INTELLIGENCE IN NETWORKS

IFIP - The International Federation for Information Processing

IFIP was founded in 1960 under the auspices of UNESCO, following the First World Computer Congress held in Paris the previous year. An umbrella organization for societies working in information processing, IFIP's aim is two-fold: to support information processing within its member countries and to encourage technology transfer to developing nations. As its mission statement clearly states,

IFIP's mission is to be the leading, truly international, apolitical organization which encourages and assists in the development, exploitation and application of information technology for the benefit of all people.

IFIP is a non-profitmaking organization, run almost solely by 2500 volunteers. It operates through a number of technical committees, which organize events and publications. IFIP's events range from an international congress to local seminars, but the most important are:

- The IFIP World Computer Congress, held every second year;
- open conferences;
- working conferences.

The flagship event is the IFIP World Computer Congress, at which both invited and contributed papers are presented. Contributed papers are rigorously refereed and the rejection rate is high.

As with the Congress, participation in the open conferences is open to all and papers may be invited or submitted. Again, submitted papers are stringently refereed.

The working conferences are structured differently. They are usually run by a working group and attendance is small and by invitation only. Their purpose is to create an atmosphere conducive to innovation and development. Refereeing is less rigorous and papers are subjected to extensive group discussion.

Publications arising from IFIP events vary. The papers presented at the IFIP World Computer Congress and at open conferences are published as conference proceedings, while the results of the working conferences are often published as collections of selected and edited papers.

Any national society whose primary activity is in information may apply to become a full member of IFIP, although full membership is restricted to one society per country. Full members are entitled to vote at the annual General Assembly, National societies preferring a less committed involvement may apply for associate or corresponding membership. Associate members enjoy the same benefits as full members, but without voting rights. Corresponding members are not represented in IFIP bodies. Affiliated membership is open to non-national societies, and individual and honorary membership schemes are also offered.

INTELLIGENCE
IN NETWORKS

IFIP TC6 WG6.7 Fifth International Conference
on Intelligence in Networks (SMARTNET '99)
November 22-26, 1999, Pathumthani, Thailand

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CONTENTS

Technical Session: Teleservices - 2

Technical Session: Middleware and Specification Languages

Technical Session: Teleservices - 3

Technical Session: Teleservices - 4

Technical Session: QoS and Performance Management

Technical Session: Teleservices - 5

Technical Session: Application of Mobile Agents - 2

PREFACE

SMARTNET'99 is the fifth in a series of conferences on Intelligence in Networks under the auspices of IFIP TC6's Working Group 6.2. "Grade of Network Intelligence" can be defined as the *efficient flexibility in the introduction of new teleservices.* Intelligent Networks, Telecommunication Information Networking Architecture (TINA), Mobile Agents and Active Networks are different solutions to improve the grade of network intelligence. "Smart Networks" is here used as an umbrella concept for various solutions to improve the network intelligence.

The main objective of SMARTNET'99 is to provide an international forum for academics, researchers, practitioners and services providers. The discussion areas include the research and development within various closely related fields such as: telecommunication services and service architectures, service creation, platforms/middleware, specification languages, mobile agents, active networks, plug-and-play issues and Quality of Service. These topics are covered by 15 sessions. There are 5 sessions with keynote and invited papers, and 10 technical sessions. The papers in the 10 technical sessions are arranged in five sessions on "Teleservices", two sessions on "Application of Mobile Agents", and one session on each of the following: "High Capacity Networks and ATM", "Middleware and Specification Languages" and "QoS and Performance Management".

Before the conference, a two-day tutorial has been arranged with the following topics: "Teleservice Architectures and Platforms", "Internet", "Specification and Verification of Protocols", "SDL2000", "Security and

Electronic Commerce", "Mobile Agents and Active Networks" and "From IP over ATM to MPLS, A new Internet Architecture".

SMARTNET'99 has four keynote and five invited papers. The keynote speakers and their topics are: Professor Otto Spaniol from the University of Karlsruhe in Germany: "Active Network Nodes for Adaptive Multimedia Communication", Professor Olli Martikainen from the Helsinki University of Technology in Finland: "Internet Based Service Devlopment", Professor Guy Pujolle from the University of Versailles in France: "Smart vs. Intelligent vs. Active IP Networks" and Dr. Thaweesak Koanantakool from the National Electronics and Computer Technology Center in Thailand: "Software Park for Thailand". The Invited speakers and their topics are: Mr. Herbert Leitold from Graz University of Technology, Austria: "ATM Security: A Survey of Research, Products and Standards", Mr. Fritz Hohl from University of Stuttgart, Germany: "Mobile Agents and Active Networks", Professor André Danthine from the University of Liége in Belgium: "How to Provide QoS in the Next Generation Internet?", Professor Bjarne Helvik from the Norwegian University of Science and Technology in Trondheim, Norway: "Dependability Issues in Smart Networks" and Dr. Elie Najm from Ecole Nationale Supérieure des Télécommunications (ENST) in Paris, France: "Service Feature Interaction".

Many people have contributed to the organisation of this conference. We thank the members of the Program Commmittee for their continuous advice and help in reviewing and selecting papers. We would also like to thank IFIP TC6 and the sponsors for their support of this conference. Finally we would like to express our gratitude to the Organising Committee chaired by Dr. Kosol Petchsuwan for their excellent work and also Ms. Chutiporn Anutariya for her excellent technical advice and assistance during the whole process from "Call for Papers" to the technical preparation of this Proceedings.

Thongchai Yongchareon, Finn Arve Aagesen and Vilas Wuwongse

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