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## SWITCHING ON THE INFORMATION MILLENNIUM: WTC/ISS

The World Telecommunications Congress 2000, including ISS, the International Switching Symposium, was held 7–12 May, 2000 in Birmingham, United Kingdom. Over 1100 delegates attended, representing 48 countries, to hear 138 technical papers presented at the beautiful Birmingham International Convention Center. Over 375 papers were submitted by 74 organizations from around the world to the International Technical Committee, who made their selections using an extensive peer review process. The congress was organized around the following topics:

- The IP World — How Will We Make It Work?
- Smarter Network and Business Management
- Information Services Beyond 2000
- Switching Investments: Living with Risk
- What's Your Network IQ?
- Who Will Create the Future?
- Going the Distance on the First Mile
- Towards the Mobility Dream

In this issue of *IEEE Communications Magazine*, we present nine articles selected to give you an inside look at the conference. These were chosen based on several criteria, including excellent peer review ratings during the submittal process and their ability to represent both the breadth and innovative content of the conference. A brief description of the congress follows.

The initial ceremony included the opening of a time capsule from ISS '87 and a keynote by Sir Peter Bonfield, CEO of British Telecommunications plc. The time capsule's video showed predictions made by leading experts about what services and technology would be like in the year 2000. While most of their remarks were very accurate, such as the evolution from circuit to packet switching technologies and the emergence of optical techniques for access and switching, none of the experts mentioned wireless or mobility, an area which has had such a clear impact on our industry. Sir Peter Bonfield's remarks emphasized the key themes of *broadband*, *IP*, and *mobile*. His feeling was that all attendees and their respective organizations should address at least one, or preferably all three, of these themes, since the keys to the future lie within the integration of these domains.

The congress included two Hot Topic sessions, "Unleash-

ing the Net" and "Taming the Net," which were both provocative and timely. These sessions dealt with the tremendous possibilities, both positive and negative, of the Internet. In "Unleashing the Net," the panel discussed the projected impact of electronic commerce on the world economy and the role of telecommunications therein, while "Taming the Net" considered some of the less attractive but equally important issues, such as recent denial-of-service attacks and the spread of viruses.

Special invited sessions on a few of the congress's key themes included "The IP World — How Will We Make It Work?," "What's Your Network IQ?," "Towards the Mobility Dream," "Information Services Beyond 2000," "Switching Investments — Living with Risk," and "Access Technologies Beyond 2000." These sessions consisted of invited panelists who discussed the key issues in these areas.

Tutorial sessions were provided on "3G Wireless," "Managed Optical Network Technologies," "Voice over IP over Wireless," "Next Generation Networks," "Systems Evolution for Voice/Data Convergence," and "Business and Strategy Issues." These were led by world-class experts and were very well attended.

There were 32 technical sessions organized into various subject areas, including "IP Network Architecture," "Access Implementations," "Network and Service Management," "Optical Networks," "IP in the Mobile World," "IP QoS," "Voice and Multimedia over IP," "Future Directions in Network Management," "Smart Business Management," and "Emerging Information Services." Two special post-deadline sessions were held which allowed a few technical papers to be accepted right up to conference opening. All sessions were well attended, and had interesting and innovative papers.

Another major innovation of the congress was the participation of 13 CEOs from network carriers and manufacturers who met in an offsite "CEO Summit" to discuss the state and future direction of the telecommunications industry. They agreed to promote a range of measures designed to realize the positive impact of the telecommunications industry on the global environment and sustainable development and, in particular, to promote education, environment, and e-business (the three Es).

## GUEST EDITORIAL

The group recognized that the industry is environmentally friendly in its own right, and a force to enable a broad range of societal benefits encompassing the three Es and more. They agreed to stimulate dialogue across society in all parts of the world where their businesses were operational. Their set objectives will be achieved through a range of collaborative measures covering:

- Working with educational establishments to promote the use of new technology, especially in the neediest areas
- Sharing of best practice within their sphere of operations, through their supply chains, across other industry sectors, and with noncommercial organizations
- Ensuring a focus on appropriate international standards such as ISO-14001 and working cooperatively on these initiatives
- Publishing and making widely available their policies and commitments on environmental issues
- Working on continual development of standards and practices covering the robustness and integrity of the digital infrastructure
- Through continued dialogue with appropriate international institutions and governments, promoting ways of making e-business inclusive to all, and hence contribute to narrowing the digital divide
- Promoting the use of technology in a way that allows all businesses to minimize their environmental impact and improve their global efficiency

The next World Telecommunications Congress and ISS will be held 22–27 September, 2002 in Paris, France. For further information, please visit the WTC/ISS Web site at <http://www.wtc2002.org>

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