross-certification, bridges, accreditation certificates and certificate trust lists. The Task Group will continue to work with the Forum on PKI issues.

<u>eSecurity</u>

Business Perspective of the Need for eSecurity – USA

The US described Internet security as Y2K without the clock. There is uncertainty about the threat, constant vigilance is needed and there is a 24 x 7 dependency. Downtime costs for e-businesses are enormous. A recent survey showed:

    $6.5m/hour for brokerages
    $2.6m/hour credit card authorisation systems
    $14,500/hour per ATM

The private sector has a responsibility to get own house in order, as government cannot legislate a solution. However government is not a bystander. It should lead by example through:

- developing a national strategy for protection of critical systems;
- monitoring and reporting on its own progress;
- facilitating of business/government cooperation; and
- providing an investment environment for the private sector.

It also has a responsibility to get own house in order. Government and industry should cooperate to develop standards

IT Security Training and Ethics Packages – United States

US introduced a joint proposal from US and Australia that is to be introduced to HRDSG. The proposal involves making IT security training and ethics modules available to APEC economies through a website.

The US explained that there is a skills shortage of IT security professionals and growing. It identified the roadblocks to overcoming the shortages as:

> a limited number of faculies with specialties in the subject areas;
> efforts by industry to recruit the small number of existing active faculty;
> small graduate and undergraduate student enrollment;
> lack of relevant curriculum and materials;
> a need to retrain personnel already in the workforce; and
> a failure to link research to on-going educational efforts.

It identified the primary responses as education, training and awareness to effectively reduce exposure to a variety of known risks. In order to achieve this end, it is essential to have a work force that is aware of, and educated about, the problems of information systems security

The first series of modules that will be made available are:

• Introduction to Information Protection	5 hours
• PC/Workstation Security	4.5 hours
• Security Fundamentals	12 hours
• Laws and Legislation	9 hours
• System Security	15 hours
• Communications Security	7 hours
• Corporate Security Management	17 hours
• Introduction to Accounting Controls and EDP Auditing	18 hours

Other economies are invited to contribute material.

The Task Group agreed that the proposal be forwarded to the HRDSG for consideration.

H. Industry Module Based Security Standard - Korea

Korea proposed an Industry Module Security Standard (IMSS), which would allow higher-level standards to be tailored to the differing needs of industry sectors. The concept could be extended internationally with economies tailoring the higher-level standard to their business and cultural practices as well as industry differences. Management of the standard could involve advisory boards comprising government and industry representatives.

International Developments in IT Security

OECD – Australia

Australia advised that the OECD is undertaking a review of its 1992 Guidelines for the Security of Information Systems. The review would take account of the growth in the networked society and interconnectivity that has occurred since the Guidelines were developed. The OECD is also looking to establish networks to exchange information and compare laws in a dynamic fashion. It will also undertake a study of

common user requirements between countries for IT security products including ways of ensuring that products were fit for purpose. This will be at a higher level than standards development.

Japan advised that it will be hosting a Joint Workshop on Information Security with the OECD in September 2001. The Workshop will form part of the review of the OECD IT Security Guidelines. In addition to OECD members, other countries will be invited including APEC economies. Details will be distributed when finalised.

I. International Standard – Information Security Management (ISO 17799) – Australia

Australia explained that ISO17799 is a code of practice comprising 36 objectives in 10 categories. 127 controls can be selected from explanatory information. It covers all dimensions of information security management:

- security policy
- security organisation
- asset classification and control
- personnel security
- physical and environmental security
- communications and operations management
- access control
- systems development and maintenance
- business continuity management
- compliance

A certification scheme has been developed to ISO 17799. Australia now has its first accredited certifier.

Australia also advised that it is developing implementation guides for AS/NZS 4444, the Australian version of ISO 17799, for the health sector and SMEs. These implementation guides could be a means of implementing the IMSS approach proposed by Korea.

Economy Updates

Australia
Australia outlined the activities of its National Electronic authentication Council (NEAC) which is a government sponsored body comprising private sector organisations with some Government involvement. NEAC is designed to be a bridge between the public and private sectors. It has published a number of papers that are available at http://www.noie.gov.au

Australia also advised that the Certification Forum of Australia has expanded to include New Zealand and is now known as the Certification Forum of Australasia. It has 35 members who are stakeholders in PKI. It has conducted a series of seminars showcasing PKI, smartcards and biometrics.

Australia also advised that it has changed the administrative arrangements for its National Information Infrastructure program, which is now coordinated by the National Office for the Information Economy as an aspect of eCommerce. A key element is the Consultative Industry Forum. Prime issues are awareness raising and

incident reporting. The Attorney-General's Department has responsibility for national security aspects. Information is available from

Canada

Canada reported that PKI is about to roll out extensively in the private sector. Information is available at http://www.ecom.ic.gc.ca

Canada announced the creation of the Office of Critical Infrastructure Protection and Emergency Preparedness in the Department of National Defence. The approach combines critical infrastructure protection and emergency management. Key elements of Canada's strategy include:

Put Government of Canada in orderPolicy development
Build creative and sustainable partnerships
Develop effective, targeted programs
Develop national operational capabilities

Hong Kong, China

Hong Kong, China advised that it has 60-70 eGovernment services online of which 20 require digital certificates. Pick up of electronic services is satisfactory with approximately 2,500 transactions per day.

Hong Kong CERT Coordination Centre has been established to address computer security issues.

Singapore

Singapore advised that the Infocomm Development Authority had responsibility for infocomm security and have processes in place for protecting public sector systems. SingCERT has been established. IDA plans to work with key stakeholders to assure resilience of its infocomm infrastructure. IDA is examining standards and guidelines for IT security and is conducting seminars and workshops and providing media updates.

Singapore Police have developed enhanced capabilities for investigating computer crime and enforcing Singapore's computer crime laws.

United States

The US Government has issued a paper on critical infrastructure protection research and development. The Report identifies eight priority R&D issues:

- establishment of an Institute for Information Infrastructure Protection;
- education and training of research personnel in CIP R&D;
- interdependency analysis;
- threat, vulnerability and risk assessment studies;
- system protection and information assurance;
- reconstitution of damaged or compromised systems;
- the security of automated infrastructure control systems; and
- intrusion detection and monitoring.

It made the following recommendations:

- coordination of CIP R&D with other initiatives;
- greater levels of funding in the future;
- CIP R&D to keep pace with technological developments;
- briefing of senior officials; and
- strengthen university training and development to support CIP.

The paper is available at http://www.ostp.gov/security/html/cip.pdf

Other Business

Cooperative arrangements with PKI Forum – Chair

The Chair advised that the eSecurity Task Group had been invited to become a liaison member of the PKI Forum. This would allow exchange of working documents between the two bodies. The eSecurity Task Group would be able to attend PKI Forum meetings and a PKI Forum representative would attend Task Group meetings as a member of a delegation from an appropriate economy. As the liaison membership involves a formal document, the papers have been forwarded to the APEC Secretariat for consideration.

Documents

Presentations to the Task Group meeting will be posted to the TEL23 website at http://www.tel23.org/documents

Development Cooperation Steering Group

Report to Plenary, TEL 23

1. OPENING

The Development Co-operation Steering Group (DCSG) was held on March 14-15, 2001, in conjunction with the 23rd meeting of APEC Telecommunications Working Group. Mr. Sean Chu of Chinese Taipei was the Convenor, and Dr Amon Tubtiang of Thailand was the Deputy Convenor. Some 33 participants including Mr. Chutintorn Sam Gongsakdi, Program Director of APEC Secretariat attended the meeting (see Annex A).

The Convenor first welcomed all the participants, and extended his great appreciation to Australia for hosting the TEL23. The meeting then proceeded to review the draft agenda of DCSG. Korea asked to renamed the project " Pilot Study on APII Test-bed Internet Backbone Topology Optimization" as the "Optimal Topology of Testbeds (research networks) and Simplified Commercial Networks in APEC Region". The agenda was revised and agreed as shown in Annex B.

CURRENT PROJECT REPORTS

Information service and knowledge transfer:

☐ **APII Cooperation Center (telwg23/dcsg/15 - Korea)**

Korea reported that the studies had been conducted by the APII Cooperation Center in 2000, i.e. the studies on the Success Factors of APEC E-Commerce and Its Direction for Promotion, and the studies on the International Cooperation for Human Resources Development in the Developing Economies of APEC.

The APII test-bed projects between Korea-Japan and between Korea-Singapore are being carried out. The test-bed project between Korea-US will be conducted during this year, while the project between korea-China is under discussion for implementation in the near future.

Three exchange programs are being carried out, i.e. "2000 Int'l Telecom Training Program", "APT Training Program", and "Fellowship Program for Next Generation Telecom Leaders in China.

In order to continue to provide a user-friendly information pool, the design and structure of the website will be regularly renovated. A URL (possibly, http://www.apcctelwg.org) that can resemble "APEC TEL WG" itself will be prepared for change, and the APEC TEL website webserver will be upgrated to meet the demands for advanced technologies.

As part of the Trans-Eurasia Information Network project, which has been adopted as a new project of ASEM in 2000, APII Cooperation Center will hold an Expert Group Meeting, with joint cooperation with Singapore and the European Commission on March 27-28, 2001. (http://www.transeurasia.org)

APII Technology Center (telwg23/dcsg/17 - Japan)

Japan reported that since 1997, the APII Technology Center conducted seven engineer training programs, and the trainees totaled 71 persons from 36 economies. This curriculum included such subjects as Internet utilization technology and next generation Internet technology.

From January, 2001, APII Technology Center started new system for connecting the remote sites in Japan, using DVTS (Digital Video Transfer System) on Ipv6 testbed. Digital Video transfer over IP was very feasible. It was suggested that DVTS make the distributed type of lecturer resources at the advanced economies.

☐ **Development and Financial Resources Catalog (telwg23/dcsg/08 - USA)**

The USA noted that this is an ongoing project focused on providing information and sources online for development assistance, primarily in telecommunications. At TEL22 meeting, DCSG recommended that the development catalogue could expand its scope to Internet development, as part of the Digital Divide Blueprint for Action. The USA and Convenor asked for updates by all economies. The catalogue is posted on the TEL website.

☐ **Spectrum Policy and Management Database (telwg23/dcsg/09 - USA)**

The USA noted that this ongoing project provides online information regarding spectrum policy and licensing information, including online frequency by each Economy. The USA noted that recent updates have been added to the TEL23 website database, but requested information from those Economies that have not participated. The database is also supportive of the LSG's commercial wireless activities.

☐ **The Cross-country Smart Card-Based Secure Electronic Commerce Project (Singapore)**

Singapore briefed on the Cross Country Smart Car-based Secure Electronic Commerce Project. The project was intended to investigate the systems and security aspects of cross-country secure electronic commerce systems and to study the feasibility of adopting smart card for supporting e-commerce transactions.

Singapore informed the meeting that funding for the project has been made available from January 2001, as approved by the BMC last year. Singapore was presently forming an advisory committee to steer the project. To date, Japan and Korea had agreed to participate in the advisory committee. Other member economies interested in participating in the advisory committee were requested to inform Singapore. Phase I of the project would be reported to the DCSG at TEL24.

Virtual Environments for Manufacturing and Technology Project (VEMET) (Singapore)

Singapore briefed the meeting on the VEMAT project, which was intended to develop a cost effective methodology for utilising the Internet for sharing manufacturing equipment and resources, shortening manufacturing lead time, and training of manpower using virtual reality to free equipment for production.

Singapore informed the meeting that it would be seeking urgent funding from the 2001 budget for the VEMAT project at the BMC meeting 28-29 March 2001. The status of the project would be reported to DCSG at TEL24.

Survey, study and individual research:

☐ **Techno Economic Modeling (telwg23/dcsg/11 - Australia)**

The project aims to develop a framework to identify and analyze the social, economic and technical factors that influence the viability of telecommunications strategies and services.

Australia noted that the workshops of universal access (both fixed and wireless access) were rescheduled and held in Indonesia and Hong Kong, China in September and December 2000.

The final report will be finished in coming May and will be posted on the website to provide the TEL with recommendations for further work or development of the project as well as providing a valuable resource.

Research Cooperation

☐ **Active Partnerships for Internet Connectivity Project (telwg23/dcsg/06&07 - PECC)**

The Project will identify opportunities for both governments and the private sector to cooperate in implementing specific Internet-based programs with the aim to increasing the availability and efficiency of Internet access in developing APEC economies. The project identified eight target developing economies based on potential for the partnerships to have beneficial outcomes for the recipient economies through increased Internet connectivity.

The Project will maintain a database of Internet-based product, recipient government needs and sponsor interests that will form the basis for a partnership clearing house to identify, develop and support new partnerships. The final phase of the Project will involve the identification of new ways to reduce Internet access costs in developing APEC economies through market-based collaborations. PECC asked recipient economies to provide an indication of their needs and in-principle commitment from a number of private sector sponsors to be involved as founding partners in the project and an indication from those sponsors of the types of 'products' which best suit their community investment philosophy.

Mexico showed its interest in this project, and noted that in last December Mexico launched a similar system, and PECC asked Mexico to provide point of contact for this project. PECC can help Indonesia to get the partners for

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creating the Internet connectivity model that is relevant to Indonesia. To gain mutual benefit from the project, Indonesia suggested a true partnership where interested donors would listen to the needy economies. Japan is willing to give the information of Japan's testbed. Japan also noted that creating a model case by case for each economy is very difficult.

☐ **The Digital Divide Request for Information on Policies to Reduce the Digital Divide (telwg23/dcsg/ - USA)**

The USA reported that this activity includes the Digital Divide questionnaire and the workshop convened at TEL23 on the digital divide and skills shortage in the APEC region. Questionnaire responses have now arrived from Australia; Canada; China; Hong Kong, China; Indonesia; Korea; Singapore; Chinese Taipei; Thailand and USA. New Zealand noted it would soon submit a response. Presentations made at the workshop are also being posted on the APEC TEL23 website. The USA reported that, as many responses were just submitted at TEL23, they would conduct further analytical work on the responses between APEC TEL23 and 24. The DCSG deferred substantive discussion to Agenda Item 4 on Discussion Session on Draft Digital Divide Blueprint for Action.

☐ **Business Cooperation in Vender-Supplied IT Education, Training and Certification Programs and Projects (telwg23/hrdsg/04 - USA)**

USA noted that the progress report of this project has been submitted to the HRDSG under document No.4.

The manager of the Vender Training Project noted that an announcement and invitation to participate are now on the APII website. He thanked the Korean manager of the website for their cooperation in this. He noted that implementation had brought forth two major issues, the need for a searchable database and the need for a secretariat to manage and promote the project. To be effective, these functions must be performed by the same entity. He noted that an institution had offered to perform these functions and that final approvals for this were obtained. This would allow the project to remain self-funding.

The manager referred to the Leaders endorsement of the APEC Knowledge Network that is envisaged as a linking of significant APEC projects and activities in the HRD area. The Knowledge Network would allow entry into the network through various websites associated with individual elements of the Network. He asked, and the meeting agreed, to inclusion of the vender training program in this network with entry through the APEC TEL website.

As this is a continuing project, the Convenor noted that at some point it would be unnecessary to report on the project at each DCSG meeting.

Test bed service:

☐ **APII Test Bed Project (telwg23/dcsg/13 - Korea)**

Korea reported that seven tests are carried out on Korea-Japan Testbed Project and four tests are carried out on Singapore - Korea testbed. Korea and Japan are currently discussing on extending the Korea-Japan APII Test-bed operation period (Oct. 1997-March 2001) to March 2003. As a result of a survey for research projects, four additional ones are identified for Korea-Japan APII Test-bed and will be officially registered through agreement among researchers concerned. Out of the initial eleven Korea-Singapore APII Test-bed projects, ten experiments have been terminated and one project has been added.

Korea also reported the new linkage between U.S. and Korea will be connected in May. There is a plan to connect to China, which plan will be discussed this year. Information regarding Trans Information Network is also reported.

The test of this project also to connects to AIT, Thailand. The connection to other institutes in Thailand can be considered case by case.

☐ **APII Test Bed Project for Interconnectivity and Interoperability (telwg23/dcsg/17 - Japan)**

Japan reported that various international cooperative experiments have been conducted on the APII Testbed Network. Using submarine cables, 12 possible application experiments between Japan and Korea have been identified, and 9 possible application experiments between Japan and Singapore have been identified.

Using the satellite links of the APII Testbed, the Network Researching Team and Next Generation Internet Project of CRL are carrying out several international cooperative experiments in collaboration with the AI3 (Asian Internet Interconnection Initiatives) Project. The Indonesian partner of AI3 Project has accomplished many research results involving 26 or more Indonesian research institutions. Future research plans using the satellite links are also noted.

Korea and Japan are proposing to extend the project period for two more years. Japan expressed its appreciation to Korea for its cooperation in this project. Canada praised Japan for its achievement on this project, and further suggested that Japan inform HRDSG of the project for information sharing.

☐ **Advanced Satellite Test-Bed Project (Japan)**

Japan noted that it would report on the Advanced Satellite Test-bed Project at the next TEL meeting.

NEW PROJECTS

☐ **Optimal Topology of Testbeds (research networks) and Simplified Commercial Networks in APEC Region (telwg23/dcsg/14 - Korea)**

The project aims to collect data on networks (research networks and simplified commercial networks) of member economies and share the information among APEC members. By using the above collected data, the project will optimise the networks' topologies to build a normative and efficient network structure to contribute to the development of the Internet Infrastructure in the Asia Pacific region. All the collected data will be posted.

Korea stressed that the result will be big guidelines for the Asian network topologies including research network and simplified commercial networks. Korea also emphasized on the cooperation from the member economies in collecting data and continuing the project.

Korea welcomed Member Economies' participation in the project. The project was approved by the meeting, starting from January 2002 to March 2003 and seeking US$19,000 of APEC Central Fund.

☐ **IP-based WLL for Bridging Digital Divide in Rural Area (telwg23/dcsg/21 - Japan)**

Japan proposed a four-year (April 2001-March 2005) self-funded project. The project involves the development of Internet access networks that can be used for the people in rural or under-served areas to receive benefits from the various Internet-related services. At the previous meeting, KDDI presented the activity of ITU-D FG-7, which discusses a possible use of ISM band Wireless LAN as WLL in rural and under-served areas in the world. To make a sustainable solution, the management domains for Internet access should be divided into 2 domains: a commercial ISP domain and a volunteer's network designed for connectivity rather than speed. To reduce the construction and maintenance cost, the use of consumer wireless products (IEEE802.11,11b, and AX.25 for the ham radio) is preferred. Another consideration for sustainability of the networks is to use a single public Internet access (ISP) link shared among several volunteers' networks.

The project has been pending until TEL24.Japan agreed to follow the guidelines on APEC self-funded projects. PECC (Japan) will assist in identifying the time schedule, budget matter, and attendees from other economies for this project.

DISCUSSION SESSION

☐ **PECC-APEC DIALOGUE**

It was noted that in the APEC-PECC dialogue emphasis had been placed on the development of new programmes to address universal service obligations. While some dimensions of the USO agenda are related to the agenda of the LGS, it was noted that equally important are efforts to define innovative ways to address equity issues while fostering development programmes that will enable consumers to better help themselves. It was noted that the study of digital divide issues is related to the USO review initiated by the dialogue and that the DCSG had a role to play in furthering discussion on USO management. Also highlighted in the

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dialogue were the REAP programme endorsed by the ministers and the Active Partnerships for Internet Connectivity. Both of these programmes are directly related to the DCSG mandate and thus to be encouraged.

☐ **DCSG Activities in TEL Matrix**

Regarding the TEL Matrix (TEL23 Plenary Document #6), DCSG proposed input as follows:

1. Item 9 of General Objectives: ICAIS/IITG

    DCSG is unclear whether it will remain as "ICAIS" or as "Internet Issues".

    DCSG suggests include two task areas under Bullet #3 (Continue to discuss the international development of the Internet, including charging arrangements, noting the initial suggestions in the proposals made by the ICAIS Task Force.). The two task areas are as follows:

    „ Conduct research on technologies and connectivity

       o Current Projects/Activities:

         APII Test Bed Project (Korea), APII Test Bed Project for Interconnectivity and Interoperability (Japan).

    „ Encourage access to Internet development resources

       o Current Projects/Activities:

         Development and Financial Resources Catalogue (USA); Techno-Economic Modeling Project

Item 7 of General Objectives: Infrastructure Development

    DCSG suggests insert two task areas under Bullet #1 (Promote collaboration with the private sector to expand their participation in infrastructure investment to upgrade access to networks, especially in rural and under-served areas). The two task areas are as follows:

    „ Promote more efficient commercial & research network connection

       o Current Projects/Activities:

         Optimal Topology of Testbeds (research networks) and Simplified Commercial Networks in APEC region (Korea, DCSG).

    „ Information sharing on network status data

☐ **Draft Digital Divide Blueprint for Action**

Please refer to the Annex C "Draft Report to Plenary on Digital Divide".

☐ **Internet Issue (IITG)**

At TEL 23, the DCSG reviewed progress made since October 2000 on working themes and current/new projects in support of the TELMIN4 ministerial guidance on Internet development and ICAIS issues. The DCSG noted the two theme areas of general Internet development, and work on ICAIS, and agreed to try to keep these areas in balance. The group reaffirmed prior work areas identified at TEL 23, as follows with revisions, and added a new item from Japan:

1. Promote greater information sharing. The DCSG endorses additional seminars on ICAIS/IITG issues.

2. Promote greater international Internet Development.

3. Assess dynamic business conditions to promote greater public and private investment and increase awareness.

4. Assess trends in growth of available bandwidth within and between APEC economies.

5. Assess implications of ICAIS arrangements on Internet infrastructure development (cause and effect relationships).

6. Track growth of local traffic management techniques (including caching and mirroring).

7. Track high-speed bandwidth development within and between economies and to project needs.

8. Track the variety of cooperative arrangements and their impact on high-speed bandwidth development.

9. Provide empirical measurement data on breakthroughs based on next-generation Internet research, to seek out new applications and activities in the APEC region.

10. Continue with the following existing and new projects/activities:

    a. Optimal Topology of Test-beds: Research Networks and Simplified Commercial Networks in the APEC Region (Korea: endorsed by DCSG at TEL 23)

    b. APII Test Bed Project (Korea)

    c. APII Test Bed Project for Interconnectivity and Interoperability (Japan)

    d. Development and Financial Resources Catalogue Project (USA: to expand to include Internet resources)

    e. Techno-Economic Modeling Project (Australia)

Other Business

There was no other business raised at the meeting.

Summary of Actions and Recommendations

The project Optimal Topology of Testbeds (research networks) and Simplified Commercial Networks in APEC region was approved at the meeting, and will seek APEC Central fund for US$19,000.

Regarding the project IP-based WLL for Bridging Digital Divide in Rural Area, Japan will follow the guidelines on APEC self-funded projects, and submit the project proposal at the next TEL meeting.

The DCSG endorsed a workshop in conjunction with TEL24 to further address on the issue of Digital Divide.

6. **Closing**

The meeting was closed with the Convenor's appreciation to member economies' participation and the contribution.

List of Participants

Name	Economy	Email Address
Chutintorn Sam Gongsakdi	APEC Secretariat	cg@mail.apecsec.org.sg
Pippa Carron	Australia	pcarron@webone.com.au
Geoff Ewens	Australia	geoff.ewens@aitec.edu.au
Libby Quinn	Australia	Libby.quinn@noie.gov.au
Eric Tsang	Canada	eric.tsang@crc.ca
Qu Wenchu	China	ditto@cov.cn
Yan Ma	China	mayan@bupt.edu.cn
C S Li	Hong Kong, China	scs17@ofta.gov.hk
Setyanto Hantoro	Indonesia	hanto@risti.telkom.co.id
Mas Wigrantoro R.S.	Indonesia	maswig@cabi.net.id
Halim Sulasmono	Indonesia	Halim@risti.telkom.co.id
Shin-ichi Nakagawa	Japan	smakagaw@orl.go.jp
Christine Paik	Korea	jwpaik@kisdi.re.kr
Hyunjoo Yoon	Korea	Flankwings@hansung.ac.kr
Jae-whak Roh	Korea	Jwroh@hansung.ac.kr
Pablo Hinojosa	Mexico	hinojosa@cft.gob.mx
Andrew McCallun	New Zealand	andrew.mccallun@med.govt.nz
Frank March	New Zealand	frank.march@med.govt.nz
Kemn Saga	Asia University	Saga@asia-u.ac.jp
Kurnosou Ivan	Russia	informatic@ptti.gov.ru
Cheah Sin Liang	Singapore	cheah_sin_liang@ida.gov.sg
Sean Chu (Convenor)	Chinese Taipei	SeanC@dgt.gov.tw
Lee Shu-Yen	Chinese Taipei	sylee1@moea.gov.tw
Chen I-Jieh	Chinese Taipei	mandy@nii.org.tw
Ching-Fu Kuo	Chinese Taipei	cfkno@dgt.gov.tw
Wen-Cheng Tsai	Chinese Taipei	tsai@nii.gov.tw
May Lu	Chinese Taipei	mayl@dgt.gov.tw
Arnon Tubtiang (Deputy Convenor)	Thailand	Arnont@tot.or.th
Nipada Kheo-Urai	Thailand	apecdesk@mfa.go.th

Nopporn Srisuwannapop	Thailand	nopporns@tot.or.th
Suchada Somsoot	Thailand	suchadam@tot.or.th
Diane Steinour	USA	Dsteinour@ntia.doc.gov
Joe Richardson	USA	Richardsonjp@state.gov
Dao T.Nguyen	Vietnam	ntdao@dgpt.gov.vn
Nha, T. Quang	Vietnam	tmdtu@fpt.vn

DEVELOPMENT COOPERATION STEERING GROUP MEETING

Agenda

1. **OPENING**

   ☐ Opening remarks

   ☐ Review Agenda

2. **CURRENT PROJECT REPORTS**

   Information service and knowledge transfer:

   ☐ APII Cooperation Center (Korea) (telwg23/dcsg/15)

   ☐ APII Technology Center (Japan)

   ☐ Development and Financial Resources Catalogue (USA) (telwg23/dcsg/08)

   ☐ Spectrum Policy and Management Database (USA) (telwg23/dcsg/09)

   ☐ The Cross-country Smart Card-Based Secure Electronic Commerce Project (Singapore)

   ☐ Virtual Environments for Manufacturing and Technology Project (Singapore)

   Survey, study and individual research:

   ☐ The Techno Economic Modeling Project (Australia) (telwg23/dcsg/11)

   Research Cooperation:

   ☐ Active Partnerships for Internet Connectivity Project (PECC) (telwg23/dcsg/06 & 07)

   ☐ The "Digital Divide" Request for Information on Policies to Reduce the Digital Divide (USA) (telwg23/dcsg/22)

   ☐ Business Cooperation in Vendor-Supplied IT Education, Training and Certification Programs Projects (USA) (telwg23/hrdsg/04)

   Test Bed service:

   ☐ APII Test Bed Project (Korea) (telwg23/dcsg/13)

   ☐ APII Test Bed Project for Interconnectivity and Interoperability (Japan) (telwg23/dcsg/17 & 19)

1. **NEW PROJECTS**

   ☐ Optimal Topology of Testbeds (research networks) and Simplified Commercial Networks in APEC Region (Korea) (telwg23/dcsg/14)

   ☐ IP-based WLL for Bridging Digital Divide in Rural Area (Japan) (telwg23/dcsg/21)

2.   DISCUSSION SESSION

☐ PECC-APEC Dialogue

☐ DCSG activities in the TEL Matrix

☐ Draft Digital Divide Blueprint for Action

☐ Internet Issue (IITG)

3.   OTHER BUSINESS

☐

4.   SUMMARY OF ACTIONS AND RECOMMENDATIONS

☐

5.   CLOSING

Draft Report to Plenary on Digital Divide

Background

At the Fourth Meeting of APEC Ministers responsible for Telecommunications and Information Industry, Ministers directed the TEL to "continue to place emphasis on bridging the digital divide at the domestic, regional and international levels." They also emphasised the need to engage the business/private sector through co-operation and collaboration.

Specifically, Ministers encouraged joint initiatives aimed at

a. Improving network access, especially in underserved urban, rural and remote areas;

b. Assisting developing economies to reform their policy and regulatory structure to meet new environments;

c. Reinforcing and enhancing human resource development activities through various measures such as utilising distance learning technologies;

d. Promulgating knowledge and recognition of the digital divide by holding appropriate fora;

e. Monitoring the fair and sustainable development of the Internet in the APEC region as an integral part of the Asia-Pacific Information Infrastructure (APII); and

f. Pursuing explanatory work to define concepts, to measure the extent of domestic, regional and international digital divides, and to assess economic and cultural reasons for divides with a view to develop technology neutral, pragmatic approaches to encourage greater access.

At APEC TEL22, a draft of Digital Divide Blueprint of Action[1] has been circulated by Chair and discussed in Plenary. The outcome was the Development Co-operation Steering Group will be the main instigator of projects associated with the Digital Divide, with the Deputy Convenor of that group, currently Dr. Amon Tubtiang, having a watching brief over related activities in other Steering Groups. He may also become the Digital Divide contact person for the APEC TEL. Digital Divide's first task was to organize an information workshop to take place at TEL23.

Digital Divide/Skills Shortage Workshop on Monday 12 March 2001 and Digital Divide Discussion on Thursday 15 March 2001

The Committee reviewed the Draft Digital Divide Blueprint for Action and in this context the results of the Digital Divide/Skills Shortage (DD/SS) Workshop and the request for information on policies to reduce the digital divide. The Chair of the

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[1] Several parts of this report are excerpted from the draft Digital Divide Blueprint of Action.

DD/SS workshop presented a summary of the findings of the workshop (attached as Annex 1) . There was general agreement as to the importance of these issues, and that the policy framework was now well understood. There was agreement as to the need to report findings on policy to the May SOM and through the SOM to the APEC Leaders. There was also agreement on the need to continue progress in looking at specific programs and approaches to addressing the divide.

For its future work, the DCSG agreed to prepare a report of the policy findings from the DD/SS workshop and through the request for information on policies to reduce the digital divide. This report will be prepared as a matter of urgency with final agreement being through obtained through virtual means. The US will lead an open-ended drafting group that includes the Deputy Convenor Dr. Amon Tubtiang. Representatives from Canada, China, and Japan expressed interest in participating. The drafting group will seek to complete the report in time for the Second SOM (May 26) but not later than the Third SOM of 2001. A tentative detail workplan is shown in Annex 3.

The DCSG noted the importance of further exchange of experience and analysis of specific projects and programs being employed to address the digital divide and skills shortage in member economies. To this end, the group proposes to hold a workshop at TEL 24 to address these matters.

To assist in future work of Digital Divide, an internal matrix of APEC TEL Digital Divide Activities and an external stock-take of activities underway in other fora are attached to this document (Annex 2).

The listings provided are merely a snapshot of activities underway in some of the major fora.

Key common themes between all the groups, including APEC TEL include the belief that through ICT economic benefits can flow, provision of basic access, human resource development and a requirement to link in or liaise with the other groups on these matters.

Digital Divide/Skills Shortage Workshop

Chair's Summary

The Workshop on Digital Divide and Skills Shortage met at APEC TEL 23 March 12, 2001.

Twelve speakers from government, the private sector, academia and international organizations addressed issues of the digital divide and skills shortages from the international, regional and individual economy levels. The discussion took place in the context of the APEC Leaders (Brunei 2000) recognition that "the revolution in information and communication technology is dramatically boosting the development of a global economy;" their vision "to prepare each of our economies and all of our people to use the technology revolution as a passport to the fruits of globalization;" and their commitment "to develop and implement a policy framework which will enable the people of urban, provincial and rural communities in every economy to have individual or community-based access to information and services offered via the Internet by 2010." As a first step in achieving that goal, Leaders committed to tripling the number of people within the region with Internet access by 2005. In this regard, Leaders recognized the need for "massive infrastructure development and human capacity building" and the requirement for "outward-looking and market oriented policies which can attract business investment and the cooperation and skills of our universities, training and research institutions, colleges and schools."

The workshop concurred on the importance of access to the Internet and other electronic communications media to the future of all APEC economies. Competition and liberalization were shown to be essential policies to lower the price of access and stimulate supply of products and services to fit a variety of needs. Low prices were also shown to increase Internet uptake by consumers.

An overall positive economic environment was highlighted as essential to the expansion and build-out of the infrastructure to support the Internet. The economic and social environment generally is an important factor in the ability of an economy to develop and retain skilled workers. The increasing use of the Internet for economic and social purposes, as well as new applications (3g/advanced wireless systems, digital TV, IP telephony, next generation internet, etc.) mean there is a public policy imperative in all economies to ensure Internet access for all.

The level of access to the Internet varies among populations at the international, regional, economy and local levels. Income, education, age, gender, disability and rural/urban location are among the factors that determine level of access by economies and elements within an economy. It is important to develop base line measurements to identify the nature and extent of the divides and to allow future evaluation of policy and program approaches.

In looking at programs to address the divides, it is important to maintain a commercial focus and provide applications that will create and expand the demand for services among the target group. Government has an important role to play in this demand creation by bringing government programs and services on line.

Availability of skilled workers is a major concern for all economies. It is difficult to predict future needs. The current skills shortage affects all segments of the economy. The portability of skills has led to retention problems, upward pressure on salaries and movement, including global movement, of workers. Education and training is a major preoccupation of governments and companies, and a life-long requirement for workers. There is no single solution to this problem. The solution will require industry to be a partner.

Characteristics of successful policies to respond to the digital divide and skills shortage were shown to include:

- [ ] Leadership – often at economy level but also including local and regional initiative to create a vision and institutions/structures to address the issues.

- [ ] Partnerships – including among business, education and social institutions and government

- [ ] Policy coherence – to ensure that all policies are working together

- [ ] Market focus – among others, to develop demand that can justify investment required.

- [ ] Sustainability – to ensure continuation of the services.

There was considerable interest expressed in the sharing of experience in policy responses and on actual programs being employed. To facilitate this exchange, members were encouraged to complete the Digital Divide questionnaire.

Matrix of TEL Activities
(currently under way or proposed)[2]

TELMIN 4 Initiative	Project(s)	Steering Group/ Economy
Engaging the Private sector	Active partnerships for internet Access Program	DCSG – PECC
	Vendor Training Programme	HRDSG – USA
Improving network access, especially in underserved urban, rural and remote areas;	Workshop on Wireless issues to take place at TEL23	LSG – USA
Assisting developing economies to reform their policy and regulatory structure to meet new environments	Regulatory Structures Project	LSG – Australia
Reinforcing and enhancing human resource development activities through various measures such as utilising distance learning technologies	Utilising E-Learning to Bridge the Digital Divide: Public/Private Partnership Efforts in Education	HRDSG Singapore
	APII Technology Centre - satellite	DCSG - Japan

The issues paper, "To Make the Asia Pacific Information Society A Reality by the Year 2001" which was presented to the SOM III in 1997, was noted by Leaders but never officially adopted. Some of the activities included in that paper (and listed below) have been included in the TEL Task Lists presented to TELMIN 3 and 4 and related to the Digital Divide. However, as the paper is not an official APEC document and as there are no projects underway in the TEL specifically aligned with the paper, I have not included them in this matrix.

The Digital Divide related activities are:
□ To achieve full interconnection of 100% of universities in member economies with the APII beginning with the Internet as the preliminary realisation of the Distance Learning Network for APEC.
□ To encourage the connection to the APII (Beginning with the Internet) of public institutions such as hospitals, museums, galleries and libraries, and specifically to maximise the number of hospitals connected.

	links	
	Telecommunication Training Programme	HRDSG
	Development and Financial Resources Catalogue	DCSG - USA
	Distance Learning Pilot Project	HRDSG - Canada
	Distance Learning Strategic Needs Analysis Project	HRDSG - Canada
	Distance Learning Project Based on Basic Telecommunications Technology	HRDSG - Korea
	IT & T manpower shortages seminar at TEL 23	HRDSG - Hong Kong, China
Promulgating knowledge and recognition of the digital divide by holding appropriate for a	Workshop on Digital Divide/Skills Shortage in conjunction with TEL 23	DCSG
	Wireless Workshop in conjunction with TEL 23	LSG
Monitoring the fair and sustainable development of the Internet in the APEC region as an integral part of the Asia-Pacific Information Infrastructure (APII)	Future work on the Internet development as discussed at TEL 22 and the formation of a co-ordinating group which will report to Plenary	All Steering Groups will be responsible for various aspects of internet development as set out in the Chair's paper
Pursuing explanatory work to define concepts, to measure the extent of domestic, regional and international digital divides, and to assess economic and cultural reasons for divides with a view to develop technology neutral, pragmatic approaches to encourage greater access	Request for information on Policies to reduce the Digital Divide	DCSG – USA
	Study of user requirements for the integration of e-commerce systems in the APEC region	BFSG - Australia

External Stocktake

1. APEC - other fora

Human Resource Development Working Group (HRDWG):

Symposium on IT enablement for Trainers in the New Millennium

Skills Shortages Training Needs - HRD Strategies of Multinational Enterprises

Transportation Working Group (TPTWG)

"Role of New Technologies and Inter-modal Transportation Management in Facilitating Asia-Pacific Trade" Symposium for 2Q 2001.

Industry Science and Technology Working Group (ISTWG)

APEC Centre for Technology Foresight

APEC Virtual Centre for Environmental Technology Exchange

Electronic Commerce Steering Group

It is interesting to note that the first paragraph of the Electronic Commerce Blueprint for Action begins with

"Recognising the enormous potential of electronic commerce to expand business opportunities, reduce costs, increase efficiency, improve the quality of life, and facilitate the greater participation of small business in global commerce; "

In the report of the last meeting, held in Bangkok in July 2000, the "Co-Chair identified several broad substantive areas where the ECSG should focus its efforts:

> working toward a seamless environment for e-commerce

> human skills and resources, including assessing needs and capabilities, and

> completing the readiness assessment"

To achieve these goals would go someway to address the fundamental issues.

APEC Senior Officials (SOM)

In September, Chinese Taipei submitted a paper for consideration by Senior Officials at their third meeting (SOM III) entitled "Transforming the Digital Divide into a Digital Opportunity" in which they proposed several projects to address the Digital Divide in APEC.

The projects proposed include tailor-made training/consulting programs and experience sharing of best practices of e-commerce among member economies. Chinese Taipei have proposed that the projects commence in 2001 and that funding be sought from the TILF Fund, private sector sponsorship and individual economy sponsorship.

Economic Leaders' Statements

The following initiatives were included in the year 2000 APEC Economic Leaders' statement, "Delivering to the Community":

"We commit to develop and implement a policy framework which will enable the people of urban, provincial and rural communities in every economy to have individual or community-based access to information and services offered via the internet by 2010. As a first step toward this goal we aim to triple the number of people within the region with individual and community-based access by 2005.

2. Other International Fora

Organisation for Economic Co-operation and Development (OECD)

The OECD is increasingly involved in the policy debate on information and communication technologies (ICTs) and infrastructures, electronic commerce and the Internet, as well as their development, applications and impacts.

The Committee for Information, Computer and Communications Policy addresses issues arising from the new "digital economy", the development of the global information infrastructure and the evolution towards a global information society.

Up-coming events include a workshop organised by the OECD's Science Technology and Industry committee on "The Digital Divide: Enhancing Access to Information Communications Technology", to be held on 7 December 2000.

Asia Pacific Telecommunity (APT)

At the Asia Pacific Summit on the Information Society, held in Tokyo Japan from 31 October to 2 November 2000, Ministers emphasised the Digital Divide in the Tokyo Declaration. They also declared to '...enable people in the Asia-Pacific region to have access to the Internet by the year 2005 to the extent possible, including access from public facilities such as schools and post offices.'

Attached to the Tokyo Declaration is the Action Plan for the Asia Pacific Renaissance through ICT, which includes a number of Digital Divide initiatives, including

Promotion of ICT access points;

Pilot projects that help to enhance ICT literacy and toto diffuse electronic commerce in rural areas;

Promotion of the development ICT equipment designed for minority groups; and

Establishing co-operation with the activities of other international bodies in bridging the digital divide, including encouraging private sector participation.

International Telecommunications Union (ITU)

In 2003 the ITU will hold a World Summit on the Information Society with the broad themes proposed being:

Building the infrastructure:

☐ the role of telecommunications, investment and technology in creating the information society infrastructure and bridging the "Digital Divide"

Opening the gates

☐ universal and equitable access to the information society

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☐ meeting the needs of the developing world

Services and applications

☐ the implications of the information society for economic, social and cultural development

The needs of users

☐ consumer protection, privacy and security

☐ relevant content reflecting cultural diversity and the right to communicate

Developing a framework

☐ the role of governments, the private sector and civil society in shaping the information society

ASEM

The Chairman's Statement from the third Asia-Europe Meeting, held in Seoul Korea from 20 to 21 October 2000, endorsed initiative to address the digital divide. In the Initiative, put forward by Korea, Leaders agreed to address work in the following areas:

Human resource development

Continuous education and technology training,

Provision in both rural and urban centres of high-speed computers with Internet connections

Establishment of public computer access points; and

Contributing to existing national, regional and international efforts to bridge the digital gap

G8

The Leaders of the eight major industrialised democracies met in Kyushu and Okinawa Japan in July 2000. In their communiqué, they addressed the digital divide by recognising

"that the process of globalisation and the fast pace at which IT is advancing have engendered various concerns. We need to address such concerns so that we can contribute to greater peace of mind for all. Acting in concert, we will maximise the benefits of IT and ensure that they are spread to those at present with limited access

"In support of these goals, we commit ourselves to pursuing the aims and ambitions set out in the Okinawa Charter on the Global Information Society. We will set up a Digital Opportunities Task Force (dot force), which will be asked to report to our next meeting its findings and recommendations on global action to bridge the international information and knowledge divide."

A key component of the G8 strategy is to continue to achieve universal and affordable access to communications services. This can be achieved through fostering market

conditions that are conducive to this goal, exploration of other complementary means, giving priority to improving network access, paying attention to the needs and constrains of the socially under privileged and encouraging development of new, 'user friendly' technologies.

Associated with this was an aid package from Japan for $US15 billion to fund activities that will address the digital divide.

ASEAN

At their summit in Manila in 1999, Leaders of ASEAN established the e-ASEAN Task Force to focus on encouraging and facilitating the growth of e-commerce and include prescriptive measures to narrow the digital divide within the region.

The Task Force will also work to establish and ASEAN Information Infrastructure (AII) in an effort to localize Internet traffic within the region to encourage the growth of indigenous content and services. The Task Force has also formulated plans to accelerate the development of e-commerce across the region and identified key factors, such as cyber laws, secure messaging infrastructure, payment gateways, and on-line services and products for regional development.

UNESCO

The UNESCO Development of Communications Programme involves providing communities living in disadvantaged rural and urban areas with the means to participate in development.

The General Information programme of UNESCO concentrates on the 'content' aspects of the Information Society, including information access, training and ethical issues.

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DIGITAL DIVIDE WORKPLAN

Month	Activity/decision
October 2000	Draft Digital Divide Blueprint of Action has been discussed in TEL22 DCSG has got mandate to take a leading role of Digital Divide matters in TEL.
March 2001	**TEL 23:** Half-day workshop on Digital Divide/Skills Shortage, followed by meeting of DCSG. Report from workshop and on work being done in Steering Groups made to Plenary. A Drafting Committee to be established to report findings on policy and on the need to continue progress in looking at specific programs and approaches to addressing the divide to the May SOM and through the SOM to the APEC Leaders and TELMIN5. This committee will work by virtual means.
April	On going work of Drafting Committee.
May	Possible report to SOM.
June	On going work of Drafting Committee.
July	Preparation for second workshop to be held in conjunction with TEL 24 – theme, speakers, etc, to begin
August	
September	**TEL 24:** Workshop/DCSG meeting to be held prior to TEL 24 (Korea). Report to TEL on work done to date in Steering Groups.
October	On going work of Drafting Committee.
November	**Possible report to Leaders**
December	On going work of Drafting Committee.
January 2002	Preparations for possible third workshop and DCSG. Preliminary

	draft report to Ministers to be circulated to TEL Points of Contact prior to TEL 25.
February	
March	**TEL 25:** Draft report to Ministers to be presented to the TEL for approval
April	
May	**Possible Report to TELMIN 5 (China)**
June	

(plen/36)

Human Resource Development Steering Group

Report to Plenary, TEL 23

I. OPENING REMARKS

At the start of the HRDSG meeting held on March 15 at the Rydges Hotel, Canberra, Australia, the Convenor welcomed participants and encouraged them to use the opportunity of the HRDSG meeting for collegiate guidance and discussion of its various reported activities.

II ADOPTION OF THE AGENDA   [Annex 1]

1. Review and approval of the Agenda

The agenda was adopted with the following changes: i) Critical Information Protection Awareness Raising and Education Requirements Project Report and Proposal be discussed at Agenda item 5: New Project Activity and Future Workshops, ii) Australia moved that Telecentre Demonstration Workshop and Best Practices to Promote Digital Equity in Rural in Areas Report also be discussed at Agenda item 3. The meeting approved the new and the aforementioned changes in the agenda.

III STATUS REPORTS

The Convenor spoke to the various reports that the meeting would be considering and emphasized aspects of their interest and importance to delegates.

2. Project Reports

2.1 Distance Learning Strategic Needs Analysis Project: Canada

Canada told the meeting that the first phase of this project includes a questionnaire that is being circulated at TEL 23. Delegates will also receive an email and the opportunity to complete the questionnaire online. Points of contact will also be asked to pass the questionnaire on to appropriate private sector parties. A full report will be presented to the HRDSG at the September meeting.

Canada requested the cooperation of the meeting in responding to the request for completion of the questionnaires distributed to delegates for this project.

Questionnaires must be submitted by COB Friday 16 March. Delivery of analyzed results is expected by September in time for the next TEL meeting at which time will be set aside for their discussion.

2.2 E-Commerce Skills Standard Project: AUSTRALIA   [telwg23/hrdsg/03]

This project, with participation from Thailand, Philippines, China, Indonesia, Thailand and other interested economies, aims to provide a framework and benchmarks to

facilitate the uptake of electronic commerce. This project is self funded by Australia (AUSAID). Australia detailed the timing of the phases being undertaken for the project. Little slippage in this timetable (April 2001 – May 2002) is expected as the project is due to go ahead as soon as the contract is signed which is expected by the end of the week. The first component of the project, namely the identification with the assistance of participating economies, the features and parameters of current training delivery in E-commerce and any benchmarks in use was the subject of some discussion. The further details in component and procedures of the project will be distributed to member economies through Point of Contacts.

2.3 MRA Training Design Project: CANADA and AUSTRALIA

Canada reported on the MRA-HRD Training Design Project. A survey of economies involved in the MRA was conducted during this TEL. The results will be used to customize MRA training. This training will include a "roadmap" on how to implement the MRA, individual training modules based on the roadmap, and a number of training sessions targeting economies about to implement Phase I of the MRA.

The complete project output is expected by May 2001. There has been a good response to the survey from member economies.

2.4 APEC TEL Interconnection Training Project: AUSTRALIA
[telwg23/hrdsg/02]

Australia spoke to this project which will assist APEC member economies to develop effective interconnection arrangements to support competition in the telecommunications services market by delivering education and training directed at senior regulatory managers in government agencies, existing business supplying telecommunications services and new market entrants.

Timing is expected to as follows: engagement of a facilitator by no later than the end of May 2001; the creation of a website by June 2001; the development of a training course during June or July 2001; and the presentation of a final report to the Project Overseeing Committee and APEC Secretariat by November 2001.

Thailand requested clarification on funding for the project. Australia confirmed that it is to be funded from TILF. Thailand requested further information on the nature of the training course. Australia informed the meeting that training will be determined by the results of the Interconnection Resources Project. The final report of the consultants employed under the Interconnection Resources Project is to address training requirements. Thailand further asked for clarification of whether proposals for budget approval should have draft content. Australia will seek an answer.

2.5 ITU Centre of Excellence Project for Asia and Pacific (CoE): ITU-D
[telwg23/hrdsg/14]

On behalf of ITU CoE, Thailand reported to this project. Since the TEL22. there has been progress with three activities highlighted. First, workshops looking at the

business implications of Convergence hosted by the Philippines on Oct. 2000, secondly a strategic network planning workshop hosted by Thailand on Oct. 2000 and finally a skill shortage seminar in Hong Kong, China on Dec. 2000. Detailed information was shown in [telwg23/hrdsg/14]. The website is welcomed to all member economies at http://www.itu2.or.th .

The Convenor commended the website to delegates.

Besides, ITU also got support from three organizations: OFTA, IDA and GetIT Multimedia from Singapore and EduPACT-PECC/TIFF(detailed information shown in hrd14).

For future plans there is a collaboration with Telecom Research Project in Hong Kong or provide access and disseminate state of art information on research projects that relating to technology and legal trends on policy, economics and regulation issues and also with other organization such as APT, ABU and PADMEN.

Besides, there will be a one country project on Policy and regulation course. The course is being developed in cooperation with Thailand. It is planned to start on 23-27 April 2000 in Bangkok with a one week workshop . It is planned to follow this training in Philippines and PNG after the project in Thailand. ITU ASP CoE funding has already been allocated for these programmes and also additional funding is being sought to enable the training to be extended more widely in Asia Pacific region. Canada commented integration of some ITU activities that there should be better with existing APEC TEL HRDSG projects and initiatives.

2.6 Progress Report on APEC TEL Gender Issues: Canada/Philippines
[telwg23/hrdsg/12]

Canada reported this subject and a gender integration plan for the TEL WG is being developed. Every APEC economy has an interest in this issue. Input has been received from Australia, Chile, and Mexico. A detailed draft job description has been drafted for the 'gender focal point'. The position will be divided between two office holders, one male and one female. They will have the authority to delegate tasks and will bring a useful dual perspective to the task of gender analysis of the TEL's work.

2.7 Distance Learning Project on Basic Telecommunications Technology: Korea
[telwg23/hrdsg/05]

Korea reported on this project that is intended to reduce the digital divide among APEC economies. Two courses were offered, Telecommunications Network and Transmission Technology from October 1 to December 31, 2000. The learning materials included basic Internet Technology, Satellite Technology, WLL (Wireless Local Loop) Technology, Mobile Exchange, ISDN Network and Services, Data Communication, ATM, WDM and Optical Technology.

The level of satisfaction of more than 1,100 participants reported was very favourable. It was also reported that participants preferred the Telecommunications course. The final assessment of this project among the HRDSG was good and thus further distance learning programs should be developed to reach more people and do more to reduce the digital divide. It was suggested that APEC TEL maintain this program and recommended that advanced technology programs be continued.

Australia asked about outcomes of the program and Canada raised concerns about bandwidth problems and speed of connections. Korea answered that the result of the evaluation survey about this project is available in the final report.

2.8 HRD/HRM Resource Sharing Program by Construction of the HRD/HRM Database: KOREA & PHILIPPINES

Korea will review this project along with the Philippines and will make a final report to close this by the next TEL meeting.

2.9 Vender Training Project: USA   [telwg23/hrdsg/04]

USA made a report on this project and noted that Leaders and Ministers have emphasized the importance of the development of skills and training so that all peoples of the APEC economies can participate in the benefits of the global economy. The Vender training project seeks to develop a TEL website that will facilitate the dissemination of education and training programs in the APEC region. Obstacles to progress are the requirement to develop a searchable database and the necessity to provide a secretariat.

Knowledge Network – a program endorsed by the leaders – attempts to link all activities that deal with knowledge within APEC. The USA distributed a document – "GBDe – Global Business Dialogue on E-Commerce" [telwg23/hrdsg/13].

The Convenor asked what languages would be appropriate for this project and USA replied the application on the website indicates which languages the curriculum is available in. The USA thanked PECC for volunteering to act as secretariat for the group.

Canada asked for the website address (www.apectelwg.org) and Hong Kong (China) comments that www.trp.hku.hk is developing materials in a localized context.

2.10 Telecommunication Tariffs Regulation Training: Indonesia

Indonesia reported that this work is being undertaken in conjunction with Australia. Further discussion of this issue is at Agenda item 5.1

2.11 Pacific Alliance for the use of IT in Education (EduPACT)

PECC made a report on this project - the Pacific Alliance for the Use of Information Technology in Education (EduPACT). This is an open directory project to create a meta 'directory of directories' that will assist in linking education demand to suppliers. No specific action from HRDSG necessary.

Hong Kong (China) commented on parallels between EduPACT and efforts in that member economy and the Convenor spoke of the connections between PECC and APEC TEL.

IV. Information Items

3. Information items

3.1 Progress Report on Personnel Exchange Program: Korea

This is a self-sponsored, self funded program by Korea to help to bridge the IT gap behind developed and developing economies. Korea asked to change the program's name as 'Human Resource Development Program' [telwg23/hrdsg/11] to reflect the real goal and scope of this project. Korea has a major report of three HRD programs, "International Telecom Training Program", APT Training and Study Visit Program" and "Fellowship Program for Next Generation Telecom Leaders in China". The major progress since the last report to the TEL has been the running of a program called the "International Telecom IT Training Program for Cambodians". Korea also indicted that it will continue to keep this program this year as well.

3.2 IT Security Ethics and training Material: US

This agenda will be covered in the agenda item 5.3.

3.3 Human Capacity Building Initiative of the SOM: Ruth Edwards, Assistant to TEL Chair

Assistant to TEL Chair reported on events from the last APEC SOM in Beijing. It was reported to the HRDSG over 60% HRD work in APEC is done outside the HRD working group. The HRDSG agreed that the idea of organizing the coordination group is necessary to look at the strategy. Canada thanked Ruth for representing the TEL.

3.4 Proposed Gender Integration Plan: Canada   [telwg23/hrdsg/12]

This information item concerns a practical action plan to advance gender equality objectives and practices within existing and future TEL activities and projects. The plan is especially concerned to encourage women to stay within the industry.

USA and Australia commented that they support the proposal and HRDSG endorsed the plan and will make a report to the plenary for final approval.

V. Discussion of Issues Raised for HRDSG with other Steering Groups

4.1 Digital Divide & Skills Shortage Workshop
The Convenor discussed the policy antecedents of this workshop and described the workshop as fruitful and useful.

Hong Kong (China) agreed that the workshop was useful and will be posting information to its web page and may include a discussion area to arouse greater interest from around the world.

4.2 Internet Issues Workshop (and TEL Chair's Task List)
The Chair of the TEL urged all steering groups to pay attention to the activities of this newly named Internet Issue Task Group (IITG). Although there are no specific training programs with links to IITG it is providing basic communications technologies.
- USA commented that it is obvious that larger responsibilities contribute to the bridging of the digital divide. This link should be better understood by others, and reported to the TEL Plenary.

The Convenor commented that we have strong responsibilities to promote knowledge transfers within member economies.

4.3 Wireless Workshop
The Convenor made a brief report and the HRDSG supports the workshop.

4.4 Gender Criteria Project Guidelines Workshop
Canada again spoke to this topic, after the progress report earlier in the agenda. Canada reiterated that the purpose of the workshop was to give people tools to assess the gender criteria inputs and that there is a need for technical support to know how to apply the gender criteria.

4.5 E Government Workshop
The Convenor remarked on the very good presentation from Hong Kong (China) and Singapore and noted that security issues, and the transmission of sensitive information over borders, will have to be under control of various specified protocols. Security workshops have been conducted for this purpose.

VI. New Project Activity and Future Workshops

5. New Project activity and future Workshops

5.1 Telecommunications Tariff Regulation Training
At the last APEC TEL meeting in Bali, Australia foreshadowed that
Telecommunication Tariffs Regulation Training: Indonesia project (Agenda item 2.10)

funding would be met under the Australia AUSAID linkages program however this did not eventuate. It is envisaged that Interconnection Resources Project will identify tariffs regulation as a training need to be addressed in Interconnection Training Project. If this project does not fully address the need, Australia will propose an addition APEC funded project to meet this and other economies' need not met by the interconnection training course.

5.2 APEC Distance Learning Project on Telecommunications Technology: Korea [telwg23/hrdsg/07]

Korea told the HRDSG delegation that many valuable responses had been received from participants from the last project under the same name that intended to help toward balanced development of APEC infrastructures.

Korea also made a point that this kind of project is needed to share experience of IT development through distance learning among APEC member economies, considering many participants from APEC member economies. Korea wants to continue this program to make most of the contents of courses it has developed for the last year project. Unless this project is continued, Korea pointed out that, the initial investment by the APEC fund and Korea will be wasted. Therefore, it asked for the consideration to continue project by Korean and APEC funding to achieve goal of reducing digital gap among member economy.

Canada and USA stressed the importance of the pace of revision of the earlier courses and contents of new courses Korea intends to develop if he gets APEC funding.
Australia, Canada, and Thailand recognized the good response and collaboration towards the last year project and supported this proposal to be adopted in the HRDSG.
The HRDSSG approved to submit this proposal to the Plenary for the continuation of the project with APEC fund and Korean money.

5.3 Information Protection Awareness Raising & Education Requirements: USA [telwg/hrdsg/06&08]

This is a self funded project by the member economy that seeks to address lack of awareness of IT security issues through a process of increased education. It is intended to make available educational modules relevant for use in programs from high school to post-graduate levels. These modules will encourage students to use information technology in a socially responsible manner.
Dr Corey D. Schou of Idaho State University spoke to the proposal and announced details of a forthcoming Washington DC conference on the issues.

Australia, Canada and Korea strongly endorsed the project.

The Convenor requested a webpage be constructed drawing together all URLs for educational coursework.

VII. Other Business

1. Australia run a successful PKI demonstration all this week for education and evaluation.

2. Hong Kong (China) stated the promising future from wired to wireless communication, urge economies to seriously consider possible wireless and mobile training courses in the professions.

3. The Convenor repeated the call of The Chair of the TEL, urging all steering groups to pay attention to the Internet related issues which Internet Issue Task Group (IITG) will be specially in charge of. HRDSG noticed that although there are no specific training programs with links directly to IITG, many current projects in HRDSG have already in a way or other related with Internet related issues, such as E-Commerce Skills Standards training program, Critical Information Protection Awareness Raising and Education, Basic Communications Technologies Training programs.

   HRDSG will fully cooperate with other Steering Groups to investigate the training needs for Internet related issues, promote the Internet technology training projects and support other Internet related activities.

   The Convenor commented that HRDSG has strong responsibilities to promote knowledge transfers within member economies.

VIII. HRD Report to the TEL: Summary of Priorities and Recommendation

The HRDSG discussed the agenda items and proposed projects in the meeting and decided to make a following recommendation to the Plenary.

1. APEC Distance Learning Project on Telecommunications Technology was approved and to be submitted to the Plenary for the APEC fund. If necessary, co-sponsor of this project to be considered.
2. More cooperative workshops for the Internet, HRD, and other activities should be considered to be proposed in due course till the next APEC TEL meeting.

AGENDA FOR

HUMAN RESOURCE DEVELOPMENT STEERING GROUP MEETING
15 March 2001

1. Review and approval of the Agenda

2. Project Reports:

2.1. Distance Learning Strategic Needs Analysis Project : CANADA

2.2. E-Commerce Skills Standards Project: AUSTRALIA

2.3. MRA Training Design Project: Canada and AUSTRALIA

2.4. APEC TEL Interconnection Training Project: AUSTRALIA

2.5. ITU Centre of Excellence (CoE) Project for Asia and Pacific: ITU-D

2.6. Progress Report on APEC TEL Gender Issues: Canada/Philippines

2.7. Distance Learning Project on Basic Telecommunications Technology: Korea

2.8. HRD/HRM Resource Sharing Program by Construction of the HRD/HRM Database: KOREA & PHILIPPINES

2.9. Vendor Training Project: USA

2.10. Telecommunication Tariffs Regulation Training: Indonesia

2.11. Pacific Alliance for the use of IT in Education (EduPACT): PECC

3. Information Items

3.1. Progress Report on Personnel Exchange Program: Korea/Thailand

3.2. IT Security Ethics and Training Material: United States

3.3. Human Capacity Building Initiative of the SOM: Ruth Edwards, Assistant to TEL Chair

3.4. Proposed Gender Integration Plan: Canada

4. Discussion of Issues Raised for HRDSG with other Steering Groups

4.1. Digital Divide & Skills Shortage Workshop

4.2. Internet Issues Workshop (and TEL Chair's Task List)

4.3. Wireless Workshop

4.4. Gender Criteria Project Guidelines Workshop

4.5. E-government Workshop

5. New Project Activity and Future Workshops

5.1. Australia - Indonesia Government Sector Linkages Program

5.2. APEC Distance Learning Project on Basic Telecommunications Technology: Korea

5.3. Critical Information Protection Awareness Raising and Education Requirements: US

6. Other Business
7. HRD Report to the TEL – Summary of Priorities and Recommendations

Registered Participants List for the HRDSG Activity

Total: 71	Economies: 17	Guest: 1
Delegation	Name	

Delegation	Name
Australia	Paddy Costanzo
	Liz Williams
	Leo van Neuren
	Sue Butler
	Karen Dunwoodie
	Richard Falkland
	Rob Mackay-Sim
	Bob Howie
	Angela Murray
	Geoff Ewens
	Alex Gosman
	James Galloway
	Yvonne Rodgers
Brunei Darussalam	Pengiran Osman
	David Parsons
Canada	Vicki Schouten
	Eric Tsang
	Timothy Denton
	Jack Treuhaft
	Andy Kwan
	Dana Peebles
	Kathy Fisher
Chile	Daniel Urbina
China	Wenchu Qu
	Benji Sun
	Ziping Liu
	Yan Ma
	Jianbo Wei
	Xiao Yao
	Hongzhou Shi
	Xu Wang
Chinese Taipei	His-Lan Hsu
	W.J.Chen
HK, China	John Ure
	Phillip Tsang
	W.K.Leung
	T.Oswald Siu
Indonesia	Jenner Yusman

	Sri Rahayu
Japan	Kenji Tanaka
	Yutaka Saida
Malaysia	Anbalagan Kannan
Paua New Guinea	Joe Kim
	Kila Gulo-Vui
Peru	Paul Phumpiu
Republic of Korea	Yong-Soek Lee
	Chul-Joong Jumg
	Inuk Chung
	Byung-Dug Oh
	Gil-Young Lee
	Christine Paik
Singapore	Ruth Edwards
Thailand	Nopada Kheo-Urai
	Sudaporn Vimolseth
	Hataitip Chairojkanjana
	Thawatchai Sophastienphone
	Apachnee Tuchinda
USA	Joseph Richardson
	Walda Roseman
	Mark LeBlanc
	Brooke Holmes
	Corey Schou
	Susan D.Leibbrandt
Vietnam	Pham Van Dzung
	P. Tam
	T.C. Thanh
	Ng.Th.H. Thuy
	T.Q. Nha
	Ng.T. Dao
PECC	Janet Pearce Stenzel
	Prof. SAGA

Liberalisation Steering Group
Report to Plenary, TEL 23

1. The Convenor, Jack Deasy of the United States, welcomed the participants.

2. The agenda was reviewed and adopted (annex A). The LSG documents were identified.

Australia noted that the LSG had a broad agenda and proposed a review of priorities in its report to plenary. It was agreed to do so at the conclusion of the agenda.

3. Convergence. Indonesia, overseer of the former Convergence Task Force, thanked respondents to the convergence questionnaire and noted that the results, as well as the overall function of the Task Force, had been handed over to the Regulatory Structures Project and to the Regulatory Roundtable activities at APEC TEL 22. Indonesia noted that Convergence, while no longer a formal task force, is really a topic underlying all the work of APEC TEL.

4. Regulatory Structures Project: Australia reviewed the timeline for the regulatory structures project. Ms Liz Williams of Australia provided additional information on the implementation of the project.

5. Regulatory Roundtable on Convergence. Singapore, overseer of this project, with the support of Hong Kong, China, the International Telecommunications Union (ITU) Center of Excellence and the United States, reported on the Roundtable held at APEC TEL 23. The Keynote speaker at the Roundtable was Professor Ashley Brown (Harvard University). Other speakers were Mr. James Galloway (Australian Electrical and Electronic Manufacturers Association), Mr. Peter Waters and Mr. Angus Henderson from the law firm Gilbert and Tobin. The meeting was also addressed by the Chair of the Working Group, Ms Valerie D'Costa. The discussion of the working group was facilitated by a series of case studies developed by the law firm Gilbert and Tobin, who also sponsored Professor Brown's participation. Singapore drew attention to the range of opinions expressed during the Roundtable and the usefulness of the event.

The Convenor concurred in the positive outcome of the Roundtable and suggested that a similar event be organized at future TEL meetings, taking into account the many demands on regulators schedules.

Australia called for future work in this area to use an increasingly interactive approach to encourage discussion and suggested that LSG aim at holding such an event once a year, while recognizing that it might slip to every 18 months.

Indonesia endorsed holding a similar roundtable at APEC TEL 24 and suggested discussion of the merger of broadcast and telecommunications, and the convergence of technologies. Indonesia also noted that staff level discussions would be useful in this area even if senior regulators were not always able to attend.

China noted the importance of holding these meetings once or twice a year and suggested that they be focused on one specific subject.

Australia proposed and the LSG agreed to include work on issues of importance to regulators in its agenda for APEC TEL 24 as a way of preparing for the next Roundtable, which would be held at a time to be determined later.

The Convenor noted that a number of issues had been suggested for inclusion in such a roundtable, including the convergence of broadcasting and telecommunications, the convergence of technologies, universal service/access obligations, wireless issues and consumer/user perspectives.

The Convenor invited Singapore to continue to serve as overseer for the Roundtable. Singapore agreed, noting the continued importance of support from the oversight committee, which will be comprised of Australia; Hong Kong, China; Indonesia and the United States.

6. Mutual Recognition Arrangements: Canada reported on MRA implementation activities conducted during APEC TEL 23. Seven economies are implementing Phase 1.

Australia reported on the status of the MRA Implementation Support Project and the MRA Management System. Australia also noted that discussions with PEEC had led to a proposal to create a project to support MRA implementation through an outreach program to work with CITEL/PCC.I and other groups. This proposal is before the BFSG and needs formal endorsement from the LSG. Canada noted that the MRA Task Force supported the program. Based on this discussion, the LSG endorsed the proposal.

7. Interconnection: The Convenor noted the success of the APEC principles of interconnection and the submissions of a number of economies reporting on their implementation. He proposed that these submissions be updated by economies as developments occurred in domestic interconnection policy. The LSG concurred in this idea.

Australia reported on the status of the Interconnection Training Project and the Interconnection Resources Project.

New Zealand pointed out that the Resources Project report provided four recommendations on interconnection policy and asked if these were to apply generally or just to the countries that participated in the project. Australia noted that these recommendations could apply generally. A resource project is intended to provide inputs of possible value to decision-making in various APEC economies. There was no suggestion that the project would lead to a single recommendation.

Ms. Kathy Fisher, LSG Deputy Convenor, reported on the meeting of the Interconnection Task Force (See Annex B). She thanked Mr. Richard Desmond of Australia for his presentation on Australia's experience with local loop unbundling. The Convenor thanked the Deputy Convenor for overseeing the Interconnection Task Force in his absence.

The Deputy Convenor noted a proposal raised to end the Interconnection Task Force

Australia said it was clear that interconnection will be a central function of regulation and the existing projects were coming to a close. Australia supported rolling the work of the Interconnection Task Force into the LSG.

Ms. Anita Dey of the United States concurred, noting that as the work moved into the main body of the LSG, it looked forward to discussions on issues such as unbundling and line sharing.

PEEC proposed to train private sector officials on the negotiation of Interconnection agreements. PEEC noted that a side benefit of such a project could be to make clearer to regulators the concerns of the private sector on interconnection issues.

There was considerable discussion of this idea. Some economies expressed scepticism that private sector negotiators would need such training. Others noted that smaller companies could benefit from information and training that restored balance in negotiations with larger firms. Several economies noted the importance of targeting the training to the specific economies involved, and of having the right facilitator.

Australia proposed to create an oversight group for the project that included economies likely to be interested in participating in the first phase. A number of economies were not in the LSG at the time of this discussion. The United States offered to serve as overseer for the initial development of the project, with the understanding that, once the participating economies were identified, the USA might no longer continue in this role.

8. Wireless Commercial Services. The USA reported on the Wireless Seminar held during APEC TEL 23 and proposed follow up work at the next LSG meeting on licensing polices. After some discussion, the topic "licensing policies for investment and buildout" was agreed for inclusion under the Wireless Commercial Services item for APEC TEL 24. The USA invited other economies to provide comments regarding the paper that it will prepare for this discussion as well as on possible speakers at the LSG. Several economies underscored the importance of focusing on the market management functions and avoiding duplication with spectrum management handled in the International Telecommunication Union (ITU).

9. Internet Development. The Deputy Convenor outlined the LSG's response at APEC TEL 22 to instructions from Ministers. This is contained in ANNEX B to the LSG report to the APEC TEL 22 Plenary. The Convenor proposed that the LSG use ANNEX B to guide considering of the LSG's contribution to APEC TEL discussion on International Charging Arrangements for Internet Services (ICAIS).

The LSG reaffirmed the items included in ANNEX B as the guiding menu of possible work in this area, without substantive addition or modification.

Korea asked that the LSG take note of its view that the development of more competitive markets in international broadband capacity was not incompatible with

ICAIS. Liberalization would decrease cost but would not resolve the issue of how that cost should be shared. Korea would like to see a statement associate with ANNEX B to the effect that charging arrangements need specific attention, which cannot be corrected by market liberalization.

Australia noted that the task of developing charging arrangements fell to the Internet Working Group. For the LSG, a statement of Korea's view could be included in the meeting record since ANNEX B itself was a closed document agreed at a previous meeting.

Speaking for the United States, the Convenor said the US's view of such a statement is well known. Market forces, including dramatic increases in submarine cable capacity, are reshaping traffic flows in the Asia/Pacific region. These changes had been widely anticipated; the USA doubts they will be compatible with an ICAIS arrangement.

Mr. Richard Thwaites of Australia, as convenor of the Internet Working Group, noted that ANNEX B is a comprehensive scope of responsibilities. Rather than repeat that list again in its report to the Internet Working Group, he asked the LSG to identify priorities or particular actions to be taken in relation to particular items.

The Convenor proposed to lead a review of the five items included in ANNEX B, inviting comments regarding existing or new work in each area. From this, the LSG could produce the list requested by the Internet Working Group. The results of this review follow:

> ANNEX B ITEM 1: Foster discussion between business/private sector and government parties on appropriate means to assess and reward the value of products and services exchanges in the provision of converged Internet services under APEC economies:
> > LSG comment: LSG focus is on the impact of convergence on products and services. The Regulatory Round able and Regulatory Structures Project reflect ongoing work in this area.

> ANNEX B ITEM 2. TEL Steering Groups should encourage attention to the development of Internet Systems and business models from the perspective of liberalisation, business facilitation, and human resource development.
> - LSG comment: The LSG focus is on the impact of regulatory/policy issues on consumers. The regulatory round table and Wireless seminar held at TEL 23; and follow up work identified for TEL 24 reflect the ongoing work in this area.

> ANNEX B ITEM 3. Continue to discuss the international development of the Internet including charging arrangements, noting the initial suggestions in the proposals made by the ICAIS Task Force.
> > LSG comment: The LSG focus is on the degree of competition and private sector's access to the market for international capacity. In reviewing this item, the LSG adopted a suggestion by the convenor to include discussion of licensing conditions on backhaul that affect

investment decisions on submarine cable landing under the Internet
Development agenda item for Tel 24 Canada will oversee this work..

ANNEX B ITEM 4. The TEL should discuss the kind of arrangements that
will support high-speed bandwidth connectivity in the APEC region.
- LSG comment: The LSG is already discussing matters related to local loop
  unbundling. Several economies suggested that this work should continue.
  Australia offered to oversee this agenda item for TEL 24, preparing a paper to
  focus discussion on those aspects of unbundling that the LSG could usefully
  address.

ANNEX B ITEM 5. The work should address the relationship between
charging arrangements and return on investments as it reflects the
development of high-speed bandwidth connectivity. It should also consider
the application of APEC Principles of Interconnection to Internet services.
   LSG comment: The role of return on investment and its relation to
regulatory decisions was explored during the Regulatory Roundtable's
session on 3G. This will be an area of ongoing interest to the LSG.
   Australia questioned whether the LSG was implementing the
statement included in ANNEX B that it was considering the applicability
of the APEC Principles of Interconnection to Internet Services and was
unaware of work in this area. The Convenor noted that ANNEX B
explicitly noted that the first step in this effort was consideration of the
impact of unbundling the local loop on availability of Internet services.
This work was well under way.

After conclusion of the review of ANNEX B, Australia noted that the DCSG had
reported to the Internet Task Force on a project to study the ideal Internet
topology for the Asia/Pacific and suggested that the LSG note the desirability of
DCSG to coordinate with LSG. The Chair agreed to include this in the LSG
report to Plenary.

10. Digital Divide. The Deputy Convenor suggested that, in light of the LSG's past
work on universal service, that this work be taken as a base for a contribution on
universal access. Such a discussion would need to focus on the relationship between
liberalized policy and USO funding and not attempt a comprehensive discussion that
could belong in another group.

The LSG concurred in this proposal.

11. Priorities and Future Actions. Australia noted that the LSG has a diverse agenda
that is more focused on implementation of pro-competitive policies than on
deregulatory issues more commonly associated with the phase "liberalisation." The
group could restore clarity by slimming down the topics it addresses, although there
seems to be consensus that the LSG is addressing the right topics. Another alternative
would be to rename the group.

New Zealand concurred, and suggested that the group could be called the Competition
and Regulatory Policy Steering Group. Some economies were concerned that
"competition" is only a tool, not an objective and the proposed new name might not

be adequate. Speaking for the United States, the Convenor said that the term "Liberalisation" did not pose any confusion for the United States because implementation is a key element to successful market opening.

The LSG decided to inform Plenary that it was considering proposing a name change at TEL 24 along the lines proposed by New Zealand. Discussion of the new name would proceed between TEL 23 and TEL 24.

12. Gender Awareness. The Convenor reported on the Gender Awareness Workshop held during TEL 23. He pointed out the importance of meeting APEC's new gender criteria in seeking funding for APEC projects and urged economies to review documentation provided on this subject during TEL 23.

   Collective Actions. The collective actions were reviewed and adopted without change from those adopted at TEL 22. The United States undertook to update the LSG on the status of the wireless licensing database called for in item 10.

   The Convenor thanked the participants for their efforts during TEL 23. He expressed special thanks for the welcoming atmosphere he had found in the LSG as a new convenor and noted the outstanding contributions that the Deputy Convenor had made to the LSG during TEL 23. The meeting was adjourned.

Liberalisation Steering Group
APEC TEL 23
AGENDA

- Review and adoption of Agenda
- Notice of other business
- Convergence Task Force
    Surveys
    Regulatory Structures Project
    Convergence Roundtable
    Presentations on regulatory challenges to broadband deployment
- Mutual Recognition Arrangements
    MRA Implementation Support Project
    MRA Management System
- Interconnection
    Principles of Interconnection
    Interconnection Training Project
    Interconnection Resources
- Wireless commercial services
- WTO Agreement on Basic Telecommunications
- Internet Development
- Digital Divide
- Other Business (including review of status of Collective Actions)

Report of the Interconnection Task Group to the LSG
APEC TEL 23
March 12, 2001-03-14

Ms. Kathy Fisher (Canada), Deputy Convenor of the Liberalization Steering Group chaired the Interconnection Task Group meeting on behalf of Mr. Jack Deasy (USA), Chair of the Interconnection Task Group.

___APEC Principles of Interconnection.__ The Task Group chair reported that many economies provided information on the implementation of these principles and encouraged other economies to submit a paper for inclusion on the APEC TEL website.

___Interconnection Training Project.__ This project is under the leadership of the Human Resources Development Steering Group. As overseer of the project, Australia reported that the project will commence when TILF funds become available following the selection of a facilitator and identification of training needs by the current Interconnection Resources Project. Milestone dates were identified and are contained in project document TEL/HRDSG/02.

Interconnection Resources Project. As overseer of the project, Australia reported that stages 1 (analysis of recent published documents and data) and 2 (preliminary design of information tables and explanations) of the project were completed. Australia informed participants that work is progressing on stage 3, which involves discussion on interconnection policy in member countries. Australia then introduced one of the project contractors to speak about the progress of project. Dr. Eric Ralph of Network Economics Consulting Group introduced a policy paper elaborating on how the regulator can collect cost information and use it to set interconnection prices. A formal report on this project is in document TEL 23/LSG/08.

___Unbundling of the Local Loop.__ There was a presentation on unbundling of the local loop by Mr. Richard Desmond, Manager, Competition and Industry Structure, Telecommunications Division, Department of Communications, Information Technology and the Arts (Australia).

___Future Work of the Interconnection Task Group.__ The Chair initiated discussion on the future work of the Task Group recognizing discussions and suggestions from TEL 22 and noting that there may be other possible areas of work to support interconnection.

Australia proposed the need to reconsider the role of the Task Group and its priorities and whether it would be appropriate to deal with interconnection issues under the broader Liberalization Steering Group. The number of competing workshops on the margin of the TEL was identified as a consideration.

PECC identified the possible need for training of new entrants and existing market players in the area of interconnection negotiation. The idea was supported by Indonesia.

Singapore proposed that any work related to the collection and dissemination of information on data centers/Internet exchange points in the APEC region be referred to the Internet Task Group.

Three issues that require some discussion
- the future of the Interconnection Task Group.
- the need for training of new entrants and existing market players in the area of interconnection negotiation.

The need for LSG to initiate work on the collection and dissemination of information on data centers and internet exchange points in view of the private sectors efforts in this area.