File Transfer UsE Cases

# Use Case Selection

The following table identifies and classifies use cases. The meaning of the columns is as follows.

ID Number for reference

Title Use Case Title

CS Relevant for Cross Support (Y/N)

Related Work CCSDS WG / Recommended Standards dealing with some aspects of the topic

Group Category of file / file transfer task

SC Selected as Standardisation Candidate (Y/N)

| **ID** | **Title** | **CS** | **Category** | **Related Work** | **SC** |
| --- | --- | --- | --- | --- | --- |
|  | DDOR Data | Y |  | DDOR WG | Y |
|  | Radio Science Data[[1]](#footnote-1) | Y |  |  | Y |
|  | Radiometric Observables | Y |  | NAV TDM Std | Y |
|  | Recorded Telemetry Frames | Y | Telemetry | SLS, SLE | Y |
|  | Recorded TM Packets | Y | Telemetry |  | Y |
|  | Command Parameter Files (to MCS) | N | Planning |  | N |
|  | S/C Command Files (to MCS) | Y | Planning | MOIMS | Y |
|  | S/C Command Files (to GS) | Y |  | SLS, SLE | Y |
|  | Planning Requests | Y |  | MO WG | Y |
|  | CFDP Injection | Y | CFDP | CFDP, TBD | Y |
|  | CFDP Retrieval | Y | CFDP | CFDP, TBD | Y |
|  | Trajectory Predictions | Y | Configuration  Planning | ODM | Y |
|  | View Period Predictions | Y | Planning |  | Y |
|  | Configuration Files | Y | Configuration |  | N |
|  | NW Utilisation Schedules | Y | Planning | SM | Y |
|  | Log Files | N |  |  | N |
|  | SICF | N |  |  | N |
|  | Execution Schedules | N | Configuration |  | N |
|  | Pass Report | Y |  | SM | ? |
|  | Other Reports? | Y |  |  | N |
|  | Recorded Monitored Data | Y |  | MD CSTS | N |

# Use Case Template

Use Case Title

Summary description.

Features to be standardised:

Feature: Identification of the feature

R Relevant (Yes, No, Maybe)

Gen Generic definition possible (Yes, No, Partially)

Comments: any further comments, especially reference to applicable standards

| **Feature** | **R** | **Gen** | **Comments** |
| --- | --- | --- | --- |
| Data Content |  |  | File data content specification including structuring into records |
| Annotations |  |  | Annotations (metadata) to be added per data unit |
| Manifest |  |  | Metadata for the complete file / file content description either prepended or a separate file |
| Naming Conventions |  |  | Construction rules for file names |
| Directory Structure |  |  | Rules for directory structure visible to the service user |
| Catalogue |  |  | Catalogue of available data including metadata |
| File building instructions |  |  | Rules for delimiting files |
| Push/Pull Model |  |  | What is supported |
| Data Volume agreement |  |  | How much data will the provider store? |
| Storage duration agreement |  |  | How long will the data be kept available? |
| Data availability notification |  |  | Will the user be notified when data become available? |
| Location Identification |  |  | Address specification |
| File transfer protocol and profiles |  |  |  |
| File Management |  |  |  |
|  |  |  |  |
|  |  |  |  |

Specific Issues

Identification of any specific issues to consider for the use case

# Recorded Telemetry

Telemetry frames are recorded at the ground station for retrieval by missions.

Features to be standardised:

| **Feature** | **R** | **Gen** | **Comments** |
| --- | --- | --- | --- |
| Data Content | Y | N | Defined SLS Standards |
| Annotations | Y | N | Adopted from SLE Standards |
| Manifest | M | N |  |
| Naming Conventions | Y | P |  |
| Directory Structure | M | ? |  |
| Catalogue | Y | N |  |
| File building instructions | Y | N |  |
| Push/Pull Model | Y | ? |  |
| Data Volume agreement | Y | Y |  |
| Storage duration agreement | Y | Y |  |
| Data availability notification | M | P |  |
| Location Identification | Y | Y |  |
| File transfer protocol and profiles | Y | Y |  |
| File Management | M | Y |  |
|  |  |  |  |
|  |  |  |  |

Specific Issues

1. Definition of the files that shall be generated (all, MC, VC, etc)

# Trajectory Predictions

Provision of trajectory predictions to the supporting complex

Features to be standardised:

| **Feature** | **R** | **Gen** | **Comments** |
| --- | --- | --- | --- |
| Data Content | Y | N | Defined by XXX – all options? |
| Annotations | Y |  |  |
| Manifest | N |  |  |
| Naming Conventions | Y | P |  |
| Directory Structure | ? | ? |  |
| Catalogue | N |  |  |
| File building instructions | N |  |  |
| Push/Pull Model | M |  |  |
| Data Volume agreement | N |  |  |
| Storage duration agreement | N |  |  |
| Data availability notification | N |  |  |
| Location Identification | Y | Y |  |
| File transfer protocol and profiles | Y | Y |  |
| File Management | N |  |  |
|  |  |  |  |
|  |  |  |  |

Specific Issues

1. Raw data same format as DDOR for ESA [↑](#footnote-ref-1)