Workshop Overview

A focused discussion to resolve all open issues and Topics of Interest in order to clear the way for completion and publication of SDPi 1.0!

Participants (from left): Javier, Jakob, Peter, Anna, Ken, Martin, Tobias, David, AFC! Todd, Kathrin ...

Workshop Objectives

The workshop is focused on the following objectives:

1. Review SDPi 1.0 Specification / finalize list of tasks for publication for review cycles
2. Resolve any prioritized open technical issues (esp. Topics of Interest)
3. Resolve any other content issues, gaps, challenges, etc.
4. Finalize post-workshop action plan for completing the publication ready SDPi 1.0 draft

NOTE: Workshop will focus on that which benefits from in person discussion, not on editorial "wordsmithing"

Workshop Schedule & Agenda

The four day workshop schedule & agenda was distributed as an Excel file: SDPi 1.0 Workshop Agenda 2022-10-07.xlsx. (or the PDF version: SDPi 1.0 Workshop Agenda 2022-10-07.pdf)

From a high level ..

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics</th>
</tr>
</thead>
</table>
| 2022.10.11 | Morning: General review of SDPi 1.0 status & Topics of Interest  
            SDPi-P Walkthrough - Threads & Gaps  
            Afternoon – Open Working Sessions |
### 2022.10.12
**Morning:**
- Topics of Interest Resolution
- SDPi-R Profile + DEC Gateway

**Afternoon** – Open Working Sessions

### 2022.10.13
**Morning:**
- Topics of Interest Resolution
- SDPi-A Profile + ACM Gateway

**Afternoon** – Open Working Sessions

### 2022.10.14
**Morning:**
- Final Review of SDPi 1.0 Content & Editorial Completion Planning
- CA & Testing Strategy
- Version Planning: 1.x, 2.0, etc.

**Afternoon** – Open Working Sessions

### Workshop Discussion Notes

#### 2022.10.11 Tuesday

1. **Agenda**
   a. Welcome address by Jakob and Todd
   b. No changes to the agenda v2022.10.07. Ready to go!

2. **Participants**
   a. Tobias Klotz, David Gregorczyk, Javier Espina, Peter Kranich, Kathrin Riech, Kenneth Fuchs, Jakob Kleissl, Anna Feiler, Todd Cooper

3. **Discussion Notes**
   a. See results below...

4. **Results**
   a. **Decisions**
      i. DECISION:
         1. WoW: all merges to main SHALL happen through a Pull Request-triggered peer review
         2. WoW: generally there SHOULD be one Issue for one Pull Request.
         3. TOI - modelling device aggregators: will require practical experience. Push completely out of SDPi 1.0.
         4. Use cases in SDPi 1.0 will assume a known assemble / context
   b. **Backlog**
      - TASK: Remove "TOI - modelling device aggregators" from SDPi 1.0 list on Smartsheet & the TOI Confluence page Todd Cooper
      - TASK: modify Fig 10.1.1 (SDPi-P Actor Diagram) to rearrange vertically the provider and consumer and change some lines to differentiate SDC from other. Todd Cooper
      - TASK: Add reference(s) to the SDC Glue standard in Appendix A, message mappings. David Gregorczyk
      - TASK: Add reference(s) to MDPWS in Appendix A, message mappings. David Gregorczyk
   c. **Parking Lot**
      i. ISSUE: TOI - modelling device aggregators- discussion reopened. For SDPi 1.x.
      ii. ISSUE: Use cases on how devices acquire their assemble / context - For SDPi 1.x

#### 2022.10.12 Wednesday

1. **Agenda**
   a. Added:
      i. review of re-crafted Fig 10.1.1
      ii. Re-visit of Use Cases

2. **Participants**
   a. Tobias Klotz, David Gregorczyk, Javier Espina, Peter Kranich, Kathrin Riech, Kenneth Fuchs, Anna Feiler, Todd Cooper

3. **Discussion Notes**
   a. **TOI discussion**
      i. **Connect Time Delay Algorithm:** We want to have both described options and provide some guidance, when to use which one. David (technical), Todd will integrate into the document
      ii. **Handling missed discovery messages** / SOAP over UDP Retry - and Back-off Algorithm - Recurring Hello and Recurring Probe are aligned and need to be added to the document. SOAP over UDP Retry - and Back-off Algorithm duplicates the DPWS recommendations. Javier will add text to the document, with Todd's help to create an issue.
      iii. **Info exchange during unsecured discovery:** will be added to volume 3 general part (Todd) and volume 2 (David), Peter will review. David will ask Michael Faughn for missing participant / MDS type codes.
1. NOTE: Later in the week during review, it was determined that Todd Cooper would be best to engage Michael Faughon on the needed participant / MDS type codes.

iv. System Context Profiling & use: For this version, we’ll limit ourselves to a simple precondition (device is coupled via patient or location), Ken will add that to the use cases, Todd will integrate some of the explanatory text to volume 3, needs to be re-discussed in a later version, David will make equipment label and location mandatory (if available) in the discovery in volume 2 - Consumers can connect based on location, equipment label or everyone in the scope.

v. MDIB Version Update Guidelines: How do we use the counters for optimal performance? - Check for issue related to adding a message counter in BICEPS and create one if it is missing. Revisit in 1.x. David will provide a general guidance on incrementing versions in 1.0 in volume 3 in the general BICEPS section.

vi. Profiling BICEPS Services in SDPi-P: David will add documentation to MDPWS appendix.

vii. What is a Central?: Todd will integrate the results from Peter in the document.

viii. Security Certificate Provisioning: David will provide a general description in SDPi-P, SES. Needs to be revisited at a later date together with Accelerator program.

ix. SDPi Compression option: Supporting HTTP compression is mandatory, everything (e.g. EXI) else is not. David will put in the MDPWS appendix and Todd will provide it in SDPi-P in transport agnostic language.

x. What is a smart Alert System?: Content is ready and will now be integrated by Todd to volume 3.

xi. SDPi BICEPS Extension Namespace: Content is ready and will be moved to volume 3, BICEPS section by Todd.

xii. MDIB Report Retrofit: David, Javier and Eric (Philips colleague) will discuss this tomorrow afternoon. Solution to be included in volume 2 (general BICEPS) and 3.

xiii. BICEPS Extension Model Use in SDPi?: Provide a guideline on when to use it/when not to use it. Must understand = true extensions in the state are forbidden. David will provide a guideline in volume 3 BICEPS, Peter will review the pull request.

xiv. Discovery Proxy Actors: Pushed to version 1.1. to wait for feedback from implementation.

xv. MDIB-MDS Modeling for Device Aggregators: For version 1.x.

xvi. SDPi-xC with Mixed Device Safety Classes: one of our favorite discussion topics (irony intended), For version 1.x.

b. Re-visit of Use Cases
   i. Changes made online on top of the version Ken shared on Tuesday afternoon. Use cases planned for after SDPi 1 (after the fourth one) will not be added to SPD 1.0.

c. SDPi-R Profile + DEC Gateway
   i. Peter went through his list of questions. Resolutions noted directly in the applicable ASCIDOC files ("pid mapping" / "pv-1 mapping" / "dec" in V2-gateways folder, branch "PetersWork01"). Here is a summary of most discussion points (not 100% complete):
      1. Identifier type code: decided that the V2 "0203" table will be used (both HL7 V2 and HL7 FHIR use that value set)
      2. Date/type format mapping: SDC-BICEPS mandates UTC (with optional TZ info). V2 uses local time. Decision: UTC + TZ info will be required.
      3. Patient Sex value set mapping: as of now SDC-BICEPS only has sex-at-birth / biological sex (at birth). And v2 only has administrative. There is a ticket to BICEPS to also express the gender. Concluded that as of now it cannot be mapped. Peter will use the same text (to state "there's no mapping") as used in the FHIR PoCD IG (https://build.fhir.org/ig/HL7/uv-pocd/StructureDefinition-Patient.html).
      4. Patient Context state identification: decided the when there is an inferred patient context there shall be an identification - set to "Y".
      5. Last Update Date/Time: see resolution in files...
      6. PV1-2 Patient Class: how to get patient class info from an SDC provider? It seems this is not possible. So decided to set it to "U - Unknown" in V2.
      7. Admission Time: It seems this is not available in SDC. see review in files...
      8. OBR-4 Universal Service ID: example mapping to be developed (e.g. based on the device MDC code). But needs further investigation with IHE DEV PCD community - Todd Cooper will check.
      9. OBR-10 Collector identifier: map operator /user context to patient /location, but not inferred
      10. Unclear how to deal with the mandatory REFID section when dealing with private MDC code.

4. Results

   a. Decisions
      i. DECISION: All agreed on re-crafted Fig 10.1.1 by Todd

   b. Backlog
      ✔ TASK: Todd and Javier will make sure that the issue links, confluence and smart sheet are aligned.

   c. Parking Lot
      i. See above which TOIs that are slated for SDPi 1.x

2022.10.13 Thursday

1. Agenda

   a. Reordering the day's topics + added recap on use cases

2. Participants

   a. Tobias Klotz  David Gregorczyk  Javier Espina  Peter Kranich  Kathrin Riech  Anna Feiler  Todd Cooper

3. Discussion Notes

   a. Discussed Use Case C5 and added comments to file version 1.2 (not the latest Ken has - he'll reconcile it later)
   b. Reviewed Actor diagrams SDPi-R and SDPi-A. Changes to be made added as comments on Todd's file...for instance:
      i. assigning transaction numbers
      ii. changing the legacy transaction to "PCD" moniker
      iii. placing future transaction in the picture to signalize the intend to support them in future versions

   c. SDPi-A Profile + ACM Gateway
      i. Discussion on creating an extension for a globally unique identifier of the first occurrence of an AlertCondition:
         1. made out of combination of SequenceID, state version and handle.
         2. Needed for SDPi 1.0 ACM Gateway.
         3. The extension to AlertConditionState will be first defined / used in SDPi-A ACM Gateway (SDPi-A)
         4. Later add as an extension into A-PKP (December version)
         5. Finally bake it into the BICEPS revision.

d. DEV-26 is a firm candidate to be dropped from SDPi 1.0 (DEV-30 subsumes it). To be decided in a couple of weeks.

e. DEV-33: Lowest priority for SDPi 1.0. Candidate to be dropped.

4. Results
a. Decisions
i. DECISION: create extension for a globally unique identifier of the first occurrence of an AlertCondition (see details above)

b. Backlog

- TASK: Make sure that SDPi 1.x has a use case with incoming ADT data (to be later realized as FHIR or V2 -> SDC) - Kenneth Fuchs
- TASK - Add globally unique identifier extension to A-PKP backlog - Anna Feiler

C. Parking Lot
i. ISSUE: -

---

**2022.10.14 Friday**

1. Agenda
   a. No changes. Will aim to adjourn at noon.
   b. Happy World Standards Day!
2. Participants
   a. David Gregorzcyk Peter Kranich Javier Espina Todd Cooper Jakob Kleissl Stefan Schlichting
3. Discussion Notes
   a. Recap of Thursday
      i. Todd and Ken sync up on the use case revision." Compound" Gerkin scenarios will be split into simple Gerkin scenarios.
      ii. Created and cleaned up Github issues. Smartsheet and Github are now aligned and linked up.
      iii. Last evening, David, Eric van der Sanden (Philips) and Javier touched base on the TOI "MDIB Report Retrofit / Best Practices". Decided to add two additional requirements and one note:  
         1. REQ: (when using MDPWS binding) HTTP SHALL be used for everything that is not discovery (which uses UDP) - contingent on that requirement not being already buried into the underlying stds (in which case this would be a SHOULD)
         2. REQ: (when using MDPWS binding) for every consumer subscription there SHALL be only one TCP connection at a time
         3. Note: all introduced provider requirements (5ish) should ensure absence of version gaps or flips (decrease) at the consumer side... and if a consumer experiences that something is really wrong and SHOULD reconnect or go into a fail-safe mode.
      iv. In addition, We may add a note in a general part of SDPi 1.0 that CONSUMER implementers SHOULD consider the PROVIDER requirements (to better comprehend what behavior to expect). This is common sense / practice, but not always done...
   b. Editorial Planning for SDPi 1.0 Completion & Review Publication
      i. Smartsheet plan reviewed thoroughly. Some dates changed and items reassigned (mostly offloading David)
   c. Conformity Assessment (CA) & Tooling: SDPi 1.0 Plan for IHE NA CAT Feb. 2023
      i. Option #1: do SDPi 1.0 testing at the IHE NA Connectathon in Feb 2023 (as hybrid for the SDPi portion) - costs roughly 5-7k$/per system - easier to set up than an Europe CAT
      ii. Option #2: do SDPi-only CAT event - better not to fully rely on these, as the big NA / Europe will provide for the bigger visibility
      iii. There was traction for Option #1 (see DECISION below).
      iv. Note that typically 2 or 3 CATs are needed to move from Trial Implementation to Final Text. Each valid CAT must have enough independent participants.
   d. Going beyond version 1.0 - Plan for next versions (2023 and beyond)
      i. Reviewed in Smartsheet and on the SDPi section on versioning.
      ii. See also decision below.

4. Results
   a. Decisions
      i. DECISION: go for SDPi 1.0 testing at the IHE NA Connectathon in Feb 2023 (as hybrid for the SDPi portion) Todd Cooper
      ii. DECISION: strive to go for one major version per year. Optionally there will be minor versions through each year.
   b. Backlog
      - TASK: Check use of OBR-4 in IHE PCD IPEC to align with it + sync up with John Rhoads re. general usage of SNOMEDCT. Todd Cooper
   c. Parking Lot
      i. ISSUE: -

---

**Road to SDPi 1.0**

The “Backlog” items above define what needs to be done to complete SDPi 1.0 content development and send it to IHE Publications for final preparation and distribution for the IHE DEV review and Public Comment periods.

The backlog items are updated into the Gemini SES+MDI Program SmartSheet for SDPi 1.0.