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Autonomic Principles of IP Operations and Management

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Preface

This volume presents the proceedings of the *6th IEEE International Workshop on IP Operations and Management (IPOM 2006)*, which was held as part of Manweek 2006 in Dublin, Ireland from October 23rd to 25th, 2006. In line with its reputation as one ofthe pre-eminent venues for the discussion and debate of advances of management of IP networks and services, the 2006 iteration of IPOM brought together an international audience of researchers and practitioners from both industry and academia. The overall theme of Manweek 2006 was "Autonomic Component and System Management",with IPOM taking this to be the application of autonomic principles to the IP operations, administration, maintenance and provisioning (OAM&P) domain.

IPOM 2006 is more relevant than ever to the emerging communications infrastructure that is increasingly focused on "convergence" of networks and services. Although arguably over-hyped, there is a fundamental truth to this convergence story, and this is based on the fact that the TCP/IP protocol suite (IPv4 and IPv6) has become the common denominator for a plethora of such converged services. One good example in the period between IPOM 2005 and IPOM 2006 has been the large scale deployment of consumer VoIP, linked to the success of Skype and alternatives including SIP-based approaches. In many countries VoIP is driving broadband deployment for SMEs where real costs savings can be accrued, especially for companies with remote staff in the field. Many operators are now deploying Quality of Service (QoS) schemes to manage this VoIP (and other premium) traffic. This brings these issues from the research laboratory into the operations and management domain.

Being a relatively pragmatic workshop IPOM 2006 is focused on issues that matter to those managing such IP networks and services, both enterprise networks and telecommunications operators' networks. These issues include the complexity of interoperability between networks and service providers, the performance versus costs in operating IP-based networks, and the OAM&P challenges in next generation networks(NGNs) and related seamless service provision. Of particular interest in the telecommunications sector are issues related to Fixed-Mobile Convergence and the emerging IP Multimedia System (IMS). These issues were reflected in the issued call for papers.

In response to the IPOM 2006 call for papers a total of 45 paper submissions were received from the research community. Of these, 39 were full papers and 6 were short papers. After a comprehensive review process carried out by the technical programme committee and additional subject area experts all submissions were ranked based on review scores and the co-chair's view on their contribution and relevance to the conference scope. All submissions received at least 3 reviews, with most receiving 4. After lengthy discussions it was decided to accept 18 of the 39 submitted full papers (40% acceptance rate of the total submissions) and 4 short papers. These papers present novel and interesting contributions in topics ranging from OSPF weightings in

intradomain QoS, to large scale topology discovery. We believe that, taken together, these papers provide a provocative insight into the current state of the art in IP operations and management.

There are many people whose hard work and commitment were essential to the success of IPOM 2006. Foremost amongst these are the researchers who submitted papers to the conference. The overall quality of submissions this year was high and we regret that many high quality papers had to be rejected. We would like to express out gratitude to both the IPOM steering committee and the technical committee, for their advice and support through all the stages of the conference preparation. We thank all paper reviewers, in particular those outside the technical programme committee, for their uniformly thorough, fair and helpful reviews. We thank the IEEE for their continued support and sponsorship of IPOM.

Most of the time-consuming practical and logistical organisation tasks for the conference were handled by the members of the Manweek Organisation Committee – this made our jobs significantly easier, and for that we are very grateful. Finally, we wish to acknowledge the financial support of both Science Foundation Ireland and the Manweek corporate sponsors, whose contributions were hugely instrumental in helping us run what we hope was a stimulating, rewarding and, most importantly, an enjoyable conference for all its participants.

October 2006

Gerard Parr
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