D44 - Monitoring and Measurement Session at TNC 2005

Abstract

This document is the report on the MOME Session which was held on 7 June 2005 in conjunction with the TERENA Networking Conference in Poznan, Poland.

Keywords
Dissemination, D44, MOME Session, TNC 2005
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1 Overview

The MOME Session was held on 7 June 2005 in conjunction with the TERENA Networking Conference in Poznan, Poland.

This year MOME organised a panel session with the motto: “Researchers Openness, Operators Secrets and Legal Framework: How monitoring evolves in Future Networks?” The goal of this session was to trigger discussions about the future of network monitoring. There were 5 invited speakers in the session. Each of them made a short presentation about his viewpoint and then a discussion followed.

Invited speakers were as follows:

- Gianluca Iannaccone, Intel, UK
- Stuart Parham, Cisco, UK
- Nicolas Simar, Dante, BE
- Jiri Novotny, Masaryk University in Brno, CZ
- Andrew Cormack, UKERNA, UK

The panel discussion was chaired by Kevin Meynell from TERENA.

The MOME Session was run as a parallel session of the conference from 16:00 to 17:30. It attracted about 50 participants.

The full proceedings of the MOME Session can be found on the MOME website at: http://www.ist-mome.org/events/tnc-2005/

The session is also archived as a video stream, available from the TNC2005 website: http://www.terena.nl/conferences/tnc2005/

The MOME Session was a concluding session of the network monitoring track at the conference. Before the MOME session there were two other sessions, organised by the LOBSTER project, devoted to network monitoring:

- Network Monitoring for the NREN community
- Technological advances in Network Monitoring

More information about those sessions can be found on the LOBSTER website at: http://www.ist-lobster.org/events/tnc-2005/

2 Panelist statements and discussions

Gianluca Iannaccone from Intel spoke about a community oriented measurement infrastructure and possible ways of heading towards it. He discussed values vs. anxieties as well as the viewpoint of network operators vs. network users. He emphasized that data anonymisation would not solve the problem, but data ownership should be the main issue in the future.

Stuart Parham from Cisco started his presentation with asking some important questions about the monitoring and the law. Later he presented various facts about the speed of the network, the amount of data produced, the amount of the storage devices needed, etc. The only solution in very near future would be to work with data sampling, he suggested. Among other problems Stuart Parham mentioned port hoping and legal intercept related issues. He concluded with some more open questions.
Nicolas Simar from Dante focused on reasons why network operators preferred not to share their data, but researchers needed them. He discussed various areas of research where traffic data would be very helpful. He finalised his talk with some suggestions for the near future in network traffic monitoring.

Jiri Novotny from Masaryk University presented technical issues in the traffic monitoring, pointed out the importance of hardware acceleration and sketched some approaches for the future, including distributed systems, self-learning devices, modular systems, etc. He also drew the attention to risks of giving cheap and effective monitoring equipment in the hands of hackers.

Andrew Cormack from UKERNA outlined the legal framework for network monitoring, including differences between working with headers or content. He presented essential questions for every project, activity, action to be asked to justify network monitoring.

The first set of questions discussed the concept of anonymisation and its different meanings. Stuart Parham pointed out that in some countries usage of only headers would be considered as anonymisation, but in others not. Andrew Cormack thought that the key issue would be not to give out more information than absolutely necessary.

It was asked about reasons why data should be publicly available. Nicolas Simar replied that many projects have been funded by the community; therefore they should provide data which are needed and useful for the community. He thought that it is in the NREN interests to be as open as possible in order to support the researchers who are their stakeholders.

The issues were raised about the providers who supported some protocols, but did not support the monitoring of those protocols. Jiri Novotny and Stuart Parham agreed that monitoring solutions could not be sold in boxes. Monitoring should be considered as important task as routing and therefore the best solution should be chosen for that. Stuart Parham emphasized that there should be a pressure from the customers side to implement more advanced monitoring functions in the routing devices. Panellists discussed this issue in great detail.

Other topics discussed in the panel session included dealing with encrypted traffic and IPv6 traffic, trends of the corporate networks, legal intercept, usage of proxies, etc.

3 MOME Session evaluation

During the TNC all the participants were asked to fill the evaluation forms. The results about the MOME session were assessed; the overall rating was very good – average 4.5 points from 5 possible. Many people have said how useful the panel session was and that they would have liked to continue the discussions longer.