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Autonomic Principles of IP Operations and Management

6th IEEE International Workshop
on IP Operations and Management, IPOM 2006
Dublin, Ireland, October 23-25, 2006
Proceedings



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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 of the 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

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Table of Contents

1. Modeling and Planning

Traffic Modeling and Classification Using Packet Train Length and Packet Train Size	1
<i>Dinil Mon Divakaran, Hema A. Murthy, Timothy A. Gonsalves</i>	
Adaptive Bandwidth Allocation Method for Long Range Dependence Traffic	13
<i>Bong Joo Kim, Gang Uk Hwang</i>	
Algorithms for Fast Resilience Analysis in IP Networks	25
<i>Michael Menth, Jens Milbrandt, Frank Lehrieder</i>	

2. Quality of Service Routing

Efficient OSPF Weight Allocation for Intra-domain QoS Optimization ...	37
<i>Pedro Sousa, Miguel Rocha, Miguel Rio, Paulo Cortez</i>	
Probabilistic QoS Guarantees with FP/EDF Scheduling and Packet Discard in a Real Time Context: A Comparative Study of Local Deadline Assignment Techniques	49
<i>Fadhel Karim Maïna, Leila Azouz Saïdane</i>	
A Quantitative QoS Routing Model for Diffserv Aware MPLS Networks	61
<i>Haci A. Mantar</i>	

3. Quality of Service Issues

Experience-Based Admission Control with Type-Specific Overbooking ...	72
<i>Jens Milbrandt, Michael Menth, Jan Junker</i>	
Applying Blood Glucose Homeostatic Model Towards Self-management of IP QoS Provisioned Networks	84
<i>Sasitharan Balasubramaniam, Dmitri Botvich, William Donnelly, Nazim Agoulmine</i>	
New Mathematical Models for Token Bucket Based Meter/Markers	96
<i>Rafal Stankiewicz, Andrzej Jajszczyk</i>	

4. Management and Configuration

Unique Subnet Auto-configuration in IPv6 Networks	108
<i>Reha Oguz Altug, Cuneyt Akinlar</i>	
An Efficient Process for Estimation of Network Demand for QoS-Aware IP Network Planning	120
<i>Alan Davy, Dmitri Botvich, Brendan Jennings</i>	
A Protocol for Atomic Deployment of Management Policies in QoS-Enabled Networks	132
<i>Rodrigo Sanger Alves, Lisandro Zambenedetti Granville, Maria Janilce Bosquirol Almeida, Liane Margarida Rockenbach Tarouco</i>	

5. Autonomics and Security

Towards Autonomic Network Management for Mobile IPv4 Based Wireless Networks	144
<i>Dong-Hee Kwon, Woo-Jae Kim, Young-Joo Suh, James W. Hong</i>	
A Comparison of Mobile Agent and SNMP Message Passing for Network Security Management Using Event Cases	156
<i>Ching-hang Fong, Gerard Parr, Philip Morrow</i>	
Principles of Secure Network Configuration: Towards a Formal Basis for Self-configuration	168
<i>Simon N. Foley, William Fitzgerald, Stefano Bistarelli, Barry O'Sullivan, Mícheál Ó Foghlú</i>	

6. Topology

Risk Assessment of End-to-End Disconnection in IP Networks Due to Network Failures	181
<i>Jens Milbrandt, Ruediger Martin, Michael Menth, Florian Hoehn</i>	
Evaluation of a Large-Scale Topology Discovery Algorithm	193
<i>Benoit Donnet, Bradley Huffaker, Timur Friedman, kc claffy</i>	
The Virtual Topology Service: A Mechanism for QoS-Enabled Interdomain Routing	205
<i>Fábio Verdi, Maurício Magalhães, Edmundo Madeira, Annikki Welin</i>	

7. Short Papers

Correlating User Perception and Measurable Network Properties: Experimenting with QoE	218
<i>Pál Varga, Gergely Kún, Gábor Sey, István Moldován, Péter Gelencsér</i>	
Towards Realization of Web Services-Based TSA from NGOSS TNA	222
<i>Mi-Jung Choi, Hong-Taek Ju, James W.K. Hong, Dong-Sik Yun</i>	
An Efficient Queue Management (EQM) Technique for Networks	228
<i>Debessay Fesehaye Kassa</i>	
Monitoring MIPv6 Traffic with IPFIX	232
<i>Youngseok Lee, Soonbyoung Choi, Jaehwa Lee</i>	
Author Index	237