**Approved SANA Registries**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Registry Title | Authority | OID | Reference | Purpose/Applicability |
| [AMS Transport Service](https://sanaregistry.org/r/ams_transport_service)  *Asynchronous Message Service* | [CCSDS.SIS.AMS](http://cwe.ccsds.org/sis/default.aspx#_SIS-AMS) | 1.3.112.4.33 | [ccsds-735.1-B-1] | To reduce mission cost and risk by providing standard, reusable infrastructure for the exchange of information among data system modules in a manner that is simple to use, highly automated, flexible, robust, scalable, and efficient. This Recommended Standard specifies protocols and associated services that enable communication among modules of mission data systems. |
| [Apertures](https://sanaregistry.org/r/apertures) |  |  |  | Access to this registry requires that you have a CCSDS CWE account. If you need to create a CWE account, please contact the [CCSDS Secretariat](mailto:secretariat@mailman.ccsds.org). Otherwise, please contact [info@sanaregistry.org](mailto:info@sanaregistry.org) so we can setup your access. |
| [Apertures Links](https://sanaregistry.org/r/aperture_links) |  |  |  | Access to this registry requires that you have a CCSDS CWE account. If you need to create a CWE account, please contact the [CCSDS Secretariat](mailto:secretariat@mailman.ccsds.org). Otherwise, please contact [info@sanaregistry.org](mailto:info@sanaregistry.org) so we can setup your access. |
| [Bundle Protocol Compressed Bundle Header Encoding Node Numbers](https://sanaregistry.org/r/bp_cbhe_node_numbers) | [CCSDS.SIS.DTN](http://cwe.ccsds.org/sis/default.aspx#_SIS-DTN) | 1.3.112.4.34 | [[ccsds-734.2-B-1]](https://sanaregistry.org/references/178) | Recommended Standard for the CCSDS Bundle Protocol (BP), based on the Bundle Protocol of RFC 5050 (reference [1]), which defines end-to-end protocol, block formats, and abstract service descriptions for the exchange of messages (bundles) that support Delay Tolerant Networking (DTN). *Compressed Bundle Header Encoding (CBHE)*. RFC 6260; SANA has established the registry  http://sanaregistry.org/r/bp\_cbhe\_service\_numbers/bp\_cbhe\_service\_numbers.html to manage CBHE Service Number assignments. The registry shall be used by CCSDS to catalog BP CBHE Service Numbers that denote different bundle services. NOTE – The purpose of this registry is to ensure uniqueness of the CBHE Service Numbers used in space missions. |
| [Bundle Protocol Compressed Bundle Header Encoding Service Numbers](https://sanaregistry.org/r/bp_cbhe_service_numbers) | [CCSDS.SIS.DTN](http://cwe.ccsds.org/sis/default.aspx#_SIS-DTN) | 1.3.112.4.32 | [[ccsds-734.2-B-1]](https://sanaregistry.org/references/178) | SANA has established the registry  http://sanaregistry.org/r/bp\_cbhe\_service\_numbers/bp\_cbhe\_service\_numbers.html to manage CBHE Service Number assignments. The registry shall be used by CCSDS to catalog BP CBHE Service Numbers that denote different bundle services. NOTE – The purpose of this registry is to ensure uniqueness of the CBHE Service Numbers used in space missions. |
| [CCSDS Abbreviations](https://sanaregistry.org/r/abbreviations) | [CCSDS.SEA](http://cwe.ccsds.org/sea/default.aspx) | 1.3.112.4.14 |  | 1.3.112.4.14.1 to 1.3.112.4.14.1709 |
| [CCSDS File Delivery Protocol (CFDP) Entity Identifier](https://sanaregistry.org/r/cfdp_entity_id) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.16 | [**[ccsds-727.0-B-4]**](https://sanaregistry.org/references/19)  [**[ccsds-135.0-B-4]**](https://sanaregistry.org/references/5) | ***CCSDS File Delivery Protocol (CFDP).* Blue Book. Issue 4. January 2007.**  This Recommended Standard defines a protocol suitable for the transmission of files to and from spacecraft data storage and capable of operating in a wide variety of mission configurations. In addition to the purely file delivery related functions, the protocol includes file management services to allow control over the storage medium. Although the protocol can operate over a wide range of subnetwork services, this Recommended Standard assumes the use of existing CCSDS packet services. The current issue incorporates corrections and clarifications recommended by the CFDP Interoperability Testing Working Group. |
| [CCSDS Glossary](https://sanaregistry.org/r/glossary) | Not Identified | 1.3.112.4.53 |  | Registry includes CCSDS Abbreviations and CCSDS Terms |
| [CCSDS Terms](https://sanaregistry.org/r/terms) | [CCSDS.SEA](http://cwe.ccsds.org/sea/default.aspx) | 1.3.112.4.30 |  | 1.3.112.4.30.1 association through 1.3.112.4.30.1140 XML Schema |
| [CLCW Version Number](https://sanaregistry.org/r/clcw_version_number) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.45 | [[ccsds-232.0-B-2]](https://sanaregistry.org/references/94)  [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) | From CCSDS Terms: Command Link Control Word [1.3.112.4.30.209]; DEFINITION: The TC Transfer layer protocol data unit for telecommand reporting, which is embedded in the trailer of a CCSDS Telemetry Transfer Frame. It conveys status information from the receiving end to the sending end of the TC Transfer layer. |
| [Conjunction Data Message CATALOG\_NAME](https://sanaregistry.org/r/cdm_catalog) | [CCSDS.MOIMS.NAV](http://cwe.ccsds.org/moims/default.aspx#_MOIMS-NAV) | 1.3.112.4.38 | [[ccsds-508.0-B-1]](https://sanaregistry.org/references/4) | Conjunction Data Message (CDM) Recommended Standard specifies a standard message format for use in exchanging spacecraft conjunction information between originators of Conjunction Assessments (CAs) and satellite owner/operators and other authorized parties. Such exchanges are used to inform satellite owner/operators of conjunctions between objects in space to enable consistent warning by different organizations employing diverse CA techniques.  Conjunction Data Message CATALOG\_NAME (Catalogues of Space Objects)   1.3.112.4.38.1 [ALMANAC](https://sanaregistry.org/oid/1.3.112.4.38.1)   1.3.112.4.38.2 [NASA\_DSN](https://sanaregistry.org/oid/1.3.112.4.38.2)   1.3.112.4.38.3 [ESA\_ESAC](https://sanaregistry.org/oid/1.3.112.4.38.3)   1.3.112.4.38.4 [ISON](https://sanaregistry.org/oid/1.3.112.4.38.4)   1.3.112.4.38.5 [RUSSIA](https://sanaregistry.org/oid/1.3.112.4.38.5)   1.3.112.4.38.6 [SATCAT](https://sanaregistry.org/oid/1.3.112.4.38.6)   1.3.112.4.38.7 [UNOOSA](https://sanaregistry.org/oid/1.3.112.4.38.7) |
| [Conjunction Data Message COLLISION\_PROBABILITY\_METHOD](https://sanaregistry.org/r/cdm_cpm) | [CCSDS.MOIMS.NAV](http://cwe.ccsds.org/moims/default.aspx#_MOIMS-NAV) | 1.3.112.4.12 | [[ccsds-508.0-B-1]](https://sanaregistry.org/references/4) | 1.3.112.4.12 Conjunction Data Message COLLISION\_PROBABILITY\_METHOD   1.3.112.4.12.1 [AKELLAALFRIEND-2000](https://sanaregistry.org/oid/1.3.112.4.12.1)   1.3.112.4.12.2 [ALFANO-2005](https://sanaregistry.org/oid/1.3.112.4.12.2)   1.3.112.4.12.3 [ALFANO-MAX-PROBABILITY](https://sanaregistry.org/oid/1.3.112.4.12.3)   1.3.112.4.12.4 [ALFANO-PARAL-2007](https://sanaregistry.org/oid/1.3.112.4.12.4)   1.3.112.4.12.5 [ALFANO-TUBES-2007](https://sanaregistry.org/oid/1.3.112.4.12.5)   1.3.112.4.12.6 [ALFANO-VOXELS-2006](https://sanaregistry.org/oid/1.3.112.4.12.6)   1.3.112.4.12.7 [ALFRIEND-1999](https://sanaregistry.org/oid/1.3.112.4.12.7)   1.3.112.4.12.8 [CHAN-1997](https://sanaregistry.org/oid/1.3.112.4.12.8)   1.3.112.4.12.9 [CHAN-2003](https://sanaregistry.org/oid/1.3.112.4.12.9)   1.3.112.4.12.10 [FOSTER-1992](https://sanaregistry.org/oid/1.3.112.4.12.10)   1.3.112.4.12.11 [MCKINLEY-2006](https://sanaregistry.org/oid/1.3.112.4.12.11)   1.3.112.4.12.12 [PATERA-2001](https://sanaregistry.org/oid/1.3.112.4.12.12)   1.3.112.4.12.13 [PATERA-2003](https://sanaregistry.org/oid/1.3.112.4.12.13)   1.3.112.4.12.14 [PATERA-2005](https://sanaregistry.org/oid/1.3.112.4.12.14) |
| [Contact Roles](https://sanaregistry.org/r/contact-roles) | SSG | 1.3.112.4.5.2 |  | Contact Roles   1.3.112.4.5.2.1 [Agency HoD](https://sanaregistry.org/oid/1.3.112.4.5.2.1)   1.3.112.4.5.2.2 [Org PoC](https://sanaregistry.org/oid/1.3.112.4.5.2.2)   1.3.112.4.5.2.3 [CMC](https://sanaregistry.org/oid/1.3.112.4.5.2.3)   1.3.112.4.5.2.3.1 [CMC Chair](https://sanaregistry.org/oid/1.3.112.4.5.2.3.1)   1.3.112.4.5.2.3.2 [CMC member](https://sanaregistry.org/oid/1.3.112.4.5.2.3.2)   1.3.112.4.5.2.4 [CESG](https://sanaregistry.org/oid/1.3.112.4.5.2.4)   1.3.112.4.5.2.4.1 [CESG Chair](https://sanaregistry.org/oid/1.3.112.4.5.2.4.1)   1.3.112.4.5.2.4.2 [CESG Deputy Chair](https://sanaregistry.org/oid/1.3.112.4.5.2.4.2)   1.3.112.4.5.2.4.3 [Area Director](https://sanaregistry.org/oid/1.3.112.4.5.2.4.3)   1.3.112.4.5.2.4.4 [Area Deputy Director](https://sanaregistry.org/oid/1.3.112.4.5.2.4.4)   1.3.112.4.5.2.5 [WG](https://sanaregistry.org/oid/1.3.112.4.5.2.5)   1.3.112.4.5.2.5.1 [WG Chair](https://sanaregistry.org/oid/1.3.112.4.5.2.5.1)   1.3.112.4.5.2.5.2 [WG Deputy Chair](https://sanaregistry.org/oid/1.3.112.4.5.2.5.2)   1.3.112.4.5.2.5.3 [WG Co-Chair](https://sanaregistry.org/oid/1.3.112.4.5.2.5.3)   1.3.112.4.5.2.5.4 [BoF Chair](https://sanaregistry.org/oid/1.3.112.4.5.2.5.4)   1.3.112.4.5.2.5.5 [SIG Chair](https://sanaregistry.org/oid/1.3.112.4.5.2.5.5)   1.3.112.4.5.2.6 [Registry Roles](https://sanaregistry.org/oid/1.3.112.4.5.2.6)   1.3.112.4.5.2.6.1 [SCID Assignor (AR or AOR)](https://sanaregistry.org/oid/1.3.112.4.5.2.6.1)   1.3.112.4.5.2.6.2 [MACAO](https://sanaregistry.org/oid/1.3.112.4.5.2.6.2)   1.3.112.4.5.2.6.3 [Asset Assignor (AR or AOR)](https://sanaregistry.org/oid/1.3.112.4.5.2.6.3)   1.3.112.4.5.2.7 [RFIDProviderContact](https://sanaregistry.org/oid/1.3.112.4.5.2.7)   1.3.112.4.5.2.8 [SSG](https://sanaregistry.org/oid/1.3.112.4.5.2.8)   1.3.112.4.5.2.8.1 [SSG PoC](https://sanaregistry.org/oid/1.3.112.4.5.2.8.1)   1.3.112.4.5.2.8.2 [SSG Member](https://sanaregistry.org/oid/1.3.112.4.5.2.8.2) |
| [Contacts](https://sanaregistry.org/r/contacts) | None Specified | 1.3.112.4.2 | None Specified | 1.3.112.4.2.2 [Audric Schiltknecht](https://sanaregistry.org/oid/1.3.112.4.2.2) through 1.3.112.4.2.221 [Michael Nicolls](https://sanaregistry.org/oid/1.3.112.4.2.221) |
| [CSTS OID Subtree](https://sanaregistry.org/r/oid) | [CCSDS.CSS.CSTS](http://cwe.ccsds.org/css/default.aspx#_CSS-CSTS) | 1.3.112.4.4 | None Specified | 1.3.112.4.4 CSTS OID Subtree   1.3.112.4.4.1 [framework](https://sanaregistry.org/oid/1.3.112.4.4.1)   1.3.112.4.4.1.1 [modules](https://sanaregistry.org/oid/1.3.112.4.4.1.1)   1.3.112.4.4.1.2 [attributes](https://sanaregistry.org/oid/1.3.112.4.4.1.2)   1.3.112.4.4.1.3 [operations](https://sanaregistry.org/oid/1.3.112.4.4.1.3)   1.3.112.4.4.1.4 [procedures](https://sanaregistry.org/oid/1.3.112.4.4.1.4)   1.3.112.4.4.2 [services](https://sanaregistry.org/oid/1.3.112.4.4.2)   1.3.112.4.4.2.1 [Functional Resources](https://sanaregistry.org/oid/1.3.112.4.4.2.1)   1.3.112.4.4.2.2 [servicesIdentifiers](https://sanaregistry.org/oid/1.3.112.4.4.2.2) |
| [Data Archive Ingest XML](https://sanaregistry.org/r/daixml) | [CCSDS.MOIMS.DAI](http://cwe.ccsds.org/moims/default.aspx#_MOIMS-DAI) | 1.3.112.4.37 | [[ccsds-651.1-B-1]](https://sanaregistry.org/references/58)  [[ccsds-661.0-B-1]](https://sanaregistry.org/references/60) | [[ccsds-651.1-B-1]](https://sanaregistry.org/references/58): PRODUCER-ARCHIVE INTERFACE SPECIFICATION (PAIS) - provide a standard method for formally defining the digital information objects to be transferred by an information Producer to an Archive and for effectively packaging these objects in the form of Submission Information Packages (SIPs)  [[ccsds-661.0-B-1]](https://sanaregistry.org/references/60): XML FORMATTED DATA UNIT (XFDU) STRUCTURE AND CONSTRUCTION RULES **-** Recommended Standard for the packaging of data and metadata, including software, into a single package (e.g., file or message) to facilitate information transfer and archiving. |
| [DDOR X-band radio sources](https://sanaregistry.org/r/radio_sources) | [CCSDS.SEA.D-DOR](http://cwe.ccsds.org/sea/default.aspx#_SEA-D-DOR) | 1.3.112.4.25 | None Specified | 1.3.112.4.25.1 [2357-326](https://sanaregistry.org/oid/1.3.112.4.25.1) through  1.3.112.4.25.3666 [2357-318](https://sanaregistry.org/oid/1.3.112.4.25.3666)  DDOR - technique to provide precise navigation data; to be used as an independent mean to validate orbit solutions or for fast orbit determination recovery in case of unexpected events prior or after spacecraft manoeuvres. |
| [Extended Protocol Identifier for Encapsulation Service](https://sanaregistry.org/r/extended_protocol_id) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.26 | [[ccsds-133.1-B-2]](https://sanaregistry.org/references/6)  [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) | [[ccsds-133.1-B-2]](https://sanaregistry.org/references/6) - ENCAPSULATION SERVICE - This service is to be used by space missions to transfer data units that are not directly transferred by the Space Data Link Protocols (references [1]-[4]) over a ground-to-space or space-to- space communications link; applies to the creation of Agency standards and to the future data communications over space links between CCSDS Agencies in cross-support situations  [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) – no reference available |
| [Frame Secondary Header Version Number](https://sanaregistry.org/r/frame_secondary_header_version_number) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.24 | [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) | Not in CCSDS Terms  Searched OID Tree - Version 1 Frame Secondary Header (Provisional Status) |
| [Internet Protocol Extension Header](https://sanaregistry.org/r/ipe_header) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.21 | [[ccsds-702.1]](https://sanaregistry.org/references/158" \t "_blank)  [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) | [[ccsds-702.1]](https://sanaregistry.org/references/158) - IP OVER CCSDS SPACE LINKS **-** Recommended Standard specification for the implementation of Internet Protocol (IP) over CCSDS (IPoC) Space Data Link Protocols (SDLPs) in both spacecraft and ground systems |
| [Licklider Transmission Protocol Client Service Identifiers](https://sanaregistry.org/r/ltp_serviceid) | [CCSDS.SIS.DTN](http://cwe.ccsds.org/sis/default.aspx#_SIS-DTN) | 1.3.112.4.31 | [[ccsds-734.1-B-1]](https://sanaregistry.org/references/178)    *Link on SANA did not lead to BB* | [[ccsds-734.1-B-1]](https://sanaregistry.org/references/178) - LICKLIDER TRANSMISSION PROTOCOL (LTP) FOR CCSDS- Recommended Standard for the CCSDS Licklider Transmission Protocol (LTP) and associated service for application in the space environment. LTP provides optional reliability mechanisms on top of an underlying (usually data link) communication service. RFC 5326: Licklider Transmission Protocol (LTP), designed to provide retransmission-based reliability over links characterized by extremely long message round-trip times (RTTs) and/or frequent interruptions in connectivity. Since communication across interplanetary space is the most prominent example of this sort of environment, LTP is principally aimed at supporting "long-haul" reliable transmission in interplanetary space, but it has applications in other environments as well. This document is a product of the Delay Tolerant Networking Research Group and has been reviewed by that group. No objections to its publication as an RFC were raised. |
| [Licklider Transmission Protocol Engine Identifiers](https://sanaregistry.org/r/ltp_engineid) | [CCSDS.SIS.DTN](http://cwe.ccsds.org/sis/default.aspx#_SIS-DTN) | 1.3.112.4.11 | [[ccsds-734.1-B-1]](https://sanaregistry.org/references/178) | SANA Notes: This registry range was allocated by IANA ([LTP Engine Numbers](https://www.iana.org/assignments/ltp-parameters/ltp-parameters.xhtml#engine-numbers)) to SANA. Allocations are synched with the allocations in the [Bundle Protocol Compressed Bundle Header Encoding Node Numbers](https://sanaregistry.org/r/bp_cbhe_node_numbers) registry.  RFC 7116 - The Licklider Transmission Protocol has an LTP Engine ID field ([Section 2 of [RFC5326]](https://tools.ietf.org/html/rfc5326#section-2)). IANA has set up a registry to manage the Engine IDs. This registry, titled "LTP Engine Numbers", has been added to the list of registries associated with the Licklider Transmission Protocol. |
| [Multiplexer Access Point Identifier (MAP ID)](https://sanaregistry.org/r/map_id) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.28 | [[ccsds-232.0-B-2]](https://sanaregistry.org/references/94)  [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) | CCSDS 232.0-B-3 Page 2-2 September 2015  CCSDS RECOMMENDED STANDARD FOR TC SPACE DATA LINK PROTOCOL  A key feature of the TC Space Data Link Protocol is the concept of ‘Virtual Channels’. The Virtual Channel facility allows one Physical Channel to be shared among multiple higher- layer data streams, each of which may have different service requirements. A single Physical Channel may therefore be divided into several separate logical data channels, each known as a ‘Virtual Channel’ (VC). Each Transfer Frame transferred over a Physical Channel belongs to one of the Virtual Channels of the Physical Channel. Optionally, this protocol enables service data units from different sources to be multiplexed together in one Virtual Channel using ‘Multiplexer Access Points’ (MAPs). If MAPs are used, service data units arriving at the service access point for a MAP at the sending end are transferred to the corresponding MAP at the receiving end. |
| [Navigation Data Messages XML Schema](https://sanaregistry.org/r/ndmxml) | [CCSDS.MOIMS.NAV](http://cwe.ccsds.org/moims/default.aspx#_MOIMS-NAV) | 1.3.112.4.46 | [[ccsds-505.0-B-1]](https://sanaregistry.org/references/46) | [[ccsds-505.0-B-1]](https://sanaregistry.org/references/46) - XML SPECIFICATION FOR NAVIGATION DATA MESSAGES - Recommended Standard specifies a format for use in exchanging spacecraft navigation data. Such exchanges are used for distributing attitude, orbit, and tracking data between space agencies. The Recommended Standard specifies an integrated Extensible Markup Language (XML) schema set that applies to Navigation Data Messages (NDMs) defined in the CCSDS Recommended Standards for *Attitude Data Messages* (ADM, reference [1]), *Orbit Data Messages* (ODM, reference [2]), and *Tracking Data Message* (TDM, reference [3]). |
| [Organization Roles](https://sanaregistry.org/r/organization-roles) | SSG | 1.3.112.4.5.1 | None Specified | 1.3.112.4.5.1 Organization Roles   1.3.112.4.5.1.1 [Member Agency](https://sanaregistry.org/oid/1.3.112.4.5.1.1)   1.3.112.4.5.1.2 [Observer Agency](https://sanaregistry.org/oid/1.3.112.4.5.1.2)   1.3.112.4.5.1.3 [Affiliate Organization](https://sanaregistry.org/oid/1.3.112.4.5.1.3)   1.3.112.4.5.1.4 [Service Provider](https://sanaregistry.org/oid/1.3.112.4.5.1.4)   1.3.112.4.5.1.5 [MACAO](https://sanaregistry.org/oid/1.3.112.4.5.1.5)   1.3.112.4.5.1.6 [Spacecraft Developer](https://sanaregistry.org/oid/1.3.112.4.5.1.6)   1.3.112.4.5.1.7 [Science Operations Center](https://sanaregistry.org/oid/1.3.112.4.5.1.7)   1.3.112.4.5.1.8 [Instrument Operations Center](https://sanaregistry.org/oid/1.3.112.4.5.1.8)   1.3.112.4.5.1.9 [Mission Operations Center](https://sanaregistry.org/oid/1.3.112.4.5.1.9)   1.3.112.4.5.1.10 [IOAG Member](https://sanaregistry.org/oid/1.3.112.4.5.1.10)   1.3.112.4.5.1.11 [Academic](https://sanaregistry.org/oid/1.3.112.4.5.1.11)   1.3.112.4.5.1.12 [Commercial](https://sanaregistry.org/oid/1.3.112.4.5.1.12)   1.3.112.4.5.1.13 [Military](https://sanaregistry.org/oid/1.3.112.4.5.1.13)   1.3.112.4.5.1.14 [SANA Operator](https://sanaregistry.org/oid/1.3.112.4.5.1.14)   1.3.112.4.5.1.15 [RFIDProvider](https://sanaregistry.org/oid/1.3.112.4.5.1.15)   1.3.112.4.5.1.16 [Conjunction Data Message Originator](https://sanaregistry.org/oid/1.3.112.4.5.1.16) |
| [Organizations](https://sanaregistry.org/r/organizations) | None Specified | 1.3.112.4.1 | None Specified | 1.3.112.4.1 Organizations   1.3.112.4.1.1 [Secretariat](https://sanaregistry.org/oid/1.3.112.4.1.1) through 1.3.112.4.1.166  [LeoLabs, Inc.](https://sanaregistry.org/oid/1.3.112.4.1.166) |
| [Packet Version Number](https://sanaregistry.org/r/packet_version_number) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.47 | [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5)  Reference link (404 NOT FOUND); | FROM CCSDS 133.0-B-1 (CCSDS Recommendation for Space Packet Protocol)  4.1.2.2 Packet Version Number  4.1.2.2.1 Bits 0–2 of the Packet Primary Header shall contain the (binary encoded) Packet Version Number.  4.1.2.2.2 This 3-bit field shall identify the data unit as a Space Packet defined by this Recommendation; it shall be set to ‘000’.  NOTE – The Version Number is used to reserve the possibility of introducing other packet structures. This Recommendation defines Version 1 CCSDS Packet whose binary encoded Version Number is ‘000’. |
| [Pointing Request Message](https://sanaregistry.org/r/pointing_request_message) | [CCSDS.MOIMS.NAV](http://cwe.ccsds.org/moims/default.aspx#_MOIMS-NAV) | 1.3.112.4.27 | [[ccsds-509.0-B-1]](https://sanaregistry.org/references/165) | The Pointing Request Message (PRM) allows space agencies and operators to exchange information in a standardized format about a requested pointing of a spacecraft. These can be requested (sequences of) changes to the attitude of the spacecraft or to an articulated spacecraft component. The PRM facilitates interoperability between space agencies; e.g., where Agency/Operator A operates a spacecraft which provides a relay for a rover operated by Agency/Operator B *or* where an instrument owned and operated by Agency/Operator A is embarked on a spacecraft operated by Agency/Operator B. It can be used internally within a single agency or organization as well. |
| [Protocol Identifier for Encapsulation Service](https://sanaregistry.org/r/protocol_id) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.48 | [ccsds-133.1-B-2]](https://sanaregistry.org/references/6)  [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) | From [ccsds-133.1-B-2]](https://sanaregistry.org/references/6) ENCAPSULATION SERVICE- 4.2.2.3 Protocol ID Bits 3-5 of the Packet Header shall contain the Protocol ID. The Protocol ID shall be used to identify the protocol whose data unit is encapsulated within the Encapsulation Packet. The Protocol IDs recognized by CCSDS for the Encapsulation Packet shall be registered in reference [10]. |
| [Proximity-1 Port Identifier](https://sanaregistry.org/r/port_id) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.13 | [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) | From ccsds-210.0-G-2 PROXIMITY-1 SPACE LINK PROTOCOL—RATIONALE, ARCHITECTURE, AND SCENARIOS - The Proximity-1 protocol is a bi-directional Space Link Protocol designed for the purpose of proximate communications among probes, landers, rovers, orbiting constellations, and orbiting relays  The Port ID provides the means to route user data internally (at the transceiver’s baseband output interface) to specific logical ports, such as applications or transport processes, or to physical ports, such as on-board buses or physical connections (including hardware command decoders). Well-defined Port IDs for both the forward and return link are assigned to specific data types in the Space Link Identifiers Recommended Standard (reference [14]). |
| [SCPS-NP Domain Identifier (D-ID)](https://sanaregistry.org/r/scps_np_domain_id) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.35 | [[ccsds-713.0-B-1]](https://sanaregistry.org/references/157)  [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) | [[ccsds-713.0-B-1]](https://sanaregistry.org/references/157) SPACE COMMUNICATIONS PROTOCOL SPECIFICATION (SCPS)— NETWORK PROTOCOL (SCPS-NP) - Recommendation is to define the services and protocols of the Space Communications Protocol Specification (SCPS) Network layer. This definition will allow independent implementations of the protocols in the space and ground segments of the SCPS Network to interoperate.  **Domain Identifier**: The Domain Identifier (D-ID) is an element of the Extended End System Address and of the Extended Path Address. When part of the Extended End System Address, it identifies groups of Basic End System Addresses. When part of the SCPS Extended Path Address, it identifies groups of Basic Path Addresses. (Note that groups of addresses does *not* mean group addresses.)  [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) SPACE LINK IDENTIFIERS |
| [SCPS-NP End System Identifier (ES-ID)](https://sanaregistry.org/r/scps_np_end_system_id) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.42 | [[ccsds-713.0-B-1]](https://sanaregistry.org/references/157)  [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) | **End System Identifier**: The End System Identifier (ES-ID) is an element of Basic End System Addresses and of Extended End System Addresses. It allows the identification of individual systems or of multicast groups (when qualified by the multicast flag). It has valid values between 0 and 127, although specific programs may choose not to make all of these available. |
| [SCPS-NP Path Identifier (P-ID)](https://sanaregistry.org/r/scps_np_path_id) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.19 | [[ccsds-713.0-B-1]](https://sanaregistry.org/references/157)  [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) | **Path Identifier**: The Path Identifier (P-ID) is an element of the Basic Path Address and the Extended Path Address. It identifies a static, managed communication path between two (or more) systems. Path Identifiers may range in value from 0 through 127, although specific programs may restrict the P-IDs available. |
| [SCPS-NP Transport Protocol Identifier (TP-ID)](https://sanaregistry.org/r/scps_np_transport_protocol_id) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.44 | [[ccsds-713.0-B-1]](https://sanaregistry.org/references/157)  [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) | **Transport Protocol Identifier field**: The Transport Protocol Identifier (TP-ID) is a field in the SCPS-NP header that identifies the SCPS Network user (i.e., the transport protocol) from which the datagram originated and to which the datagram should be delivered at its destination(s). It is a 4-bit field that carries a translation of the N- User\_Internet\_Protocol Number parameter of the Unit Data service primitives. |
| [SCPS-TP Connection Identifier](https://sanaregistry.org/r/scps_tp_connection_id) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.41 | [[ccsds-714.0-B-2]](https://sanaregistry.org/references/157)  [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) | [[ccsds-714.0-B-2]](https://sanaregistry.org/references/157) SPACE COMMUNICATIONS PROTOCOL SPECIFICATION (SCPS)— TRANSPORT PROTOCOL (SCPS-TP)  Recommendation is to define the services and protocols that provide the Space Communications Protocol Specification (SCPS) Transport service. This definition will allow independent implementations of the protocols in the space and ground segments of the SCPS Network to interoperate.  3.6.2.1.1 The Connection Identifier field is mandatory for all SCPS-TP compressed headers and shall occupy the first octet of the compressed header. |
| [SCPS-TP Extended Capability Binding Space Identifiers](https://sanaregistry.org/r/scps_tp_extended_capability_id) | [CCSDS.SIS](http://cwe.ccsds.org/sis/default.aspx) | 1.3.112.4.52 | [[ccsds-714.0-B-2]](https://sanaregistry.org/references/157)  [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) | 3.2.5.4 Assignment of Extended Capability Binding Space Identifiers - CCSDS will assign extended capability binding space identifiers to interested parties. These parties may be individual vendors of SCPS-TP products, or communities of interest that jointly want to define a set of extended capabilities for a particular environment. |
| [Service Management XML Schemas](https://sanaregistry.org/r/service_management_xml_schemas) | [CCSDS.CSS.SM](http://cwe.ccsds.org/css/default.aspx#_CSS-SM) | 1.3.112.4.15 | [[ccsds-902.1-B-1]](https://sanaregistry.org/references/151) | [[ccsds-902.1-B-1]](https://sanaregistry.org/references/151) - CROSS SUPPORT SERVICE MANAGEMENT— SIMPLE SCHEDULE FORMAT SPECIFICATION - Recommended Standard specifies a standard format for use in transferring scheduling information related to apertures at ground stations and/or relay satellites between space agencies and commercial or governmental spacecraft operators. Such exchanges are used in mission design, e.g., in investigating the feasibility of a mission with respect to its uplink/downlink requirements and the availability of suitable apertures;  mission planning, e.g., to ensure that there are sufficient aperture resources available to carry out the planned operations; and mission operations. |
| [Service Sites and Apertures](https://sanaregistry.org/r/service_sites_apertures) |  |  |  | *You are not authorized to access this registry* |
| Service Sites and Apertures |  |  |  | *You are not authorized to access this registry* |
| [Spacecraft Identifier](https://sanaregistry.org/r/spacecraftid) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) |  | CCSDS 320.0-M-7 | CCSDS 320.0-M-7 - CCSDS SPACECRAFT IDENTIFICATION FIELD CODE ASSIGNMENT CONTROL PROCEDURES - Recommended Practice establishes the procedures governing requesting, assigning, and relinquishing CCSDS Spacecraft Identifier (SCID) field codes, which are specified in the data unit formats defined in references [1], [2], [3], and [4]. It specifies the organizations and personnel authorized to participate in the performance of those procedures, the requirements for configuration management, and the acceptable use of SCIDs. |
| [Space Link Identifiers Registries](https://sanaregistry.org/r/space_link_id) |  |  | [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5)  *Historical Document* | [Transfer Frame Version Number (TFVN) [1.3.112.4.22]](https://sanaregistry.org/r/transfer_frame_version_number)  [Space Packet Protocol Application Process Identifier(APID) [1.3.112.4.29]](https://sanaregistry.org/r/space_packet_protocol_application_process_id)  [Spacecraft Identifier](https://sanaregistry.org/r/spacecraftid)  [Spacecraft Identifier](https://sanaregistry.org/r/spacecraftid)  [SCPS-TP Connection Identifier [1.3.112.4.41]](https://sanaregistry.org/r/scps_tp_connection_id)  [SCPS-NP Transport Protocol Identifier (TP-ID) [1.3.112.4.44]](https://sanaregistry.org/r/scps_np_transport_protocol_id)  [SCPS-NP Path Identifier (P-ID) [1.3.112.4.19]](https://sanaregistry.org/r/scps_np_path_id)  [SCPS-NP End System Identifier (ES-ID) [1.3.112.4.42]](https://sanaregistry.org/r/scps_np_end_system_id)  [SCPS-NP Domain Identifier (D-ID) [1.3.112.4.35]](https://sanaregistry.org/r/scps_np_domain_id)  [Protocol Identifier for Encapsulation Service [1.3.112.4.48]](https://sanaregistry.org/r/protocol_id)  [Proximity-1 Port Identifier [1.3.112.4.13]](https://sanaregistry.org/r/port_id)  [Packet Version Number [1.3.112.4.47](https://sanaregistry.org/r/packet_version_number)  [Multiplexer Access Point Identifier (MAP ID) [1.3.112.4.28]](https://sanaregistry.org/r/map_id)  [Internet Protocol Extension Header [1.3.112.4.21]](https://sanaregistry.org/r/ipe_header)  [Frame Secondary Header Version Number [1.3.112.4.24]](https://sanaregistry.org/r/frame_secondary_header_version_number)  [Extended Protocol Identifier for Encapsulation Service [1.3.112.4.26]](https://sanaregistry.org/r/extended_protocol_id)  [CLCW Version Number [1.3.112.4.45]](https://sanaregistry.org/r/clcw_version_number)  [CCSDS File Delivery Protocol (CFDP) Entity Identifier [1.3.112.4.16]](https://sanaregistry.org/r/cfdp_entity_id) |
| [Space Packet Protocol Application Process Identifier (APID)](https://sanaregistry.org/r/space_packet_protocol_application_process_id) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.29 | [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5" \t "_blank)  *Historical Document* | Space missions use Space Packet Protocol to transfer space application data over a network that involves a ground-to-space or space-to-space communications link.  Each LDP is uniquely identified by a Path ID. A Path ID consists of an Application Process Identifier (APID) and an optional APID Qualifier. An APID Qualifier identifies a naming domain for APIDs and APIDs are unique only in a single naming domain. An APID naming domain usually corresponds to a spacecraft (or an element of a constellation of cooperating space vehicles). |
| [Transfer Frame Version Number (TFVN)](https://sanaregistry.org/r/transfer_frame_version_number) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.22 | [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5)  *Historical Document* | The Telemetry (TM) Space Data Link Protocol is a Data Link Layer protocol (see reference to be used over space-to-ground or space-to-space communications links by space missions. To facilitate simple, reliable, and robust synchronization procedures, fixed-length protocol data units are used to transfer data through the weak-signal, noisy space links: their length is established for a particular Physical Channel (a single stream of bits transferred over a space link in a single direction) during a particular Mission Phase by management. These protocol data units are known as TM Transfer Frames (unless otherwise stated, the terms ‘Transfer Frame’ and ‘Frame’ in this document refer to the TM Transfer Frame). Each Transfer Frame contains a header which provides protocol control information, and a fixed-length data field within which higher-layer service data units are carried. |
| [Virtual Channel Identifier (VCID)](https://sanaregistry.org/r/virtual_channel_id) | [CCSDS.SLS.SLP](http://cwe.ccsds.org/sls/default.aspx#_SLS-SLP) | 1.3.112.4.40 | [[ccsds-732.0-B-2]](https://sanaregistry.org/references/95)  [[ccsds-135.0-B-4]](https://sanaregistry.org/references/5) | The Advanced Orbiting Systems (AOS) Space Data Link Protocol is a Data Link Layer protocol to be used over space-to-ground, ground-to-space, or space-to-space communications links by space missions. A key feature of the AOS Space Data Link Protocol is the concept of ‘Virtual Channels’ (VC). The Virtual Channel facility allows one Physical Channel to be shared among multiple higher-layer data streams, each of which may have different service requirements. A single Physical Channel may therefore be divided into several separate logical data channels, each known as a ‘Virtual Channel’. Each Transfer Frame transferred over a Physical Channel belongs to one of the Virtual Channels of the Physical Channel. There are three identifier fields in the header of Transfer Frames: Transfer Frame Version Number (TFVN), Spacecraft Identifier (SCID), and Virtual Channel Identifier (VCID). |
|  |  |  |  |  |