# CCSTS Telecon/WebEx, 28 February 2019

# Attendees

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# Agenda/Notes

## CSTS Concept Book status

Submitted for publication

## CSTS Guidelines

Publication Process: CESG Poll closed 26th of January. Approved without conditions.

## TD CSTS Book

Book is ready. Will use CSTS SW B-1. This should be added to section 1.7 References. WH to update.

## TD CSTS status of prototypes

70% complete, the target is to complete the tests until spring meeting 2019.

Status update: The plan still to be ready for the Spring Meeting.

## CSTS SFW Updates B-2

CSTS SFW B-2 is under Agency review. So far the WG/ESA/CESG has identified the following (potential) RIDs to be submitted;

* *CESG poll passed, email from T. Gannet on 23rd of January 2019. Comment:* Peter Shames (Approve Unconditionally): I will   
  note that there are some painful locutions in   
  this document. For instance, the phrase "All OIDs   
  specified by this Recommended Standard are part   
  of OID subtrees, the management of which has been   
  delegated to the CSS Area. " appears four times   
  in three successive pages. This serves to make a   
  large document even larger, but it is not a technical issue.
* Execute Directive Invocation ASN.1:

ExecuteDirectiveInvocation        ::=                SEQUENCE   
{        standardInvocationHeader                StandardInvocationHeader   
,        directiveIdentifier                        PublishedIdentifier   
,        directiveQualifier                                CHOICE   
        {        localProcDirQualifier                        [1]                DirectiveQualifierValues   
        ,        serviceProcDirQualifier                [2]                SEQUENCE   
                {        targetProcedureName                                        ProcedureName   
                ,        serviceProcDirQualifierValues                DirectiveQualifierValues   
                }   
        ,        functResourceDirQualifier                [3]                SEQUENCE   
                {        **functResourceInstanceNumber                        FunctionalResourceInstanceNumber**   
                ,        functionalResourceQualifiers                        DirectiveQualifierValues   
                }   
        ,        directiveQualifierExtension        [4]                Embedded   
        }   
,        executeDirectiveInvocationExtension                Extended   
}

The red line should read **functResourceName                        FunctionalResourceName**

* **ESA CSTS API developer – Update of Procedure Parameters**: In the SFW it is stated that dynamic modification happens while the Service Instance is bound. What constraints are there for the procedure holding the configuration parameter? Is it safe to assume that procedures can only be modified while they are inactive? **WH**: My understanding is that those procedure configuration parameters that are specified to be dynamically modifiable can truly be modified at any time, i.e. also while the procedure is active. In that regard the statement that the modification can happen while the Service Instance is bound may be misleading. We probably should better state that dynamically modifiable procedure configuration parameters can be modified at any time, even while the Service Instance is bound. Please let me know if this creates problems such that e.g. guard conditions would need to be specified.

## FF CSTS progress

Conditions from CESG poll satisfied, book is under Agency Review.

RIDs

* The FF uses still the parameter definition from B-1 – that should be a RID. JP will write that.

FF prototyping is in progress. Planned completion date is currently May.

## SLE Book – Technical Corrigendum

During the update of the ESA SLE API to the SLE books from 2016 (service version 5), a couple of inconsistencies have been spotted in the ASN.1 grammar – a Technical Corrigendum will be prepared.

See email A. Young (ESA developer) from 1st of February 2019.

In ROCF GetParameter type

, parMinReportingCycle [**7**] SEQUENCE

should be changed to

, parMinReportingCycle [13] SEQUENCE

In the FSP GetParameter type

, parClcwGlobalVcId [**27**] SEQUENCE

, parClcwPhysicalChannel [**28**] SEQUENCE

, parCopCntrFramesRepetition [**29**] SEQUENCE

, parMinReportingCycle [**30**] SEQUENCE

, parSequCntrFramesRepetition [**31**] SEQUENCE

, parThrowEventOperation [**32**] SEQUENCE

should be changed to

, parClcwGlobalVcId [29] SEQUENCE

, parClcwPhysicalChannel [30] SEQUENCE

, parCopCntrFramesRepetition [31] SEQUENCE

, parMinReportingCycle [32] SEQUENCE

, parSequCntrFramesRepetition [33] SEQUENCE

, parThrowEventOperation [34] SEQUENCE

In the FSP book the new GvcId datatype is declared

GvcId ::= SEQUENCE

{ spacecraftId INTEGER (0 .. 1023)

, versionNumber INTEGER (0 .. 3)

, vcId CHOICE

{ masterChannel [0] NULL

, virtualChannel [1] **VcId**

}

}

but the VcId is not defined. It should be added

VcId ::= INTEGER (0 .. 63)

## SLE Books – Reference Model and Executive Summary

Update or confirmation of two old books:

* Cross Support Reference Model—Part 1: Space Link Extension Services [CCSDS 910.4-B-2](https://public.ccsds.org/Pubs/910x4b2e1.pdf) *– The WG suggests to confirm the book. The definitions form this book are used in SLE Books and SLE implementations. Changing that now retrospectively would have presumably undesirable ripple through effects.*
* Space Link Extension Services—Executive Summary [CCSDS 910.0-G-2](https://public.ccsds.org/Pubs/910x0g2.pdf) - *The WG suggests to silverize (TBC) or remove the book. It is obsolete, SLE is widely adopted. The alternative is to confirm the book.*

The WG can comment on this proposed approach until 8.3.2019. If no comments are received, this is followed up.

## FR SANA Registry, approach to distribution of work

The work on the FRM itself has been resumed by WH. JP has prepared excel sheets with FR observations on the CWE.

FR material has been split into several word documents.

The FRM editor has been extended to generate ASN.1 type definitions by the types covered by the FRM. WH is exercising the feature and is satisfied with the approach and the editor.

**Action HD**: Prepare eclipse with FRM editor for easy use and installation for John and Harald.

**Action HD**: Distribute the FRM editor documentation.

Side remark: It has been detected that the open source ASN.1 compiler jASN does not support range constraints for REAL types.

**Action HD**: Can the ‘None’ be removed from the FRs, Events and Directives? Ask SANA.

**Action HD**: Send the updated FRM ICD to SANA and add introductory text.

John suggests to update the SANA registries with the most important FRs as soon as possible. Suggestion is to work from the Antenna along the chains.

We use the Spring meeting for extensive discussions and review of FRs and decide then the next steps. John and Wolfgang will discuss the FR details as needed.

**Action HD / Observation:** In the SANA CSTS OID subtree registry <https://sanaregistry.org/r/oid> has OIDs we do not specify in SFW. It has to be clarified where this is coming from. This registry should have a tree representation and not the current flat table**.**

**Action HD**: Update the stylesheet of the FRM model to reflect all the new fields.

## AOB

John addressed some aspects about the FRM editing (merging etc.)

The cAmel case style used for names used in the FRM has been confirmed.

# Next Telecon

No WG telecon before the Spring Meeting, FRM telecons are arranged as needed (JP, WH)