SDC update

Joint meeting of IEEE EMBS 11073 & HL7 Health Care Devices (DEV) WG,
2015/10/06, Stefan Schlichting
SDC Update
Agenda

1. PARs
2. Draft Documents
3. Reference Implementation Update
4. Roadmap
**PARs**

**Overview**

- The number of P11073-10702 should be changed to the right number P11073-10207.

<table>
<thead>
<tr>
<th>P11073-10702</th>
<th>P11073-20701</th>
<th>P11073-20702</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Submitter Email</strong>: <a href="mailto:stefan.schlichten@draeger.com">stefan.schlichten@draeger.com</a></td>
<td><strong>Submitter Email</strong>: <a href="mailto:stefan.schlichten@draeger.com">stefan.schlichten@draeger.com</a></td>
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<tr>
<td><strong>Type of Project</strong>: New IEEE Standard</td>
<td><strong>Type of Project</strong>: New IEEE Standard</td>
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<tr>
<td><strong>PAR Request Date</strong>: 19-Oct-2014</td>
<td><strong>PAR Request Date</strong>: 19-Oct-2014</td>
<td><strong>PAR Request Date</strong>: 19-Oct-2014</td>
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<tr>
<td><strong>PAR Approval Date</strong>: 10-Dec-2014</td>
<td><strong>PAR Approval Date</strong>: 10-Dec-2014</td>
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<tr>
<td><strong>PAR Expiration Date</strong>: 31-Dec-2018</td>
<td><strong>PAR Expiration Date</strong>: 31-Dec-2018</td>
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</tbody>
</table>

- **1.1 Project Number**: P11073-10702
- **1.2 Type of Document**: Standard
- **1.3 Life Cycle**: Full Use

- **2.1 Title**: Standard for Domain Information & Services

- **3.1 Working Group**: Upper_Layer (EMB/11073/UL)
  - **Contact Information for Working Group Chair**
    - Name: Jan Wittenber
    - Email Address: jan.wittenber@gmail.com
    - Phone: 978-494-2439

- **3.2 Sponsoring Society and Committee**: IEEE Engineering (EMB/11073)

- **3.1 Working Group**: Upper_Layer (EMB/11073/UL)
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- **3.2 Sponsoring Society and Committee**: IEEE Engineering (EMB/11073)
PARs
Standardization Artifacts

11073

102xx

-10207
BICEPS DIM & Services

207xx

-20701
Service-oriented Medical Device Exchange Architecture & Protocol

-20702
Medical Device Profile for Web Services
PARs
SDC Google Group/DKE Workgroup

- Development of content in DKE WG STD 1000.8.03 WG
  - approx. every 6 Weeks as F2F or Telco

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

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

Agenda

1. PARs
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4. Roadmap
Stability

- No significant changes since May WG meeting
- added a non-normative appendix for an exemplary implementation
- Started to collect the requirements after May WG meeting

https://goo.gl/rD33rd
Stability

- Syntactical changes since May HL7 Workgroup meeting: Safety Information syntax modified
- IEEE Template transformed, some figures need to be re-formatted
- Formatting questions need to be solved
2 4.1 SOAP-over-UDP

3 R0001: A SERVICE MAY send a SOAP ENVELOPE that has more octets than the MTU over UDP. The name of the service MUST be well defined, and the meaning and format of the service data carried in the SOAP ENVELOPE MUST be understood by the receiving entity to determine if it is to be processed, and to handle any errors or exceptions that occur.

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

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

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

13 4.2 SOAP-over-HTTP

14 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.

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

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

21 NOTE—dpws:R0030 requires an empty Entity Body (no SOAP ENVELOPE) in the response while dpws:R2714 allows a SOAP ENVELOPE for infrastructure-related faults and protocol extensions, thus...
Draft Documents
20702 - MDPWS

Only editorial comments left after Sept DKE Telco.

https://goo.gl/09KFh0
Stability

- All sections content ready, IEEE Template
- Enhanced documentation
- Containment-tree model improved
- Finalized message & services
Draft Documents
10207 - BICEPS

Stability (Model)

- 68 tickets closed since May meeting

https://goo.gl/BWLP7y

Stability (Spec)

- 25 tickets closed since May meeting

https://goo.gl/kIH5wQ

<table>
<thead>
<tr>
<th>Ticket</th>
<th>Description</th>
<th>Model</th>
<th>Owner</th>
<th>Created</th>
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<tr>
<td>256</td>
<td>StateRevision in GetStatesFromArchive should be optional</td>
<td>201510 - BICEPS Model</td>
<td>closed</td>
<td>2015-09-17</td>
<td>2015-09-17</td>
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<td>255</td>
<td>Add means context</td>
<td>201510 - BICEPS Model</td>
<td>review</td>
<td>David</td>
<td>2015-09-15</td>
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<tr>
<td>254</td>
<td>AbstractMetricValue and MeasurementState</td>
<td>201510 - BICEPS Model</td>
<td>review</td>
<td>steph96</td>
<td>2015-09-15</td>
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<td>253</td>
<td>WaveformStream should be derived from AbstractReport</td>
<td>201510 - BICEPS Model</td>
<td>closed</td>
<td>steph96</td>
<td>2015-09-14</td>
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<td>252</td>
<td>Change CalibrationInfo usage for DeviceComponents</td>
<td>201510 - BICEPS Model</td>
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<td>2015-09-14</td>
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<td>249</td>
<td>Clarify leap seconds usage in Timestamp</td>
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<td>change documentation of GetContextStatesResponse</td>
<td>201510 - BICEPS Model</td>
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<td>Stefan Schlichting</td>
<td>2015-09-11</td>
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<td>247</td>
<td>change documentation of GetContextStates/HandleRef</td>
<td>201510 - BICEPS Model</td>
<td>closed</td>
<td>Stefan Schlichting</td>
<td>2015-09-11</td>
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<td>246</td>
<td>Set MeasureValue to required in Measurement</td>
<td>201510 - BICEPS Model</td>
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<td>steph96</td>
<td>2015-09-10</td>
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Stability

- 15 tickets left after Sept DKE Telco
- most are documentation enhancements

https://goo.gl/08sf5u

<table>
<thead>
<tr>
<th>#</th>
<th>Summary</th>
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<tr>
<td>261</td>
<td>AbstractContextState: Clarify &quot;binding&quot;</td>
<td>201601 - BICEPS</td>
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<td>Stefan Schlichting</td>
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<td>260</td>
<td>AbstractContextState: Clarify state chart for Context/Association</td>
<td>201601 - BICEPS</td>
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<td>251</td>
<td>Minor fixes for documentation</td>
<td>201601 - BICEPS</td>
<td>accepted</td>
<td>Stefan Schlichting</td>
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<td>Update documentation of RealTimeSampleArrayMetricState</td>
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<td>236</td>
<td>Clinical Relevance Clarification</td>
<td>201601 - BICEPS</td>
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<td>224</td>
<td>How to represent clinical priority</td>
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<td>221</td>
<td>Enhance documentation of ContextChangedReportPart</td>
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<td>220</td>
<td>Improve Figure 4</td>
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<td>197</td>
<td>Allow change of SamplePeriod for RTSampleArrays during runtime</td>
<td>201601 - BICEPS</td>
<td>open</td>
<td>Martin</td>
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<tr>
<td>187</td>
<td>Image data transmission</td>
<td>201601 - BICEPS</td>
<td>accepted</td>
<td>Martin</td>
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<td></td>
<td>Clarify order of SetResponse and</td>
<td></td>
<td></td>
<td>Stefan</td>
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Reference Implementation Update
What is OSCLib?

OSCLib – Open Surgical Communication Library
- The OSCLib is a partial implementation of the 11073 standard proposals 10207, 20701 and 20702.
- It aims to be fully compliant to these upcoming standards.
- Partial interoperability with openSDC has been demonstrated.
- The OR.NET demonstration during ConhIT 2015, Berlin, was mostly driven by the OSCLib.
- Implemented in C++ 11
- Swig wrappers for Java and C# available

Please contact Matthias Röhser (roehser@surgitaix.com) or Andreas Besting (besting@surgitaix.com) for more information
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 beta05 was released end of February 2015

See http://sourceforge.net/projects/opensdc/
Expect an update in Q4/2015 (openSDC beta06)

- Incorporate change request from DKE & IEEE workgroups
- Esp. 201510 BICEPS model will be included
- Get the develop from sourceforge for the current version
  - https://goo.gl/zhGXIZ
## SDC Update

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20702 – MDPWS
Fix IEEE Formatting
Decide on ballot readiness in Q4/2015 in a series of telcos
Form ballot group

10207 – BICEPS
Fix IEEE Formatting
Decide on ballot readiness in Q1/2016 in a series of telcos
Form ballot group

20701 – SDC
Prepare requirements with references to 10207 & 20702
Content-ready until Q1/2016
Thank you for your attention.

Contact
Stefan Schlichting

Research Unit, Drägerwerk AG
stefan.schlichting@draeger.com
Namespaces reservation
OIDs for Roles/CodingingSystems in SDC
Formatting of model in appendix of BICEPS
11073-10207 Number in PAR database