ACM ReArch '09

Re-Architecting the Internet

Tilman Wolf  University of Massachusetts
Lars Eggert  Nokia Research Center

Rome, Italy
December 2, 2009
WLAN

SSID: CNRMORO

open web browser
click “Ospiti”

login: ospite.convegni
password: ospiteconvegni
<table>
<thead>
<tr>
<th>Program Committee</th>
<th>Steering Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bengt Ahlgren</td>
<td>Marcelo Bagnulo</td>
</tr>
<tr>
<td>Mark Allman</td>
<td>Olivier Bonaventure</td>
</tr>
<tr>
<td>Jun Bi</td>
<td>Kenjiro Cho</td>
</tr>
<tr>
<td>Bob Briscoe</td>
<td>Joe Touch</td>
</tr>
<tr>
<td>Brian Carpenter</td>
<td></td>
</tr>
<tr>
<td>Jon Crowcroft</td>
<td></td>
</tr>
<tr>
<td>Kevin Fall</td>
<td></td>
</tr>
<tr>
<td>Pierre Francois</td>
<td></td>
</tr>
<tr>
<td>James Griffioen</td>
<td></td>
</tr>
<tr>
<td>Robert Hancock</td>
<td></td>
</tr>
<tr>
<td>Mark Handley</td>
<td></td>
</tr>
<tr>
<td>Hiroaki Harai</td>
<td></td>
</tr>
<tr>
<td>Daniel Massey</td>
<td>Pekka Nikander</td>
</tr>
<tr>
<td>Martin May</td>
<td>Craig Partridge</td>
</tr>
<tr>
<td>Akihiro Nakao</td>
<td>George Rouskas</td>
</tr>
<tr>
<td>Pekka Nikander</td>
<td>Peter Steenkiste</td>
</tr>
<tr>
<td></td>
<td>Christian Vogt</td>
</tr>
<tr>
<td></td>
<td>Klaus Wehrle</td>
</tr>
<tr>
<td></td>
<td>Rolf Winter</td>
</tr>
<tr>
<td></td>
<td>Martina Zitterbart</td>
</tr>
</tbody>
</table>

Lars Eggert | 2009-12-1 | Nokia © 2009
Author Breakdown – Registered Papers

- US: 29%
- FI: 13%
- JP: 9%
- CH: 8%
- DE: 7%
- UK: 4%
- IN: 3%
- CN: 3%
- IT: 3%
- ES: 2%
- FR: 2%
- IE: 2%
- RO: 2%
- NO: 2%
- IR: 2%
- BE: 2%
- CA: 2%
- GR: 2%
- MA: 1%
- LU: 1%
- BR: 1%
- SE: 1%
- KR: 1%
Review & Acceptance Process

23 TPC members, chairs excluded
single-blind review process
48 submissions
assigned to 4 TPC members each
  171 total reviews
  avg. review ~1500 characters
accepted 13 out of 48 = ~27%
Author Breakdown – Accepted Papers

- US: 56%
- FI: 12%
- DE: 12%
- GR: 5%
- UK: 5%
- CH: 2%
- JP: 2%
- ES: 2%
- FR: 2%
- IT: 2%
Program Change!

Old Program

Session 1: Data Transport
Break
Session 2: Architectural Concepts
Lunch
Session 3: Operational Aspects
Break
Session 4: Routing
Break
Session 5: Network Management

New Program

Session 1: Data Transport
Break
Session 2: Architectural Concepts
Lunch
Session 3: Network Management
Break
Session 4: Operational Aspects
Break
Session 5: Routing
Program

Welcome
9:00 – 9:05

Keynote: Rethinking the Control Architecture of the Internet
Mark Handley
9:05 – 10:00

Session 1: Data Transport
10:00 – 10:50

VoCCN: Voice Over Content-Centric Networks
Van Jacobson, Diana Smetters, Nicholas Briggs, Michael Plass, Paul Stewart, James Thornton, Rebecca Braynard

Securing Web Content
Joakim Koskela, Nicholas Weaver, Andrei Gurtov, Mark Allman
Program

Coffee Break

10:50 – 11:15

Session 2: Architectural Concepts

Session Chair: Bengt Ahlgren

Classifying Network Complexity
Michael H. Behringer

IP Version 10.0: A Strawman Design Beyond IPv6
Kenneth Carlberg, Saleem Bhatti, Jon Crowcroft

The Equilibrium of Discrimination in the Internet
Matthias Bärwolff

11:15 – 12:30

Lunch

12:30 – 13:30
Program

Session 3: Network Management  
13:30 – 14:45

Session Chair: Kenjiro Cho

Co-Design Patterns for Embedded Network Management
Dominique Dudkowski

An Architecture for Network Management
Karen Sollins

Shared Versus Separate Networks: The Impact of Reprovisioning
Soumya Sen, Roch Guerin, Kartik Hosanagar

Coffee Break  
14:45 – 15:15
Program

Session 4: Operational Aspects

Session Chair: Börje Ohlman

*mPlane: An Architecture For Scalable Fault Localization*

Ramana Rao Kompella, Alex Snoeren, George Varghese

*NetServ: Dynamically Deploying In-network Services*

Suman Srinivasan, Jae Woo Lee, Eric Liu, Mike Kester, Henning Schulzrinne, Volker Hilt, Srinivasa Seetharaman, Ashiq Khan

Coffee Break

15:15 – 16:05

16:05 – 16:20
Session 5: Routing

Session Chair: Mark Handley

Understanding Incentives for Prefix Aggregation in BGP
Costas Kalogiros, Marcelo Bagnulo, Alexandros Kostopoulos

HAIR: Hierarchical Architecture for Internet Routing
Anja Feldmann, Luca Cittadini, Wolfgang Mühlbauer, Randy Bush, Olaf Maennel

LANES: An Inter-Domain Data-Oriented Routing Architecture
Kari Visala, Dmitrij Lagutin, Sasu Tarkoma