SDC update

Joint meeting of IEEE EMBS 11073 & HL7 Health Care Devices (DEV) WG, 2016/05/10, Stefan Schlichting, David Gregorczyk
1. PARs
2. Draft Documents
3. OR.NET
4. Reference Implementation Update
5. Roadmap
### PARs Overview

<table>
<thead>
<tr>
<th>PAR Number</th>
<th>Title</th>
<th>Description</th>
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<tr>
<td>P11073-10702</td>
<td>Standard for Domain Information &amp; Service</td>
<td>IEEE Eng (EMB/11073)</td>
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<tr>
<td>P11073-20701</td>
<td>Standard for Service-Oriented Medical Devices</td>
<td>IEEE Eng (EMB/11073)</td>
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<tr>
<td>P11073-10702</td>
<td>Standard for Domain Information &amp; Service</td>
<td>IEEE Eng (EMB/11073)</td>
</tr>
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</table>
PARs
SDC DKE Workgroup

- Development of content in DKE WG STD 1000.8.03 WG
  - approx. every 6 Weeks as F2F or Telco
  - Next Meeting 2016-06-17 in Frankfurt

- Discussion of latest draft of the standards
  - IEEE SA Central Desktop
  - Telcos on request

If you want to participate
Contact Stefan Schlichting or Jan Wittenber
SDC Update
Agenda

1. PARs
2. Draft Documents
3. OR.NET
4. Reference Implementation Update
5. Roadmap
Draft Documents
20702 - MDPWS

Stability

- Closed all tickets before ballot invitation
- Hold 4 Educational Webinars
- Balanced ballot group with 33 participants
- Conditional approval to start the IEEE Standard Sponsor ballot
- Waiting for MEC confirmation
4.1 SOAP-over-UDP

R0001: A SERVICE MAY send a SOAP ENVELOPE that has more octets than the MTU over UDP if it is received via the discovery port. Otherwise, it SHOULD NOT be rejected.

R0002: A SERVICE MAY reject a SOAP ENVELOPE received over UDP that has more than MAX_LARGE_UDP_ENVELOPE_SIZE octets if it is received via the discovery port. Otherwise, it SHOULD NOT be rejected.

R0003: A CLIENT MAY reject a SOAP ENVELOPE received over UDP that has more than MAX_LARGE_UDP_ENVELOPE_SIZE octets if it is received via the discovery port. Otherwise, it SHOULD NOT be rejected.

NOTE—dpws::R0029 defines a limit for SOAP ENVELOPES send over UDP. In order to allow larger SOAP-over-UDP Streaming messages, this specificationrelaxes the utilization of MAX_UDP_ENVELOPE_SIZE. The same is true for dpws::R5018 and dpws::R5019.

4.2 SOAP-over-HTTP

R0004: A SERVICE SHALL at least implement the Responding SOAP Node of an HTTP one-way Message Exchange Pattern where the SOAP ENVELOPE is carried in the HTTP Request and the HTTP Response has a Status Code of 202 Accepted.

R0005: A SERVICE MAY send a TEXT SOAP ENVELOPE with more than MAX_ENVELOPE_SIZE octets

R0006: A SERVICE SHOULD NOT send a TEXT SOAP ENVELOPE with more than MAX_LARGE_ENVELOPE_SIZE octets.

NOTE—dpws::R0030 requires an empty Entity Body (no SOAP ENVELOPE) in the response while bp20::R2714 allows a SOAP ENVELOPE for infrastructure-related faults and protocol extensions, thus
## Milestone 201602 - MDPWS

**Status:** Open  
**Due Date:** 02/29/2016  
**Progress:** 0 / 0

Milestone for 20702 MDPWS spec for ballot readiness

Showing 5 results of 5

<table>
<thead>
<tr>
<th>#</th>
<th>Summary</th>
<th>Milestone</th>
<th>Status</th>
<th>Owner</th>
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<th>Updated</th>
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<tr>
<td>317</td>
<td>Wrong datatypes in code outline</td>
<td>201602 - MDPWS</td>
<td>unread</td>
<td>David</td>
<td>2016-04-18</td>
<td>2016-04-18</td>
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<td>315</td>
<td>xsd:duration should be xsd:dayTime</td>
<td>201602 - MDPWS</td>
<td>unread</td>
<td>David</td>
<td>2016-04-01</td>
<td>2016-04-01</td>
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<td>309</td>
<td>Add reference to XML schema</td>
<td>201602 - MDPWS</td>
<td>closed</td>
<td>Stefan Schlichting</td>
<td>2016-02-04</td>
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<td>308</td>
<td>Add DPWS activity diagrams to informative annex</td>
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<td>Stefan Schlichting</td>
<td>2016-02-04</td>
<td>less than 1 minute ago</td>
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<tr>
<td>305</td>
<td>Change R0035 and R0036 such that it fits hex-encoding</td>
<td>201602 - MDPWS</td>
<td>closed</td>
<td>David</td>
<td>2016-01-18</td>
<td>less than 1 minute ago</td>
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[https://goo.gl/09KFh0](https://goo.gl/09KFh0)
Stability

- No significant changes since January WG meeting
- Started to prepare the first draft
  
  https://goo.gl/rD33rd
Stability

- Minor changes to model to ease implementation
- 45 minor change requests open
January Version has showed its feasibility in OR.NET demonstrators!

https://goo.gl/ITCOrw
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OR.NET
conHIT demonstrators
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The OR.NET project – funded by BMBF – ended end of April 2016.

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The OR.NET Non-Profit Association

What’s next?
The dynamic interconnection of medical devices in the OR-network as well as the interaction of these devices with medically approved software is a particular challenge to information- and communication technologies in the medical field. The aim of the OR.NET non-profit association is to continue the work which has been done during the OR.NET project in 2012 - 2016.

Fundamental concepts for the secure and dynamic networking of components in operating room and hospital shall be further developed, evaluated and brought into standardization processes. For these concepts appropriate offers for training and further education and for services related to testing and approval have to be developed in order to ensure sustainability.

The OR.NET Association consists of several working groups, which build the operational base for cooperation and teamwork within the association:

- Industry
- Clinical users and operators
- Standardisation and internationalisation
- Human-machine-interaction and Risk Management
- Regulatory affairs
- Software Stacks (Library)
- Test labs, simulators and data security
- Education and training
- Approval strategies
- Coordination of OR.NET test labs and demonstrator sites

Members of the executive board are:

Chairman: Dr. Frank Portheine, SurgiTAIX AG, Aachen, Vice chairman: Prof. Thomas Neumuth, ICCAS, University Leipzig, Treasurer: Prof. Martin Leucker, ISP, University Lübeck, Board member for industrial affairs: Marc Stanesby, steute Schaltränge GmbH & Co. KG, Löhne, Board member for medical affairs: PD Dr. Michael Czaplak, Clinic for Anesthesiology, University Hospital Aachen, Board member for international standardisation: Dr. Stefan Schlichting, Drägerwerk AG & Co. KG, Lübeck, Board member for risk management and regulatory affairs: Dr. Armin Janß, CineMPEG e.V, Aachen

Find the latest OR.NET flyer with information about the OR.NET non-profit association under http://goo.gl/cAHV8s
Weekly telco to inform JC2800 members about the

- OR.NET non-profit association
- SDC and ist relationship to ICE
- Risk Management approach
## SDC Update

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Reference Implementation Update

What is OSCLib?

Open Surgical Communication Library

The Open Surgical Communication Library (OSCLib) is a lightweight C++ web library for medical devices. It implements the project OR.NET specified Open Surgical Communication Protocol (OSCP), based on DPWS 1.1.

The OSCLib supports SOAP 1.2 and WSDL 1.1 standards.

The OSCLib is an open source C++ library.

License model

All developed in the project OR.NET specifications that are implemented by the OSCLib, apply as an open standard. Basically, therefore, be no license fees for the use of this standard applicable.

The proprietary use of the sample implementations (such as the OSCLib) after completion of the project requires...
openSDC is a reference implementation of the extensible SDC protocol stack for clinical workplace service-oriented medical device architectures

- BICEPS (Message & Service Model)
- MDPWS & DPWS (Transport)
openSDC downloads since January 2014 WG Meeting

- Version beta06 only available through develop branch in git
- Currently working on incorporating latest JMedS version in branch of beta06

See http://sourceforge.net/projects/opensdc/
SDC Update

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**Roadmap**

**Proposed Actions**

**20702 – MDPWS**
Start Balloting

**10207 – BICEPS**
Decide on ballot readiness in Q3/2016 in a series of telcos
Educational Webinars in August
Prepare to form ballot group

**20701 – SDC**
Prepare requirements with references to 10207 & 20702
Content-ready in Q3/2016
Thank you for your attention.

Contact
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david.gregorczyk@draeger.com