**B2 SANA CONSIDERATIONS**

**B2.1 General**

This SANA Considerations Annex is a mandatory part of any standard that creates or modifies a registry. Familiarity with this section may be completely optional for users of this standard. It provides the information necessary for the SANA operator to set up the SANA registries that are specified in this Annex.

From the point of view of an implementor of this standard, this Annex contains a description of the registry for SPP secondary header format documents, and also serves as the definition of the structure of the SPP secondary packet data structure document registry. The registry itself, as implemented in the SANA, is provided for the purpose of interoperability between agencies. It contains fields that document the available secondary header formats that have been registered, including the source, submitting organization, and pointer to where the descriptions needed to interpret the data (fields, types, sizes) may be found.

The only indicator that a Packet Secondary Header is in use remains the Secondary Header Indicator specified in Sec 3.4.2.3.  The association between the actual secondary header format that is in use, and any entry in this registry, is a managed parameter.  See Sec 4.1.3.2.1.4.

**B2.2 Registry Specification**

* Registry Name = Space Packet Protocol Secondary Header Format Document Registry
* Registry Description = This registry allows single projects, a single space agency, or multi-agency enterprises to register SPP secondary header formats. It contains information to allow end user applications to interpret the data content and format within the Space Packet. User organizations may use this registry to guide processing of secondary header contents.  The transmission of the specific Secondary Header Format ID that is in use is done "by management" and it is outside the bounds of this specification.

**B2.2.1 Registry Structure**

The Secondary Header Format Document Registry shall consist of the following fields:

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | ~~Size~~ | Comments |
| Secondary Header Format Name | Character | ~~64~~ | Mandatory. Max size string |
| ~~Secondary Header Format ID~~ | ~~ISO OID~~ |  | ~~Assigned by the SANA Operator~~ |
| Submitting Organization Name | Character | ~~64~~ | Mandatory. Max size string~~, referenced from Organization OID~~ |
| ~~Submitting Organization OID~~ | ~~ISO OID~~ |  | ~~OID from the Organization registry, must be registered~~ |
| Format Point of Contact Name | Character | ~~64~~ | Mandatory.Max size string~~, referenced from Contact OID~~ |
| ~~Format Point of Contact OID~~ | ~~ISO OID~~ |  | ~~OID from the Contact registry for the Point of Contact for the secondary header~~ |
| Header format source document name | Character | ~~64~~ | Mandatory. Max size string~~, referenced from References OID~~ NOTE: Document should be stored in the References Registry |
| ~~Format source document~~ | ~~ISO OID~~ |  | ~~OID from the References registry~~ |
| Reference Uniform Resource Name (URN) | URN |  | Optional. URN provides additional information on the registered format |

The *Submitting Organization* is the one supplying the format, it identifies the organization that created this Space Packet Secondary Header format.  If the Organization is not yet registered it must register in the SANA Organizations registry following the RMP rules.

The *Format Point of Contact* identifies the contact person in the Submitting Organization who is identified as the point of contact. If the person is not yet registered they must register in the SANA Contact registry following the RMP rules.

The *Header* *Format Source Document Name* is the identifier of the document where the header format is formally specified.  If this document is not yet registered it must be entered into the References registry. The Submitting Organization may provide an optional *Uniform Resource Name* (URN) which has additional information, descriptions, or even code fragments that can interpret the Secondary Header Format.

NOTE: the Header Format Source Document should clearly document the Data Structure (description needed to interpret the data: fields, types, sizes), Endian-ness (big or little endian of the encapsulated data), and any other details needed to interpret this Secondary Header Format.  There is no requirement to use a specific approach for these format descriptions, but one of the existing CCSDS approaches, such as Spacecraft Onboard Interface Services--XML Specification for Electronic Data Sheets (EDS/DoT) (CCSDS 876.0-B-1) or XML Telemetric and Command Exchange (XTCE) ([CCSDS 660.0-B-1](https://public.ccsds.org/Pubs/660x0b1.pdf)) should preferentially be adopted.

**B2.2.2 Registry rules**

This registry is defined within the SLS Area, but it may find use in other areas such as MOIMS or SOIS.

Registration Maintenance Rules for SANA Operator: Registry change (add/delete/edit) shall be submitted by any valid CCSDS Agency Representative (Member, Observer, or Affiliate).  No special Role is required.  The Organization, PoC, and Header Format Source document shall all be verified to be valid and correctly registered and referenced.  The SANA Operator shall assign a unique ~~OID~~ identifier that may be used to reference this registry entry.  New versions of existing specifications shall be assigned a unique ~~OID~~ identifier.

Registration category = SLS Area Registry.

Review authority = SLP WG (or SLS Area if the WG is no longer in existence) who will provide the designated expert to review the registry, the proposed format, and the source document.