

IEEE COMMUNICATIONS SOCIETY

**STUDY GROUP
FOR
SECURITY, RELIABILITY, AND PERFORMANCE
FOR SOFTWARE DEFINED AND VIRTUALIZED ECOSYSTEMS
(SRPSDVE)**

Overview

Face-to-face Meeting (& via Teleconference)

December 8, 2014



Spilios Makris (Chair)
Palindrome Technologies



Study Group Meeting Agenda

- **Call to Order**
- **Introduction of Participants**
- **Introduction of the Study Group three Vice Chairs**
- **Contribution Readout based on Presenter's Time Zone (China/India first)**
- **Discussion on how these contributions could be used in writing the expected Study Group deliverable (i.e., a PAR to address the standardization of SDN, NFV regarding specific security, reliability, and performance related topics)**
- **Open Discussion – Q & A**
- **Next Steps / Action Items**
- **Future Meetings**
- **Adjourn**

Study Group Meeting Agenda – Timeline

CST (Austin, Texas Time)

- 10:00 – 10:30 Introduction, Objective, Background
- 10:30 – 2:00 Individual presentations about specific ideas for standardization
- 2:00 – 2:30 Identification of opportunities
- 2:30 – 2:45 Follow-up items for the next face-to-face meeting in 2015
- 2:45 – 3:00 Meeting wrap-up and closing

SRPSDVE Study Group Vice Chairs

■ Security:

- Ashutosh Dutta (AT&T, ETSI Liaison to IEEE)

ashutosh.dutta@att.com

■ Reliability:

- Chandru Mirchandani (Lockheed Martin)

chandru.j.mirchandani@lmco.com

■ Performance:

- Mohammad Asad Chaudhry (Univ. of Toronto)

masadch@ieee.org

Introduction of Participants

- **Your Name**
- **Company Name / Affiliation**
- **Area(s) of Expertise**
 - Security
 - Reliability
 - Performance
- **Standards-related Experience**
 - Present / Past

Study Group Participants' Affiliation*

1. ABB, India
2. AGH Univ. of Science & Technology, Poland
3. Alcatel-Lucent
4. Allot Communications
5. Amdocs
6. Assured Networks
7. AT&T
8. Bell Labs, China
9. Boeing
10. Brocade
11. Budapest Univ. of Technology, Hungary
12. CAIR DRDO, India
13. Catapult Consultants
14. Ciena
15. Cisco
16. CMRIT, India
17. COSMOTE, Greece
18. Create-Net, Italy
19. CUNY
20. Emerson Climate Technologies
21. Ericsson
22. Fluke Networks
23. Gilat Satellite Networks
24. GIT, India
25. GSU
26. Huawei, China & India
27. IBM
28. Illinois Institute of Technology
29. Indian Institute of Technology, India
30. Infosys
31. Intel Corp.
32. John Hopkins University
33. Juniper Networks
34. KerrNet Consulting, Canada
35. Llamastam Consulting, India
36. Lockheed Martin
37. Manhattan College
38. Manipal Institute of Technology, India
39. McGill Univ./Jewish Gen. Hospital, Canada
40. MITRE Corp.
41. Nakina Systems of Ottawa, Canada
42. National Chiao Tung University, China
43. NIST
44. OGCIO, Hong Kong
45. Oracle
46. Orange
47. OTE, Greece
48. Palindrome Technologies
49. PESIT, India
50. Politecnico di Milano, Italy
51. QuEST Forum
52. Rockwell Automation
53. RTI International
54. Rutgers University
55. Palindrome Technologies
56. Sasken Communication Technologies
57. Secure Computing Innovation Foundation
58. Sensus Metering System
59. SFI Connect, Ireland
60. Software Reliability Research LCC
61. SUNY at Buffalo
62. SYSREL
63. Tangentix, England
64. TCS, India
65. The Nemacolin Group
66. Unb
67. Uniandes
68. University of Maryland
69. University Putra, Malaysia
70. University of Wisconsin at Madison
71. UTL
72. Verizon
73. Verizon Wireless
74. Wipro

List of Uploaded Contributions per Topic

■ Overview

- **Spilios Makris** (Chair)

■ Security

- **Ramaswamy Chandramouli** (NIST)
- **François Cosquer** (Alcatel-Lucent)
- **Anton Kaska** (Nakina Systems of Ottawa)

■ Reliability

- **Abhilash Gopalakrishnan** (ABB India Development Center)
- **Rob Paterson** (KerrNet Consulting)
- **Chunming Qiao** (SUNY at Buffalo)
- **Spilios Makris** (Palindrome Technologies)

■ Performance

- **David Malone** (SFI Connect, Ireland)
- **Jinsong Wu** (Bell Labs, China)
- **Mohammad Asad Chaudhry** (University of Toronto)

What is Needed?

- **Follow-up on liaisons among other Standards Developing Organizations (SDOs) to get the latest status on outstanding issues**
- **Perform a gap analysis of the SDN/NFV worldwide work on Security, Reliability, and Performance with the goal to answer the question:**

“Which aspects of that work could be taken forward in IEEE for standardization?”

- **Use the above information to draft a PAR for ComSoc**

Discussion

- **Questions and Answers (Q&As) on:**
 - **The SRPSDVE Study Group**
 - **The three specific topics**
 - **Security**
 - **Reliability**
 - **Performance**

Next Steps / Actions

- **Liaise with the leadership and Subject Matter Experts of other Standards Developing Organizations during the Globecom 2014 conference**
- **Use the contributions to achieve a consensus in issuing or not of a PAR to address the standardization of SDN, NFV and related areas focusing on Security, Reliability, and Performance topics**
- **Write and distribute a Draft PAR to the Study Group members ahead of the next Study Group meeting**

Future Meetings

- **Type of meetings and frequency**
 - **Face-to-face (1 day) with teleconference option**
 - **At IEEE Headquarters in New Jersey (in March 2015)**

(Details will follow)

Additional Material

SRPSDVE Study Group Member Publications as References for SDN/NFV - 1

1) Ashutosh Dutta

- a) Book Title: “*Mobility Protocols and Handover Optimization*,” co-authored with Prof. Henning Schulzrinne of Columbia Univ.
Publication Date: May 2014

Below is the link to book’s preview in amazon.com:

http://www.amazon.com/Mobility-Protocols-Handover-Optimization-Application/dp/0470740582/ref=sr_1_1?s=books&ie=UTF8&qid=1395795277&sr=1-1

Below is the link to the John Wiley and Sons online version of the book:

<http://www.wiley.com/WileyCDA/WileyTitle/productCd-0470740582.html>
<http://onlinelibrary.wiley.com/advanced/search/results?start=1&resultsPerPage=20>

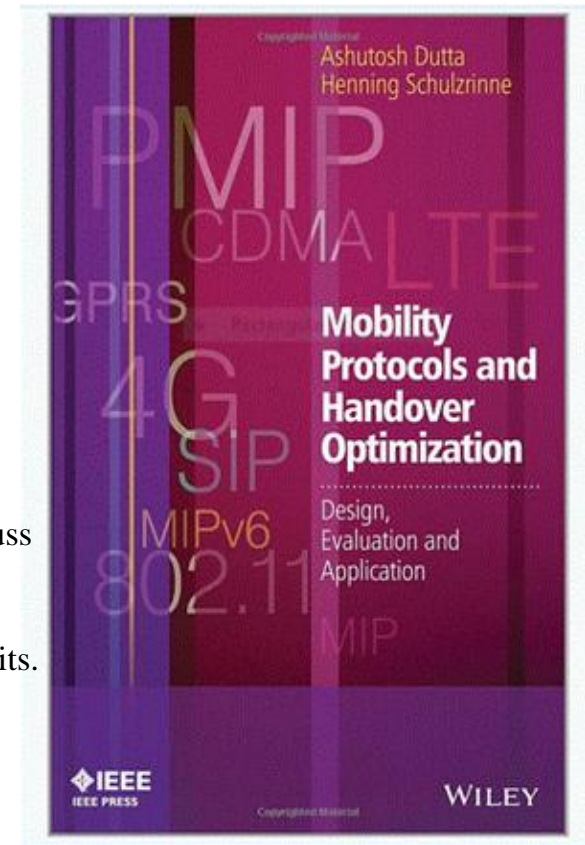
- b) Virtualization Security Panel at IEEE Globecom 2014, Austin, Texas
Date/Time: Tuesday, 9 December 2014, 16:45 – 18:00 CST

As part of Globecom’s Industry Program, Ashutosh is organizing a panel (IF-4) to discuss “Security Challenges and Opportunities in Network Function Virtualization.

Here are more details about the panel.

Please plan to attend this panel if you are coming to Globecom and your schedule permits.

<http://globecom2014.ieee-globecom.org/ifepanel.html#IF4>



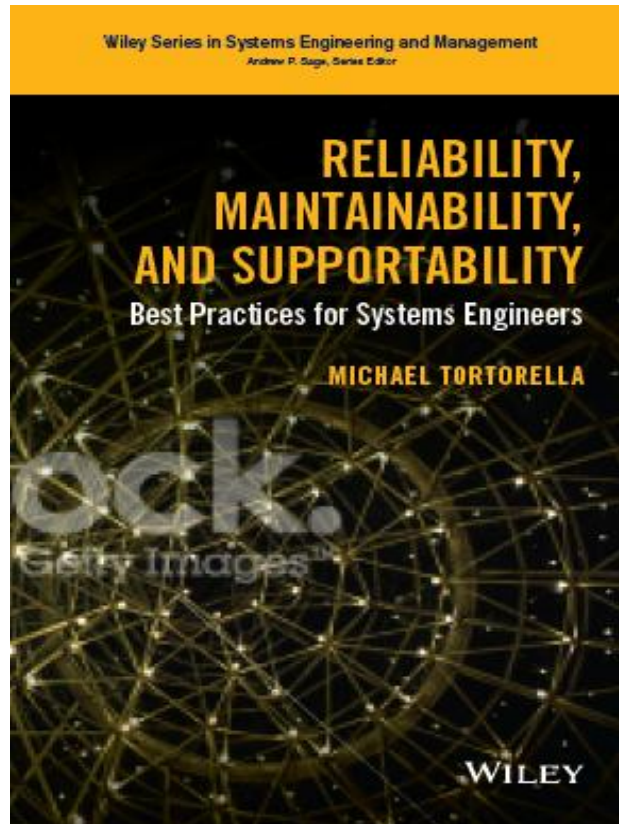
SRPSDVE Study Group Member Publications as References for SDN/NFV - 2

2) Mike Tortorella

Book Title: “*Reliability, Maintainability, and Supportability Best Practices for Systems Engineers*”

Publisher: John Wiley and Sons

Expected Publication Date: 1H2015



SRPSDVE Study Group Member Publications as References for SDN/NFV - 3

3) Ramaswamy Chandramouli (Mouli)

Title: “*Security Recommendations for Hypervisor Deployment*”, Draft NIST Special Report 800-125-A, October 2014

DRAFT Special Publication 800-125 A

DRAFT NIST Special Publication 800-125-A

**Security Recommendations for
Hypervisor Deployment**

Ramaswamy Chandramouli

COMPUTER SECURITY
