

**IEEE Communications Society**  
**Technical Sub-Committee on Big Data (TSCBD)**  
Agenda for Meeting at ICC2015, London, UK  
Date: Tuesday, 9<sup>th</sup> June 2015, 17:00 - 18:30  
Venue: South Gallery 25- 26, Excel Convention Center

## **1. Call to Order**

The meeting was called to order at 17:00 with 24 people in attendance. All participants introduced themselves and committee chair Dr. Li welcome all members. The agenda of the meeting below was presented and accepted by all the attendees.

- 1) Welcome to the first meeting
- 2) Introduction to TSCBD
- 3) TSCBD web site, membership criteria and status, and official email list
- 4) Address by Tom Hou (IEEE Infocom Steering Committee Chair)
- 5) Update on the creation and launch of the IEEE Big Data Initiative (BDI)
- 6) Standardization issues by Mahmoud Daneshmand
- 7) Conferences and journal issues
- 8) Any other Business, e.g. WGs
- 9) Next meeting at GC 2015
- 10) Adjourn

## **2. Introduction to TSCBD**

### A. Goals

- Provide a premier platform for the relevant community on big data processing, analysis, and networking.
- Provide support for research, development, and standardization community on big data processing, analysis, and networking.
- Interact and exchange technical ideas, to identify major R&D challenges, and to collaborate and investigate solutions in the development of methodology and solution for big data processing, analysis, and networking science and Technologies.
- Establish our support of Big Data topics in IEEE ComSoc.
- Coordinate ComSoc efforts on Big Data with other Societies and the IEEE FDC (Future Direction Committee).
- Promote global participations in ComSoc efforts on Big Data
- Cooperate and interact with other ComSoc technical committees and technical subcommittees on the topics of big data.

### B. Why TSCBD is needed

- Big Data becomes a more and more important research topic.
- We indeed need a leading team for the relevant topics in IEEE ComSoc. It follows the IEEE ComSoc rules of supporting new topics.

### C. Scope

- Theory, application, and challenges for big data processing
- Analytics on information and communications technologies
- Big data for network design and architectures
- Big data for network protocols
- Big data for security, privacy, and trust, big data for wireless access
- Big data for ad hoc and sensor networks
- Big data for software-defined networking, cognitive communications and networking
- Big data for smart homes
- Big data for smart sensing
- Big data for smart grids
- Big data for cloud computing and networking
- Big data for green information and communication technologies
- Big data for transmission and network signal processing techniques, and so on

### D. Activities

- TSCBD endorses events in the big data processing, analysis, and networking area, e.g., ensuring ComSoc's involvement in the related conferences, as well as organizing or contributing to the organization of technical events along the ComSoc flagship conferences.
- The officers of TSCBD will also appoint or invite Guest Editors for relevant special issues in the leading ComSoc journals and magazines.
- TSCBD will monitor the relevant standardization activities, and will promote ComSoc's involvement in the development of international standards around the world.
- TSCBD will also carry out assessment of the measurements, monitoring, trials, prototype, and test-beds implementations, standardization activities related to big data processing, analysis, and networking.

### E. Officers

- Jie Li, Chair (Global and Asia Pacific), Professor, Faculty of Engineering, Information and Systems, University of Tsukuba, Japan
- Jinsong Wu, Vice-Chair (Latin America), Professor, University of Chile, Chile
- Periklis Chatzimisios, Vice-Chair (Europe), Professor, Alexander TEI of Thessaloniki, Greece
- Shui Yu, Vice-Chair (Oceania), Professor, Deakin University, Victoria, Australia
- Kwang-Cheng Chen, Vice-Chair (Asia), Distinguished Professor and Associate Dean for academic affairs, College of Electrical Engineering and Computer Science, National Taiwan University
- Mahmoud Daneshmand, Vice-Chair (North America), Industry Professor, Business Intelligence & Analytics, Stevens Institute of Technology, USA
- Song Guo, Secretary, Professor, School of Computer Science and Engineering, The University of Aizu, Japan

### F. Proposed Activities

- IEEE GlobeCom 2015 Industry Panel
- ICC, GlobeCom, Big Data Track in SAC Symposium

### 3. TSCBD web site, membership criteria and status, and official email list

#### A. Web site

- [http://cms.comsoc.org/eprise/main/SiteGen/TC\\_BDPAN/Content/Home.html](http://cms.comsoc.org/eprise/main/SiteGen/TC_BDPAN/Content/Home.html)

#### B. Membership: TSCBD memberships give their members the opportunities:

- To network with technical experts in related fields
- To contribute to the activities in TSCBD
- To post messages to the TSCBD mailing list

#### C. Email list

- You must be an official member of TSCBD (instead of just a subscriber of TSCBD mailing list) in order to be able to send or post messages to the official TSCBD mailing list: [tcbd@comsoc.org](mailto:tcbd@comsoc.org).
- To add yourself to or remove yourself from the TSCBD mailing list, please go to <https://cm-listserv.ieee.org/cgi-bin/wa?SUBED1=tcbd&A=1>.

### 4. Address by Tom Hou

Prof. Tom Hou congratulated the newly established TSCBD. As the Steering Committee Chair of IEEE Infocom, one of the most prestigious ComSoc conferences, Prof. Hou encouraged TSCBD to propose workshop on big data colocated with Infocom 2016.

### 5. Updates on IEEE Big Data Initiative (BDI)

BDI Program Director Ms. Kathy Grise gave a brief introduction and then BDI Chair Prof. David Belanger provided the updates below.

#### A. Spectrum

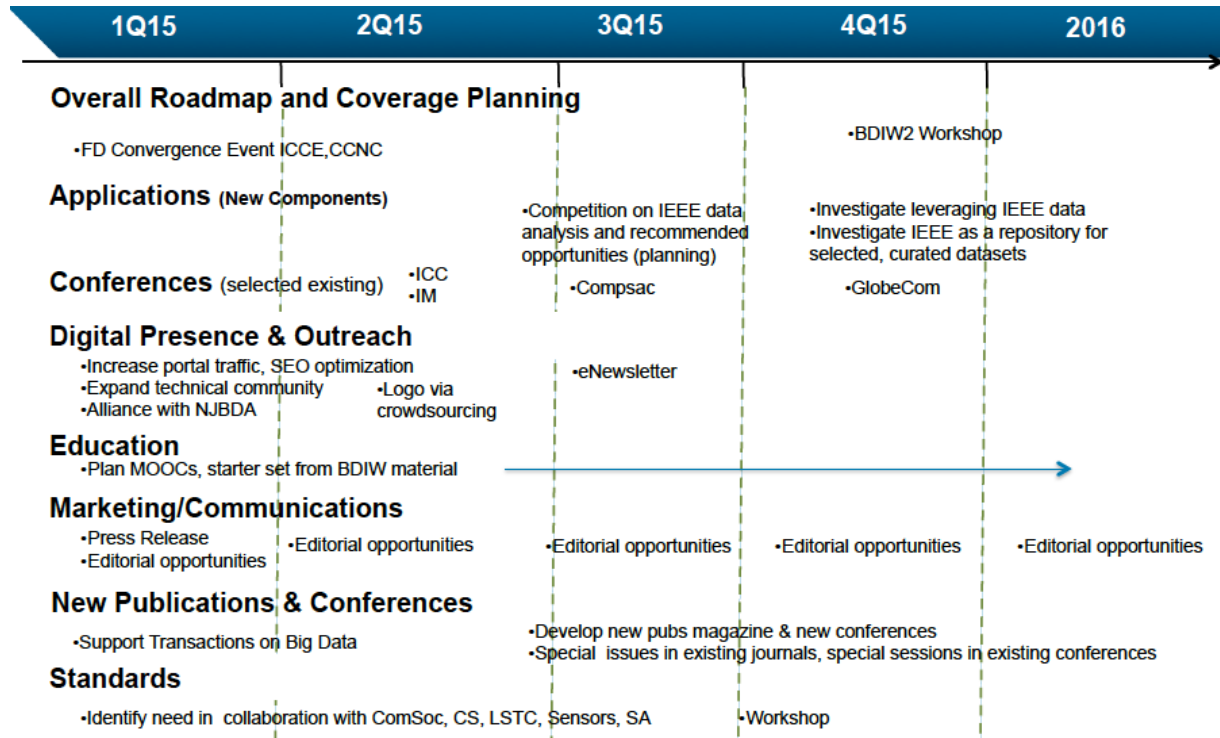


#### B. Objective

- Nurture and curate collaboration across all the interested societies, councils, and OUs for a well-coordinated approach and message for big data.
- Launch new initiatives across IEEE on Publications, Conferences, Education, and Standards that address in a comprehensive way the many opportunities and different dimensions of Big Data.
- Develop and grow IEEE's technical community on big data, and to serve as a

- forum for discussion on the social implications of big data.
- Ensure IEEE is a leader driving for consistent handling of data, its privacy and security.

### C. 2015 BDI Project Plan

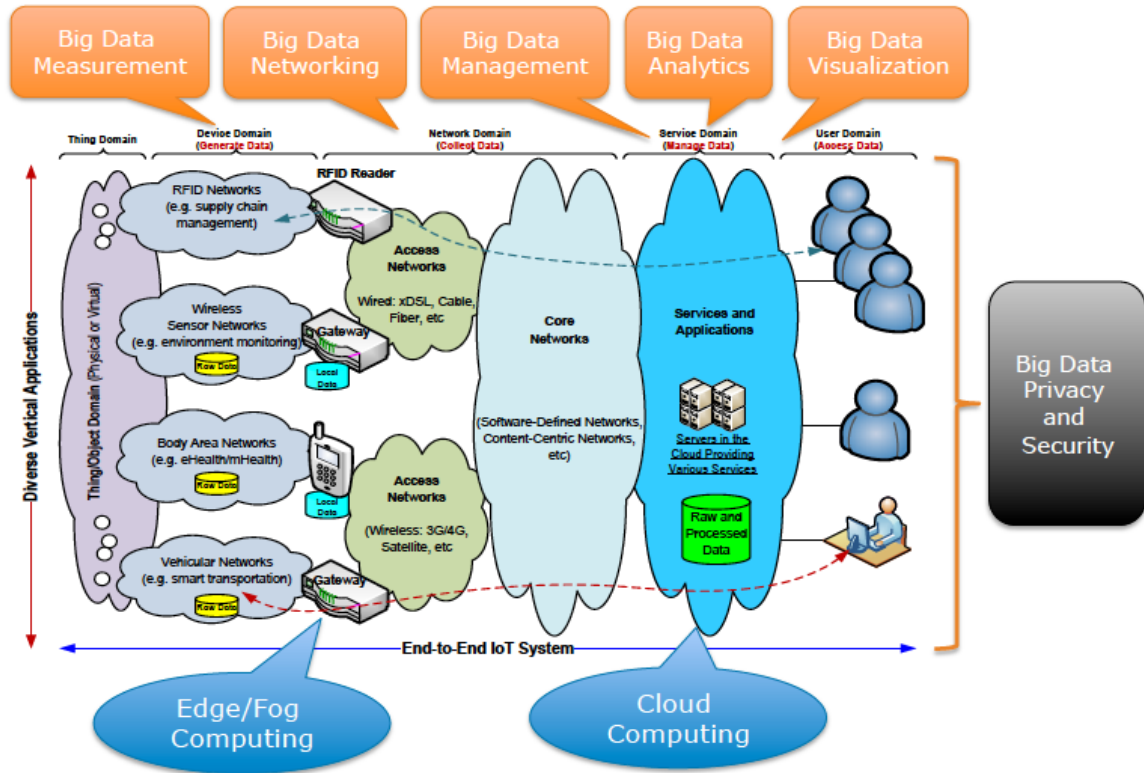


### D. Activities

- BDI Chair – David Belanger
- BDI Program Director – Kathy Grise
- Standards track lead by Mahmoud Daneshmand
  - Determining focus areas and organizing a standardization workshop for later 2015
  - Many ComSoc volunteers participating
- Conferences track lead by Doug Zuckerman
  - CCNC, IM, ICC, GlobeCom
- Data analytics and competition

### 6. Standardization Issues

First, Prof. Mahmoud Daneshmand explained the background as illustrated below.



Then Dr. Periklis Chatzimisios discussed detailed issues:

#### A. Objectives and Goals of 2015

- Event: IEEE BDI Definitions & Standards Workshop 2015
- Determine areas of opportunities

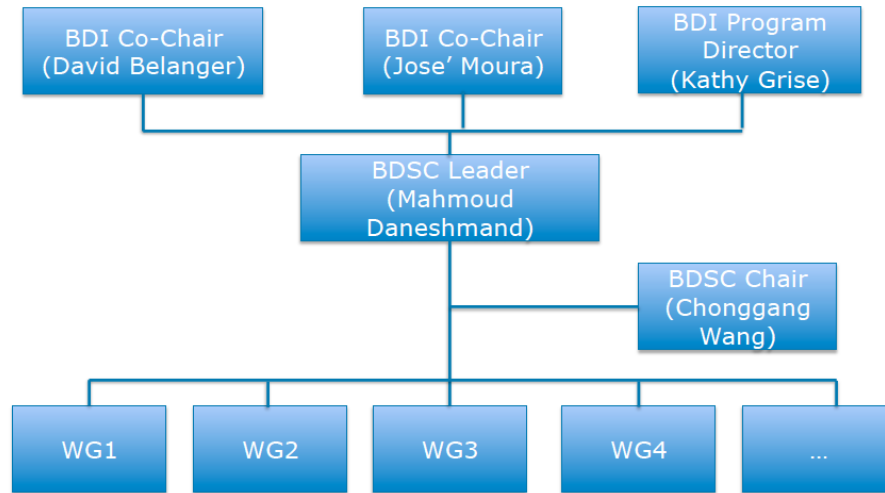
#### B. Existing Big Data Standards Development Organization (SDO)

- NIST Big Data Public Working Group <http://bigdatawg.nist.gov/home.php>
- W3C Big Data Community Group <https://www.w3.org/community/bigdata/>
- OGC Big Data Domain Working Group <http://www.opengeospatial.org/projects/groups/bigdatadwg>
- ITU-T SG13 Work Item: Requirements and capabilities for cloud computing based big data [http://www.itu.int/ITU-T/workprog/wp\\_item.aspx?isn=9853](http://www.itu.int/ITU-T/workprog/wp_item.aspx?isn=9853)

#### C. Potential IEEE BDI Standardization FGs

- FG0 – Definitions & Standards Workshop Organizing Committee
- FG1 – Use Cases and Requirements
- FG2 – Architecture
- FG3 – Infrastructure
- FG4 – Networking (communications)
- FG5 – Management (structured and unstructured, formats, size of data)
- FG6 – Analytics
- FG7 – Security and Privacy (Medical focus first?)
- FG8 – Sensors and other Devices

#### D. BDSC Structure



### E. BDSC Volunteers

First Name	Last Name	Affiliation	Society Affiliation	Country
Mervat	Abu-Elkheir	Mansoura University		Egypt
Nazim	Agoulmine	University of Evry - Val d'Essonne	LSTC, EMBS	France
Priscilla	Amalraj	IEEE	IT	USA
Dave	Belanger	Stevens Institute of Technology		USA
Joe	Betser	The Aerospace Corp		USA
Carole	Carey	US FDA Center for Devices and Radiological Health (CDRH) - retired	LSTC, EMBS	USA
Sri	Chandra	IEEE	Global	India
Wo	Chang	NIST		USA
Periklis	Chatzimisios	Alexander Technological Educational Institute of Thessaloniki		Greece
Chi-Ming	Chen	AT&T Labs		USA
Mahmoud	Daneshand	Stevens Institute of Technology	Sensors, ComSoc	USA
Steve	Diamond	EMC	CS	USA
Rob	Fish	NETovations	ComSoc	USA
Alexander	Gelman	NETovations	ComSoc	USA
Liz	Gomez	D&B Global Product		USA
Kathy	Grise	IEEE	CS, ComSoc, SPS, CES	USA
Song	Guo	University of Aizu		Japan
Sin-Kuen	Hawkins	IEEE	LSTC, EMBS	USA
Donna	Hudson	University of California	LSTC, EMBS	USA
Alex	Kuo	University of Victoria		Canada
Jie	Li	University of Tsukuba		Japan
William	Liu	Auckland University of Technology		New Zealand
Carolyn	McGregor	Health Informatics, University of Ontario Institute of Technology	LSTC, EMBS	Canada
Roberto	Minerva	Telecom Italia		Italy

Jose`	Moura	Carnegie Mellon University	SPS	USA
Troy	Nagle	North Carolina State University	Sensors	USA
Tomas	Pena			
Ali	Sadri	Intel Corporation		USA
Roberto	Saracco	EIT ICT Labs		Italy
Yogesh	Simmhan	Indian Institute of Science		
Jilei	Tian	BMW		USA
Cherry	Tom	IEEE	SA	USA
Mehmet	Ulema	Manhattan College		USA
Monica	Wachowicz	University of New Brunswick		Canada
John	Walz	Shreya Business Solutions	CS, LSTC, EMBS	USA
Chonggang	Wang	InterDigital		USA
Joan	Woolery	IEEE	SA	
Jinsong	Wu	Universidad de Chile		Chile
Yinglong	Xia	IBM		USA
Chetan	Yadati	Wipro		India
Ouyang	Ye	Verizon		USA
Shui	Yu	Deakin University		Australia
Dongli	Zhang	Huawei		
Doug	Zuckerman	Telcordia - retired	CS, ComSoc	USA

#### F. Next Steps

- Invite more volunteers from the world with good balance
  - Industry vs Academia, Geographic Balance, etc.
- Identify BD standards gaps and formulate appropriate BD standardization working groups on prioritized areas
- Select vice-chairs for BDSC and leaders for each working group
- Brainstorm on IEEE BDI Definitions & Workshop 2015
- Send your contact information to [k.l.grise@ieee.org](mailto:k.l.grise@ieee.org)

#### G. Big Data Communications / Networking (BDC/BDN) Focus Group

- Network architecture/framework design
- Network modeling
- Access control
- Mobile/Wireless/Sensor networking
- Software-Defined Networking
- Social networking
- Network resource allocation
- Network resiliency and availability
- Network performance analysis

#### H. Technical Activities

- Involve the IEEE Emerging Technical Subcommittee on Big Data (TSCBD) in the planned standardization activities
- Identify/explore other Big Data standardization efforts (i.e. ITU-T, NIST, ISO, W3C)
- Coordinate with IEEE IoT and SDN initiatives

- Contact and coordinate with IEEE Communication Society Education & Training Board in order to plan educational activities on Big Data  
<http://www.comsoc.org/about/boards/technical-activities>
- Organize Industry Workshop on Big Data within IEEE Globecom 2015 (proposal deadline Monday 8<sup>th</sup> June)  
<http://globecom2015.ieee-globecom.org/content/call-industry-workshops>
- Propose a Big Data Communications Track in future IEEE ICC conferences (it seems that currently does not exist, Globecom has “Selected Areas in Communications: Big Data Networking”)
- Organize Workshop on Big Data within IEEE ICC 2016, Kuala Lumpur (proposal deadline Friday 26<sup>th</sup> June)

#### I. Useful Links

- IEEE Big Data Initiative (BDI) <http://bigdata.ieee.org>
- IEEE IoT initiatives <http://iot.ieee.org>
- IEEE SDN initiatives <http://sdn.ieee.org>
- IEEE Emerging Technical Subcommittee on Big Data (TSCBD)  
[http://cms.comsoc.org/eprise/main/SiteGen/TC\\_BDPAN/Content/Home.html](http://cms.comsoc.org/eprise/main/SiteGen/TC_BDPAN/Content/Home.html)
- IEEE Standards Association  
<http://theinstitute.ieee.org/benefits/standards/standards-that-support-big-data>

### **7. Conferences and journal issues**

#### A. Sponsored or Supported Conference Activities

- The first [IEEE International Workshop on Green Standardizations for ICT and Relevant Technologies \(GSICT\)](#) in conjunction with IEEE GLOBECOM 2015, Deadline: July 1, 2015
- The fourth [IEEE International Workshop on Cloud Computing Systems, Networks, and Applications \(CCSNA\)](#) in conjunction with IEEE GLOBECOM 2015, Deadline: July 1, 2015
- [International Conference on Big Data Intelligence and Computing \(DataCom\) 2015](#), Deadline: August 15, 2015

#### B. Sponsored or Supported Journals by TSCBD

- [International Journal of Big Data Intelligence \(IJBDI\)](#)

#### C. Sponsored or Supported Journal Special Issues

- IEEE Network Magazine Special Issue on [Big Data for Networking](#), Deadline: June 15, 2015
- IEEE Access Special Section on [Big Data for Green Communications and Computing](#), Deadline: May 10, 2015

### **8. Any other Business**

### **9. Next meeting at GC 2015**

- The next meeting will be held at Globecom 2015, December 6-10, San Diego, USA
- <http://globecom2015.ieee-globecom.org>



## **10. Adjourn**

- The meeting adjourned at 18:30.