

REVIEW ITEM DISPOSITION (RID):  
RED BOOK RID INITIATION FORM

AGENCY RID NUMBER: ESA-DP-001  
SUBMITTING ORGANIZATION (Agency, Center): ESA, ECSAT

-----  
REVIEWER'S NAME: DANIEL PETTITT  
CODE: CSC-PNL  
E-MAIL ADDRESS: daniel.pettitt@esa.int  
TELEPHONE: +447721 815642  
-----

DOCUMENT NUMBER: CCSDS 732.1-P-2.1 Pink Book, Issue 2.1  
DOCUMENT NAME: Unified Space Data Link Protocol  
DATE ISSUED: September 2023  
PAGE NUMBER: 2-10 PARAGRAPH NUMBER: 2.2.3.4  
RID SHORT TITLE: Two instances of missing word 'the'

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "... " To "... " format)

From "It provides full protection for the service data of the MAP Packet (MAPP) service, the MAP Octet Stream Service, the MAP Access (MAPA) Service, Virtual Channel Packet (VCP) Service, and Virtual Channel Access (VCA) Service (see section 6, Protocol Specification with SDLS option)."

To

'It provides full protection for the service data of the MAP Packet (MAPP) service, the MAP Octet Stream Service, the MAP Access (MAPA) Service, [the](#) Virtual Channel Packet (VCP) Service, and [the](#) Virtual Channel Access (VCA) Service (see section 6, Protocol Specification with SDLS option).

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_ Recommended \_\_\_ Editorial X\_\_\_

NOTES:

TECHNICAL FACT: Major technical change of sufficient magnitude as to render the Recommendation inaccurate and unacceptable if not corrected. (Supporting analysis/rationale is essential.)

RECOMMENDED: Change of a nature that would, if incorporated, produce a marked improvement in document quality and acceptance.

EDITORIAL: Typographical or other factual error needing correction. (This type of change will be made without feedback to submitter.)

-----  
SUPPORTING ANALYSIS:

Addition of missing 'the' in two instances for new text, inline with existing text.

-----  
DISPOSITION:

REVIEW ITEM DISPOSITION (RID):  
RED BOOK RID INITIATION FORM

AGENCY RID NUMBER: ESA-DP-002  
SUBMITTING ORGANIZATION (Agency, Center): ESA, ECSAT

-----  
REVIEWER'S NAME: DANIEL PETTITT  
CODE: CSC-PNL  
E-MAIL ADDRESS: daniel.pettitt@esa.int  
TELEPHONE: +447721 815642  
-----

DOCUMENT NUMBER: CCSDS 732.1-P-2.1 Pink Book, Issue 2.1  
DOCUMENT NAME: Unified Space Data Link Protocol  
DATE ISSUED: September 2023  
PAGE NUMBER: 2-17 PARAGRAPH NUMBER: 2.2.5  
RID SHORT TITLE: Restriction on coexistence of VC and MAP services on a  
single VC  
-----

DESCRIPTION OF REQUESTED CHANGE: (Use From: "... " To "... " format)

From

“There are some restrictions on the services provided on a Physical Channel, as follows:

- a) For fixed-length Transfer Frames only on one MAP Channel, the MAPA Service cannot exist simultaneously with the MAPP Service.
- b) On one VC, the COPs Management Service shall not exist simultaneously with the VCF Service.
- c) For fixed-length Transfer Frames only on one Virtual Channel, the VC Access Service cannot exist simultaneously with the VCP Service.
- d) The COPs Management Service shall not exist simultaneously with the MCF Service.
- e) If the MCF Service exists on an MC, other data transfer services shall not exist simultaneously on the MC.
- f) On one MC, only one USLP\_MC\_OCF Service can exist.
- g) The MAP Octet Stream Service cannot exist when fixed-length Transfer Frames are used.”

To

“There are some restrictions on the services provided on a Physical Channel, as follows:

- a) For fixed-length Transfer Frames only on one MAP Channel, the MAPA Service cannot exist simultaneously with the MAPP Service.
- b) On one VC, the COPs Management Service shall not exist simultaneously with the VCF Service.
- c) For fixed-length Transfer Frames only on one Virtual Channel, the VC Access Service cannot exist simultaneously with the VCP Service.
- d) The COPs Management Service shall not exist simultaneously with the MCF Service.
- e) If the MCF Service exists on an MC, other data transfer services shall not exist simultaneously on the MC.
- f) On one MC, only one USLP\_MC\_OCF Service can exist.
- g) The MAP Octet Stream Service cannot exist when fixed-length Transfer Frames are used
- h) If the Virtual Channel Frame Service exists on a Virtual Channel, other data transfer services shall not exist simultaneously on that Virtual Channel.
- i) If the Virtual Channel Access Service exists on a Virtual Channel, other data transfer services shall not exist simultaneously on that Virtual Channel.

j) If the Virtual Channel Packet Service exists on a Virtual Channel, other data transfer services shall not exist simultaneously on that Virtual Channel.”

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_ Recommended X\_\_\_ Editorial \_\_\_

NOTES:

TECHNICAL FACT: Major technical change of sufficient magnitude as to render the Recommendation inaccurate and unacceptable if not corrected. (Supporting analysis/rationale is essential.)

RECOMMENDED: Change of a nature that would, if incorporated, produce a marked improvement in document quality and acceptance.

EDITORIAL: Typographical or other factual error needing correction. (This type of change will be made without feedback to submitter.)

-----  
SUPPORTING ANALYSIS:

As the MAP services are multiplexed within a Virtual Channel, it is understood that there will be restrictions on operating MAP services and VC services concurrently on a single VC. It is recommended to include the same restrictions listed in the CCSDS 232.0-B-4 to clarify this aspect for the reader [ref CCSDS 232.0-B-4, Section 2.2.4, Page 2-11, bullets b), c), d)].

This would also be inline with 4.3.6.2.6, which states that MAPPs should be discarded during VCP extraction, and Figure 4-28 which states there is only one MAP Demultiplexing Function, VC Packet Extraction Function or VCA Service User per VC.

-----  
DISPOSITION:

AGENCY RID NUMBER: ESA-DP-003  
SUBMITTING ORGANIZATION (Agency, Center): ESA, ECSAT

-----  
REVIEWER'S NAME: DANIEL PETTITT  
CODE: CSC-PNL  
E-MAIL ADDRESS: daniel.pettitt@esa.int  
TELEPHONE: +447721 815642  
-----

DOCUMENT NUMBER: CCSDS 732.1-P-2.1 Pink Book, Issue 2.1  
DOCUMENT NAME: Unified Space Data Link Protocol  
DATE ISSUED: September 2023  
PAGE NUMBER: 3-2 PARAGRAPH NUMBER: 3.2.2.4  
RID SHORT TITLE: Use of GVCID and GMAP ID terminology  
-----

DESCRIPTION OF REQUESTED CHANGE: (Use From: "... " To "... " format)

From

“Packets shall be contained either within a single USLP Frame or within multiple sequential USLP Frames of the same GVCID or GMAP ID using the TFDZ Construction Rules in 4.1.4.2.2.”

to

“Packets shall be contained either within a single USLP Frame or within multiple sequential USLP Frames of the same SAP address using the TFDZ Construction Rules in 4.1.4.2.2.”

Similar for

4.1.4.2.2.2.6

4.1.4.2.2.2.7

4.1.4.3.2

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_ Recommended X\_\_\_ Editorial \_\_\_

NOTES:

TECHNICAL FACT: Major technical change of sufficient magnitude as to render the Recommendation inaccurate and unacceptable if not corrected. (Supporting analysis/rationale is essential.)

RECOMMENDED: Change of a nature that would, if incorporated, produce a marked improvement in document quality and acceptance.

EDITORIAL: Typographical or other factual error needing correction. (This type of change will be made without feedback to submitter.)  
-----

SUPPORTING ANALYSIS:

The existing statement is ambiguous because a GMAP ID is a subset of the GVCID, therefore in the case of implementing this rule in practice it could be interpreted that all GMAP IDs on the same VC also have the same GVCID (different GMAP IDs would still have the same GVCID if this is applied literally).

Utilising the SAP ID terminology may help aide understanding as it refers to a distinct functional entity represented at either the VC or MAP level. This approach is utilised in other sections of the document therefore this would align with the existing approach.  
-----

DISPOSITION:

REVIEW ITEM DISPOSITION (RID):  
RED BOOK RID INITIATION FORM

AGENCY RID NUMBER: ESA-DP-004  
SUBMITTING ORGANIZATION (Agency, Center): ESA, ECSAT

-----  
REVIEWER'S NAME: DANIEL PETTITT  
CODE: CSC-PNL  
E-MAIL ADDRESS: daniel.pettitt@esa.int  
TELEPHONE: +447721 815642  
-----

DOCUMENT NUMBER: CCSDS 732.1-P-2.1 Pink Book, Issue 2.1  
DOCUMENT NAME: Unified Space Data Link Protocol  
DATE ISSUED: September 2023  
PAGE NUMBER: 6-10 PARAGRAPH NUMBER: 6.4.8.2 - 6.5.8  
RID SHORT TITLE: Terminology regarding MAPs that use SDLS  
-----

DESCRIPTION OF REQUESTED CHANGE: (Use From: "... " To "... " format)  
Numerous references to "MAPs that uses SDLS"

For example:

"6.4.8.2 When assembling a user-data Transfer Frame on a Virtual Channel or MAP that uses SDLS,  
the Virtual Channel Generation Function shall"

AND

"NOTE 2 - The Virtual Channel Generation Function contains the interface to the SDLS  
protocol. In this case, it calls the SDLS ApplySecurity function for the user data  
Transfer Frames that it assembles for Virtual Channels or MAPs that use SDLS."

AND

Similar for 6.5.4, 6.5.5, 6.5.8

-----  
CATEGORY OF REQUESTED CHANGE:  
Technical Fact \_\_\_ Recommended X\_\_\_ Editorial \_\_\_

NOTES:

TECHNICAL FACT: Major technical change of sufficient magnitude as to  
render the Recommendation inaccurate and unacceptable if not  
corrected. (Supporting analysis/rationale is essential.)

RECOMMENDED: Change of a nature that would, if incorporated, produce  
a marked improvement in document quality and acceptance.

EDITORIAL: Typographical or other factual error needing correction.  
(This type of change will be made without feedback to submitter.)  
-----

SUPPORTING ANALYSIS:

The statements referred above refer to 'MAPs that uses SDLS'.  
It is not clear whether MAPs within a VC can individually apply SDLS,  
or whether if SDLS is applied to a VC, then it applies to all MAPs  
within that VC. My understanding is it is the latter, based on the  
fact that the SDLS function is applied at the VC level, and the Note  
in the existing document in paragraph 6.6.2. which states "If the

Security Header is present, SDLS is in use for the VC, and it applies to all the Transfer Frames with the same GVCID, including truncated Transfer Frames defined in annex D.”

Consider revising to 'Virtual Channels that uses SDLS' with a note to clarify that in the case of MAPs, this will apply to all MAPs on that VC, if this is the intended behaviour.

-----  
DISPOSITION:

REVIEW ITEM DISPOSITION (RID):  
RED BOOK RID INITIATION FORM

AGENCY RID NUMBER: ESA-FF-01  
SUBMITTING ORGANIZATION (Agency, Center): ESA, ESOC

-----  
REVIEWER'S NAME: Felix Flentge  
CODE: OPS-GSB  
E-MAIL ADDRESS: felix.flentge@esa.int  
TELEPHONE:

-----  
DOCUMENT NUMBER: CCSDS 732.1-P-2.1                      Pink Book, Issue 2.1  
DOCUMENT NAME: Unified Space Data Link Protocol  
DATE ISSUED: September 2023  
PAGE NUMBER: 3-13                      PARAGRAPH NUMBER: 3.4.3.2.2  
RID SHORT TITLE: Request not indication

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "... " To "... " format)  
From:

The VCP.request primitive shall provide parameters as follows:  
VCP\_Notify.**indication** (Packet,  
                          GVCID,  
                          Packet Version Number,  
                          SDU\_ID,  
                          Service Type)

to:

The VCP.request primitive shall provide parameters as follows:  
VCP\_Notify.**request** (Packet,  
                          GVCID,  
                          Packet Version Number,  
                          SDU\_ID,  
                          Service Type)

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_ Recommended \_\_\_ Editorial X

NOTES:

TECHNICAL FACT: Major technical change of sufficient magnitude as to render the Recommendation inaccurate and unacceptable if not corrected. (Supporting analysis/rationale is essential.)

RECOMMENDED: Change of a nature that would, if incorporated, produce a marked improvement in document quality and acceptance.

EDITORIAL: Typographical or other factual error needing correction. (This type of change will be made without feedback to submitter.)

-----  
SUPPORTING ANALYSIS:

-----

DISPOSITION:



REVIEW ITEM DISPOSITION (RID):  
RED BOOK RID INITIATION FORM

AGENCY RID NUMBER: ESA-NM-01  
SUBMITTING ORGANIZATION (Agency, Center): ESA, ESTEC

-----  
REVIEWER'S NAME: Nicola Maturo  
CODE: TEC-EST  
E-MAIL ADDRESS: nicola.maturo@ext.esa.int  
TELEPHONE: +31 71 565 3885  
-----

DOCUMENT NUMBER: CCSDS 732.1-P-2.1 Pink Book, Issue 2.1  
DOCUMENT NAME: Unified Space Data Link Protocol  
DATE ISSUED: September 2023  
PAGE NUMBER: 1-7 PARAGRAPH NUMBER: 1.7  
RID SHORT TITLE: Outdated reference to TM C&S Blue Book  
-----

DESCRIPTION OF REQUESTED CHANGE: (Use From: "... " To "... " format)

Replace this:

[3] *TM Synchronization and Channel Coding*. Issue 34. Recommendation for Space Data System Standards (Blue Book), CCSDS 131.0-B-34. Washington, D.C.: CCSDS, September 2017 April 2022.

With this:

[3] *TM Synchronization and Channel Coding*. Issue 5. Recommendation for Space Data System Standards (Blue Book), CCSDS 131.0-B-5. Washington, D.C.: CCSDS, September 2023.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_ Recommended \_\_\_ Editorial X

NOTES:

TECHNICAL FACT: Major technical change of sufficient magnitude as to render the Recommendation inaccurate and unacceptable if not corrected. (Supporting analysis/rationale is essential.)

RECOMMENDED: Change of a nature that would, if incorporated, produce a marked improvement in document quality and acceptance.

EDITORIAL: Typographical or other factual error needing correction. (This type of change will be made without feedback to submitter.)  
-----

SUPPORTING ANALYSIS:

-----  
DISPOSITION:

AGENCY RID NUMBER: ESA-NM-02  
SUBMITTING ORGANIZATION (Agency, Center): ESA, ESTEC

-----  
REVIEWER'S NAME: Nicola Maturo  
CODE: TEC-EST  
E-MAIL ADDRESS: nicola.maturo@ext.esa.int  
TELEPHONE: +31 71 565 3885  
-----

DOCUMENT NUMBER: CCSDS 732.1-P-2.1 Pink Book, Issue 2.1  
DOCUMENT NAME: Unified Space Data Link Protocol  
DATE ISSUED: September 2023  
PAGE NUMBER: 3-1 PARAGRAPH NUMBER: 3.2.2  
RID SHORT TITLE: Change title of 3.2.2 section  
-----

DESCRIPTION OF REQUESTED CHANGE: (Use From: "... " To "... " format)

From:

3.2.2 PACKET

To:

3.2.2 PACKETS

Context:

While in the rest of the section only the term "packets" is used, in the title the term "packet" is used. I would suggest aligning to either one of the 2 options.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_ Recommended \_\_\_ Editorial X

NOTES:

TECHNICAL FACT: Major technical change of sufficient magnitude as to render the Recommendation inaccurate and unacceptable if not corrected. (Supporting analysis/rationale is essential.)

RECOMMENDED: Change of a nature that would, if incorporated, produce a marked improvement in document quality and acceptance.

EDITORIAL: Typographical or other factual error needing correction. (This type of change will be made without feedback to submitter.)  
-----

SUPPORTING ANALYSIS:

-----  
DISPOSITION: