Global Communications Newsletter

October 1998

Asia Pacific Region: Technically Thriving While Economically Suffering

Byeong Gi Lee, Asia Pacific Director

Some countries in the Asia Pacific Region are suffering from economic difficulties, but nonetheless the region demonstrates intensive technical activity and active participation in technical events. The number of AP Region ComSoc members has increased by 2 percent, from 6682 to 6810 (which is about 16 percent of ComSoc members) during the year ending March 1998, while membership during the same period declined in most other regions and most other societies. Among the 713 papers presented at GLOBECOM '97 and ICC '98, 218 papers (i.e., 31 percent) are from the AP Region, which corresponds to twice the AP Region ComSoc membership percentage. At the Asia Pacific Board meeting held during ICC '98 in June 1998 in Atlanta, Georgia, 54 AP Region members attended, which is the largest number ever. I take all these as a strong indication of the promising future of the AP Region, and a sign of recovery from the current economic troubles.

In this article I would like to introduce the board and technical activities that took place in the AP Region in the first half of this year as well as some conferences to come in the second half.

New APB Charter

The APB has established the APB Charter, which is rooted in, but has significantly outgrown, the Asia Pacific Committee Charter. The APB Charter consists of six Chapters, 19 Sections, and an Appendix. The main contents include Scope and Objectives; Operations and Organization; Officers; Vice Directors, Secretaries, Treasurers, and Advisors; Committees; and Support Office. The Appendix describes the AP Director Nomination Procedure and Director Candidacy Qualification. The new charter has been prepared by the Director and a number of APB Officers and the Staff in the Singapore Office.

New APB Structure

The APB has formed a new organizational structure, which includes five Committees and a Support Office. The APB Officers include one Director, two Vice Directors, two Secretaries, a Treasurer, two AP Office Staff members, six AP Advisors, and five Committee Chairs. The five committees are Technical Affairs Committee (TAC), Meetings & Conferences Committee (MCC), Information Services Committee (ISC), Membership Development Committee (MDC), and Chapters Coordination Committee (CCC). Each Committee consists of a Committee Chair, two or three Vice Chairs, and a Secretary.

New APR Home Page

The ISC of the APB, chaired by Dr. Sasase, has installed the Asia Pacific Region homepage at the URL

http://www.fujitsu.co.jp/hypertext/flab/APR/

Dr. Kuwahara, ISC Homepage Vice Chair, is in charge of the establishment and maintenance of the homepage. Information posted on the homepage includes the AP Director's Message; Officers of the AP Region (1998–1999); Organization Chart of the AP Region (1998–1999); Charter of IEEE ComSoc AP Board; Conferences in the Asia-Pacific Region(including INFOCOM '97, APCC '98, OECC '98, APNOMS '98, ISPACS '98, and GLOBECOM '98); Student Travel Grant; Distinguished Lecture Tour; APC Meeting Archive; AP Newsletter Archive, and so on.

AP Newsletter

The ISC of the APB also publishes the *Asia Pacific Newsletter* twice a year. It continues the tradition of the APC, and Mr. T. K. Tan, the ISC Newsletter Vice Chair, continues the editorship of *AP Newsletter*. While succeeding the convention set by the APC, its external format as well as the contents have been much improved and refined. Issue 13 of the *AP Newsletter*, published in June 1998, includes 16 articles in the following categories: Editor's Message; Hot Topics; APB Reports; Conference Reports; Reports from Chapters in AP Region; and APB Charter.

New AP E-Mail Groups

The MDC of the APB, chaired by Dr. H. H. Lee, established the e-mail grouping of the AP Region and its subregions. The e-mail group lists now enable us to communicate with all or parts of the AP Region membership for the first time. Among the aliases for the e-mail groups are APB_MEM (all ComSoc members in the AP Region), APB_OFF (all APB officers including staff), APB_TAC (TAC members), APB_AU (ComSoc members in Australia), and others. Currently access to some group addresses such as APB_MEM is limited for the protection of group members from undesired messages or a flood of messages. There are some issues to clear before allowing open access, such as how wide each group address should be opened, how to limit the length of messages, what types of messages to allow, and so forth.

APR Chapter Activities and DLT Program

In 1997, the Communications Society office in Singapore initiated and coordinated a Distinguished Lecture Tour of five Chapters in Australia. The DLT by Prof. Goodman was very well received by a mixed audience of students, academia, and industry people. Following this, two unsuccessful attempts were made to attract distinguished lecturers for a tour to

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The IEEE ComSoc European Operations Corner

By Jacques Kevers, Brussels

The Communications Society is going to co-organize with the Armed Forces Communications and Electronics Association (AFCEA) a conference to be held around mid-May 2000 in Munich, Germany. ComSoc will develop the technical program. This conference would provide government, industry, and academic specialists the opportunity to compare achievements and exchange views on subjects such as Global Positioning System (GPS)-based navigation systems; enhanced electronic communication technologies for governmental services; improved encryption strategies for personal communication services, electronic banking, and secure data exchange in public/private networks; innovative Euro-air traffic control strategies and equipment; and more. The Brussels office will provide support in the organization of this event.

ComSoc Chapter Chairs Meeting

A Chapter Chairs meeting is being held in conjunction with the International Conference on Universal Personal Communications, organized in Florence, Italy on 5–9 October 1998. The idea is to discuss activities and bring up problems in both Region 8 and the Communications Society. On the agenda: lectures by ComSoc and Region 8 officers, a presentation by the Brussels office, a technical lecture by one of the Chairs, and reports by Chapter Chairs on their activities as well as discussion of their future activities. The Brussels office will staff a Society information desk during this conference; members are most welcome to pass by and discuss whatever matters they would like.

Update on the IEEE European Operation Center

The Brussels office have gone through quite some changes during the last couple of years, which have led to substantial developments in its activities. We therefore thought that it might be useful to provide an updated presentation of its current activities.

Member Services

The office makes its facilities available to host various local membership meetings, attends local IEEE sponsored and co-sponsored conferences within Region 8 to promote IEEE membership, and serves as a local information source for membership applications, conference material, marketing brochures, and so on.

Having online access to the central IEEE membership database, the office:

- Responds to local section/chapter requests for membership lists and membership subscription information, using SAMIEEE Diskette Access
- Responds to inquiries on order/renewal status, pricing, and availability of IEEE products
- Responds to member and subscription claims
- Triggers shipments of IEEE periodical back issues and replacement issues
- Performs online address changes for local members
- Processes Affiliate applications received from Region 8 applicants

Customer Services

The office responds to requests for price quotes and product availability; and processes orders for IEEE Press books, conference proceedings, IEEE standards, and educational products. The processing is done online, directly on the central database. Sales terms, as well as handling and shipping charges are the same as those handled by the Service Center in Piscataway, New Jersey, USA. Adapted shipping methods ensure timely delivery.

Society Support

The IEEE Computer and Communications Societies currently use the Brussels office to heighten their global presence and serve their local memberships. The office performs the following main functions:

- Provide information/phone support for local members over a dedicated phone line
- Act as a local source of Society information and materials
- Collect/forward Society orders and applications/subscriptions
- Stock and supply Society replacement issues of periodicals
- Update/maintain local volunteer databases and e-mail aliases
- Provide local banking services for society conferences
- Provide support to local chapters (Distinguished Lecturer Tours)
- Attend selected conferences with a Society information desk
- Stock/distribute Society membership forms and committee rosters

Volunteer Services

The Brussels office provides support to volunteer committees as well as to local sections, chapters and volunteers in

NOMS/IM

By Douglas N. Zuckerman, Conference Management Boards

The IEEE/IFIP Network Operations and Management Symposium (NOMS) and the IFIP/IEEE International Symposium on Integrated Network Management (IM, formerly known as ISINM) are the world's premier conferences on management of networks that span the telecommunications and computing areas. They are both sponsored by the IEEE Communications Society Committee on Network Operations and Management and the IFIP Working Group 6.6 on Network Management. NOMS meets in even-numbered years, typically during February–April, and IM meets in odd-numbered years, typically during May. These symposia feature world-class programs with high-quality technical sessions, timely tutorials, visionary panel discussions, poster sessions, renowned keynote speakers, and exhibits. The technical focus is on the pivotal role network management plays in worldwide information networks and distributed systems that cross geographical and political boundaries. Indeed, these networks extend beyond physical boundaries to support virtual corporations, virtual LANs, inter-enterprise internetworking, real and virtual service management, outsourcing, and electronic commerce. The technical papers submitted regularly show an excellent mix of topics, organizations, and international contributions, addressing the well-established interest in overall management solutions across all types of networks, enterprise communication systems, distributed computing systems, and applications. Historically, the first NOMS was held in 1988 in New Orleans, with subsequent ones in San Diego, Memphis, Orlando, Kyoto, and back to New Orleans in 1998 for a "10th anniversary" NOMS. Planning is well under way for NOMS '00, which will be held in Honolulu in April 2000 (see www.comsoc.org/confs/noms/00 for further information). NOMS '02 is being planned for Florence, Italy.

The first IM (formerly known as ISINM) was held in 1989 in Boston, with subsequent ones in Washington, San

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Advanced Communications Technologies and Services: The World's Largest Set of Interconnected Trials of Advanced Communications

By Kirsten Wilbrink, ACTS Project Coordinator

ACTS (Advanced Communications Technologies and Services) is a European Union program of precompetitive, collaborative research and development, running from 1994 to 1999, the successor of the well-known RACE (Research on Advanced Communications in Europe) program. The pioneering work of RACE in broadband and mobile telecommunications and in digital television continues in ACTS, the emphasis now being on integration of the technologies in services and networks trials involving users.

Leading edge users, service providers, network operators, broadcasters, manufacturers, research and educational institutions, and consultants pool their knowledge and resources in pursuit of specific research and trial objectives defined by the ACTS workplan. ACTS brings together over 1000 such bodies, sharing a European Commission contribution of around 680 MECU. A typical project is funded up to 50 percent by the Commission and is carried out by a consortium of partners based in several different countries. Partners do not just come from Western Europe; organizations in Central and Eastern Europe are strongly represented, and there are also partners from Australia, Canada, Israel, Japan, Singapore, and the United States in a number of projects.

The program is directed by the European Commission (Directorate General XIII). It is the focus of the EU's research effort in advanced communications and forms part of the European Commission's Fourth Framework program of research and technical development. It is complemented by other programs within the Fourth Framework such as Telematics, ESPRIT (information technology), and COST-Telecom (Cooperation in Science and Technology). There is also close cooperation with other bodies, including Eurescom and ETSI.

ACTS projects are grouped into six technical domains and one horizontal (supporting) domain:

- Interactive Digital Multimedia Services
- Photonic Technologies
- High Speed Networking
- Mobility and Personal Communications Networks
- Service Engineering, Security and Communications Management
- Quality, Security and Safety of Communications Management
- Supporting Projects

All the ACTS projects meet together regularly in a process known as "concertation" to review progress and pool ideas. The resulting consensus is valuable for Europe as a whole. Interoperability is an important aspect of the work of ACTS. This involves helping to develop and prove standards and open interface specifications.

"Chains" are groups of projects set up to study specific objectives which have strategic importance outside of the ACTS Program itself. These include interoperability issues that cut across domain boundaries. The 20+ chains are organised into five chain groups:

- Broadband access networks, economics, and evolution
- Network-level interoperability and management
- Global service integration (end-to-end multimedia services)
- Generic access to applications (the user perspective)
- Broadening of awareness of ACTS

A key function of the chains is to develop consensus and publish strategic guidelines for the industry as a whole, on the introduction of advanced communications. Approximately 70 guidelines are under development, and around 40 of these have been published in draft form by the Commission.

Although the ACTS program continues until the end of 1999, major messages are already emerging from individual projects and from the chains and domains. These will be presented in a series of conferences organized by the project ACTSLINE whose mission is to promote the results of the program to a wider audience. The first of these are:

- Interactive Services over Digital Broadcast Networks (26–27 October 1998, London)
- Advances in Telecommunications Network Management and Service Creation (10–11 November 1998, London)

The events are being organized in conjunction with IBC Conferences, and further details can be obtained from:

IBC Telecom Division
Gilmoora House
57 61 Mortimer Street
London W1N 8JX, UK
Tel: +44-171-453-2025
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Results of the Mexican PCS and WLL Auctions

By Carlos Hirsch, Mexico

In this report I will specifically address the outcome of the Mexican wireless access auction. In a previous *GCN* report on the Mexican spectrum auctions, I provided regulatory background information (July 1997). Three different types of wireless local access bands for fixed and mobile services were auctioned at the same time. The country was divided into nine regions (consistent with the current cellular concessions), and 59 simultaneous auctions in several frequency bands started on November 17:

Band (MHz)	Bandwidth	Definition
1850–1865. 1930–1945	30 MHz	PCS A
1870–1885, 1950–1965	30 MHz	PCS B
1865–1870, 1945–1950	10 MHz	PCS D
1885–1890, 1965–1970	10 MHz	PCS E
3400–3425, 3500–3525	50 MHz	Wireless Access A
3425–3450, 3525–3550	50 MHz	Wireless Access B
3450–3475, 3550–3575	50 MHz	Wireless Access C
3475–3500, 3575–3600	50 MHz	Wireless Access D
440–449, 485–494	14 MHz	Wireless Access

Licenses will be granted for 20 years, with the potential for renewal for a similar 20-year period. At the same time, there is no regulatory distinction between mobile and fixed services, and the technology definition is up to the carrier. The auction lasted for 128 rounds, ending on May 8 with total bids in excess of US$1 billion. In average a national license in PCS 30 MHz was worth US$276 million (US$3.03 per POP), a national license in PCS 10 MHz US$156 million (US$1.72 per POP), and a national WLL license US$51 million (US$0.56 per POP). The major winning companies were TV-Azteca affiliate SPC, a partnership

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Indonesia, Malaysia, and Singapore. The proposed DLT was first postponed until May 1998 and subsequently cancelled and replaced by ComSoc Executive visits in 1998. Attempts were also made to initiate DLTs for Pakistan, Japan, and Thailand, but did not succeed due to poor response from Chapters or unavailability of suitable speakers. In place of the unsuccessful DLT visits, arrangements are being made to have ComSoc Executives visit Chapters in this region before or after GLOBECOM '98. Their visits will include talks on ComSoc volunteer-related issues, and technical and nontechnical topics.

Conferences Supported by the APB

There are four regional/international conferences that are technically supported by the APB: the Asia Pacific Conference on Communications (APCC), IEEE Workshop on Intelligent Signal Processing and Communication Systems (ISPACS), Opto-Electronics and Communications Conference (OECC), and Asia Pacific Network Operations and Management Symposium (APNOMS).

The fourth APCC, APCC '98, will be held in conjunction with ICCS '98 in Singapore in November. The conference will consist of technical sessions for the presentation of 215 accepted papers and three tutorial sessions (http://www.cadcam.nus.sg/~eleashra/apcc_iccs.html).

The sixth ISPACS, ISPACS '98, will be held in Melbourne, Australia, in November, immediately preceding GLOBECOM '98 starting on November 8 in Sydney, Australia. ISPACS '98 will consist of four tutorial sessions and two-day plenary and technical sessions (http://www.dgs.monash.edu.au/ispacs98/).

The third OECC, OECC '98, was held in Chiba, Japan, July 12–16. Some 640 people attended the conference, and 289 papers (including 17 post-deadline papers) were presented in 45 technical sessions along with two tutorial sessions.

The second APNOMS, APNOMS '98, will be held 16–18 September in Sendai, Japan. APNOMS '98 will consist of six tutorials, two-day technical sessions, and a panel discussion. A vendor exhibition will also be included (http://dpe.postech.ac.kr/knom/apnoms98/).

Open Call for AP Logo

During the APB meeting in Atlanta, Georgia, the AP Director announced an open call for the design of a new AP logo. Everyone in the AP Region is encouraged to send a design to the Director at blee@tsp7.snu.ac.kr by the end of November. The prize of US$200.00 will be awarded to the winner at the Sydney meeting to be held during GLOBECOM '98.

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www.comsoc.org/pubs/gcn

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between a TELEVISA affiliate and QUALCOMM, Korean Telecom backed MIDICELL, Telmex-Telcel, Bell Atlantic subsidiary IUSACELL, and Bell Canada supported TELINOR. All are looking for vendor suppliers and are selecting the wireless technology to rapidly deploy in their networks.

Local competition has not started until now in Mexico, and several key issues are pending such as interconnection rates, reciprocal payments, and the geographic scope of local calling areas. Another relevant issue not solved yet is the expansion of the numbering plan to 10 digits which the government committed to two years ago. Long distance competition started in Mexico in January 1997 and domestic rates have fallen to US$0.16/min at peak time from US$0.50 in 1995, but local service charges have increased steadily to compensate Telmex, the incumbent carrier.

The Mexican cellular market currently has two carriers per region with 2 million mobile users in total. Most current customers use AMPS technology, but digital technology has been introduced recently with CDMA and TDMA, and new services like caller ID and short message service are being sold in the main cities to expand the market before PCS services arrive. In particular, prepaid cellular service has been offered for two years having extraordinary acceptance covering at this time more than 50 percent of total cellular customers. Calling Party Pays (CPP), the normal worldwide standard which has been recognized as a trigger to expand service accessibility, has not yet been implemented in the Mexican market because of the reluctance of Telmex to sign reasonable billing and collection agreements.

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Francisco, Santa Barbara, and San Diego. The next one will be IM '99 on May 10–14, 1999 in Boston (see www.comsoc.org/confs/im/99 for further information). Sites are under consideration for 2001 and beyond. Beginning with the first symposia in 1988 and 1989, each symposium program and its related theme have reflected the historic events in integrated network management, and indeed have helped shape them.

If you would like to find out more about NOMS/IM, please contact Gayle Weisman: g.weisman@comsoc.org, tel: +1-212-705-8941, fax: +1-212-705-8999.