CCSDS SOIS Area Spring 2017
SOIS Sub-Network Services (SUBNET) WG (26th) Meeting Agenda

8th – 12th May 2017

Objectives:
Primary
- Develop updated SOIS layering diagram for overall SOIS system architecture as result of APP silvered books to be incorporated in updated SOIS overview green book.
  - Clarify/document computer communication model/terminology for green book documentation.
  - Continue discussion (and hopefully finalize) interoperability model between agencies to be described in updated SOIS overview green book.
    - What does interoperability mean in SOIS context?
    - What layers are involved?
    - What standards are involved for interoperability?
- SOIS overview green book outline, section assignments and schedule.
- EDS/DoT overview green book outline, section assignments and schedule.
- Mission infusion updates for SEDS and tooling.
  - cFS
  - CAST
  - ESA
- EDS and DoT book status, and planning.
  - Existing RID status.
  - Future EDS extension.
    - TTE/cFS requirements for bus slot and application scheduling as example for EDS network description.
    - ASAM FIBEX standard example for XML network description (AUTOSAR).
    - ARINC 653?
  - DoT population –process and planning to incorporate ontology for cFS, CAST, ECSSS-E-70-41C, subnets (TTE, etc.).
- Packet Service (PS) Magenta book review status update
  - Primitive and parameter definitions.
  - Update schedule for PS and future book reviews.

Secondary
- Updates for experimental (orange) books
  - NASA core Flight System (cFS) as a CCSDS On-board Reference Architecture.
  - CAST Flight Software as a CCSDS On-board Reference Architecture.
- Liaison with other CCSDS and external groups, MOIMS, DTN, CFDP, SEA XML SIG.
  - MOIMS to SEDS translation? (Richard Melvin update).
  - SEDS to XTCE translation? (Kevin Rice update).
- ESA SpaceFibre.
  - Protocol.
o SOIS SUBNET service planning.
o Standard MIB description.

Notes:
1. Differences with SOIS APP in red. Black indicates joint schedule.
2. Discussion topics are general, there will not be enough time to cover them all in depth.
3. We will take 5-10 minute breaks every hour or so as needed.
4. Ramon Krosley and others will be representing SOIS-APP WG at SEA XSG SIG so schedule adjustments may be made.
Monday 8th May 2017

08:45 – 09:45 CCSDS Plenary

09:45 – 12:30 Joint SOIS-APP and SOIS-Sub-network
SOIS Architecture & Interoperability model (agency activities & use cases that may help define):
- **Rickard Melvin**: ESA Primes activities with the SEDS - Proposal activities.
- **Marek Prochazka**: ESA PUS (ECSS-E-70-41C) and ASN.1, service model of interoperability.
- **Jonathan Wilmot**: Interoperability between cFS framework portability model and ESA PUS service interoperability model.
- **All**: Discuss/document SOIS interoperability model description. What does interoperability mean in terms of SOIS architecture?
- **All**: Develop new SOIS layering diagram.

Lunch 12:30 – 13:30

13:30 – 17:00 Joint SOIS-APP and SOIS-Sub-network
- **All**: Finish morning activities.

SEDs extension for cluster topology description:
- **Andrew Loveless**: cFS and TTE schedule. Requirements, challenges, status, and lessons learned.
- **Christiana Fidi**: TTTech XML schema for cluster, messaging description, and processing delays, used to generate configuration file. Is it based upon ASAM FIBEX? How does this integrate with cFS scheduling process?
- **Glenn Rakow**: ASAM FIBEX standard for subnet topology description for AUTOSAR.
- **All**: Discuss requirements for changes to SEDS to incorporate cluster topology.

Tuesday 9th May 2017

08:45 – 12:30 Joint SOIS-APP and SOIS-Sub-network
If necessary, continuation of previous days discussions/conclusions regarding SOIS layering diagram, definition of SOIS interoperability model, and/or extension of SEDS for cluster topology description.

else,

SEDs Tools (informational) – implementation specific:
- **Joe Hickey**: SEDS cFS tools and update. Feed-back and future work.
- **Jonathan Wilmot**: SOIS tool and cFS release schedule

SEDs tools (informational) – generic
- **Rickard Melvin**: MOIMS & SOIS XML comparison and way forward.
• **Kevin Rice** (remote): SEDS-to-XTCE translation results, comments and recommendations.

**Lunch 12:30 – 13:30**

**13:30 – 17:00 Joint SOIS-APP and SOIS-Sub-network**
Book status (procedural): SEDS & DoT.

- **Rickard Melvin**: EDS book status, e.g. RIDS, etc.
- **Ramon Krosley**: DoT book status, e.g., RIDS, etc.
- **Ramon Krosley**: Template and process for collecting DoT ontology. Targeted entities for collection, e.g., subnets, cFS, PUS, CCSDS Space Packet, etc.

**Wednesday 10th May 2017 Joint SOIS-APP and SOIS-Sub-network**

**08:45 – 12:30**

If necessary, continuation of pervious days discussions/conclusions regarding book status, etc.
else,

- **Glenn Rakow**: SUBNET Packet Service goals, primitives, parameters and definitions.
  Data Link.
  **Steve Parkes**: SpaceFibre Overview and mapping to SOIS SUBNET services.
  Standard MIB for SpaceFibre plans (if any).

Working Meeting:
- **All**: Document meeting discussions.

**Lunch 12:30 – 13:30**

**13:30 – 17:00**

Book(s) planning. SOIS Overview green book.
- **He Xiongwen**: SOIS Overview green book inputs.

Working Meeting:
- **All**: Outline of SOIS Overview green book.

**Thursday 11th May 2017 Joint SOIS-APP and SOIS-Sub-network**

**08:45 – 12:30**

Joint meeting with SEA-SA.

- **Jonathan Wilmot**: cFS implementation of DTN over CFDP using CCSDS Space Packet: Concepts, field descriptions and operational scenarios.
  **Jonathan Wilmot**: SPP extended header

**Lunch 12:30 – 13:30**

**13:30 – 17:00 (SOIS-APP)**
Continuation of previous day’s work on the SOIS Overview green book outline, section assignments.
  • *All*

Orange Books status

**Friday 12th May 2017 Joint SOIS-APP and SOIS-Sub-network**

08:45 – 12:30
  • Overall Planning, Reporting and Wrap Up

Lunch 12:30 – 13:30

13:30 – 17:00 SOIS Area Review