

D32 - Standardisation Event

Abstract

This document reports on the MOME Standardisation Event, held in Paris, France, on 31 July 2005 before the 63rd IETF meeting. The goal of the event was to encourage, coordinate, and plan standardisation activities within European projects in the monitoring and measurement area.

Keywords

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Table of Contents

Abstract.....	1
Keywords.....	1
Table of Contents.....	2
1 Overview	4
2 Standardisation Event Objectives.....	5
3 Event Programme	5
4 List of Participants.....	5
5 Updated Standardisation Plan.....	6
5.1 IETF Standardisation Team.....	6
5.1.1 Traceroute Metric and Storage.....	6
5.1.2 Multi-to-multi Measurements	6
5.1.3 Path-coupled Signalling for Configuring Traffic Meters	6
5.1.4 IPFIX Extension for Per-packet Export	7
5.1.5 IPFIX MIB module	7
5.1.6 IPFIX Implementation Guidelines	7
5.1.7 Potential Further Contributions.....	7
5.2 Participation in the IRTF IMRG	7
5.2.1 Investigation of Operator Requirements	7
5.2.2 Anonymization of Traffic Traces.....	8
6 Event Results and Conclusion	8

Executive Summary

The MOME Standardisation Event was organised in cooperation with the IST EuroLabs project. The goal of the event was to encourage, coordinate, and plan standardisation activities within European projects in the monitoring and measurement area.

This document first gives an overview of the event, reporting objectives, programme and participants. The main part of the document describes then the outcome of the event. At the meeting, an update of the MOME standardization plan was developed. The updated plan is specified in this document and deviations from the original plan described in deliverable D31 are pointed out and explained.

1 Overview

The MOME Standardization event was organized in collaboration with the IST EuroLabs project (<http://www.ist-eurolabs.org/>) and it was held in Paris, France, on 31st of July 2005, right before the 63rd IETF meeting.

The MOME Standardization event was co-located with 63rd IETF meeting in order to better catch audience interested in the standardization in the Monitoring and Measurement area.

The final program for the Standardization event contained 6 presentations from invited key researchers in the Monitoring and Measurement area of the IETF as well as from MOME partners currently active and with a solid knowledge of both IETF and ITU standardization procedures. The presentations were dedicated to the following topics: introduction of the MOME project and activities, standardization procedures in the IETF, MOME related activities in the IETF IPFIX, PSAMP, IPPM, RMON charters and MOME related activities in the ITU-T.

Detailed information on the Standardization event is available at the MOME web-site:

<http://www.ist-mome.org/events/standard/>

2 Standardisation Event Objectives

The standardisation event aimed at achieving the following objectives:

- To encourage standardisation initiatives in areas where contribution is needed;
- To ensure that relevant and upcoming standards are understood and followed by projects and companies;
- To spread knowledge and experience in IETF standardisation among projects;
- To introduce interested "newcomers" to the IETF WGs and related activities in the MOME area;
- To report and discuss results of the coordination activities carried out by the MOME standardisation team.

3 Event Programme

09:00 - 09:15 "Welcome note and introduction to the MOME project" (Antal Bulanza, ULB)
09:15 - 09:30 "Introduction to the IETF standardisation procedures" (J. Quittek, NEC Europe Ltd.)
09:30 - 10:15 "MOME related activities in the IETF charters":
- IPFIX (C. Schmoll, Fraunhofer Institute FOKUS)
- PSAMP (T. Zseby, Fraunhofer Institute FOKUS)
10:15 - 10:30 Coffee Break
10:30 - 11:15 "MOME related activities in the IETF charters"
- IPPM and RMON (Emile Stephan, France Telecom)
11:15 - 11:30 "MOME related activities in the ITU-T" (J. Quittek, NEC Europe Ltd.)
11:30 - 12:00 "Wrap-up and conclusions" (Antal Bulanza, ULB)

4 List of Participants

There were 10 participants at the workshop, representing 8 organizations from 4 countries.

Elisa Boschi	Hitachi	France
Antal Bulanza	ULB	Belgium
Thomas Dietz	NEC	Germany
Falco Dressler	University of Erlangen	Germany
Lutz Mark	FHG	Germany
Gerhard Münz	University of Tübingen	Germany
Nick Papadopoulos	Vodafone	UK
Jürgen Quittek	NEC	Germany
Carsten Schmoll	FHG	Germany
Emile Stephan	France Telecom	France
Martin Stiemerling	NEC	Germany
Tanja Zseby	FHG	Germany

5 Updated Standardisation Plan

At the MOME standardization event, an update of the MOME standardisation plan, initially described in deliverable D31, was developed. This section describes the update indicating changes compared to the initial version.

5.1 IETF Standardisation Team

The initial standardisation plan suggested the establishment of an IETF standardisation team. This team has been established in December 2004 and it already produced four new Internet drafts in six versions:

- How to store traceroute measurements and related metrics
draft-niccolini-ippm-storetracerroutes-00.txt, February 2005
draft-niccolini-ippm-storetracerroutes-01.txt, July 2005
- Framework for Metering NSLP
draft-fessi-nsis-m-nsip-framework-00.txt, February 2005
draft-fessi-nsis-m-nsip-framework-01.txt, July 2005
- Use of IPFIX for Export of Per-Packet Information
draft-boschi-export-perpktinfo-00.txt, June 2004
- Inter-domain Data Exchange Questionnaire
draft-boschi-data-exchange-quest-00.txt, July 2005

The original scope of the IETF standardisation team included the IETF IP Flow Information eXport (IPFIX) and IP Performance Metrics (IPPM) working group. The scope has been extended to cover also the Packet SAMPLing (PSAMP) and Next Steps In Signaling (NSIS) working groups.

5.1.1 Traceroute Metric and Storage

An Internet draft proposing a metric for traceroute measurements (draft-niccolini-ippm-storetracerroutes-01.txt) was submitted to the IPPM WG. The initial version was submitted in time by the IETF standardisation team for the 62nd IETF meeting but not presented there because of limited time in the IPPM session. An updated and completed version of the initial draft was submitted for the 63rd IETF meeting and presented. It is still under discussion whether or not the WG will accept the draft as a work item.

5.1.2 Multi-to-multi Measurements

The initial MOME standardization plan included an Internet draft on multi-to-multi measurements to be submitted to the IPPM WG. This draft was already submitted by other researchers. Instead the IETF standardization team submitted a draft on path-coupled configuration of traffic meters and on an IPFIX extension for per-packet export.
draft-boschi-export-perpktinfo-00.txt

5.1.3 Path-coupled Signalling for Configuring Traffic Meters

An Internet draft proposing a path-coupled signalling protocol for configuring traffic meters on the data path (draft-fessi-nsis-m-nsip-framework-01.txt) was submitted to the NSIS WG by the IETF standardisation team. The draft was discussed at the NSIS WG sessions at the 62nd and the 63rd IETF meeting. The response of the group was positive and the WG signalled that in general it would be willing to accept the draft as a work item, but the final decision will not be made before current work

items are closed. This can already be the case at the 64th meeting in November 2005, but will more probably be the case in March 2006.

5.1.4 IPFIX Extension for Per-packet Export

The IPFIX protocol is designed for exporting per-flow information. The IETF standardisation team developed an extension of the IPFIX protocol that also allows exporting per-packet information (draft-boschi-export-perpktinfo-00.txt) and proposed the extension to the IPFIX working group. It was discussed at the IPFIX session at the 63rd IETF meeting.

5.1.5 IPFIX MIB module

The initial MOME standardisation plan included two more documents to be submitted, an IPFIX MIB module and IPFIX implementation guidelines. Both documents were extensively discussed at the MOME standardisation event.

Work on the IPFIX MIB module is delayed, because the volunteers for writing this Internet draft are still busy with the PSAMP MIB module. Also talks with Cisco on including parts of their proprietary NetFlow MIB module in the IPFIX MIB module are not yet completed. Still, a first version of the IPFIX MIB module should be submitted for the 63rd IETF meeting.

5.1.6 IPFIX Implementation Guidelines

FHG and NEC have been working on an initial version of the IPFIX implementation guidelines before the 63rd IETF meeting. This document was not submitted after internal review considered that it is not mature enough. However, the MOME interoperability event just before the standardisation event resulted in a lot of input to IPFIX implementation issues. The material will be added to the existing guideline document and be submitted to the IETF before the next meeting.

5.1.7 Potential Further Contributions

Ideas for further contributions to IETF standardisation in the MOME area were discussed.

- a draft suggesting standard templates for IPFIX implementations to be used by IPFIX devices as default for reporting traffic measurements
- a draft suggesting a function for flow sampling at IPFIX devices
- further contributions to the already existing individual draft on flow aggregation at IPFIX devices (draft-dressler-ipfix-aggregation-01.txt)
- a draft suggesting practical tests for IPFIX implementations is being prepared as output of the extensive IPFIX tests at the Interop Event in Paris

5.2 Participation in the IRTF IMRG

MOME WP3 is promoting participation in the Internet Measurement Research Group (IMRG) among the projects participating in the MOME cluster. Currently two promising areas of participation have been identified.

5.2.1 Investigation of Operator Requirements

The first suggested contribution to the IMRG concerns investigating operator requirements regarding traffic metering. The first step in this direction is an operators' questionnaire. Such a questionnaire has

been developed by projects participating in the MOME cluster (draft-boschi-data-exchange-quest-00.txt) and proposed to the IMRG. After agreeing on the included questions, the IMRG is expected to coordinate the distribution of the questionnaires to operators and the evaluation of results.

5.2.2 Anonymisation of Traffic Traces

Anonymising of traffic traces is an important issue for further research on IP traffic measurement. The problem is that for legal reasons many traces collected cannot be made public in the research community, because this would potentially violate national laws, and contracts between customers and operators. Anonymisation of traffic traces could reduce this problem significantly. However, so far anonymisation is not well understood. There are several methods already in use, but the effect of the applied methods has not been investigated sufficiently. It is not fully clear which statistical properties of the anonymised traffic are changed in which way. This is important on one hand for research, because the usability of anonymised traces in experiments may depend on the statistical properties. On the other hand also compliancy with legal constraints can only be checked well, if the effect of anonymisation is fully understood.

Although all participants agreed that this would be a very good issue for the IMRG, so far no volunteers have been found to start an initiative within the IMRG.

The questionnaire draft has been put into a web-based online survey by MOME. It can be accessed at <http://www.ist-mome.org/surveyor/index.php?sid=7>

6 Event Results and Conclusion

The MOME Standardization Event provided useful discussion on current work undergoing at the IETF WG in the MOME area. Suggestions for improving the current submitted drafts and proposal for considering new drafts have been discussed. The MOME IETF team will continue his current involvement in the IETF working groups. Submissions of updated versions of the drafts are planned and are going to be supported within the respective WGs.