

IEEE Dynamic Spectrum Access
Networks Standards Committee
(DySPAN-SC):
Update for IEEE TCCN Meeting at
IEEE ICC 2012

June 12, 2012

Ottawa, Ontario, Canada

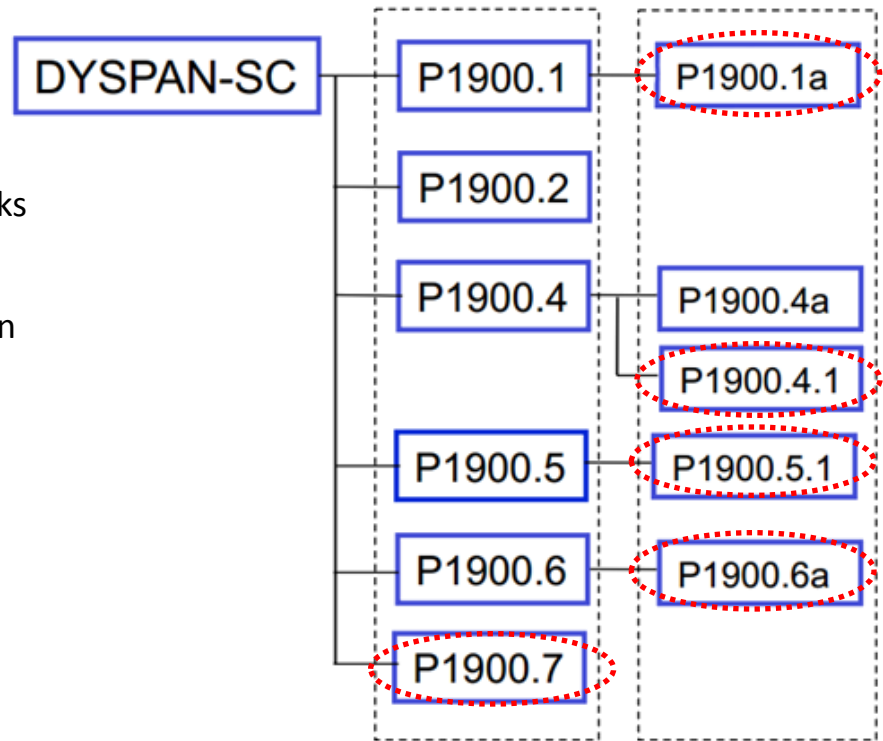
Oliver Holland, King's College London

Outline


1. Introduction to DySPAN-SC
2. Recent Progress
3. Upcoming Meetings

Introduction to DySPAN-SC

- ❑ Responsible for IEEE 1900 working groups under Communications Society Standards Board mandate, covering the area of “Dynamic Spectrum Access Networks” and related technologies
- ❑ Committee leadership comprises
 - ❑ Chair: Hiroshi Harada, NICT
 - ❑ Vice-Chair: Max Riegel, Nokia-Siemens Networks
 - ❑ Secretary: Yohannes Alemseged, NICT
 - ❑ Treasurer: Oliver Holland, King’s College London
 - ❑ IEEE 1900.1 Chair: Bernd Bochow, Fraunhofer Fokus
 - ❑ IEEE 1900.2 Chair: Stephen Berger, TEM Consulting
 - ❑ IEEE 1900.4 Chair: Masayuki Ariyoshi, NEC
 - ❑ IEEE 1900.5 Chair: Lynn Grande, General Dynamics C4 Systems
 - ❑ IEEE 1900.6 Chair: Michael Gundlach, Nokia-Siemens Networks
 - ❑ IEEE 1900.7 Chair: Stanislav Filin, NICT



Standards thus-far produced under DySPAN-SC

 = Standard currently being worked on

Introduction to DySPAN-SC

- ❑ Currently active Working Groups
 - ❑ IEEE 1900.1: “Terminology Relating to Emerging Wireless Networks, System Functionality, and Spectrum Management”
 - ❑ IEEE 1900.4: “Architectural Building Blocks Enabling Network-Device Distributed Decision Making for Optimized Radio Resource Usage in Heterogeneous Wireless Access Networks”
 - ❑ IEEE 1900.5: “Policy Language and Policy Architectures for Managing Cognitive Radio for Dynamic Spectrum Access Applications”
 - ❑ IEEE 1900.6: “Spectrum Sensing Interfaces and Data Structures for Dynamic Spectrum Access and other Advanced Radio Communication Systems”
 - ❑ IEEE 1900.7: “Radio Interface for White Space Dynamic Spectrum Access Radio Systems Supporting Fixed and Mobile Operation”
- ❑ Also operating an Ad-hoc Group on “Dynamic Spectrum Access in Vehicular Environments”

Recent Progress

- ❑ IEEE 1900.1
 - ❑ IEEE 1900.1a amendment to the 1900.1-2008 standard, expanding the list of terms to incorporate new terms/definitions that have emerged since 2008, has been submitted for Sponsor Ballot. Comment resolution will start after close of ballot on 22 June
 - ❑ Recently begun discussion on a revision of the published standard 1900.1-2008 (a revision is more extensive than an amendment; an amendment generally includes only additions)
- ❑ IEEE 1900.4
 - ❑ The 1900.4a amendment to 1900.4-2009, on the architecture and interfaces for dynamic spectrum access networks in white space frequency bands, published on September 16, 2011
 - ❑ Work is continuing on 1900.4.1 “Standard for Interfaces and Protocols Enabling Distributed Decision Making for Optimized Radio Resource Usage in Heterogeneous Wireless Networks”
- ❑ IEEE 1900.5
 - ❑ The IEEE 1900.5 standard was approved in December 2011 and published in January 2012
 - ❑ Work on the 1900.5.1 standard on “Policy Language for Dynamic Spectrum Access Systems” started in December 2011

Recent Progress

- ❑ IEEE 1900.6
 - ❑ Has approved Michael Gundlach, Nokia-Siemens Networks, as Chair
 - ❑ Regarding 1900.6a amendment, 6 technical issues have been identified and corresponding Calls for Contributions have been sent. System engineering document initiated to feed inputs into the amendment, with two approved inputs provided thus far on use of the standard for energy efficiency enhancement
- ❑ IEEE 1900.7
 - ❑ 1900.7 has been initiated, with the kick-off meeting being held in September 2011 in Berlin. P&Ps approved by 1900.7 during the September meeting
 - ❑ Vice-Chair (Oliver Holland) and Secretary (Muhammad Shakir) appointed
 - ❑ Concentrated on aspects of radio regulations, channel modeling, general requirements for the standard, and use cases in March 2012 Osaka meeting; progress made on these issues with production of harmonized documents
 - ❑ June 2012 Grenoble meeting will work on selection of frequency bands, selection of topology, and selection of multiple access method and modulation

Upcoming Meetings

- ❑ Participation is welcome!

Dates	Format	Location	Host
25-28 June, 2012	Joint IEEE DySPAN-SC and IEEE 1900 WGs	Grenoble, France	CEA-LETI
<i>(Tentative)</i> Week of 8 th October 2012	Joint meeting of IEEE 1900.6 and 1900.7 WGs	Beijing, China	BUPT
7-10 January, 2013	Joint IEEE DySPAN-SC and IEEE 1900 WGs	Washington, DC, USA	WInnForum

- ❑ For further information, please visit: www.dyspan-sc.org, or contact:
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Thank you for your attention!