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SOFTWARE REQUIREMENTS SPECIFICATION (SRS)

EGOS DATA DISSEMINATION SYSTEM (EDDS)

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Abstract			
Defines the software requirements for the EGOS Data Dissemination System.			

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TABLE OF CONTENTS

TABLE OF TABLES

TABLE OF FIGURES

1. Introduction

This document specifies the software requirements identified for the EGOS Data Dissemination System (EDDS).

2. Applicable and reference documents

2.1 Applicable documents

Ref.	Document Title	Issue and Revision, Date
[AD-18]	ESOC SuSE Linux Enterprise Server (SLES12) Baseline Definition [SLES12-064-ESOCL01]	Issue 0.0, TBR
[AD-39]	EDDS External User Interface Control Document (EUICD) [EGOS-MDW-EDDS-ICD-1001]	Version as part of this release
[AD-40]	Generic DDS – Interface Control Document RDM Image Transfer Control Files, GDDS-RDM ITCF ICD [EGOS-MCS-GDDS-ICD-1002]	Issue 1.1, 2004-08-30
[AD-41]	ESOC Generic Ground Systems (EGGS): Development Requirements Specification [EGGS-ESOC-GS-SRS-1001]	Issue 1.1.1, 2008-10-31

2.2 Reference documents

Ref.	Document Title	Issue and Revision, Date
[RD-1]	Producer-Archive Interface Specification	Draft White Book, December-2005
[RD-2]	EGOS Data Dissemination System (EDDS) Concepts [EGOS-MCS-GDDS-TN-nnnn-i0r0]	0.0 Draft C, 2005-09-26
[RD-3]	SCOS-2000 TM Data Retrieval Services SRD [S2K-MCS-SRD-0004-TOS-GIC]	Issue 3.1, 2003-08-29
[RD-4]	Data Disposition System Software Requirements Document [EGOS-MCS-GDDS-SRD-5720]	Issue 1.4, 2004-08-30
[RD-5]	WEB-RM User & Software Requirements Baseline [ESA/TOS-GIC]	Issue 1.4, 2003-11-24
[RD-6]	MUST Repository ICD [No reference] RID523	Draft 1.0 (No Date)
[RD-7]	MUST Rosetta Performance TN [No reference] RID319	Issue 1.1 (No Date)
[RD-8]	MUST Server Software Requirements Specification [No reference]RID319	Issue 1.0, 2006-07-04
[RD-9]	XML Formatted Data Unit (XFDU) Structure and Construction Rules RID255	WHITE BOOK, 2006-05-15
[RD-10]	EGOS High Level Architectural Design Document [EGOS-GEN-GEN-SAD-1001-i0r0]RID494 RID529	0.0DraftC, 2005-05-15
[RD-11]	TDRS External Interfaces Control Document [S2K-MCS-ICD-0017-TOS-GIC]	Issue 4.3, 2004-03-31
[RD-12]	Generic Data Delivery Interface Document (GDDID) [EGOS-MCS-GDDS-ICD-1003]	Issue 1.2, 2004-08-30
[RD-13]	CCSDS Definition Cross Support Reference Model – Part 1, Space Link Extension Services [910.4-B-1]	Issue 1, May-1996

[RD-14]	ESACERT information including Security Plan template and guidelines: http://forum.esacert.esa.int/guidelines.html	N/A
[RD-15]	Implementation of the ESA Network Security Policy for OPSNET [DOPS-COM-POL-34555-OPS-ECT]	Issue 2 Revision 3, 2007-11-09
[RD-16]	EGOS ICD Raw Data Media Production System [EGOS-GEN-EDDS-ICD-1001]	Issue 1, 2007-04-13
[RD-17]	EDDS SDD [EGOS-MDW-EDDS-SDD-1001]	Issue 1, 2007-04-13
[RD-18]	Analysis of Web Services and PARC, Enhancements to support EDDS [EGOS-MDW-TN-1002]	Issue 1, 2007-04-13
[RD-19]	Analysis of TDRS, WEBRM, GDDS and MUST for suitability of reuse in implementing EDDS [EGOS-MDW-TN-1001]	Issue 1, 2006-02-22
[RD-20]	SCOS-2000 SMF SRS [EGOS-MCS-S2K-SRS-1001]	Issue 1 Revision 3 2008-11-07
[RD-21]	MONITORING & CONTROL SCOS-2000 - SFM SERVICE ICD [EGOS-MCS-S2K-ICD-1004]	Issue 6 2008-11-07
[RD-22]	SYSTEM MANAGEMENT SCOS-2000 - SFM SERVICE ICD [EGOS-MCS-S2K-ICD-1005]	Issue 5 2008-11-07
[RD-23]	XML FORMATTED DATA UNIT (XFDU) STRUCTURE AND CONSTRUCTION RULES - Blue book [CCSDS 661.0-B-1]	September 2008
[RD-24]	DARC ICD [EGOS-GEN-DARC-ICD-1001]	Issue 1.1 2009-01-08
[RD-25]	Software Design Document DARC [EGOS-GEN-DARC-SDD-0040]	Issue 1.0 2009-01-09
[RD-26]	EGOS USER DESKTOP ICD [EGOS-MDW-UDK-ICD-0001]	Issue 2.2 2008-11-25
[RD-27]	EGOS USER DESKTOP SDD [EGOS-MDW-UDK-SDD-0001]	Issue 2.1 2008-07-28
[RD-28]	Session Manager ICD [EGOS-MDW-LLC-ICD-1005]	Issue 1.3a 2008-12-12
[RD-29]	Session Manager SDD [EGOS-MDW-COR-SDD-1005]	Issue 1.3a 2008-12-12

3. Terms, definitions and abbreviated terms

3.1 Acronyms

Acronyms	Description
AND	Alpha-Numeric Display
APID	Application Identifier
ASCII	American Standard Code for Information Interchange
CCSDS	Consultative Committee for Space data Systems
CPU	Central Processing Unit
CORBA	Common Object Request Broker Architecture
DARC	Parameter Archive
DBMS	Database Management System
DDID	Data Delivery Interface Document
DMZ	Demilitarized Zone
DVD	Digital Video Disc (Digital Versatile Disc)
EDDS	EGOS Data Dissemination System
EGOS	ESA Ground Operations System
ESA	European Space Agency
ESOC	European Space Operations Centre
EUD	EGOS User Desktop
EV	Event
FARC	File Archive
FTP	File Transfer Protocol
GDDID	Generic Data Delivery Interface Document
GDDS	Generic Data Disposition System
GEOS	Generic ESOC Operational Systems
GRD	Graphic Display
GNU	GNU's Not Unix
GZIP	GNU Zip
HCI	Human-Computer Interaction
HP	Hewlett-Packard
HTML	Hypertext Mark-up Language
HTTP	Hypertext Transfer Protocol
HTTPS	HTTP over Secure socket layer
ICD	Interface Control Document
JDBC	Java Database Connectivity
JRE	Java Runtime Environment
LAN	Local Area Network
LDAP	Lightweight Directory Access Protocol
MAS	Mission Automation System
MCS	Mission Control System
MTA	Mail Transfer Agent
MUST	Mission Utility & Support Tool
MVDA	Mission Visual Data Analysis
MMI	Man Machine Interface
OBEV	On-board Event
OBQ	On-board Queue
OBQM	On-board Queue Model

OBSM	On-board Software Maintenance
OBT	On-board Time
OOL	Out Of Limit
PARC	Packet Archive
PC	Personal Computer
PDS	Packet Distribution Server
PI	Principle Investigator
QMS	Quality Management System
RAM	Random Access Memory
RAR	Roshal Archive
RCP	Rich Client Platform
RDM	Raw Data Media
RPM	Revolutions Per Minute
SCD	Scrolling Display
SCET	Spacecraft Event Time
SFDU	Standard Formatted Data Unit
SIP	Submission Information Packages
SLE	Space Link Extension
SLES	Space Link Extension Services
SMF	Service Management Framework
SMTP	Simple Mail Transfer Protocol
SMTPs	Simple Mail Transfer Protocol Secure
SSC	Source Sequence Count
SOAP	Simple Object Access Protocol
SPID	SCOS-2000 Packet ID
SUM	Software User Manual
SWRR	Software Requirements Review
TBD	To Be Decided
TBW	To Be Written
TC	Telecommand
TDRS	Telemetry Data Retrieval System
TM	Telemetry
TMPH	Telemetry Packet History Display
TPF	Task Parameter File
TQD	Telemetry Query display
TT&C	Telemetry, Tracking and Command
VPN	Virtual Private Network
WebRM	Web Remote Monitoring
WSDL	Web Services Description Language
XFDU	XML Formatted Data Unit
XHTML	Extensible Hypertext Mark-up Language
XML	Extensible Mark-up Language
XSL	Extensible Stylesheet Language
XSLT	XSL Transformations

3.2 Definition of Terms

Terms	Description
Multi-Mission	A mission within this document refers to a set of domains, grouped within their given context. Each mission may have a number of potential contexts (e.g. scenarios such as live operation testing, training) which may contain groups of domains. All processes and data within a mission are exclusive to that mission. The term multi-mission implies the ability to distinguish between missions and support, from the user's perspective, a consistent set of services across missions.
Domain	Each domain is an instance of an MCS or data archive and is independent of all other domains.
Role	Abstraction of users into functional categories.
Session	A user session, started by a valid login and assignment of a role to the user and ending with the logout of the user.
Service	Within this document a service refers to a particular function provided by the EDDS.

3.3 Requirement terms

Abbreviation	Description
Source	Reference to a source that formed basis for requirement (SWRR – first software requirements review; SWRR2 – second software requirements review)
Need	E – Essential. D1 - Non-essential, but highly desirable. D2 - Non-essential, but desirable. D3 - Non-essential, but nice to have.
Priority	1 – Highest priority. 2 – Medium priority. 3 – Lowest priority.
Stability	S – Stable N - Non-Stable
Type	FU – Functionality US – Usability EF – Efficiency MA – Maintainability PO – Portability RE – Reliability
Verif. (Verification)	T – Test I – Inspection A – Automated Inspection
Version	The version identifies the document version in which the requirement has been changed. This shall be updated every time a change is performed in a concrete requirement.

4. General Description

4.1 Relationship to Current Projects

The EGOS Data Dissemination is a high level component built on top of the EGOS framework and provides controlled exposure of data dissemination services to external users.
TM Parameter data is one data type that the EDDS is required to support.[RID280]. Currently ESA Mission Control Systems generate parameter data on the fly as required from associated packets, but to meet EDDS performance criteria with such data a dedicated parameter archive (DARC) has been developed (check [RD-25] and [RD-26]). Also within the EGOS framework a new packet archive low level component has been finalized (PARC).
All requirements from the EGGS Development Requirements Specification [AD-41] are applicable to the EDDS. Any allowed non-compliancy or de-scoped requirement is specifically listed in section 5.20.

4.2 Relationship to Predecessor and Successor Projects

The requirements for the EDDS are based on three current Ground Segment Infrastructure subsystems that provide access to data stored in SCOS-2000 MCS systems to users that may be local or remote to ESOC. The three subsystems are:

- Telemetry Data Retrieval System (TDRS)
- Web Remote Monitoring (WebRM)
- Generic Data Disposition System (GDDS)

TDRS is only applicable to telemetry data, providing a data retrieval interface to extract TM parameter values from the SCOS-2000 history file archive and present the result as files in MVDA or spreadsheet format. The parameters are extracted from fixed length TM packets. TDRS is available to authorised users on both the ESOC Intranet and the public Internet. The user interfaces TDRS via a standard Web browser and e-mails. Handling of the user and Web interface is separated from the actual retrieval to allow distribution of the responsibilities for security and performance reasons.
The WebRM system is designed to enable remote monitoring of satellite data without physical access to the MCS - a network connection (Intranet or public Internet) is sufficient. Though the WebRM client only supports monitoring, the CORBA based external interfaces also allow injection of data. The WebRM system consists of two major parts:

1. The External Interface injection and provision services (servers). The current implementation of the External Interface injection and provision services is designed for interoperability with the SCOS-2000 MCS. The injection servers allow the sending of data to the SCOS-2000 kernel, the provision servers collect monitoring data from the SCOS-2000 kernel and distribute them to all active clients.
2. The WebRM client is an application that visualises monitoring data using a set of displays that have the same look and feel as those found on SCOS-2000 systems. It may run on any platform that supports Java 2 (JRE 1.4).

The Generic DDS provides both a web server and FTP server front end to service user requests and return responses to those requests. Both servers allow the multiplexing of requests from multiple users. A CORBA / FTP interface to an MCS archive system is implemented to allow data to be retrieved from the MCS archive. The data retrieved from the MCS can be categorised into one of three types: Continuous (e.g. packet based telemetry), File (e.g. Flight Dynamic event files), or Catalogues (e.g. list of all available files, or packets for a given APID).
The subsystems outlined do not perform any analysis of the data provided to the user but simply provide different views of data stored in the MCS. However a fourth prototype subsystem has also been identified as providing input for EDDS requirements - MUST.
MUST is a server/client architecture that provides tools to analyse TM parameter data. The server is responsible for maintaining a parameter archive that is built via scheduled historic packet requests from the MCS. Client applications are provided that allow the end user to analyse the parameter data stored on the server. Although the purpose of the EDDS is not to provide analytical tools there is a need to provide a similar TM parameter based interface so that it would be possible to support MUST like clients.

4.3 Function and Purpose

The primary purpose of the EDDS is to provide controlled access to science and non-science[RID492] MCS data to users who do not have access to the MCS monitoring and control facilities. The users can be generalised into two categories:

- Users who require remote monitoring facilities
- Users who perform analysis of spacecraft data

The EDDS services provide the ability to remotely monitor a spacecraft (via stream based services) and to provide archived data or generated reports and statistics (via file based services). Indeed binary packet data is often used by ESA mission customers (e.g. Principle Investigators and scientists) to populate local archives[RID281].

It is not the function of the EDDS to provide analytic tools for MCS data, but rather to provide MCS data in a format that facilitates the analysis process. In this respect it is a goal to provide a system that can support a number of data formats and allows scope for new formats to be added, or indeed obsolete formats to be removed.

The EDDS is intended to be capable of working in a multi-mission environment and hence provides facilities to support autonomous mission domains. In this respect the structure of the user accounts and access privileges enable mission and domain specific grouping to be applied to users while maintaining a single entry point for user authentication. Additionally all data request mechanisms provide support to distinguish between mission domains.[RID445]

Apart from the main source of data (MCS) EDDS shall be generic and flexible enough to allow any data archive to use its service and distribute any type of data to its users.

4.3.1 Data Types

This section outlines the data types currently considered that EDDS provides from the users' prospective. The following table shows an overview of the data types and delivery mechanisms provided by the EDDS. When new data types are to be added the delivery mechanisms need to be clearly specified.

Request Type \ ***Format***		*EDDS Binary*	*Binary*	*XFDU*	*XML (XML Transform)*	*ASCII*	*Others*
Packet	*TM*	✓*		✓			GDDS_BINARY*, SFDU
	TM (PARC Raw)		✓*		✓*		
	TM Report		✓*		✓*	✓*	
	TM Statistics				✓		
	TC	✓*		✓			GDDS_BINARY*, SFDU
	TC (PARC Raw)		✓*		✓*		
	TC Report		✓*		✓*	✓*	
	TC Statistics				✓		
	EV	✓*		✓			
	EV (PARC Raw)		✓*		✓*		
	Event Record Report		✓*		✓*	✓*	
	EV Statistics				✓		
	OOL Record		✓*		✓*	✓*	
Parameter	*TM*		✓*	✓	✓*		TDRS
	TM from SMON		✓*	✓	✓*		TDRS
	Statistics				✓*	✓*	
	Preview				✓*	✓*	
	Definition		✓*		✓*		
Report	*EddsUsage*				✓		
Archived Files	*File (and File Subscription)*		✓	✓			
	Catalogue				✓	✓	
File System	*File Catalogue*				✓	✓	
	Folder Catalogue				✓	✓	
	File (and Subscription)		✓				

The formats marked with * support splitting the response files into smaller chunks (and also support suspend and resume).

4.3.1.1 Packet

Packet data provided by the EDDS consists of telemetry (TM), telecommand (TC) and MCS[RID293] event (EV) packets. The packets contain binary data as processed by the MCS in Network endian order. In addition packet statistics data is available that provides statistical information about packets stored in the MCS (e.g. the number of packets that match a given criterion for a given time span). EDDS should be able to retrieve any Packet information as long as this is available on the PARC and the correspondent MCS.

4.3.1.2 Parameter

The EDDS supports spacecraft TM parameter data. The parameter data is extracted from packets using the definition of the packet structure from the relevant spacecraft database. Parameter data is available from one of two sources:

1. A dedicated parameter archive (DARC)
2. On-the-fly generation (SMON)

The first source is populated as TM source packets are received by the MCS and is tailored to provide fast access to the parameter data stored. Due to the large number of TM parameters defined for a mission and their associated data, it is unlikely to be practical to store all parameters in a dedicated parameter archive. The mission will be able to configure which subset of parameters is stored in the dedicated parameter archive.
The second source requires packets to be retrieved from the MCS packet archive and processed to provide the parameter data. This gives slower access to the parameter data than a dedicated parameter archive but allows access to all parameter data.
A Parameter Statistics data type is available which provides statistical information about a group of parameter samples (e.g. average value, etc).
The Parameter Definition data type describes the definition of a parameter. This includes the name, description, sub-system and unit information of a parameter (see EUICD [AD-39] for further description).

4.3.1.3 Report

This Data type covers both reports generated by the MCS and those generated by the EDDS.
MCS reports can be classified into TM, TC, EV and other reports. The availability of such reports is dependent on those supported by the MCS. It is expected that TM reports will be similar to that currently provided by the SCOS-2000 TM Packet History Display (TMPH) with both full and brief modes being available.[RID429] TC Reports provide a format similar to the current SCOS-2000 Command History, full and brief modes. The current SCOS-2000 release 5 allows the following reports that will be available:

- TM Packet Report
- TM Gap Report
- TM Parameter Report
- TC Packet Report
- Files
- OBEV Data Report
- OOL Data Report
- OBQ Data Report
- Event Record Report
- Command Record Report
- OBSM Report

EDDS reports are generated by the EDDS on user request. They are:

- status reports
- request summary reports
- system log reports
- EDDS usage reports

XML is used as the mechanism that allows the EDDS to provide support for any report type. Reports to be supported by the EDDS will be in XML format, with missions providing XSLT for transforming the reports into their final delivery format. This also allows missions to specialise reports with full EDDS support.

4.3.1.4 Archived Files

The Archived Files data type are files stored in the MCS file archive (FARC) including files received from Flight Dynamics, Mission Planning and TT&C stations. Additionally catalogue information is also available. The mission database shall also be retrieved from the FARC since without it any future request for e.g. TM, TC or EV data have little use.

In addition, EDDS supports retrieving data from a file system location, providing a catalogue of the available files and retrieval of the files through batch requests.

4.3.1.5 Acknowledgment

Acknowledgment data is data generated by the EDDS and sent to the user on request. Acknowledgment data contains status information and can contain statistical summary data for requests made. A user can request that acknowledgment data be sent in the following cases:

- When a user's request for data is received by the EDDS.
- When a user's request for data is completed successfully.
- When a user's request for data cannot be completed successfully.

4.3.2 Delivery Mechanism

The EDDS supports the following delivery mechanisms for the delivery of data to the end user

4.3.2.1 File Server

Data types that support the 'File Server' delivery mechanism are delivered over SFTP from the EDDS web server. Direct delivery requires the end user to be running a SFTP server. The EDDS also provides a download service where the result data is stored on the EDDS server and can be downloaded via an SFTP based file transfer service.

4.3.2.2 EDDS Server

Data types that support the EDDS Server delivery mechanism are stored on an EDDS server. A download service is available through the EDDS Client application or through the EDDS web site

4.3.2.3 Stream

Data types that support Stream delivery require the end user to run a stream client application that can be downloaded from the EDDS web site and installed on the user's machine. Stream delivery supports online and offline data, where in the context of the EDDS, offline is taken to refer to the retrieval of previously archived data and online is taken to refer to the routing of data as it is received on the relevant control system. In addition online data delivery supports two modes of operation: timely and complete. Timely mode ensures data is delivered within a specified time and will drop data if this criterion cannot be met. Complete mode ensures all data is delivered, although there may be considerable delay in the arrival of the complete data set.

4.3.3 Formatting

The format applied to data is dependent on the data type and delivery mechanism. The EUICD [AD-39] provides a description of each format for each data type. The following table defines the list of possible formats supported by the EDDS for each data type.

Request Type \ ***Format***		*EDDS Binary*	*Binary*	*XFDU*	*XML (XML Transform)*	*ASCII*	*Others*
Packet	*TM*	✓*		✓			GDDS_BINARY*, SFDU
	TM (PARC Raw)				✓*		
	TM Report				✓*	✓*	
	TM Statistics				✓		
	TC	✓*		✓			GDDS_BINARY*, SFDU
	TC (PARC Raw)				✓*		
	TC Report				✓*	✓*	
	TC Statistics				✓		
	EV	✓*		✓			
	EV (PARC Raw)				✓*		
	Event Record Report				✓*	✓*	
	EV Statistics				✓		
	OOL Record				✓*	✓*	
Parameter	*TM*		✓*	✓	✓*		TDRS
	TM from SMON		✓*	✓	✓*		TDRS
	Statistics				✓*	✓*	
	Preview				✓*	✓*	
	Definition		✓*		✓*		
Report	*EddsUsage*				✓		
Archived Files	*File (and File Subscription)*		✓	✓			
	Catalogue				✓	✓	
Acknowledgement					✓		

Table 1 - Data type formatting overview

The formats marked with * support splitting the response files into smaller chunks. The resulting files are still compliant with the format with appropriate header and tail in the files. To enable splitting, the configuration must be done by EDDS admin.

The following table defines the formats supported by each delivery mechanism.

Format / ***Delivery***	*Binary*	*XFDU*	*XML*	*ASCII*
File (Server/FTP)	✓	✓	✓	✓
Stream	-	-	✓	-
Email	-	-	✓	-

Table 2 - Formats supported by delivery mechanisms

4.3.3.1 Binary

Binary formatting implies that the data is as received from the MCS. All binary data returned to the end user will follow Network endian order. In the case of Packet data types a configurable EDDS header is appended to the start of each binary packet. Archived Files data types are as retrieved from the MCS file archive. TM Parameter data type supports a binary representation of the data requested.

4.3.3.2 XFDU

XFDU ([RD-24]) format implies that the binary format is encapsulated into an XFDU format following the conventions in the EUICD [AD-39].

4.3.3.3 XML

Data types that support this format are converted to an XML representation of the data received from the MCS. In general it is expected that such data types are likely to be received from the MCS in an XML format. XSL transformations (XSLT) are used to transform XML formatted data into suitable end representations for web display (e.g. XHTML). Missions will be able to specialise the XSLT.

4.3.3.4 Spreadsheet

Spreadsheet format is an ASCII based columnar format that can be easily loaded into a spreadsheet. The format follows the specification given in TDRS External ICD.

4.3.3.5 ASCII

Data types that support this format are converted to a pure ASCII text representation of the data received from the MCS. In general it is expected that such data types are likely to be received from the MCS in an ASCII format, or more commonly in an XML format. Missions will be able to provide XSLT to convert the XML data to an ASCII representation.

4.3.4 Services

The EDDS provides a number of services to the user which can be categorised into two main areas:

- Data Services
- Management Services

Data Services provide the user with the means to request and receive MCS and other archive based data. Management services allow users to manage requests, monitor the status of requests and monitor the status of the EDDS itself.

Experience from previously deployed data distribution systems has shown that in addition to using GUI based HCIs for access to EDDS services, a high proportion of users will make use of automated means to make requests and receive data. It therefore seems appropriate that the EDDS utilises Web Services technology to provide programmatic interfaces for application to application communication across the public Internet. Web Services would potentially support both EDDS client applications and user client applications.

4.3.4.1 Data Services

Data services are the main objective of the EDDS and can be seen as a set of services to provide data through a given delivery mechanism. The EDDS provides a request client, through the EDDS Client application, that allows users to create requests. The services provided by the EDDS also allow users to engineer their own request client and upload the resultant requests to the EDDS. Requests must follow the XML format given in the EUICD [AD-39].

In general the Data Request service can be split into two broad service types: Batch and Stream.

- Batch - Batch based services include ‘Client’, ‘File Server’, ‘EDDS Server’, ‘RDM’ and ‘Email’ delivery mechanisms.
- Stream - Stream services include Display and Stream delivery mechanisms.

Note: The EDDS supports the MUST client applications by providing data services that allow TM parameter definitions to be obtained through batch services and TM parameter data through stream and batch services.

4.3.4.1.1 Batch Services

Batch services are intended to allow users to make requests for MCS and other archives data and receive data sets that contain the data requested. In general a request lists the data types and allows the user to apply a set of filters for each data type. The result data is sent to the user via the delivery method chosen by the user.

A Batch service data request can be viewed as transient in the sense that the EDDS processes the request, builds the data set (by retrieving the data from the relevant archive) and then delivers the data set to the user. The request is then considered completed. It should be noted that batch requests can contain schedule information that asks for a request to be run at some future date and could indicate that the request is to be cyclically activated or activated when new information for a given request is available. The user may request acknowledgement data to be returned at a number of stages of the request which will also indicate if a request fails for any given reason.

4.3.4.1.2 Stream services

Stream services enable users to receive a continual flow of data which is terminated on closure of the stream. Stream services use stream delivery and display delivery mechanisms that require an end user to run a client application locally on their machine. The EDDS provides a client application that contains a Stream and Display Client. The EDDS client application can be downloaded from the EDDS web site.

A Stream Client provides the basic functionality to support the streaming of MCS data based on the specification of the Offline and Online modes defined for the delivery of SLE return services (see CCSDS Cross Support Reference Model, Part 1, SLES [RD-15]). The Stream Client is a template application that can be specialised by the user.

A Display Client is based on the Stream Client and provides similar look-and-feel displays to those available to operations staff on an MCS.

The client application is used to initiate the stream service request. The client communicates with the EDDS server using the necessary protocol and, in a normal case, initiates the closure of the service. The stream may be forced to close by the EDDS server on request from an administrator or after an unrecoverable error has occurred.

Stream services to Non-ESA Networks domains (e.g. public Internet) are likely to exhibit a slower data rate than ESA controlled network domains.

Is it also possible to use Edds stream client service that takes an existing id of a TM stream request and saves stream data to files at regular time intervals.

Edds stream client service supports various output formats such as xml, binary, ascii and many others and can easily be extended to support new formats. For more information, refer to the CIG on how to use it.

4.3.4.2 Management Services

4.3.4.2.1 Request Management

The request management services allow a user to create a request and submit it for processing. A request may be stored in its XML format on the EDDS server and retrieved later for submission. A stored request may be edited creating a new request or overwriting the old request. Requests may be scheduled for submission and can be deleted from request queues, or cancelled while active.

4.3.4.2.2 Status Monitoring

The EDDS provides a monitoring service that allows access to the EDDS log files and EDDS status displays (e.g. request queue summary).

4.3.4.2.3 Account Management

These services provide a group of related services that allow the management of user accounts. It allows suitably privileged users the ability to create (and delete) user account and group accounts; and assign roles, access privileges and quotas. The service also provides a means for users to update their own personal details (such as password, email address, postal address, etc).

4.4 Environmental Considerations

The EDDS provides controlled access to operational mission data. A strong driver for the EDDS is to provide this access to users within ESOC, other ESA sites and users external to ESA. This means that both trusted and non-trusted networks must be supported. In this regard the EDDS must provide support for four ESA security domains:

- ESA Restricted Networks
- ESA Internal Service Networks
- ESA External Service Networks
- Non-ESA Networks

Within these security domains there are a number of networks that must be considered within the scope of the services offered by the EDDS. The following is a brief description.

- OPSLAN:
  The OPSLAN is the Ethernet-IP Local Area Network at ESOC used to exchange data between systems used for critical operational activities. The OPSLAN is an ESA Restricted Network and acts as the centre of the IP-OPSNET network, used to communicate with the ESTRACK Ground Stations. The OPSLAN is considered a secure and restricted network being implemented on dedicated independent LAN switches, separate from PRE-OPSLAN and OFFICE_LAN. Switch and trunk redundancy is provided. Communication with external systems is denied by default. If required, the security devices connecting the OPSLAN to other security environments can be configured to permit data exchange with other computer networks (refer to RELAY LANs). It is the OPSLAN that holds the raw MCS data that is to be made accessible by the EDDS. Additionally, access is required to EDDS services by users on OPSLAN.

- OFFICE_LAN:
  The OFFICE_LAN is the Ethernet-IP Local Area Network at ESOC for office automation and corporate applications. Computer systems connected to this network can communicate with similar corporate networks at other ESA sites via the so-called ESACOM. All ESA corporate networks are protected by corporate security systems (Firewalls) regulating data traffic from and to other non-ESA networks. The OFFICE_LAN is within the ESA Internal Service Networks domain. Access is required to EDDS services by users on this LAN.

- PRE-OPSLAN:
  The PRE-OPSLAN is the Ethernet-IP Local Area Network at ESOC used to develop, implement and validate systems that will ultimately be part of the OPSLAN environment. The PRE-OPSLAN is connected to the ESA Corporate network. The PRE-OPSLAN and the OFFICE_LAN belong to the same security domain, namely the corporate network within the ESA Internal Service Networks domain. PRE-OPSLAN and OFFICE_LAN are implemented using the same LAN switch hardware, often simply referred to as only DEV. The "separation" between PRE-OPSLAN and OFFICE_LAN is logical by means of "Virtual" LANs (VLANs). Access is required to EDDS services by users on this LAN.

- RELAY LAN (external DMZ, computers only):
  The RELAY_LANs are the Ethernet-IP Local Area Networks at ESOC used to exchange operational data with computers outside ESOC. Direct data exchange from/to computers located outside the OPSLAN to/from the computers connected to the OPSLAN is forbidden. Data must first be relayed to computer systems connected to the RELAY_LAN. It is only after the required security checks are performed, that the data can be relayed to their final destination. The RELAY_LANs are implemented on an independent switch fabric, different from the OPSLAN one. Security systems (Firewalls, same as for ACCESS_LANs) are used to regulate the traffic to and from the RELAY_LANs and any external or internal networks. RELAY_LANs are within the ESA External Service Networks domain. Any provision of services to external ESA users would normally imply a server (or proxy server) on the RELAY_LAN. Given the requirement to support external users it is therefore likely that EDDS services will be supported by servers (and/or proxy servers) on RELAY_LANs. The RELAY LAN is providing exchange capabilities only between ESA and its partner organisations using well defined and determined systems for which the fixed addresses have to be provided. If a general access from the Internet is required, the Corporate IT Infrastructure (CITI) DMZs at ESOC should be used as designed and implemented for this purpose.[eddsdswr#125]

- ACCESS LANs (external DMZ, routers only):
  The ACCESS LANs are the Ethernet-IP Local Area Network at ESOC used to host the communications devices (routers) implementing the Wide Area Network links connecting ESOC with the ESA operational partner organisations. No computer systems are connected to the ACCESS LANs. Security systems (Firewalls, same as for RELAY_LANs) are used to control traffic to and from the ACCESS_LANs. The ACCESS_LANs are part of the ESA External Service Networks domain. No EDDS users will be operational on these LANs.

- SIMLAN (internal DMZ):
  The SIMLAN is the Ethernet-IP Local Area Network at ESOC used to support the computer simulating ESTRACK and spacecrafts and is within the ESA Internal Service Networks domain. The SIMLAN is connected to the OFFICE_LAN and PRE-OPSLAN networks via network security devices. Communication to and from the OPSLAN is only permitted across the same security systems. By default, traffic exchanges with computer systems connected to other networks is forbidden. There is no requirement for EDDS access from SIMLAN.

Access speed to the LANs is standardised at 100 Mbit/s, full duplex. Except for ACCESS_LANs and RELAY_LANs, the networks can provide 1 Gigabit/s access if required and justified.

With respect to EDDS, Non-ESA Networks implies the public Internet. Access is required to EDDS services by users on the public Internet. In addition mission specific PISA LANs are also provided to allow restricted in-house access to PIs during critical phases. These LANs can be classified to be ESA External service Networks and access for EDDS services is required from these dedicated LANs.

Security Domain	***ESOC Networks***	***EDDS supported networks***
ESA Restricted Networks	OPS_LAN	OPS_LAN
ESA Internal Service Networks	OFFICE_LAN	OFFICE_LAN
	PRE-OPSLAN	PRE-OPSLAN
	SIMLAN	-
ESA External Service Networks	RELAY_LAN	RELAY_LAN
	CITI DMZ	CITI DMZ
	PISA_LAN	PISA_LAN
	ACCESS_LAN	-
Non-ESA Networks	PUBLIC_INTERNET	PUBLIC_INTERNET

Table 3 - Network and Security Domain Overview

The very nature of supporting external users implies that there is no control over the machines that may be utilised, hence interfaces must be based on protocols that are machine independent and widely accepted. The adoption of such protocols is also beneficial within ESA as it provides some protection against obsolescence.
Multi-mission support also implies the need for machine independent interfaces to MCS systems.

4.5 Relation to Other Systems

The primary source of data provided to users by the EDDS is obtained from Mission Control Systems (MCS). Such data includes:

- packet based data (TM, TC and EV),
- parameter based data (TM [RID535])
- statistical data about packets or parameters
- reports produced by the MCS
- archived files stored in the MCS file archive

- definition of available data

EDDS will support data from other data archives through a generic extension layer. These archives can then be dynamically added by EDDS Users.

The EDDS provides access to MCS data for analysis purposes. The main DDS user base is:

- Principle Investigators
  Users in the science community, who retrieve all raw data generated by their instruments to populate their own data archives.RID282
- Industry and other ESA sites
  Users who monitor aspects of the spacecraft, possibly only on request from ESA.
- Analysis and engineering staff
  Operations staff who have a requirement to do 'offline' analysis of spacecraft data.
- Science Operation Centres
  Operation centres that provide science support for ESA prime mission.

4.6 General Constraints

From the logical model (See section 4.7) there are a number of EDDS services that require the use of server applications to provide standard protocol servers (i.e. web server, and email server). It is likely that any implementation of the EDDS will use standard off-the-self solutions. However it should be noted that there are strict security protocols in ESOC that will constrain any design implementation:

- Currently no MTA (mail server) is available on OPS_LAN or RELAY_LAN. It is expected that an outgoing service will be made available for RELAY_LAN. RID542
- No compilersRID490 can be installed on OPS_LAN or RELAY_LAN (This can constrain dynamic web page construction).
- Restricted protocols between ESOC security domains.
- Restricted traffic flow between ESOC security domains.
- Firewalls between all ESOC security domains (Hence data may have to travel across multiple firewalls).

It is likely that an architecture based on proxy servers will be required to support the EDDS functionality across ESOC security domains.
An implementation of the EDDS must run on the hardware available at ESOC. Currently Mission Control Systems are running on UNIX (Sun Solaris) or Linux (INTEL PC) platforms. Therefore the environment that the EDDS will operate in is biased towards these platforms. The EDDS server is intended to run on a Linux (INTEL PC) platform but must be able to interface with mission control systems that are running on either platform. To maximise EDDS portability the EDDS should be designed to use technologies that enable the EDDS to be as platform independent as possible.

4.7 Logical Model Description

The following diagram shows a data flow logical view of the EDDS.

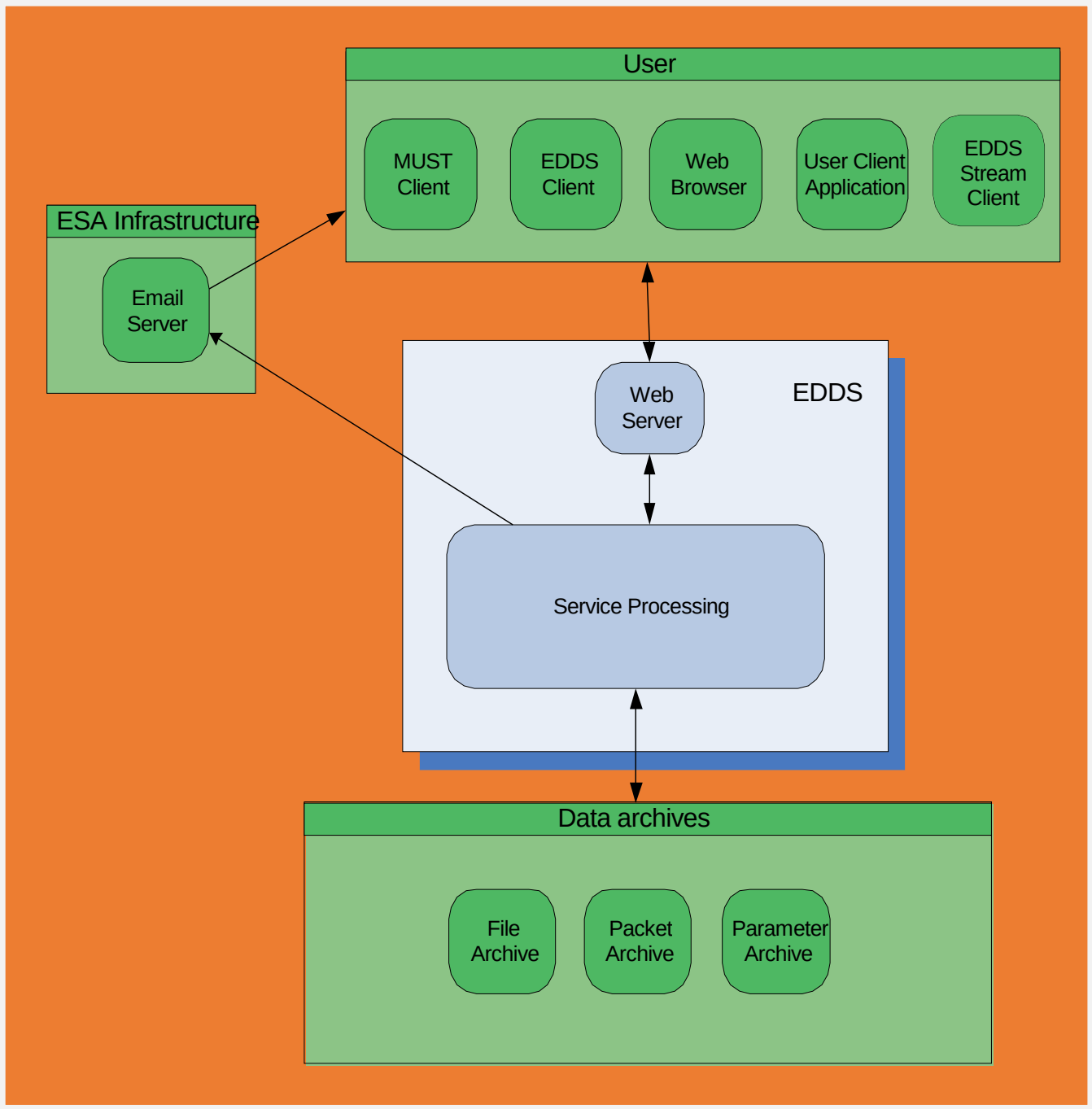

Figure 1 - Data Flow Logical View of EDDS

The EDDS server provides services for user's client applications[RID297]. The EDDS uses a web server as a main interface point for clients of the EDDS. The web server provides static content pages (for documentation etc), and allows users to download the EDDS client application. The EDDS client application provides a GUI interface that allows users to construct requests, view status information and perform configuration. Components of the EDDS Client also include a Display Client (for MCS like displays) and a Stream Client (a basic streaming application that can be specialised by users). The EDDS client communicates with the EDDS server through the web server. The service interface provided by the web server also allows other clients access to data services such as MUST clients or user created applications.
Data that supports email delivery is sent to the user via the email server.
At the present moment there are no E-mail services available in any of the Spacecraft Mission Operations and therefore this restriction shall be taken into consideration when defining EDDS design. E-

mail services are available from the Corporate IT Infrastructure (CITI), e.g. when using a CITI DMZ.eddsdswr#126
The EDDS interfaces to Mission Control Systems which provides multi mission access to archived data and live streams. RID468 In particular packet based data is retrieved from the packet archive and online packet services are provided via a feed from the packet processing facilities on the MCS. The MCS File archive is used as a source for Archived Files.

The parameter archive provides fast access to certain mission defined parameters. An independent parameter archive (DARC) is used for that purpose. This archive will therefore be the source for most parameter request information. Since the DARC will only contain a sub set of the parameters the PARC (via SMON) with the correct filters can be used to retrieve on the fly parameter requests. The on-the-fly functionality shall be used only when there is a concrete restrictions preventing the access to this data from the parameter archive directly.

To support the services provided by the EDDS to users, the following protocols have been identified.

Delivery Protocols		
Stream	*Batch*	
HTTPS	SFTP/FTP	SMTP/SMTPs

Table 4 - Delivery Protocols

- SFTP is used to provide a secure way to perform the batch request data delivery for File Server and EDDS server deliveries.

- HTTPS has been identified for use by the EDDS because of the following properties:
  - Supports data security
  - International standard
  - Provides ability to cross firewalls
  - Supports a number of EDDS delivery mechanisms
  - Promotes use of server certificates, the use of which give the following benefits: RID547
    - automatic revocation (withdrawal)
    - time based certificates
    - high level of security
    - password protection of private certificate part
    - strong cryptography in authentication

  HTTPS can support the delivery of web content to browsers and also the delivery of data types that support web delivery. File uploads for user requests, and file downloading of response data can also be supported via HTTPS. Web services can be provided over HTTPS (e.g. using SOAP/WSDL) that support programmatic interfaces for application to application communication.

- SMTP/SMTPs is used to support email.

4.7.1 General Use Case

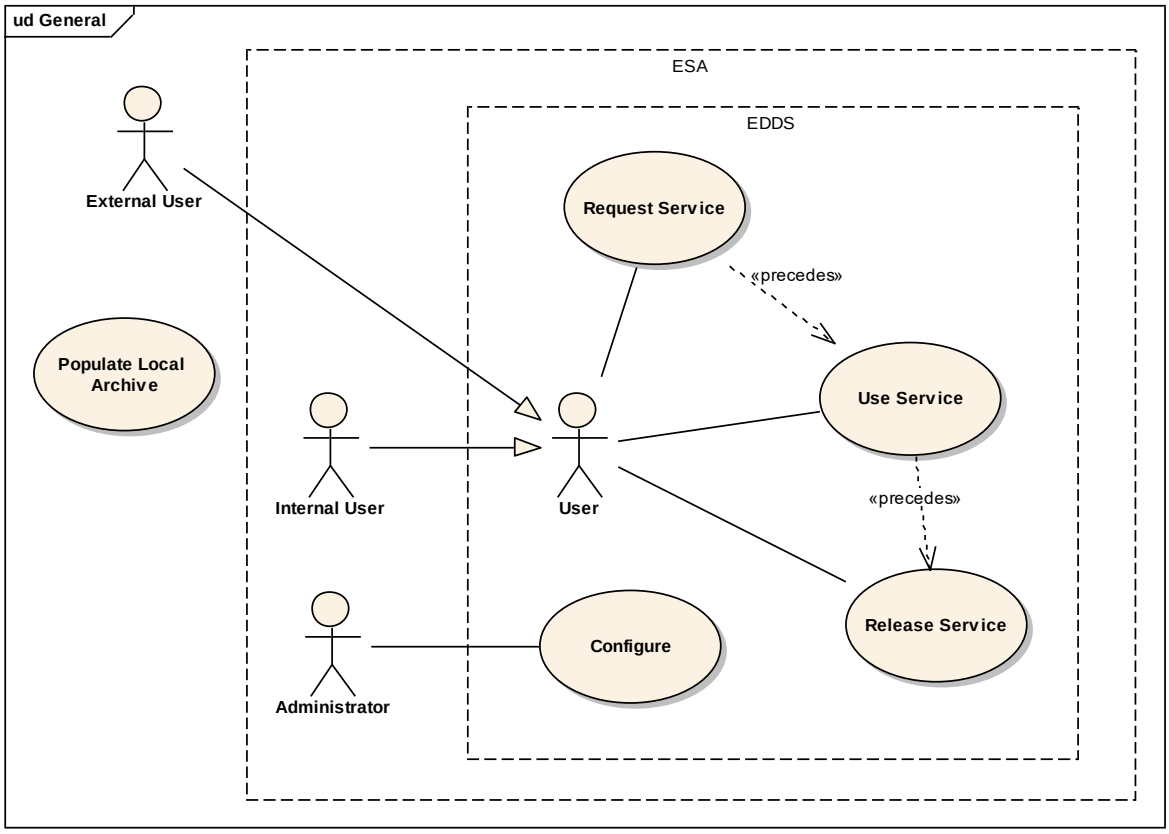

Figure 2 - General Use Case

4.7.1.1 Description

The EDDS must service requests from ESA external and internal users. After authentication the user may request the use of a service. Validation is made that the user has the necessary privileges to access the service and the data provided by that service. If validation is passed, the user uses the service until they relinquish its use or until the EDDS terminates the service.

4.7.1.2 Actors

Actors	Description
User	An EDDS user.
External User	A user on a Non-ESA Network or an ESA External Service Network .
Internal User	An ESA user on an ESA Internal Service Network or ESA Restricted Network
Administrator	A special EDDS user that has full configuration privileges.

4.7.1.3 Use Cases

Use Case	Description
Request Service	Receives a user's request for a service. Validates the request content; validates the fact that the user has the privilege to request the service and has the privilege to access the data being requested via the service. In addition relevant quotas are checked and the request is denied if any have been exceeded (e.g. maximum download limits, requests per limits, etc). The request may be generated within the EDDS client application or uploaded to the EDDS web server.
Use Service	The user uses the service. This may involve receiving data in files or in a stream format. The EDDS may provide client applications for the service (e.g. displays) or may simply deliver files to the user (e.g. as XHTML through a browser or across HTTPS/SFTP to the client hosted file server). Services are also available that allow the user to schedule requests or monitor the status of requests.
Release Service	This occurs when: • The service completes (returning requested data if a batch service). • The user asks to relinquish the service (i.e. cancel the service) • The EDDS terminates the service (i.e. a problem has occurred). An indication of the problem is sent to the user.
Configure	Configuration of the EDDS. This includes both online configuration (e.g. manipulation of the request queue, disabling/enabling of accounts) and offline configuration (e.g. installation of a new version of software). The EDDS should be designed in such a way that only exceptional circumstances require offline maintenance.
Populate Local Archive[RID281]	The user populates a local archive with binary packet data received from the EDDS. ('Local' archive refers to the fact that the archive is local to the user and is remote from the EDDS).

Each data type that can be returned via a service is given a unique dataObject ID. This ID is unique across all missions and, where appropriate for the data type, has a one-to-one correspondence to the dataObject ID used within any XFDU formatting. Therefore any data request, at minimum, must reference the dataObject ID and delivery mechanism. It should be noted that it is the EDDS that maps the data type and filter details chosen by the user to the required data object ID.

4.7.2 Batch Service Use Case

The following Use Case Diagram shows the general view of EDDS Batch Service.

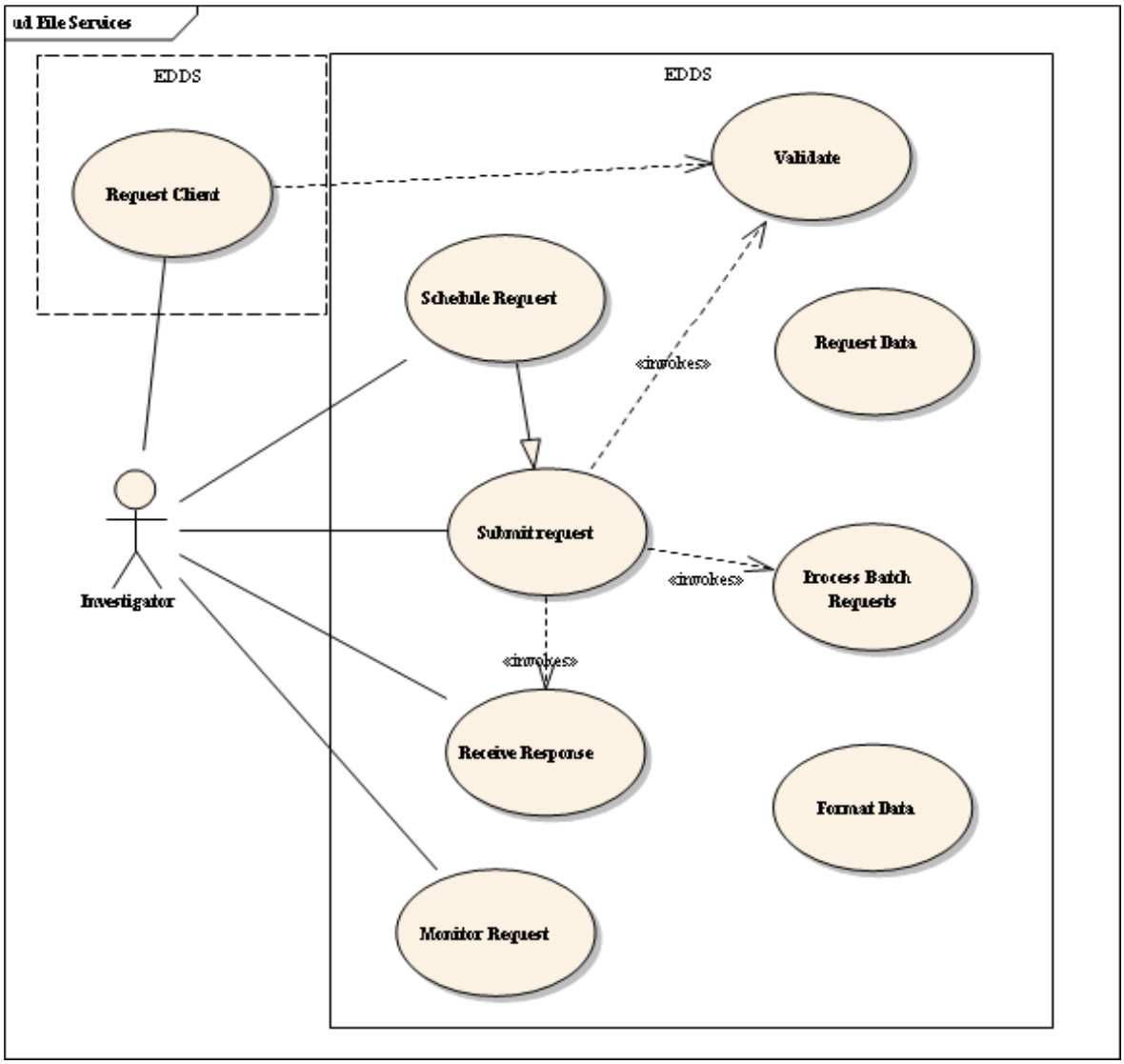

Figure 3 - Batch Services Use Case

4.7.2.1 Description

Batch services follow a traditional client-server pattern in the sense that users make a request (for one or more data types) which the EDDS processes, builds the response data set (by retrieving the data from the relevant Archive) and then delivers the response to the user. The request is then considered to have been completed.

4.7.2.2 Actors

Actors	Description
User	User of the EDDS.

4.7.2.3 Use Cases

Use Case	Description
Request Client[RID257]	The underlying format used for EDDS requests is text based XML. Users can engineer their own request client (e.g. in the simplest case a text editor) and create, or edit, locally stored request files (that follow the EDDS request specification) ready for upload to the EDDS for submission. Alternatively the EDDS provides an online request client via the EDDS web server that users can

Use Case	Description
	access through their web browser. It provides a two layer interface; 'normal' user and 'power' user. The 'normal' user interface presents a straight forward form based HCI with some standard templates that lets users easily produce many common types of request. A 'power' interface provides a form based HCI that allows the user to construct requests to the full potential of the XML request specification.[RID260] The online request client allows requests to be stored on the EDDS server and retrieved for further updates. The updated request can be stored as a new request or overwrites the original request. The requests allow data attribute [RID481] based filtering to be applied to the data requested. The data attributes [RID481] supported by each data type are derived from the relevant MCS.
Submit Request	Allows the user to submit a request for processing. The request is validated and if valid the user can schedule the request for processing. A failure acknowledgement is returned to the user if the request fails validation. The user can submit the request for scheduling in which case the request is held on the EDDS schedule for one-shot[RID259], cyclic or standing activation.
Schedule Request	Allows a request to be scheduled as a one-shot request, cyclically or standing. Any requests can be saved on the EDDS server (within configurable limits) and can be reloaded by the user and reedited before submission.[RID256]
Monitor Request	The user can monitor the status of requests on the active scheduled and non-scheduled queues. Status history for completed (non-active) requests can be viewed and the EDDS logs can be accessed. Users can remove (if the request has not yet started) or cancel any of their active requests from either the scheduled or non-scheduled queues.
Receive Response	The response to the user's request is sent via the delivery mechanism made in the request. Acknowledgement responses are also sent, as requested by the user.
Validate	Syntactic validation is forced by the EDDS web site request client when creating or editing a request online. Syntactic validation of requests uploaded by users is performed using an XML schema[RID443]. On submission of a request, a check is made that the user has the privilege for the service requested and access privilege to the data requested. Semantic checks are then made that might be mission specific (e.g. end date is after start date).
Request Data	A request is made to the relevant data archive for the data. Either the binary data from the respective archive is received or an error condition is received.
Process Batch Requests	Maintains queues of user requests on a per mission basis. The requests queues are persistent objects held on disc so that it is always possible to rebuild the request queues on start-up of the EDDS. The requests are dispatched using a prioritisation algorithm.
Format Data	Formats binary MCS data into the formats supported by the EDDS. These formats include XFDU, XML, Google Protocol Buffers (protobuf) binary and columnar (for spreadsheets).

4.7.3 Stream Services Use case

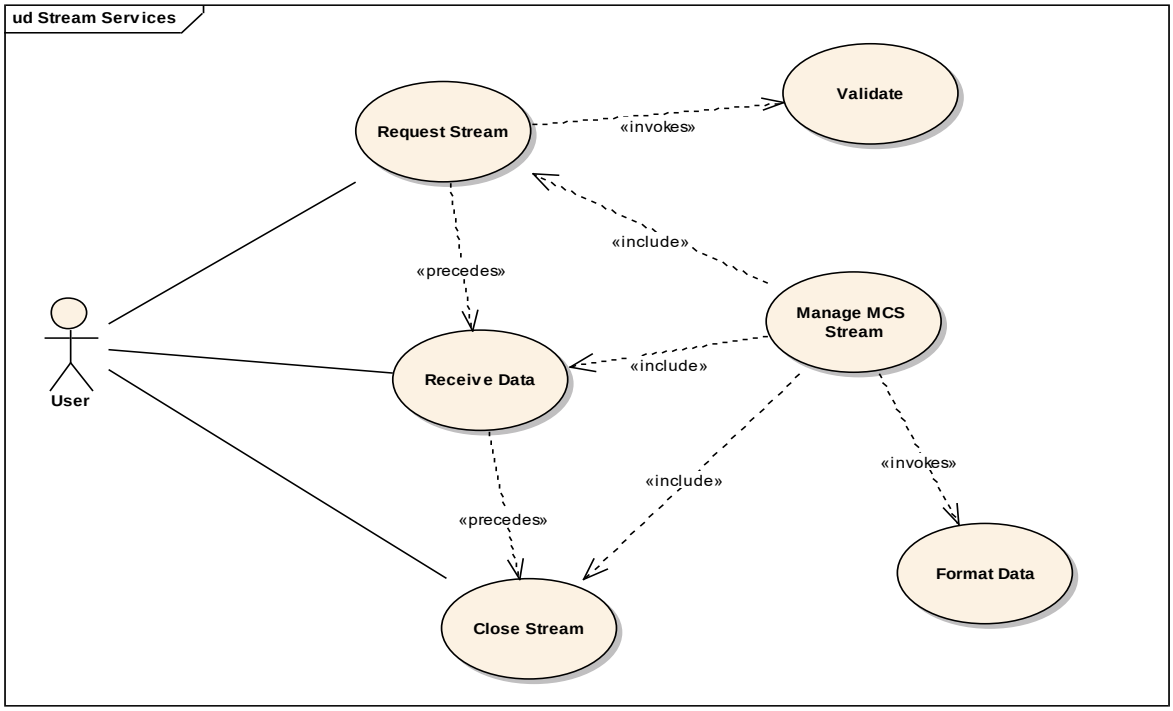

Figure 4 - Stream Services Use Case

4.7.3.1 Description

Stream-based services are services that provide a stream of data to a receiving application. A user downloads a stream client application from the EDDS web server. On start up of the client user authentication takes place before the user is able to make requests for stream services. The EDDS validates that the user has the privilege to use the service requested and that the user has the access rights to the data type being requested by the client application. If validated successfully, a stream connection is made to an MCS and the stream remains open until either the application is closed or a forced closure of the stream is made by an EDDS Administrator or the MCS itself.
The EDDS will provide a stream client that provides the basic functionality to use the stream services and can be extended by users. Additionally a display client will be provided, based on the stream client, that provides similar look-and-feel displays to those available to operations staff on an MCS.

Actors Description
User User of the EDDS.

4.7.3.2 Use Cases

Use Case	Description
Request Stream	After successful authentication of the user a request is made for a stream service through the stream client. The EDDS provides a template Stream Client for user specialisation and a Display Client to provide MCS look-and-feel displays.
Receive Data	The EDDS provides streamed data as required by the receiving stream client application.
Close Stream	The stream client application indicates that the stream is no longer required and the stream is shut down. The stream can also be forced to close at the EDDS by an Administrator or by the MCS interface.
Manage MCS Stream	Opens, closes and connects the required stream interfaces to the requested EDDS user stream requests. Provides the facilities to monitor and control the streams.
Validate	A check is made that the user has the privilege for the requested stream service and has access to the data requested.
Format Data	The binary data from the MCS stream interface is formatted for the stream service requested, if required.

4.7.4 Account Management Use Case

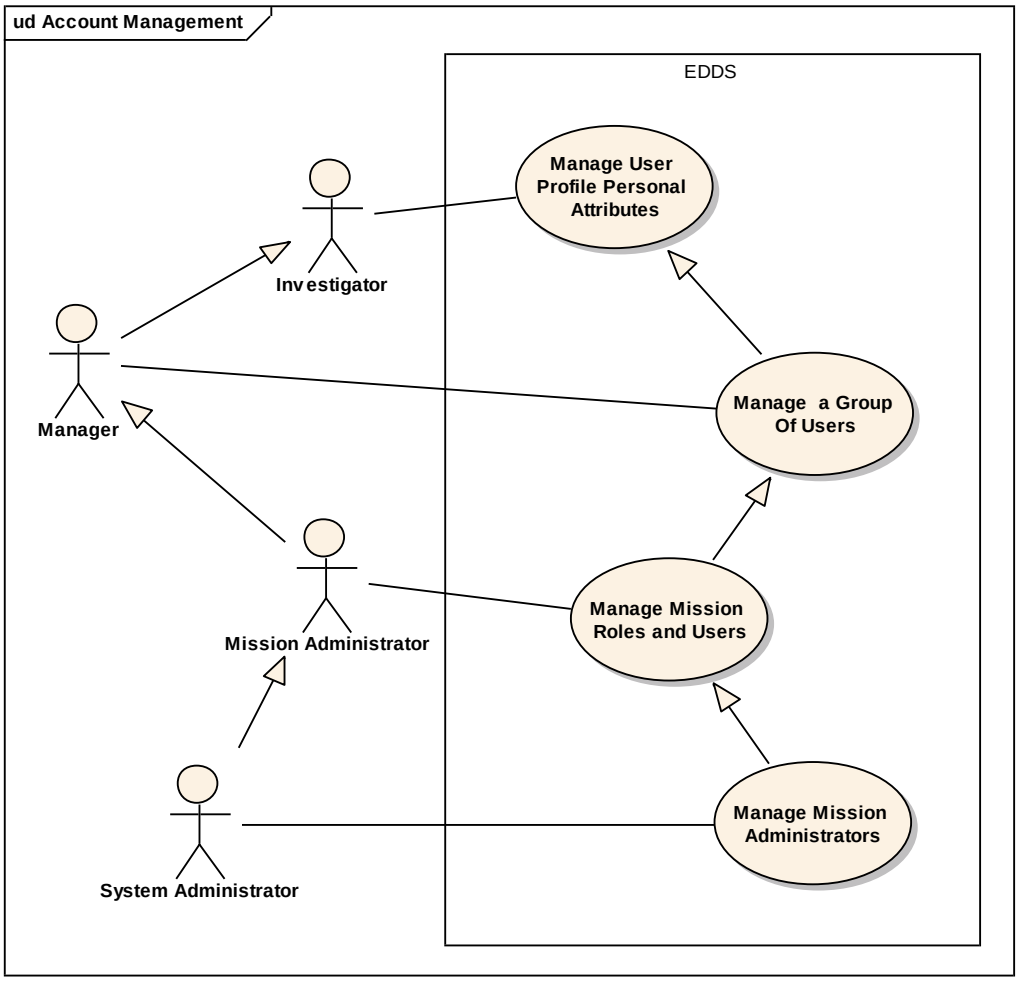

Figure 5 - Account Management Use Case

4.7.4.1 Description

A problem identified in current systems is that of the overheads involved in the management of user's accounts by ESA support staff. The EDDS takes the following approach to address these issues.
Users are assigned accounts and are associated to roles[RID452]. The EDDS provides a single entry point for a user into the EDDS domain (i.e. a single authentication route) where, after authentication, the user chooses the role that the submitted requests will work under. A 'Role' has a set of privileges that are applied to a user for each request; the operations they can perform, the data types they can access, the services they can use, the quotas and limits placed on them and the priority of requests they make within the session.
The EDDS is likely to have at least the following generic roles defined:

- System Administrator - 'super user' with full EDDS access
- Mission Administrator - A user who administers the roles and accounts for a given mission.
- Manager - A user who administers a group of users related to a single role (e.g. an ESA internal spacecraft flight control team or an external Principle Investigator institution).
- Investigator - A user of the EDDS who has controlled access to data, but has no need to perform administration on other users.

The Service Access List states the services that can be accessed and the Data Type Access List the data types that are accessible (the data object Id is used as the reference to the data types). A Quota Set lists the set of quotas that are to be applied. Access lists and quota sets are assigned to a role and each user session associated to that role is bound by them.
There are also attributes associated to a user that the user can update (e.g. postal address, email address). These attributes apply across all the roles of that user.

This approach allows support staff to have full control over who creates, and how many accounts are created (and thereby the total number of EDDS users and quotas) via the administrator roles. It delegates mission specific management to Mission Administrators within ESOC and removes the burden of the management of assigning additional users and quota slices by delegating this to Managers (e.g. Prime contacts for each Principle Investigator, Flight Control Teams and Industry Teams).

4.7.4.2 Actors

Actors	Description
System Administrator	'super user' with full EDDS access.
Mission Administrator	A user who administers the roles and accounts for a specific mission.
Manager	A user who administers a group of users related to a single role (e.g. an ESA internal spacecraft flight control team or an external Principle Investigator institution).
Investigator	A user of the EDDS who has controlled access to data, but has no need to perform administration on other users.

4.7.4.3 Use Cases

Use Case	Description
Manage Mission Administrators	Creating, deleting and updating mission administrators account profiles and roles.
Manage Mission Roles and Users	Creating, deleting and updating mission specific roles and mission wide account profiles (such as Managers).
Manage a Group of Users	The manager has a limited set of operations, configured by the Mission Administrator, that allows them to manage users grouped under a specific role (e.g. manage the default contact details for the role, create/delete/update user profiles associated to the role within the quota limits set for the role).
Manage User Personal Attributes	Update personal attribute data in the user's account profile.

5. Specific Requirements

The terms used in the following requirements tables are defined in section 3.3

5.1 Functional Requirements

5.1.1 Data Types

This section details the functional requirements that describe the data that the EDDS services process. The concept of a data type is used to define a unit of data that can have privilege rights associated to it and service applicability. That is to say each data type can be associated to one or more services (e.g. the TM Packet data type can be associated[RID384] to stream and batch based services), and each user can be granted access rights to specific examples of the data type (e.g. only allow a user access to specific TM packets with specific APIDs).
Data types support data attributes [RID481] that can be used to define data sets (e.g. All TM packets with APID n, from time t1 to time t2). The use of data attributes [RID481] allows the user to apply filters to a data type to create a data set.
As already mentioned EDDS shall support the dynamic addition of other data types not specifically mentioned here. For that the data archive needs to be defined along with all the interfaces and user policy

5.1.1.1 General

EDDS-SR-00240	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
The EDDS will associate a unique request ID to each EDDS request that can be provided by EDDS services.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.090			

EDDS-SR-00250	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
The request ID will be unique across all missions (i.e. a request ID indicates the data type, mission and domain).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00260	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00270	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 4
The EDDS shall support, as a minimum set, the following data types: • TM Packets. • TC Packets. • TM Parameters • Parameter Definition • EV Packets (MCS eventsRID293). • Packet Statistics. • Parameter Statistics • Parameter Preview • MCS Reports. • EDDS Reports. • Archived Files. • Archived Files Catalogues. • Acknowledgment Data.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	[RD-3] Section 3.3			

EDDS-SR-01000	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 4
Each data type shall have the following configurable attributes: • Formats supported. • Applicable services. • Filter types supported.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	[RD-5] SR 3.1.080			

EDDS-SR-00290	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The EDDS shall use data attributes RID481 as the basis for filter configuration for each data type. Negative filtering should also be allowed by EDDS to all data attributes.eddsdswr#132				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-00291	Delivery: Sprint 4 Post PA	Need: Mandatory	Stability: Stable	Last Issued in: 6
EDDS shall allow the user to define the time range to be used for the data retrieval for the following types of requests: • TM Packets. • TC Packets. • TM Parameters • EV Packets • Packet Statistics. • Parameter Statistics • Parameter Preview The time range can be defined either as a start time plus duration or start and stop time.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test

Source:	

EDDS-SR-00300	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall maintain separate lists of user data attribute RID481 names and MCS data attributeRID481 names. This allows a decoupling of names used for data attributes RID481 used by the user interface and MCS interface, and will allow some continuity to be maintained in the user's view of the EDDS interface across missions. This will allow e.g. a User to define custom names for the data attributes depending on the mission.eddsdswr#86				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00310	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow configuration of the mapping of user data attributesRID481 names to MCS data attributesRID481 names.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-08040	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
EDDS shall allow an EDDS instance to be used by several missions (multi-mission EDDS) or to access several data archives of the same type (multi-domain). This setup shall be configured via the EDDS Client MMI.eddsdswr#40				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-08080	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

5.1.1.2 Packet

EDDS-SR-00320	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 11
The EDDS shall support, at least, the following data attributes RID481 for the TM Packet data type: • Type (including lists of required types). • Subtype (including lists of required Subtypes). • APID (including lists of required APIDs). This shall include all fields of the APID (e.g. PID and PCAT).eddsdswr#92 • P1 (including lists of required P1s). • P2 (including lists of required P2s). • Virtual Channel (including lists of required Virtual Channels). RID344 • Domain (including list of domains).RID393 • Time; one of the following criteria would be permitted per request - On-Board Time; any combination of Earliest and Latest or Every 'n' seconds. RID314 - Reception Time; any combination of Earliest and Latest or Every 'n' seconds.RID314 • Delivery of every time interval.eddsdswr#87 • Delivery of every Nth packet. • Maximum Data Volume Required. • Quality Flag (DuType). RID393 • Database Version. • Ground station ID. RID393 • SPIDRID324 (including lists of required SPIDs)RID503 • SSC (source Sequence Count). RID324 • Spacecraft ID. • Optionally include the raw body data (Packet TM Report)				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.1.1			

EDDS-SR-00321	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The EDDS shall support, at least, the following data attributes RID481 for the TM Packet data type: Data Stream (including lists of required Data Streams).				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.1.1			

EDDS-SR-00322	Delivery: Sprint 4 Post PA delivery	Need: Mandatory	Stability: Stable	Last Issued in: 6
EDDS shall populate the parameter filter with the parameter definition (parameter name) and allow the user to select the parameters from the populated list. Note: This avoids that the user have to type the parameter names manually.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00323	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 11
It shall be possible to define a range for all TM packet data numerical packet filters (i.e. SPID, APID, Type, Subtype, PI1, PI2, Spacecraft ID).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product Backlog Item #165			

EDDS-SR-00324	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 11
The EDDS shall support, retrieval for TM packets from the PARC Manager and the Data Provision Services. For data from the Data Provision Services, it shall be possible to additionally fetch the parameter data.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test

Source:	[RD-3] Section 3.3.1.1

EDDS-SR-00325	**Delivery:**	**Need: Mandatory**	**Stability: Stable**	**Last Issued in:** 11
The EDDS shall support, retrieval for TC packets from the PARC Manager and the Data Provision Services.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.1.1			

EDDS-SR-00326	**Delivery:**	**Need: Mandatory**	**Stability: Stable**	**Last Issued in:** 11
The EDDS shall support, retrieval for EV packets from the PARC Manager and the Data Provision Services.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.1.1			

EDDS-SR-00327	**Delivery:**	**Need: Mandatory**	**Stability: Stable**	**Last Issued in:** 11
The EDDS shall support, retrieval for OOL packets from the PARC Manager and the Data Provision Services.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.1.1			

EDDS-SR-00340	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11

The EDDS shall support, at least, the following data attributes for the TC Packet data type:

- Type (including lists of required types).
- Subtype (including lists of required Subtypes).
- PID (process identifier on board)
- APID (including lists of required APIDs).
- Category
- VCID
- Description
- Verification Status (including lists of required states).
- Time; one of the following criteria would be permitted per request

Release Time;

Execution Time;

- Uplink mode
- Ground station ID
- Command Name (including the use of wildcards).
- Sequence Name (including the use of wildcards).
- Command Source. RID393
- Command Acknowledgement. RID393
- Command Subsystem. RID393
- Command Subschedule. RID393
- Command Verification Stages. RID393
- Status (Including list of require statuses). RID393
- Maximum Data Volume Required.
- Domain (including list of domains). RID393
- Database Version.
- SPIDRID393 (including lists of required SPIDs)RID503
- SSC (source Sequence Count). RID393
- Transmission Count
- Mission specific customisations
- Optionally include the raw command body data (Packet TC Report)

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.1.2 and Product Backlog Item #177			

EDDS-SR-00341	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall support, at least, the following data attributes RID481 for the TC Packet data type: Data Stream (including lists of required Data Streams).				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.1.2			

EDDS-SR-00360	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 9
The EDDS shall support, at least, the following data attributes for the S2K EV Packet data type: • Message • Application Id • Category. • Time; Generation Time • Domain • EventID • Event type • Event source				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.1.3 and Product Backlog Item #225			

EDDS-SR-00380	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
The EDDS shall support the same data attributes RID481 for the Packet statistics data type as for the associated packet type. (i.e. One can apply the same type of filters for a TM packet statistics request as for a standard TM packet batch request)				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.1.4			

EDDS-SR-00381	**Delivery:**	**Need:** Mandatory	**Stability:**	**Last Issued in:** 3
The Packet statistics shall include as minimum the following data: • Number of Packet which satisfy the request criteria • The time of the first packet which satisfies the request criteria • The time of the last packet which satisfies the request criteria; • Estimated data volume (in bytes)				
Notes:				
System:	**Subsystem:**	**Priority:**	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00770	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall define a binary packet as the packet (as stored by the MCS) in network endian order, together with an EDDS defined header for each packet.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00780	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
he EDDS shall be configurable, without code change, (at a mission level) to provide zero or more of the following data to populate an EDDS TM packet header: RID549 • Source Sequence Count (Spacecraft generated packet sequence for APID).RID333 • APID. • P1 value. • P2 value. • Virtual channel. • On-board Time. • Reception Time. • Validity. • SPID.RID401 • PID. RID401 • Ground Station ID. RID401 • Data Unit type. RID401 • Type.RID294 • Subtype. RID294 • Time Quality Flag .RID294 • Mnemonic .RID294				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0326			

EDDS-SR-00781	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The EDDS shall be configurable, without code change, (at a mission level) to provide zero or more of the following data to populate an EDDS TM packet header: RID549 · Data Stream.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0326			

EDDS-SR-00800	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall be configurable, without code change (at a mission level) to provide zero or more of the following data to populate an EDDS TC packet header: RID549 • Type. • Subtype. • APID. • Verification Status. • Uplink Time. • Execution Time. • Command Name. • Sequence Name. • Subschedule.RID401 • Subsystem. RID401				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] 3.3.1.2			

EDDS-SR-00820	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall be configurable, without code change, (at a mission level) to provide zero or more of the following data to populate an EDDS EV packet header:RID549 • Event Type. • Event Id. • Description.RID334 • View Level. • Source. RID401				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05000	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall allow an option to filter duplicate packets from the same retrieval (where retrievals are based on either reception or generation time). RID288				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07690	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
At a mission level the EDDS shall provide a mechanism to configure which of the following packet properties are used to define a duplicate packet: RID550 • APID and SSC • APID and SCET • APID and OBT				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-08090	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
EDDS shall allow the User to select multiple filters in order to detect duplicate packets arriving on different datastreams.eddsdswr#93				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-08091	Delivery: Sprint 5	Need: Mandatory	Stability: Stable	Last Issued in: 6
EDDS shall support Packet data retrieval exactly as stored in the data archive but wrapped it in a XML file. This file shall clearly distinguish each packet (i.e. one element per packet). This support shall be provided by adding a new data type (e.g. called raw_XML).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-08092	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 11
EDDS shall allow the user to specify the dataspace to be used for each request to the PARC. This feature shall be configurable so that it can be disabled when a version of the PARC that doesn't support this feature is being used with EDDS.				
Notes:	The new field is optional and if nothing is specified the default/configured one shall be used.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	edds#369			

EDDS-SR-08093	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 18
EDDS shall allow the user to specify the dataspace to be used for each request to the DATA PROVISION SERVICE.				

Notes:	The new field is optional and if nothing is specified the default/configured one shall be used.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

5.1.1.3 Parameter

EDDS-SR-00390	**Delivery:** 1.3.0	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 10
The EDDS shall support, at least, the following data attributes for the TM Parameter data type. The attributes are used to filter the samples that will be returned to the end user. Response file content: • Parameter Name (including lists of required names). • Parameter Validity Status. • Time; On-board Time; (one or more disjoint time periods that will be applied to all parameters). Storage time on parameter archive. • Parameter Value (both raw and engineering values); • Parameter Type (both raw and engineering types); • Parent packet generation time and ID; Filter only: • Delivery of every Nth sample. • Sampled every X seconds. • Maximum Data Volume. • Threshold values (Apply a min and/or max value).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.2.1 and Product Backlog Item #223			

EDDS-SR-00391	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
EDDS shall support the same filter options for TM parameter data streaming as for the TM parameter batch request (when applicable).				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#113			

EDDS-SR-00392	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
EDDS shall allow the use of wildcards in the selection of the parameters to be included in a TM parameter request.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#147			

EDDS-SR-00393	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 9
EDDS shall allow the user to specify the dataspace to be used for each TM parameter request to the DARC.				
Notes:	The new field is optional and if nothing is specified the default/configured one shall be used.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#160			

EDDS-SR-00394	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
EDDS shall make the DARC last consolidation time on each dataspace visible for TM parameter, TM parameter preview and TM parameter statistics.				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	edds#754			

EDDS-SR-00395	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
EDDS shall allow users to use the DARC last consolidation time to be the end time for TM parameter, TM parameter preview and TM parameter statistics requests.				
Notes:	This value will be retrieved during execution, as then it will be most accurate and very beneficial for scheduled requests.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	edds#754			

EDDS-SR-00410	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall ensure support for the following TM parameter types: • Raw telemetry parameters. • Dynamic OL synthetic parameters. • Hard-coded synthetic parameters.RID327 • Saved synthetic parameters. • Constant (static) parameters. • SPEL synthetic parameters.RID394 RID327 • Variable packet parameters. RID394 • Fixed Packet Parameters. RID394 • Supercommutated Parameters.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-200900			

EDDS-SR-00830	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 10
The EDDS shall be configurable (at a mission level) to provide the following information for each TM parameter sampleRID292 in a TM parameter data type response: • Timestamp (on-board) of parameter. • Storage time on parameter archive. • Parameter name. • Parameter description.RID372 • Parameter value. • Parameter unit. RID372 • Parameter validity. • EngineeringRID399 value. • Parameter state. • Parent packet generation time and ID.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.2.1 [RD-4] SR-TMDR-320220 [RD-6] R-WEB-0242 SWRR			

EDDS-SR-00831	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The EDDS shall allow a configurable number of TM parameter sample response definitions (EDDS-SR-00830) to be defined for each mission, which the user can select for delivery of TM Parameter data.RID518				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00832	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 4
The EDDS shall provide the following information for each instance of a Parameter Description data type defined: • Name. • Description. • Unit.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00850	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 5
The EDDS shall be configurable to provide the following data for Parameters Statistics: • Time of earliest parameter satisfying specified filter criteria. • Time of latest parameter satisfying specified filter criteria. • Number of parameters satisfying specified filter criteria. • For Numeric parameters the following additional statistics would be returned; Maximum value and its time.RID296 (in sourceRID399or engineering).RID374 Minimum value and its time.RID296 (in sourceRID399 or engineering).RID374 Average value (in sourceRID399 or engineering).RID374 Standard Deviation. • For String parameters the following additional information would be returned; A list of the different values that the parameter had taken. The number of times that each value had occurred. The times at which values changed.RID296 Please note that statistics are only provided by default when using the DARC. For on the fly access with SMF this is currently not possible.eddsdswr#54				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.1.4			

EDDS-SR-00852	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 10
The EDDS shall allow the user to preview the Parameter data and obtain as a minimum the following Parameter information: • Description • Approximate size of data • Date for last update of item • Date for first update of item				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00720	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The EDDS shall provide calibration of a parameter either using the current calibration curve or the calibration curve that applied at the time of the sample. If the data is retrieved from the DARC than no calibration is required or possible. The data is processed by EDDS as received.eddsdswr#30				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00730	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 10
It shall be possible to request parameter data sorted in chronological order based on the time stamp. Note: This is to ensure efficient support for MUST clients. RID331				
Notes:	Depending on the request, the data is ordered by parameter name(alphabetically) and then timestamp or parameter type and then timestamp (in no particular order of parameter names).			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-201650			

EDDS-SR-00740	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 10
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05010	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall be able to provide a list of parameters stored in a dedicated parameter archive and use this information to tailor MMIs so that users can identify parameters that are in the parameter archive. RID533				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07870	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The list of parameters stored in a dedicated parameter archive shall be available through a management service. RID533 This list shall be available and visible in the EDDS client.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-07871	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
DARC last consolidation time shall be available for external systems through EDDS API.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	edds#754			

EDDS-SR-07880	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 10
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-07890	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 10
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-05550	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The EDDS TM parameter extraction service shall use default calibration based on the spacecraft database that was applicable at either: • On-board sample generation time • Ground reception time If the data is retrieved from the DARC than no calibration is required or possible. The data is processed by EDDS as received.eddsdswr#30 :				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05560	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 11
The EDDS shall allow the Mission Administrator to set the default calibration for the mission. Note: This is not valid for data retrieved from DARC as no calibration is possible.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-08120	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
EDDS shall be able to provide to the User only the information which has been changed from a previous request for a given parameter. Please note that DARC always stores the complete data information and not only changed values. For that reason EDDS needs to implement a mechanism to filter the unchanged data.eddsdswr#109				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-08121	Delivery: EDDS 1.1	Need: Mandatory	Stability: Stable	Last Issued in: 8
EDDS shall provide a notification when a TM parameter request is submitted for a parameter which doesn't exist within the parameter archive. Note: This notification/indication must be different than the case where there are no samples in the database for a specific parameter.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#121			

5.1.1.4 Report

EDDS-SR-05030	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 4
The mission shall provide XSLT files for all MCS generated XML reports to be supported by the MCS and for which a transformation is required.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05035	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 4
A set of XML documents containing XSLT shall be provided to transform all reports supported by the EDDS into XML. EDDS shall provide a template which can be customized by each mission.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05036	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 4
A set of XML documents containing XSLT shall be provided to transform all reports supported by the EDDS into formatted ASCII. EDDS shall provide a template which can be customized by each mission.				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05037	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
EDDS shall allow for the deployment of multiple XSLT files for each request type. It shall be possible to select which transformation file (if any) to be used when creating a new EDDS request. The selected transformation file shall then be applied to the EDDS response file of the corresponding request.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#123			

EDDS-SR-00490	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
The EDDS shall support the following MCS reports: TM Packet Report. -TM Gap Report TM Parameter Report. TC Packet Report Files OBEV Data Report. OOL Data Report. OBQ Data Report. Event Record Report. Command Record Report. OBSM Report; o Memory image. o Memory model. o Image comparison. o Image catalogue. o Model catalogue. o Device catalogue.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.3.3			

EDDS-SR-00450	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
The EDDS shall support the same filter data attributes RID481 for the TM Packet Report as defined for TM Packet batch requests.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.3.1			

EDDS-SR-05040	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 5
The EDDS shall support at least the following response data attributes RID481 for the TM Parameter Statistics: • The timestamp of the first and last parameter matching the retrieval criteria. • The number of parameter samples found. • Data Volume size (in bytes)				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-08130	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The EDDS shall support at least the following data attributes for the TC Packet Report for each APID: • The SSC, SCET and source of the first and last packet matching the retrieval criteria. • The number of commands found. eddsdswr#123				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-08131	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 11
The EDDS shall support at least the following data attributes for the TM Packet Gap Report for each gap found: • Start time of the gap(s) • End time of the gap(s) • APID of the gap(s) • Data partition of the gap(s) • Start source sequence counter (SSC) • End source sequence counter (SSC) • Number of packets missing in the gap				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-08140	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The EDDS shall support at least the following data attributes for the File Report: • The file name • The file version • The date (of the most recent version found) • The file size (of the most recent version found)eddsdswr#123				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05050	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 3
The EDDS shall support the filter data attributes for the OBEV Data Report as defined in the SCOS-2000 release 5 SmfS2kTmObevDataFilter SMF type definition.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05060	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 3
The EDDS shall support the filter data attributes for the OOL Data Report as defined in the SCOS-2000 release 5 SmfS2kTmOolDataFilter SMF type definition.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05070	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 3
The EDDS shall support the filter data attributes for the OBQ Data Report as defined in the SCOS-2000 release 5 SmfS2kTcObqDataFilter SMF type definition.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test

Source:	SWRR

EDDS-SR-05080	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall support the filter data attributes for the Event Record Report as defined in the SCOS-2000 release 5 SmfS2kEventDataFilter SMF type definition.				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05090	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 5
The EDDS shall support the filter data attributes for the Command Record Report as defined in the SCOS-2000 release 5 SMFcmdDataFilter SMF type definition.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05100	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05110	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 3
The EDDS shall support the following filter data attributes for each OBSM Report as defined in the SCOS-2000 release 5 SMF type definition. • Memory image - no filters. • Memory model - no filters. • Image comparison - no filters. • Image catalogue - no filters. • Model catalogue - no filters. • Device catalogue - SmfObsmDeviceCatalogueDataFilter.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05120	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Reports processed by the EDDS shall be in XML format (The report provider must ensure this)				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05130	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall support XSLT to transform reports into the required delivery formats.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05140	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a facility to enable mission support teams to easily add, remove, or alter Report XSLT.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05150	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
A set of XSLT documents shall be provided by the mission to provide compatibility with previous TDRS report formats as required by the mission.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05160	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall be able to generate at least the following EDDS specific reports on user request:RID404 • Status report. • Request Summary Report (including estimation of request completion). • System Log Report. • Usage Report.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05170	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Each EDDS report type shall be assigned a data object ID. RID310 RID403				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05180	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Access rights to create EDDS reports shall be governed by the standard privilege mechanisms for data types. RID310 RID403				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00950	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
For EDDS generated reports it shall be possible to configure the time span of the report (e.g. day, month, year, n days) of a report.RID404 RID535 This means that reports can be requested for a time interval, specify a specific stop time for the reports or schedule reports for the future (also as a time interval).eddsdswr#103				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.351			

EDDS-SR-05190	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
For EDDS generated reports it shall be possible to schedule the creation of a report.RID404 RID535				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05200	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a status report that gives an overview of the EDDS services availability.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05210	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a status report that gives an overview of the status of connections to relevant MCS systems.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05220	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a status report that gives an overview of the status of connections to relevant RDM production systems.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05230	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a status report that gives an indication of the user's current quota usage. RID346				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00930	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
For statistical analysis purposes the EDDS shall retain the following request status data for a configurable period:RID272 • Request ID. • User name of user requesting data. • Role of user requesting data. • Raw Request (request in XML). • Time request submitted. • Time request processing started. • Time request processing finished (i.e. data returned to user or all retries completed). • Priority of request. • Error message returned to user (if any). • Size of response or amount of data currently retrieved for an active request.RID349 • Number of samples retrieved (e.g. files for Archived Files data type, packets for packet data type, parameter samples for Parameter data type).RID349 • Number of samples retrieved after applying filtering.RID349 • Number of attempts made to transmit data to user. • Completion status of last attempt to transmit data to user. • Status • Queued - Ready. • Queued - Active. • Queued - Paused. • Cancelled (Active request was cancelled). • Waiting event. • Completed Successfully. • Completed with error.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.350			

EDDS-SR-05240	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a brief request summary report that can be applied to a request queue.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test

Source:	SWRR

EDDS-SR-01720	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
A brief request summary report shall provide the following information for each request in the queue: • Request ID. • Time request submitted. • Estimation of time for request completion (this estimation should be based on the size of the data to be retrieved and an assumption of network speed) • Role of user submitting request. • Status (Ready, Active, Paused). • Priority. • Hyper link to corresponding XML request.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05250	**Delivery:** User story #46 in EDDS 1.1.0 Sprint 2	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
The EDDS shall provide a EDDS request summary report that can be applied across a time period, i.e. this can be applied to requests currently in a request queue and/or requests that have been completed.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05260	**Delivery:** User story #46 in EDDS 1.1.0 Sprint 2	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
The content of the EDDS request summary report shall contain an entry for each request submitted within the time period. Note: This includes any EDDS request which has been scheduled.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05270	**Delivery:** User story #46 in EDDS 1.1.0 Sprint 2	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
EDDS shall allow a mechanism to provide only a selected subset of EDDS request report data within the response file of the EDDS request summary report. Note: This can be achieved by using XSLT transformation files.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

5.1.1.5 Archived File

EDDS-SR-05280	**Delivery:** User story #46 in EDDS 1.1.0 Sprint 2	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
It shall be possible to schedule an EDDS request summary report as any other EDDS batch request.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05290	Delivery: User story #46 in EDDS 1.1.0 Sprint 2	Need: Mandatory	Stability: Stable	Last Issued in: 8
The EDDS request summary reports shall provide the following information for the EDDS summary reports response file: • Request ID. • User name of user requesting data. • Role of user requesting data. • Date when the request was submitted • Status of the request • Date when the request was completed (if available) • Size of response data (if available) • Reason for failure (if applicable) • Total Number of deleted requests • Total number of processed (executed) requests in that period • Number of failed requests				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-01710	Delivery: User story #46 in EDDS 1.1.0 Sprint 2	Need: Mandatory	Stability: Stable	Last Issued in: 8
It shall be possible to control the access to the EDDS request summary report for each role using the data access sets. The information provided by the report shall be limited to the privilege of the user who submits the request.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-05300	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 8
DELETED				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-05310	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The request summary report access filter shall provide a mechanism so that partial information (configured for each privacy tag type) can be given for requests, based on privacy tags. (e.g. Requests tagged as private can be configured to appear in reports but only display 'Time Submitted', unless it is the users own request).				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-05320	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 8
DELETED				
Notes:	Duplicate of EDDS-SR-05290			
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-05330	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
An EDDS system log report shall provide all log messages logged in the EDDS system log for the report period.				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00920	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall be capable of providing statistics about the usage of EDDS services allowing EDDS usage reports to be generated.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.350			

EDDS-SR-00940	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
An EDDS usage report shall contain at least the following data: • Number of requests made per user/account for report period. • Summary totals for number of requests made for report period. • Amount of data downloaded per user/account for report period (In a configurable scale, e.g. Kbytes or Mbytes). • Summary totals for amount of data downloaded for report period (In a configurable scale, e.g. Kbytes or Mbytes). • Failed requests for report period. • Successful requests for report period. • Accumulative totals for the above data across previous reports.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05340	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05341	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
The EDDS shall be extended to allow access to files on a file system.				
Notes:	The machine where the file system is located needs to have access to the Active MQ (message bus) of EDDS. This means that the full File System needs to be located in the same machine (it cannot be split among machines, like for the FARC or PARC, there can be only 1 archive per mission). It is possible however to have the File System archive in a different machine than the other archives for the mission (e.g. FARC, DARC, PARC).			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05342	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
The EDDS shall be able to access several subdirectories in the file system, from a configured home directory.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05343	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
It shall be possible to configure (via static configuration) the home directory of the file system archive accessible to EDDS.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test

Source:	

EDDS-SR-05344	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
The EDDS shall allow users to register for delivery of new files as they are stored in the File System. These types of requests should be restored even if any EDDS component crashes, but missed file notifications will not be recovered.				
Notes:	This means that the notification of new files arriving while EDDS is down will not be delivered.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05345	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
The EDDS shall provide the ability to use a filename match criteria, including wild cards, in the Data request service for File System files.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05346	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
The EDDS shall provide the ability to use the file's last modified date as match criteria, in the Data Request service for File System files.				
Notes:	It shall be possible to combine the filter capabilities of this requirement and of requirement EDDS-SR-05345.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05347	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
The EDDS shall provide access control to the EDDS file system directories (including all subdirectories and contents), based on the user privileges.				
Notes:	Users should be restricted access to certain directories in the File System.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05348	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
It shall be possible to allow one user access privileges to multiple directories on the file system.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05349	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
The user shall be able to request a catalogue of the file system, which shall consist of the directory structure (with folders and sub-folders, but without any files), from a starting folder (selected by the user). If no starting folder is selected, the home directory configured for the EDDS is used as starting folder.				
Notes:	This needs to be a recursive action, in order to provide the full directory structure. It should never be possible to request a full catalogue including all directories and all files inside all subdirectories, in order to prevent performance problems.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05351	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
Once the user selects one or more directories from the catalogue, the user shall be able to request a catalogue of the contents of the selected directories (listing the available files in them).				
Notes:	The subdirectories and content of the subdirectories is not shown in order to avoid performance issues.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

5.1.1.6 Acknowledgement

EDDS-SR-05350	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
A user shall be able to specify the order of data presented within an EDDS generated report with respect to time (i.e. earliest first, or latest first).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00510	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall support, at least, the following data attributes RID481 for the Archived Files data type: • File Name (including wildcards). • File Folder (including wildcards). • File Type (including lists of types). RID393 • File Version (including wildcards). • Creation Time; o Any combination of Earliest and Latest. o Fixed label LAST (indicating the last version stored).RID315 o Fixed label NEXT (indicating the next version of the file when received by the MCS). • Validity Time; o Any combination of Earliest and Latest. o Fixed label LAST (indicating the last version stored).RID315 o Fixed label NEXT (indicating the next version of the file when received by the MCS). • Mode (Allowing TAR and/or COMPRESSION).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.4.1			

EDDS-SR-00530	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall support the same data attributes RID481 for Archived Files Catalogue as used for Archived Files.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.4.2			

EDDS-SR-05360	**Delivery:** 1.3.0	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 10
Each entry in a file catalogue shall contain the following data: • DataObject ID • File name • File Type • Creation Date • Release • Issue				
Notes:	EDDS shall not request the entire catalogue from the file archive unless specifically requested by the user. If only a sub-set of files/folders are requested EDDS shall pass the filtered request to the file archive.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05370	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall consider that the raw format of a file is the file as received from the file archive.				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05380	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
A user shall be able to configure the receipt of acknowledgement data when: • A request is received by the EDDS. • A request is completed successfully. • A request cannot be completed successfully.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.520			

EDDS-SR-05385	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
A user may associate one or more email addresses if the delivery mechanism is by email.RID323 If more than one email address is provided all entries shall be used by the delivery mechanism.eddsdswr#59				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05390	**Delivery:** Sprint 5	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 6
Acknowledgement data for completed requests shall contain: Reference to original request. Status of request (Success, Failed, Rejected, Quota Exceeded). Time taken to complete request. Amount of data in total. Number of samples retrieved from the archives. Number of samples after filtering the request. Reason for failure or rejection or the quota limit exceeded. Data time range (start and end time)				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-01050	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Acknowledgement data sent on receipt of a request, should contain an indication of the number of requests queued before the current request.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.631			

EDDS-SR-01060	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Acknowledgement data shall be delivered to the user via the delivery scheme that was selected in the associated request. This may be a different delivery scheme to that of the actual data requested.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.610			

EDDS-SR-05400	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
All Acknowledgements shall be logged by the EDDS.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test

Source:	SWRR

5.1.1.7 MCS Synchronisation

EDDS-SR-05410	**Delivery:**	**Need:** Mandatory	**Stability:** TBC	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.7.1			

EDDS-SR-05420	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.7.1			

EDDS-SR-05430	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.7.1			

EDDS-SR-05440	**Delivery:**	**Need:** Mandatory	**Stability:** TBC	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05450	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.7.1			

EDDS-SR-05460	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.7.1			

EDDS-SR-05470	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.7.1			

EDDS-SR-05480	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test

Source:	[RD-3] Section 3.3.7.1

5.1.2 Formatting

5.1.2.1 General

EDDS-SR-00590	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
All the general information needed to support the formatting of a response shall be defined in the EDDS e.g. ESA specific tags for XFDU. Data structure definition of an RDM. Trailer information for emails.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.700			

EDDS-SR-05490	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall support the following formats that can be applied to data types: RID466 Binary. XFDU. XML. Spreadsheet. ASCII.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00610	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
EDDS shall be able to deliver, on demand from the user, data in any of the formats supported by the data type and delivery mechanism chosen by the user.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00615	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 10
It shall be possible to specify the size at which response files should be split into separate files. Each file should be delivered as soon as it is ready. It shall be possible to disable this feature via configuration.				
Notes:	This only applies to certain response file formats (e.g. it does not apply to data retrieved from the FARC). Applies to any XML, GDDS Binary, ASCII and binary format using Google Protocol Buffers response file formats. This can be specified in the EDDS MMI which would then override the default value.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product Backlog Item #179			

EDDS-SR-00710	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a 'plugin' architecture that allows compression applications to be applied to data types. RID270				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.780			

EDDS-SR-00711	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 4
The EDDS shall provide at least the following compression applications: RID270 Zip GNU Zip Tar				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-00712	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 5
The EDDS shall provide at least the following compression applications: RAR				
Notes:				
System:	Subsystem:	Priority: 2	Type: F	Verification Method: Test
Source:				

EDDS-SR-01100	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall apply compression to the formatting as directed by the associated request.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	[RD-5] SR 3.1.660			

EDDS-SR-01090	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
At a mission level it shall be a configurable attribute of formatting to force compression, or non-compression, of data for the given format. (i.e. this overrides any compression options selected within individual requests). The user shall have the capability to defined a default compression schema in order to restore the compression format.eddsdswr#106				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-05492	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
At a mission level the EDDS shall allow a mission administrator to configure the compression level for each data type.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-05495	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall provide a TAR mechanism that collates collections of files into one larger file, while preserving file system information using USTAR format [IEEE Std. 1003.1, 1996].				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-01200	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 4
The EDDS shall provide a mechanism to encrypt data sent to an end user. The following encryption mechanism shall be supported: AES (Advanced Encryption Standard)				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	[RD-6] R-WEB-0901			

EDDS-SR-05500	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The use of data encryption for a given format shall be configurable at a mission level.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

5.1.2.2 Binary

EDDS-SR-00622	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 11
EDDS shall support Binary format for the following data types: TM Packet. TC Packet. EV Packet. Archived Files. TM Parameter. TM Parameter Definitions TM Packet Report. TM Gap Report TC Packet Report. Event Record report. OOL Report.				
Notes:	The binary format may vary between the different request types (see EDDS ICD for details).			
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	Product Backlog Item #202			

EDDS-SR-00623	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 4
DELETED				
Notes:				
System:	Subsystem:	Priority: 2	Type: F	Verification Method: Test
Source:				

5.1.2.3 XFDU

EDDS-SR-00600	Delivery:	Need: Mandatory	Stability: TBC	Last Issued in: 1
The EDDS design shall facilitate the adoption of a CCSDS Submission Information Packages (SIPs) layer to be applied to data already in an XFDU format. (See the CCSDS Producer-Archive Interface Specification [RD-1]).				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-00620	Delivery:	Need: Mandatory	Stability: TBC	Last Issued in: 1
The data object ID shall have a one to one correspondence to the data object ID used within XFDU formats.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-00624	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
EDDS shall support XFDU format for the following data types:RID466 TM Packet. TC Packet. EV Packet. Archived Files. TM Parameter.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-05510	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The user shall be able to select and apply any of the EDDS supported compression mechanisms to XFDU package components (i.e. manifest and associated files).RID449				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

5.1.2.4 XML

EDDS-SR-00626	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 11
EDDS shall support XML format for the following data types: Packet Statistics. MCS Report. EDDS Report. Archived Files Catalogue. Acknowledgement. TM Parameter. -TM Gap Report Parameter Statistics. Parameter Definition.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

5.1.2.5 Spreadsheet

EDDS-SR-00630	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
EDDS shall support Spreadsheet format for the following data type: RID398 TM Parameter. The supported spreadsheet format should be compatible with the PrestoPlot tool.eddsdswr#62				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	[RD-4] SR-TMDR-320200			

EDDS-SR-00640	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The Spreadsheet Format shall be an ASCII file of tab delimited values. The format shall follow the specification in the TDRS External ICD [RD-13]. Note: Any spurious tabs in the strings shall not be interpreted as field breaks (i.e. ensure that no field delimiter or field quotes are part of the field itself).eddsdswr#107				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test

Source:	[RD-4] SR-TMDR-320500

EDDS-SR-00650	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The user shall be able to request the following time representations in the spreadsheet format • CCSDS ASCII Code A format. • CCSDS ASCII Code B format.RID330				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-320310			

5.1.2.6 ASCII

EDDS-SR-00632	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
EDDS shall support ASCII formatting for the following data types:RID466 Packet Statistics. MCS Report. EDDS Report, Archived Files Catalogue. Parameter Statistics. TM Gap Report Note: The ASCII formating can be done by applying an XSL transformation on top of the XML data. This allows the transformation to be configurable by each mission at runtime.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00633	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 6
The EDDS shall be capable of supporting ASCII formatting of data types that are in XML format.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

5.1.2.7 RAWSOURCEBINARY

EDDS-SR-00636	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 18
EDDS shall support RAWSOURCEBINARY formatting for the following data types: TM Report. Note: The output is a binary file of the uninterrupted flow of the content of the RawBodyData.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

5.1.3 Delivery Mechanism

This section describes the functional requirements that define the delivery mechanisms provided by the EDDS.

5.1.3.1 Client

EDDS-SR-05580	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall be capable of delivering data and acknowledgments to users via a web server.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0315			

EDDS-SR-05590	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 9
The EDDS shall provide a mechanism, accessible through the EDDS web server, that allows users to download the EDDS client application. It shall be possible to check the integrity of the downloaded MMI package (i.e. via checksum).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product Backlog Item #178			

EDDS-SR-05600	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The 'Client' delivery mechanism shall support the following data types: • Packet Statistics • MCS Reports • EDDS Reports • Catalogues of Archived Files • Acknowledgment data • Parameter Statistics • Parameter Definition • Parameter Preview				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

5.1.3.2 File Server & EDDS Server

EDDS-SR-05610	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
The EDDS shall be capable of delivering file based data to end clients without the need for the client to initiate the connection. RID551 Note: With the exception of a limited number of User Management or reporting request done on the MMI (i.e. for all synchronize requests).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05620	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The File delivery mechanism shall support the following data types: • TM Packet data • TC Packet data • EV Packet data • Packet Statistics • MCS Reports • EDDS Reports • Archived files • Catalogues of Archived files • Acknowledgment data • TM Parameter data • Parameter Statistics • Parameter Definition • Parameter Preview				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05621	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05630	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall be configurable, per mission, as to how many attempts are made to deliver a file if an attempt fails.RID410				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05640	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
If a file cannot be delivered the EDDS shall log the failure including the reason for the failure.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05650	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall be configurable, per mission, to either delete file data that has failed delivery or retain the undelivered data on the EDDS file server for later retrieval by a user.RID410				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05655	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow a user to select the EDDS server as the delivery target for file delivery.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05675	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 18
The EDDS shall be configurable, per mission, to provide “Aliases” to the client. Aliases define the label of each Datasources, Batch request and Stream request displayed in the client. The aliases for the mission must be configurable on EDDS servers.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05660	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a download mechanism, through the EDDS web server, to enable users to download file response data that is stored on the EDDS server.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05670	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The name used for files created by the EDDS shall have a set naming convention as specified in the EUICD [AD-39].RID362				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00540	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
When requesting a file the EDDS shall allow the user the option of changing the file name that is delivered in the response. The default option should be to keep the same file name. RID362				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05680	**Delivery:**	**Need:** Desirable	**Stability:** Stable	**Last Issued in:** 4
The EDDS shall provide a backwards compatibility mode, for the following data types, that supports responses in the same binary format as defined in the GDDS GDDID [RD-14]. • Archived Files - File • Archived Files - Catalogue • Packet - TM • Packet - TC • Packet - Statistics				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05681	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 9
The EDDS shall allow the User to select a file delivery (EDDS server or File server) to be done using either FTP or SFTP protocol. It shall be possible to define one or more target destinations for a File Server delivery request (FTP or SFTP will be used to all targets depending on the configuration).				
Notes:	In case multiple targets are selected, the request is considered delivered only in case the response file has been successfully delivered to all targets.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product Backlog Item #233			

EDDS-SR-05682	**Delivery:** Sprint 1 of EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 12
The EDDS shall provide a light-weight EDDS client/process which polls a pre-defined folder for EDDS requests and submits them to the EDDS Server (via the same process as used by the EDDS web server). This client shall use a "normal" EDDS user (configurable) to perform such requests. All types of supported EDDS batch requests plus cancel, suspend and resume requests shall be possible via this EDDS client/process as well. Once the request is processed shall be moved to another folder (configurable).				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05683	**Delivery:** Sprint 1 of EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 7
The EDDS light-weight EDDS client/process shall provide an XSLT mechanism to automatically convert GDDS requests (as defined in the GDDID) into EDDS requests so they can be submitted to the EDDS server. All common requests to GDDS and EDDS shall be supported.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

5.1.3.3 RDM

EDDS-SR-05690	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall be capable of interfacing to an RDM production system. This means that EDDS will be responsible for triggering the RDM system when a request has selected RDM as the delivery mechanism.eddsdswr#85				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05700	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The RDM delivery mechanism shall support the following data types: • TM Packet data • TC Packet data • EV Packet data • MCS Reports • Archived files • TM Parameter data				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05701	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00670	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The RDM algorithm shall allow configuration of the RDM capacity.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.761			

EDDS-SR-00680	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
There shall be a maximum configurable limit to the number of RDMs used to hold a response. If the algorithm determines that this limit would be breached an RDM overflow condition shallRID269 be raised. The total amount of data available for the request is then the configured limit times the space available in each RDM image.eddsdswr#63				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test

Source:	[RD-5] SR 3.1.770

EDDS-SR-05710	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
If an RDM overflow condition occurs the EDDS shall return an acknowledgement to the user indication the condition. The image shall be considered completed and saved.RID269				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00690	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall be configurable so that it will save a configurable number of completed RDM images if the image in question was successfully created but the burning process failed.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00700	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
A user shall be able to request the burning of a saved RDM image. The status of this request shall be displayed on the EDDS Client.eddsdswr#85				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

5.1.3.4 Display

EDDS-SR-01220	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall provide a display client application, accessible through the EDDS web server, that provides MCS style displays which are based on the display definitions found on the MCS RID356 The Client application shall be based on the EGOS User Desktop (EUD) as defined in [RD-27] and [RD-28]. Please note that some enhances might be required to allow the usage of the EDDS Client via the Web.eddsdswr#64				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05720	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The Display delivery mechanism shall support the following data types: • TM Packet data • TC Packet data • EV Packet data • TM Parameter data • MCS Reports				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-01250	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS display client shall provide an EDDS user with the same display functionality and, as nearly as possible, the same display presentation, content, and layouts RID488 as a central SCOS-2000 user would get when requesting the same type of display. Any specific display or layout that cannot be presented with the same representation as SCOS-2000 shall be well documented and agree in advance.eddsdswr#110				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test

Source:	[RD-6] R-WEB-0104

EDDS-SR-05730	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS display client shall support the Telemetry Desktop Display. RID356 RID406				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05740	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS display client shall support the TM Packet History Display. RID356 RID406				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05750	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS display client shall support the On-board Event History Display. RID356 RID406				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05760	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS display client shall support the OOL Display. RID356 RID355				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05770	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS display client shall support the Command History Display. RID356 RID406				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05780	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS display client shall support the On-board Queue Display. RID356 RID406				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05790	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS display client shall support the Variable Packet Display. RID356 RID406				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05800	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS display client shall support the MCS Event Log Display. RID356 RID406 The MCS Event Log files shall therefore be retrieved from the appropriate data archive.				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-01240	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS display client shall provide a mechanism to print a display.RID437				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0103			

EDDS-SR-05860	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS display client shall provide a mechanism to 'print' a display to an ASCII compatible file.RID375 RID437				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-01270	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS display client shall provide a status line as appropriate to the MCS display.				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0106			

EDDS-SR-01275	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 18
The EDDS display client shall ask for "Aliases" to EDDS Server and view the names of requests in accordance with defined Aliases. If EDDS server does not respond, or aliases are not defined, it must show the default label defined for the request.				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0106			

EDDS-SR-01370	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Where appropriate the EDDS Display Service shall allow scrolling beyond the constraints of the window displaying a graph.				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0122			

EDDS-SR-01380	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS design shall allow a mechanism for mission specific specialisation of base line displays.				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05870	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow users to select displays with predefined lists of parameters. RID406				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05880	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS display client shall allow users to define new displays with user selectable lists of parameters. RID406				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05890	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 3
The EDDS shall allow users to store user defined displays locally.				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05900	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow users to allocate a privacy tag to displays stored on the EDDS server.RID406				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00570	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall support a parameter name selection window. The selection window shall have: • List display with scroll bar displaying parameter IDs and descriptions. • Fast access text field (characters typed in here act as a filter, case insensitive, on the parameter ID field - the list display shall be dynamically updated to show matching parameters.). • Filter button (provides filtering on parameter ID and description, independently or both - the list display shall be dynamically updated after applying the filter). • Totals field (display the total number of parameters and the total after filters applied, e.g. 92 of 459.).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-311300			

EDDS-SR-00571	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
The EDDS client MMI stream display shall allow the streaming data to be recorded and stored within a file. The user shall be able to start and stop the data recording.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#115			

EDDS-SR-00572	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
The EDDS shall automatically update the quota management information within the EDDS Client MMI quota view. Administrators will be able to view the quota usage for other users.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#146			

EDDS-SR-00573	**Delivery:** EDDS 1.3	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 13
The EDDS Client MMI shall provide a view to visualize the File Archive structure as provided by the archive catalogue request. The relevant information regarding each file shall be displayed as well (i.e. any information received as part of the catalogue request shall be shown). The view also shall provide the possibility to sorting every column.				
Notes:	For the MMI view EDDS shall not request the entire catalogue upfront but only the entries required for the display level. The content of each folder shall be requested only when the folder is expanded by the user.			
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#156, #926			

EDDS-SR-00576	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 18
The EDDS client MMI shall provide a way to choose the type of request based on mission. For each mission, non-administrator users only have to see requests that they have access for that mission.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test

Source:	

EDDS-SR-00574	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
The EDDS client MMI shall provide an option to visualize the full request summary report within HTML format using a structure which is easy to read and understand (i.e. user friendly).				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#157			

5.1.3.5 Stream

EDDS-SR-01190	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 12
The EDDS shall provide a Stream Client application that provides basic functionality to read data from streams. Note: The application can be used as a template for users to develop specialised clients. JAVA shall be used in order to enhance the client´s portability.eddsdswr#65				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05910	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 12
The streamRID535 delivery mechanism shall support the following data types: • TM Packet data • TC Packet data • EV Packet data (SCOS Event Logs) • TM Parameter data • OOL data				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05920	**Delivery:**	**Need:** Mandatory	**Stability:** TBC	**Last Issued in:** 2
The following modes of operation (based on the CCSDS Definition Cross Support Reference - Part 1 SLES [RD-15]) shall be supported by the stream client: • Online Timely. • Online Complete. • Offline. Note: The EDDS can only provide Online Complete if and only if the data transfer chain from the station to EDDS (via NIS and MCS) provide this service.RID521				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05930	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 12
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05940	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 12
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test

Source:	SWRR

EDDS-SR-01160	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
EDDS stream client shall support the streaming of data to user clients using TCP/IP as the underlying protocol Note: It may be impossible to guarantee the quality of service without a dedicated network link, as any public Internet based connection (VPN or otherwise) implies that delays cannot be managed by the EDDS. RID552				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	[AD-41] EGGS-SR-FU-01300			

EDDS-SR-01161	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 12
The EDDS stream client shall support a mechanism for the streaming of data to a receiving application on the end user's workstation, using a long-polling HTTP(S) protocol.RID520. Note: The necessity of providing both mechanisms should be resolved in the design phase of the streaming client. RID534				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-07800	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 12
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01162	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 12
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-07660	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
Delta PDR phase shall consider the use of SOAP/WSDL as suitable protocols for the implementation of streaming services. RID546				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-07670	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
For performance reasons, the delta PDR phase shall consider the use of an EDDS proprietary protocol over TCP/IP as suitable protocols for the implementation of stream services. RID546				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-07680	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
Due to possible firewall constraints the EDDS shall provide a configurable mechanism to ensure streams do not remain open for an indefinite period without use. RID546				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test

Source:	SWRR2

5.1.3.6 Email

EDDS-SR-00856	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall be capable of delivering acknowledgments to users via email. RID542 RID544				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-05950	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The Email delivery mechanism shall support the following data types: RID542 RID544 • Acknowledgment data.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05951	**Delivery:** EDDS 1.1.0	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
EDDS shall provide a mechanism for transforming acknowledgement XML data into another format via XSLT for sending via e-mail. A sample XSLT file for converting to HTML shall be provided.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#52			

EDDS-SR-05960	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 3
Deleted				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05970	**Delivery:**	**Need:** Mandatory	**Stability:** TBC	**Last Issued in:** 1
The EDDS embedded email client shall follow the RFC 2822 and MIME format conventions.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-05980	**Delivery:**	**Need:** Mandatory	**Stability:** TBC	**Last Issued in:** 13
The EDDS embedded email client shall use SMTP/SMTPs as its interface protocol to a mail transfer agent (MTA)				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07040	**Delivery:**	**Need:** Desirable	**Stability:** Stable	**Last Issued in:** 2
The EDDS embedded email client shall support the sending of encrypted and signed emails. It is TBD whether MIME encryption or other standard encryption (e.g. PGP) shall be used (this shall be defined at the design phase).eddsdswr#16				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test

Source:	SWRR

5.1.4 Services

This section details functional requirements that are specific to the operation of services that deliver data to the end user

5.1.4.1 General

EDDS-SR-05990	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
All successful deliveries of response data or acknowledgement data shall be logged following the conventions laid out in the EDDS EUICD [AD-39].RID535				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.650			

EDDS-SR-06000	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall temporarily store all requests (in their raw XML format), for a configurable period, on the EDDS server allowing administrator access.RID303				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06010	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow an administrator to view or delete temporarily stored requests. RID303				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06011	**Delivery:** Sprint 4.5	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 6
The EDDS shall support two types of delete request actions, one where only the response file is deleted and another where the complete request must be deleted (also from the DB). Both must update the values of the relevant fields within the user quota. Note: A normal user can only issue a delete of the response file and not of the request itself.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-06012	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 9
It shall be possible to configure the automatic removal of completed requests from the database. The time when the job is executed and how old the requests can be before they are deleted shall be configurable.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product Backlog Item #18			

EDDS-SR-06013	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 9
It shall be possible to configure the automatic removal of EDDS logs from the database. The time when the job is executed and how old the logs can be before they are deleted shall be configurable.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product Backlog Item #214			
EDDS-SR-06020	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
The EDDS shall allow an EDDS user to use a previous request as a template to build a new request. RID303 This action shall be performed on the EDDS client and the template request shall be stored locally on the EDDS client filesystem.				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-01880	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a configuration flag to indicate if a data type is to be counted towards quota calculations. Note: This allows configuration as to whether such data types as catalogue data counts towards a user/account quota.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01890	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
EDDS shall provide flag that states if size quota is either: • Raw. • Raw + headers. • formatted (e.g. after XFDU applied, compressed etc).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-06030	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 6
The EDDS shall be able to query an MCS for a list of available spacecraft databases.RID416 RID432				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-01920	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall maintain a log file, in which all requests, responses and errors are logged.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.360			

EDDS-SR-01930	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a mechanism to change the level of trace logging (providing a number of levels) from verbose to minimum.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-06070	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall use a message ID for each type of message logged.RID415				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06080	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test

Source:	SWRR

EDDS-SR-06090	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall maintain, at the minimum, the following information for requests in a log file:RID414 • Completion Status (Success, Failed, Cancelled etc). • Time submitted. • Time completed. • User who submitted the request. • Total quantity of data (in Byte) returned to the user. • Reason for failure (If request failed).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06100	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a mechanism to download XML schemas that describe EDDS request formats via the EDDS web server.RID430				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06110	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a mechanism to download, via the EDDS web server, XML schemas and stylesheets that describe the formats used for data types.RID430				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06120	**Delivery:**	**Need:** Desirable	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide template XSLT covering common request types that can be specialised by missions to give a backwards compatibility mode that allows GDDS FTP Service file requests to be uploaded to the EDDS server and processed as a file request. The request format is XML based and defined in the GDDID [RD-14].				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07730	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a mechanism to allow users to view, or download, documentation and example code use of EDDS Web Service interfaces. RID531				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-07830	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall minimise the transfer of data across the OPS_LAN firewall (also according to EDDS-SR-02640).RID500 If inbound traffic can not be avoided, the number of inbound ports needs to be stated explicitly in the CIG. An exact specification of the traffic flowing on the inbound port as required by ESA security policy ([RD-15]) must be given in the documentation. • The total number of ports (inbound and outbound) that need to be opened in the firewall need to be explicitly stated in the CIG. Note: Optimally, MCS data should only be transferred once to support all requests for that data.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** PE	**Verification Method:** Test

Source:	SWRR2

EDDS-SR-07831	**Delivery:** EDDS 1.3	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 10
EDDS shall allow the user, as part of the EDDS request, to add (to the default naming convention) a specific string to the requested response file name (as a suffix, prefix or both). This extension of the response file name can be a combination of static and dynamic information. The following attributes can contribute to the dynamic part: • request creation time; • request execution time; • request start time (time window of the request filter); • request end time (time window of the request filter); • request completion date; • file part number; • domain; • EDDS mission; • EDDS response file checksum; • EDDS request type; • EDDS request sub type.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#120			

5.1.4.2 Stream Services

EDDS-SR-01165	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall provide a means for an Administrator to monitor the status of all stream services. Status data shall include: • Current Bit Rate. • User. • Account. • Service Type. • Data Type.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01166	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
The EDDS shall provide a means for an Administrator to manage any currently active stream service, including the following: • Cancel (Stops the service).				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01180	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
A request for a non-display stream service shall indicate the data type and stream service type.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

5.1.4.3 Batch Services

EDDS-SR-01550	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The response from the Batch service shall be a status file and zero or more data files.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-01560	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 4
The Batch service status file shall be in XML format and will indicate a summary of the associated request (request ID and time of processing) and whether the request was successful or not (providing a reason if unsuccessful - failure ID and plain text).				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	[RD-4] SR-TMDR-330700			

EDDS-SR-01570	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The Batch service status file shall reference any data files that have been generated in response to the request.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-01580	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The data files created by the Batch service shall be in the format requested by the corresponding request.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-01590	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
A Batch service request from a user shall constitute one or more data types together with a set of filters to be applied to each data type.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	[RD-5] SR 3.1.220			

EDDS-SR-01610	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 4
A Batch Service request shall contain the following: • Data type • Filters (containing filters supported by the data type). • Data delivery mechanism. • Acknowledgement delivery mechanism (if different from data delivery mechanism)				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	[RD-4] SR-TMDR-201700			

EDDS-SR-01620	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
For 'File Server' delivery the user can select either the role's default file server address or a file server address from the user's profile.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-01630	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
For users with the 'schedule' privilege the EDDS shall allow the user to schedule a Batch service request.				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-201300 [RD-4] SR-TMDR-201400 [RD-4] SR-TMDR-311600 [RD-4] SR-TMDR-311700 [RD-4] SR-TMDR-311800 [RD-5] SR 3.1.380			

EDDS-SR-06130	**Delivery:** Sprint 1 of EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 7
The EDDS shall allow users to register for delivery of new files as they are stored in the File Archive (FARC subscription). The user cannot modify the such type of requests. These types of requests should be restored even if any EDDS component or FARC component crashes.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-06131	**Delivery:** Sprint 1 of EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 7
The EDDS shall allow the user to specify and end date for each file standing request (subscription). All data response files for each standing request are to be delivered to the same target destination (and delivery type). The request will remain active until either the specified time is reached, the request is cancelled/deleted or the file has been removed from FARC.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01670	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall provide, if the MCS supports the service, the ability to use a match criteria, including wild cardsRID377, in the Data request service for Archived Files data types.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-3] Section 3.3.4.1			

EDDS-SR-01780	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
If a request fails because of a size quota, the user shall be able to elect (within the original request) whether to discard or receive the data already collected.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01782	**Delivery:** Sprint #1 of EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 7
The EDDS shall allow the mission configuration to define the retry strategy to get the data from the data archives which is to be applied to a request. The following option shall be available: - No retries - A configurable number of retries with a configurable delta time between them In case the EDDS server crashes the counters will be reset to zero and the retrial attempt resumed. The EDDS shall ensure that the data retrieval is not blocked by the retrial mechanism (i.e. the thread processing the retrial shall be freed once an attempt to retrieve the data fails).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-06140	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
If requested the EDDS shall be able to deliver result files to the EDDS server (i.e. the files will be stored on the server waiting for a user to download them).				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-01781	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall store result files on the EDDS server for a configurable period, after which they will be deleted. RID323 RID337				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06150	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a facility to allow a user to download stored result files from the EDDS server.RID323 RID337				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06160	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow a user to delete a stored result file without downloading it. RID337				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06170	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow a user to select that a stored result file is automatically deleted after a successful download. RID337				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06180	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow a user to download a result file without deletion of the file after downloading. RID337				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06190	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall implement, at a mission level, a scheme that will delete older result files if a configurable disk quota is reached. RID337				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06200	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Access to stored result files shall be governed by the privacy tags assigned to result files.RID323				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06210	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Completion of a request that stores a file on the server shall be considered successful when the result file has been successfully stored.RID323				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test

Source:	SWRR

EDDS-SR-01390	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
RID336EDDS MMI clients shall present data attribute RID481 lists in a form that gives an implicit 'OR' functionality to the listed values. (e.g. for TM packets a list of APIDs implies match APID-1 'or' APID-2 'or' ... APID-n)				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06220	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS filter selection mechanism shall allow the user to use a filter to include or exclude data based on each data attribute. RID481 RID408				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-01400	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
RID336EDDS MMI clients shall take a blank entry field to mean 'match all' where appropriate.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:				

EDDS-SR-01410	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
RID336EDDS MMI clients shall provide the following wild-card matching to appropriate data: • '*' - match all characters (can also be used in partial matching e.g. P* matches any string starting with 'P'). • '?' - match any single character (e.g. P123?? will match "P123" with any two following characters). The combination of regular expressions using e.g. AND/OR statements shall be possible.eddsdswr#96				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:				

EDDS-SR-02300	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall provide a mechanism to divide a request into time slices when requesting data from a data archive, if such an implementation is required to support prioritisation of requests.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** PE	**Verification Method:** Test
Source:				

EDDS-SR-02301	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 13
EDDS shall be able to recover pending SUBMITTED requests periodically.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#901			

5.1.4.4 Request Management Services

EDDS-SR-00900	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall use XML based requests with namespaces.				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00880	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
Requests from users that do not follow the convention or format in the EUICD shall be rejected, and logged. The originator of the request shall be informed of the rejection.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-200590			

EDDS-SR-06230	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Requests shall be mission and domain specific.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06240	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a request client that is accessible through the EDDS web site.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06250	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS request client shall allow users to create requests and reload previous requests for editing.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06260	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS request client shall provide an interface that allows requests to be created or edited to the full potential of the XML request specification.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06270	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS request client shall provide an interface that provides a quick and simple means to create or edit common types of requests.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-01740	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS request client shall allow a user to change the name of a stored batch service request or overwrite an old batch service request.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-01760	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 6
The EDDS request client shall allow a user to delete stored batch service requests.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test

Source:	[RD-4] SR-TMDR-311120

EDDS-SR-01730	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS request client shall allow the user the option to store a request (this is the raw XML requestRID412) on the EDDS server.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	RD-4] SR-TMDR-200300 [RD-4] SR-TMDR-200480 [RD-4] SR-TMDR-311050 [RD-4] SR-TMDR-200520			

EDDS-SR-01750	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS request client shall allow the user to reload a previously stored request.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-200480			

EDDS-SR-06280	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow a user to assign a privacy tag to the stored request. RID348 RID381				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-01770	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall ensure that stored requests are only accessible within the scope applied by the privacy tag. ID348 RID381				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-311100			

EDDS-SR-06290	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Within a request the EDDS shall allow a user to specify any delivery mechanism that is supported by the data type.RID480				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00970	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall support requests for multiple sets of data types. (i.e. more than one data object ID can be requested)				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	[RD-5] SR 3.1.200			

EDDS-SR-00980	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow one or more filters to be applied to each data type within a data request.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	[RD-5] SR 3.1.060			

EDDS-SR-01010	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The validity of a request shall be invalid if: 1. The request is made by an unauthorised user. 2. Any of the user's quotas are exceeded (Including RDM overflow). 3. There is an error in formatting the response.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-200540			

EDDS-SR-00580	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide full syntactic checks of requests before a request is placed on a request queue.RID444				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01800	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a request queue, per mission, for requests that are ready for processing, or are being processed.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01810	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
An EDDS request queue shall be a persistent data object.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01820	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 6
With respect to request queues the EDDS shall provide the following options on start-up of the EDDS server: • Visualize the requests in the queue. • Load (re-submit) a request from the queue. • Create new empty requests.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-312000			

EDDS-SR-01830	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a mechanism to manage request queues.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01840	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 9
The EDDS shall provide, at minimum, the following request management operations on a request: • Suspend (only valid for active requests). • Resume . These operations shall be supported only for requests types that support the split of response files.				

Notes:	A resume operation will continue from the last delivered data (i.e. the data delivered before the request was suspended or failed). In case the EDDS server is re-started the resume operation will be called to all not completed requests.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product Backlog Item #180 and #242.			

EDDS-SR-01850	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 6
The EDDS shall provide operations on requests within an request queue. At least the following operations shall be available: • Cancel (Cancel a request that is currently being processed or remove from active queue without dispatch).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-311800			

EDDS-SR-01851	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 6
The EDDS shall provide operations on requests within an request queue. At least the following operations shall be available: • Pause a request (Will not be dispatched until resumed). • Resume.RID274 • Change Priority.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01860	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall dispatch requests from request queues with regard to the associated user's priority. The algorithm for prioritisation shall be agreed with ESA during the design phase. RID530.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01870	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall maintain the status of requests on request queues. At a minimum the following states should be used: • Ready. • Active (Dispatched to MCS). • Paused. • Deleting.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00575	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall perform semantic checks on a request before dispatching the request to a data archive or MCS. (e.g. that the start time is before an end time).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01640	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow the user to schedule a request (that has been stored on the EDDS server) on a one-shot or repeating basis.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.345			

EDDS-SR-01650	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall support the following attributes for single shot scheduled requests: • Request to be scheduled (Saved on server) • Time (Absolute future time or relative to current time)				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-201350			

EDDS-SR-01660	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The EDDS shall support the following additional attributes for repeating scheduled requests: • Repeat time - which can be one of 1. Time relative to first activation. 2. Date+Time in daily format; • specific week day list (e.g. Monday + Thursdays) . 3. Date+Time in a weekly format; • Every N weeks on M,T,W etc. 4. Date+Time in a monthly format; • Every N months on day x. • Every 1st, 2nd etc of every N months. • Every M,T,W etc of every N months. 5. Data to be monitored and that a standing request is issues for (the request will be activated on data modification); • End Point - which can be one of; 1. Time + Date. • Number of repetitions.RID384				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-201450			

EDDS-SR-01661	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 5
The EDDS shall allow the user to have dynamic data retrieval dates for each instance of schedule requests so that each scheduled request instance executes a different data retrieval request. It must be possible to specify the delta between the execution time of the request instance both for the start and stop time of the data retrieval itself. It shall also be possible to specify the data retrieval time frame in start time and duration (the last N duration from the execution time).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	edds#231			

EDDS-SR-01662	Delivery: Sprint 4 Post PA	Need: Mandatory	Stability: Stable	Last Issued in: 6
The DOY (day of year) format shall be supported for any absolute date input within the EDDS MMI. Note: The date format shall still be supported along with the DOY.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01663	Delivery: Sprint 4 Post PA	Need: Mandatory	Stability: Stable	Last Issued in: 6
EDDS shall allow the user to visualize the time distribution of any requests before submitting it. This visualization shall include information regarding the number of request instances, their execution time and the retrieval time range for each request.				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-06300	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 3
Any client application able to interface with EDDS through SMF shall be able to schedule one-off or recurring EDDS requests.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** I	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06310	**Delivery:**	**Need:** Desirable	**Stability:** Stable	**Last Issued in:** 3
Deleted				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06320	**Delivery:**	**Need:** Desirable	**Stability:** Stable	**Last Issued in:** 3
Deleted				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06330	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 3
The EDDS shall provide an SMF interface to allow the scheduling of requests by any SMF client.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06340	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow a user, with suitable privilege, to delete one execution instance of a recurring scheduled request. RID360 RID379				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06350	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow a user, with suitable privilege, to delete the entire recurring scheduled request.RID360 RID379				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06360	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 6
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-01680	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS request management service shall support status reports that give an overview of the following: • Request queue (with status of each request). • Scheduled requests.				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-01681	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 12
The EDDS Client MMI shall provide a mechanism to allow the filtering and sorting of every column in the job list (i.e. request list, Request Summary View). The filtering shall be kept even if the sorting is changed in the meantime. Additionally a clear filter mechanism shall be provided.				
Notes:	Filtering shall be performed on the client side for the cached entries when the filter is initially applied or by the back end when refresh is requested by the user.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-07710	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
An administrator or manager with the privilege to perform a 'Change Priority' operation can change a request's priority to a value equal or lower than the priority allocated to the administrator or manager.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-08050	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall ensure that in the event of a system failure (e.g. crash) that requests that were being executed, but not completed, are reprocessed when the system is restarted and that any queued requests are also present after the system restart. This means that both EDDS Client and Server shall be able to restore to the state prior to the crash.eddsdswr#67				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-08051	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 5
The EDDS shall ensure that in the event of a System failure (e.g. crash) that any request which was scheduled to be executed while the system was down is executed when the system is restarted. In case of multiple request originating from a "parent" request (scheduled requests) only one of these request shall be executed (as the others would be redundant).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-08100	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
EDDS shall inform the User when a request fails due to the fact that the data is not available on the data archive (e.g. a non existing parameter is requested). Also EDDS shall periodically monitor the status of all requests and ensure the user is informed if any request exceeds an acceptable time for delivery (no action should however be taken by EDDS apart from alerting the User).eddsdswr#102				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-08110	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
For standing or schedule requests EDDS shall notify the User via the acknowledge mechanism for each instance of the request (i.e. multiple times).eddsdswr#104				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

5.1.4.5 Status Monitoring Services

EDDS-SR-06370	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall provide a mechanism through an EDDS Client application that allows a subset of EDDS generated reports to be displayed and dynamically updated.				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06380	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The following reports shall be available for dynamic display: RID431 • Services availability status report. • MCS connectivity status report. • RDM connectivity status report. • User quota usage status report. • Brief requests summary report.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06390	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a mechanism through an EDDS Client application that allows a privileged user to view system log reports. RID403				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06700	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a means to filter system log reports with any combination of the following: • message type (e.g. warning, error). • A string given by the user.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-03280	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a simple mechanism to place an EDDS general status page on the EDDS web site that only relies on the web server being operational.RID431				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-03290	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS general status page shall be used to indicate planned (or non-planned) outages of the EDDS system as a whole. RID431				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

5.1.4.6 Account Management Services

EDDS-SR-00010	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall use a role and privilege based user account system.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06710	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall use the EGOS Session Management core component [[RD-29] and [RD-30]] RID529 to manage roles and privileges.RID392 The SMF session Management functionality shall not be used by EDDS.eddsdswr#13				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06720	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall use the EGOS Session Management core component [[RD-29] and [RD-30]] RID529 to define a user's session in regard to their role and session timeouts that might be applied.RID392				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00210	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 10
The EDDS design shall allow the use of a user authentication service that may be shared between EDDS instances. (i.e. passwords and other global user data need only be changed once, for a given user, to take affect across multiple instances of the EDDS). The usage of an LDAP server to populate the User information shall also be allowed by EDDS.				
Notes:	Deployment of multi master and/or slave setup shall be supported.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00211	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
The EDDS shall allow for EDDS users to be added that are authenticated against a separate LDAP installation not managed by EDDS.				
Notes:	Users will be continued to check for authorised use of EDDS services against their user entry in the EDDS LDAP database.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-06730	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
A user shall be able to login to a single account profile.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06731	**Delivery:** Sprint #1 of EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 7
EDDS shall allow to define the number of incorrect login attempts after which a user account is suspended. The number of attempts must be configurable at EDDS web server level and apply to all users of a mission. The counter shall be reset once a valid login is performed by the user. Only the mission admin/system admin/and authorized users can unlock a suspended account. When the user is re-enabled the counter shall be reset.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-06740	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow a suitably privileged user to update a set of Personal Attributes within their own account profile.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00110	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
A user account profile shall have at least the following Personal Attributes: • Name. • Description. • Contact Details. • Password.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	[RD-3] Section 3.4.2			

EDDS-SR-06750	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The Contact Details shall contain at least the following attributes: • Email address. • 'File Server' delivery address (HTTPS web server). • Postal address. • Telephone number.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-06760	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall allow a user to create a configurable number of contact details.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-06770	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
After authentication the EDDS shall ensure that a user selects a role which the session shall run under.RID452				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-06780	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
It shall be possible for the user to select different roles without the need to login again.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-06790	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 9
A role shall have, at minimum, the following attributes • Name (of role). • Description (or role). • Operations Set. • Data Access set. • Quota set. • Service Access Set. • Priority.				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR and Product Backlog Item #191			

EDDS-SR-06800	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
It shall be possible to manipulate a role via its name (for example assign a role by name, suspend a role by name, etc).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06810	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall, by configuration at a mission level, use the role's Default Contact Details if no appropriate contact information has been defined in the user's account profile.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06820	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow a user an option to select the use of the role's default contact information when making a request.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06830	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
It shall be possible to allocate a name and description to an Operations Set and allow an Operations Set to be manipulated via its name (to delete an operation by name, assign an operation set by name, etc).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06840	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1

An Operations Set shall provide the means to grant the privilege for a user to perform (or not perform) any of the following operations:

- Create User Account.
- Delete User Account.
- Update User Account.
- Update User Personal Attributes.
- Suspend User Account.
- Resume User Account
- Create Group.
- Delete Group.
- Update Group.
- Assign Group (to a role).
- Create Role.
- Delete Role.
- Update Role.
- Suspend Role.
- Resume Role.
- Update Role Default Contact Details.
- Create Operations Set.
- Delete Operations Set.
- Update Operations Set.
- Assign an Operations Set (to a role).
- Create Service Access Set.
- Delete Service Access Set.
- Update Service Access Set.
- Assign a Service Access Set (to a role).
- Create Data Access Set.
- Delete Data Access Set.
- Update Data Access Set.
- Assign a Data Access Set (to a role).
- Create Quota Set.
- Delete Quota Set.
- Update Quota Set.
- Assign a Quota Set (to a role).
- Schedule request.
- Change queued request.
- Store Request (on the EDDS server).
- Store response (on the EDDS server).
- Edit Request (stored on EDDS server).
- View Log File.

Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-06841	Delivery: Sprint 1 of EDDS 1.1	Need: Mandatory	Stability: Stable	Last Issued in: 7

Only users which have an admin role (EDDS admin or Mission admin) or a role with User management privileges shall have visibility of the User profile information of the other users. All other users shall have access only to their own user profile.

Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-06842	Delivery: Sprint 1 of EDDS 1.1	Need: Mandatory	Stability: Stable	Last Issued in: 7
It shall be possible to observe the latest information within the User Management view in the EDDS client. This can be achieved either via a refresh button or via an automatic refresh upon any changes.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-06850	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
A service access set shall define a list of EDDS services that are permitted to be used.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06860	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
It shall be possible to allocate a name and description to a service access set and allow a service access set to be manipulated via its name.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06870	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
A data type access set shall define a list of data objects that are accessible.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06880	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 12
It shall be possible to allocate a name and description to a data access set and allow a data access set to be manipulated via its name. A data access set shall contain the data source and the related request types for each data source.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00130	Delivery:	Need: Desirable	Stability: Stable	Last Issued in: 1
It shall be possible to configure time driven access privileges to data on a reservation time basis. (i.e. data can only be accessed by privileged users during the reservation period. After the reservation period the default privileges are applied). RID265				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.440			

EDDS-SR-00140	Delivery:	Need: Desirable	Stability: Stable	Last Issued in: 1
It shall be possible to configure time driven access privileges to data on an expiry time basis (i.e. data older than a given time period is not available for access). RID265				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.450			

EDDS-SR-06890	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 5
A Quota Set shall define the quota limits that apply to the user.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06900	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
It shall be possible to allocate a name and description to a quota access set and allow a quota access set to be manipulated via its name (for example assign a quota set by name, update a quota set by referring to it's name, etc).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00015	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 11
A Quota Set shall allow at least the following quotas to be applied to a role. • Maximum number of requests per request period. • Maximum of data (based on data response file size) retrieved per request period. • Maximum number of ongoing requests. • Maximum volume (disk space) used for saved result data (stored on EDDS server). • TM data SPID restrictions (based on a range of SPIDs) • TM data APID restrictions (based on a range of APIDs) • Parameter name restrictions (allowing wildcards) • File name restrictions (allowing wildcards) • File type restrictions (allowing wildcards) • Data request range restrictions (allowed time windows) • Data request range duration restriction (maximal allowed request duration)				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product Backlog Item #159 and #231			

EDDS-SR-06910	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
For each object that can be created through a 'create' operation the EDDS shall provide a configurable mechanism to limit the total number of objects that can be created as a whole in the EDDS.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06920	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
For each user granted 'create' operation privileges the EDDS shall provide a configurable mechanism to limit the number of each object type that can be created by that user. (e.g. It will be possible to limit the number of user accounts that can be created by a user granted account creation privileges.)				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06930	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
For each user granted 'create' or 'update' operation privileges on access sets, the EDDS shall ensure that any sets created can only contain a subset of the user's own access rights. (i.e. a user can only grant access rights to data and services that they have access to themselves).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06940	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
For each user granted quota set 'create' or 'update' operation privileges the EDDS shall ensure that any quota sets created can only contain a sub set of the user's own quota. (i.e. a user can only share quota to other users).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06950	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
A role shall have the following attributes: • Name of role. • Description of role. • Operations Set. • Service Access Set. • Data Type Access Set. • Quota Access set. • Priority				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06960	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall associate a priority to a user which will be used to prioritise requests.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06980	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The priority assigned to a user will depend on the role that user is running a session under.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-06990	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
An administrator or manager can only assign a priority to a role that is equal or less than priority governed by their own role.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07000	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
It shall be possible, for a suitably privileged user, to suspend user accounts, whereby the user cannot login.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07010	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
It shall be possible to suspend all user accounts associated to a group in one operation.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test

Source:	SWRR

EDDS-SR-07020	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
It shall be possible, for a suitably privileged user, to suspend a role, whereby the user cannot run a session under that role.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07030	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow users to be placed into a group.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00040	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The Maximum number of users that can be grouped, when associated to a role, is bounded by the ‘Maximum number of users’ quota.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00046	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall not allow a user with role ‘create’ or ‘update’ operation privilege to extend the access rights sets, priority or quotas, of any role created or updated, to those beyond any limits applied to the user by their own role.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00050	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow an administrator the ability to do the following on a User basis: • Reset a user’s password (the EDDS administrator shall have no visibility over the new password which shall be stored in an encrypted format).eddsdswr#24 • Enable or Disable User (User cannot login to EDDS).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00055	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a specialised user account - EDDS Administrator.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07050	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS Administrator, will have super privilege and be able to access all EDDS configuration functionality at all levels.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07060	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a specialised role - Mission Administrator.				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07070	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS administrator shall be the only user who can create Mission Administrators.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00100	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow an administrator the ability to do the following on an account administered by them: RID389 • Disable or enable an account (No user access to EDDS through the account while account is disabled). • Disable or enable services (User can 'login' to EDDS account but can only use a restricted set of services).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-00120	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall ensure that only encrypted passwords are stored if it is necessary to store a password.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-07080	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
The EDDS shall enforce the use of a 'strong' password. By strong password at least the following requirements shall be applied: • The minimum password length shall be 8 characters. • It shall be case-sensitive and it shall contain both upper and lower case letters. • It shall include at least one numerical character. • It shall include at least one special character.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07090	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 9
The EDDS shall allow that user passwords have the option to be set with an expiration period (only the EDDS Admin/mission admin has the capability to enable/disable the password expiration settings). For newly created/set passwords it shall be possible to force the user to change the password upon the first login. The password expiration period shall be reset every time the password is changed. Additionally the admin can set how many passwords in the past must the new password be different from.				
Notes:	The password expiry policy can be applied to all the users in a group.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product Backlog Item #190			

EDDS-SR-07100	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall allow an administrator or manager role to force the expiration of a password for each individual user or as a group.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-00080	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The quota set shall be applied across all users within a role.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-00150	Delivery: User story #87 in EDDS 1.1.0 Sprint 3	Need: Mandatory	Stability: Stable	Last Issued in: 8
For any given quota it shall be possible to specify that no quota applies. (I.e. the user has no restrictions for the given quota). It shall be possible to select only a sub-set of the quota elements (i.e. no quota field is mandatory).				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	[RD-5] SR 3.1.490			

EDDS-SR-00160	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The quotas applied to a role shall be allocated on a first-come-first served basis for users associated with the role.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-00225	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The quotas allocated to a user revert back to the Account Manager if the user is removed from an account.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-00230	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The quotas allocated to an account revert back to the Account Administrator when an account is deleted.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-07110	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall provide a mechanism to mark data types as public i.e. no restriction to access for any user.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-07120	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
By default data shall not be public but only accessible via data access sets RID492				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-07900	Delivery:	Need: Mandatory	Stability: TBC	Last Issued in: 4
For a User having a corporate level ESA profile (e.g. ESA e-mail address), the EDDS shall not allow the modification of the data managed at the corporate level, with the exception of the password.RID527				
Notes:				
System:	Subsystem:	Priority: 3	Type: F	Verification Method: Test
Source:	SWRR2			

EDDS-SR-08010	Delivery:	Need: Mandatory	Stability: TBC	Last Issued in: 2
An EDDS User shall have a mechanism via the MMI to change its own password.eddsdswr#24				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

5.2 Performance and Budget Requirements

EDDS-SR-01960	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
Activation of displays shall be within 10 seconds. Activation time is the time span between the initially call-up by the remote user and the appearance of the display with all the static information. Note: This applies to ESA controlled networks. It is acknowledged that public Internet connections may vary.				
Notes:				
System:	Subsystem:	Priority: 3	Type: F	Verification Method: Test
Source:	[RD-6] R-WEB-0230			

EDDS-SR-01970	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The refresh rate for displays shall match or out perform the refresh rates achieved by SCOS-2000 release 5 clients.RID382				
Notes:				
System:	Subsystem:	Priority: 3	Type: F	Verification Method: Test
Source:	[RD-6] R-WEB-0231			

EDDS-SR-01980	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The delay between a refresh of an MCS display and the refresh of a corresponding EDDS display shall not exceed 30 seconds. RID382 Note: This applies to ESA controlled networks. It is acknowledged that public Internet connections may vary				
Notes:				
System:	Subsystem:	Priority: 3	Type: F	Verification Method: Test
Source:	[RD-6] R-WEB-0232 SWRR			

EDDS-SR-02030	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 4
The EDDS should be capable of streaming packet data at a rate of 40kbs for non-science data.RID347 Note: The ability to actually deliver the specified throughput will depend on sufficient bandwidth being available.RID554				
Notes:				
System:	Subsystem:	Priority: 2	Type: F	Verification Method: Test
Source:	[RD-4] SR-TMDR-330100			

EDDS-SR-02031	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 4
The EDDS should be capable of streaming packet data at a rate of 10 Mbs for science data.RID347 Note: The ability to actually deliver the specified throughput will depend on sufficient bandwidth being available.RID554				
Notes:				
System:	Subsystem:	Priority: 2	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-02036	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 4
The EDDS shall support up to 10 domains concurrently.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test

Source:	

EDDS-SR-02037	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall support the efficient retrieval of parameter data based on sample generation time.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-07130	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
For each mission supported by the EDDS, the EDDS shall be able to support, at minimum, requests from 40 users in parallel. RID474				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-200460 [RD-4] SR-TMDR-201500 [RD-4] SR-TMDR-201520 SWRR			

EDDS-SR-07131	**Delivery:** Sprint 5	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 6
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-07150	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
For each mission supported by the EDDS, the EDDS shall be able to support, at minimum, requests from 25 users in parallel from any combination of the ESA External Service Networks or Non-ESA Networks for services providing TC packet data type.RID535 RID474				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07160	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
For each mission supported by the EDDS, the EDDS shall be able to support, at minimum, requests from 4 users in parallel from any network for services providing TC packet data type. RID474				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07170	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
For each mission supported by the EDDS, the EDDS shall be able to support, at minimum, requests from 10 users in parallel from any network for services providing TM parameter data type. RID474				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07180	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
For each mission supported by the EDDS, the EDDS shall be able to support, at minimum, requests from 10 users in parallel from any combination of the ESA Restricted Networks or ESA Internal Service Networks for Stream delivery (in particular parameter data for MUST clients). RID474				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07190	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
For each mission supported by the EDDS, the EDDS shall be able to support, at minimum, requests from 10 users in parallel from any combination of the ESA External Service Networks or Non-ESA Networks for Stream delivery (in particular parameter data for MUST clients). RID474 RID317				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07200	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
For each mission supported by the EDDS, the EDDS shall be able to support, at minimum, requests from 20 users in parallel from any network for services providing Archived Files data type. RID474				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07210	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
For each mission supported by the EDDS, the EDDS shall be able to support, at minimum, requests from 6 users in parallel from any network for Display delivery services. RID474				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07220	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
For each user request the EDDS shall be able to provide TBD packets per second for a stream service. RID474				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07230	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
For each user request the EDDS shall be able to provide a file containing 2500 packets within 5 seconds for a batch service. This is measured from the start of a request being processed until the file is available on the web server for delivery. RID474				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07240	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 9
For each user the EDDS shall be able to provide 10000 TM parameter samples per second for delivery to users on ESA Restricted Networks and ESA Internal Service Networks RID474 RID316 (This is to support MUST clients)				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR and Product Backlog Item #222			

EDDS-SR-07250	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 9
For each user request the EDDS shall be able to support the retrieval of 10000 TM parameter samples per second from a dedicated parameter archive.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR and Product Backlog Item #222			

EDDS-SR-07260	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
For each user request the EDDS shall be able to support the generation of 500 TM parameter samples per second from an MCS parameter archive.				

Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-02020	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
For each active stream or display the EDDS shall support a transfer rate of up to 500 TM parameter samples per second. Note: This applies to ESA controlled networks. It is acknowledged that public Internet connections may vary.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	[RD-4] SR-TMDR-330100			

EDDS-SR-07270	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Formatting of data shall not add more than 10% to the delivery time, exempting TAR or COMPRESSION operations. RID474				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07265	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The overhead of using TAR or COMPRESSION within the EDDS shall be comparable to their usage on the same platform, external from EDDS.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07280	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide an acknowledgement of a request within 2 seconds for web based services. RID474				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07290	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall ensure that the time between receiving a user's data request and the time that the request is entered onto the request queue is less than 1 second.RID486				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07300	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall ensure that once a request on the request queue has been selected for submission to an MCS, the release of that request to the MCS shall take less than 1 second. RID486				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07310	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall ensure that data ready for delivery to the end user (i.e. after any necessary formatting has been completed) shall take less than 1 second to reach the boundary interface of the EDDS.RID486				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07320	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 6
Services supporting streamed historical data (for MUST clients in particular) shall be capable of returning result data without waiting on completion of the query by the server.				
Notes:				
System:	Subsystem:	Priority: 2	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-07330	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 6
The first data for streamed historical data services shall be dispatched to the user within 5 seconds of the request being made to the MCS.				
Notes:				
System:	Subsystem:	Priority: 2	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-07340	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
If acknowledgement of a request is specified by a user the acknowledgment shall take less than 2 seconds to be dispatched from the EDDS server to the user, upon being placed on a request queue.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-07360	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
A request shall take less than 5 seconds to stop processing after a cancel operation is performed on the request.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-07370	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The 'File Server' and 'EDDS Server' delivery mechanisms, as a whole, shall be capable of delivering 20 mbits/second eddsdswr#111 of data to end users.				
Notes:				
System:	Subsystem:	Priority: 2	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-07380	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The EDDS shall be capable of storing 20 mbits/second eddsdswr#111 of response data to the EDDS server.				
Notes:				
System:	Subsystem:	Priority: 2	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-05570	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The Mission Administrator shall be able to change the default calibration value on any set of parameter samples maintaining the same performance.				
Notes:				
System:	Subsystem:	Priority: 2	Type: F	Verification Method: Test
Source:	SWRR			

5.3 Interface Requirements

EDDS-SR-02040	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
Requests from users, and responses to users shall follow the conventions and formats as described in the EDDS EUICD.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test

Source:	

EDDS-SR-02041	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The design shall be compliant with the ESA Security Policy specified by [RD-14] and [RD-15].				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Design
Source:				

EDDS-SR-02042	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
All components shall be designed such that they access any 3rd Party Product through an interface layer. Also the design shall encapsulate all 3rd Party Products into dedicated components.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Design
Source:				

EDDS-SR-02070	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
RID463 The EDDS shall be able to interface to data archives or MCS systems running on Sun Solaris and INTEL IBM PC compatible Linux.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-02080	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
RID463 The EDDS shall support Big Endian data transfer to external systems.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-02110	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS software shall be designed to interface to the SMF. RID468				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0300			

EDDS-SR-02120	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
EDDS shall be able to support multi-mission and multi domain environments				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-1001			

EDDS-SR-02130	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
EDDS shall use TCP/IP as the underlying protocol for Stream Based services.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[[RD-6] R-WEB-0310 [RD-3] Section 3.1 [AD-41] EGGS-SR-FU-01300			

EDDS-SR-02140	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
EDDS shall provide software interfaces for access that are described in a standard interface definition language.				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0311			

EDDS-SR-02150	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The implementation of interfaces shall be language and platform independent.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0312			

EDDS-SR-02160	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 5
User access to the EDDS web server shall support HTTP and HTTPS protocols.RID476				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0313			

EDDS-SR-02170	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS server shall use the “online timely” mode for updating EDDS clients with real-time data. RID484				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0316			

EDDS-SR-07390	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The ‘online timely’ mode shall ensure that no data is discarded within a given configurable time relative to the data’s generation time.RID484				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-02190	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS server shall use the “online complete” mode for updating EDDS clients with historical data.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0318			

EDDS-SR-02200	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
The EDDS server shall provide an event driven client update. In this mode a client is notified each time a TM parameter is calculated. This mode will be used for super-commutated parameters or if a client has a GRD or scrolling display.				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0319			

EDDS-SR-02210	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
The EDDS server shall provide a value driven client update. In this mode a client is notified only if a TM parameter value has changed. This mode will be used for parameters (not super- commutated) that are displayed in an AND. Further details on this functionality are defined in EDDS-SR-08120.eddsdswr#113				
Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0320			

EDDS-SR-02220	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
For TM parameter data types the EDDS stream service shall provide similar functionality as to that currently described in RD-8, for ESA Restricted Networks and ESA Internal Service Networks. RID485 RID500				

Notes:				
System:	**Subsystem:**	**Priority:** 3	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-07840	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide an API to the streaming service that supports the Java programming language for MUST compatibility. RID500				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-07850	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide an API to the streaming service that supports the PHP programming language for MUST compatibility. RID500				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-07860	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide an API to the streaming service that supports MatLab for MUST compatibility. RID500				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-07600	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall support the interface to an external RDM production system as specified in AD-40.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07400	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07420	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 13
It shall be possible to use SMTP/SMTPs to send outgoing mail messages to EDDS clients. RID476				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07430	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide an SMF interface to allow a request to be submitted. RID376				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-08060	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The EDDS shall use SMF to access all required services and data from the MCS and other systems. Note: If a specific SMF driver is not available (which means SMF does not provide the service to access the necessary data) then a special scenario can occur where EDDS retrieves the data directly from the data archive. Any such scenario shall be clearly identified in the EDDS documentation.eddsdswr#72				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-07810	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Web Services shall be used to provide an interface to EDDS Management services				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-07820	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Web Services shall be used to provide an interface that supports EDDS Data Services for data types that use 'client' delivery.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-08070	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
EDDS shall foresee the creation/delivery of libraries for all external interfaces in order to facilitate the creation of EDDS Users application (as e.g. for handling delivery mechanisms) .eddsdswr#83				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Design
Source:				

EDDS-SR-08071	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
EDDS shall support the interface to multiple MCS archive versions. In case the archive interfaces change EDDS shall guarantee backwards compatibility with the previous supported interface.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** M	**Verification Method:** Design, Test
Source:	EDDS Product backlog story #117 and #118			

5.4 Operational Requirements

EDDS-SR-07440	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall be considered to be non-critical operational software.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** RE	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-02240	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide a configurable limit on the number of concurrent stream services. (This includes display services).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0400			

EDDS-SR-02280	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall be accessible to users from any of the following networks: • ESA Restricted Networks; o OPSLAN. • ESA Internal Services Networks: o OFFICE_LAN. o PRE-OPSLAN. • ESA External Services Networks: o Mission specific PISA LANs. • Non-ESA Networks; o Public Internet.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-07700	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The restart of an EDDS external service provider (e.g. packet archive, file archive, parameter archive etc) shall not require a restart of EDDS server components to restore the service. RID512				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-07760	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
EDDS specific configuration information shall be automatically exportable and importable to support A/B split.RID515 The file containing the exported configuration shall be an XML file. The required XSD shall be delivered together with EDDS.eddsdswr#22				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-07770	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The EDDS shall provide a mechanism to automatically export or import scheduled requests to support A/B split.RID515				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-08000	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
Any EDDS configuration or schedule request import or export shall be allowed for a smaller subset of information, like mission or domain specific requests.eddsdswr#23				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-07780	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS server shall support dynamic connection to MCS servers so that it is possible to switch between MCS servers.RID515				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-07790	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall provide online: RID519 • Help. • User Manuals. • Release notes.				
Notes:				
System:	Subsystem:	Priority: 1	Type: O	Verification Method: Test
Source:	SWRR2			

EDDS-SR-08030	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The location of the data is not imposed in EDDS (this means that EDDS shall cope with data located on any LAN to ensure backward compatibility with the current DDS) however for security and performance reasons the replication of the Long Term Archives to the EDDS LAN is recommended. It shall however be guarantee that all data locations are foreseen and validated during the development.eddsdswr#39				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-08031	Delivery: 1.6.0	Need: Mandatory	Stability: Stable	Last Issued in: 12
It shall be possible to set up the environment variables needed to run EDDS in a log-in script for the EDDS user account. Bash and Tcsh should be supported.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

5.5 Resources Requirements

EDDS-SR-02290	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall be able to limit the total number of users able to access the EDDS to a configurable number. RID470				
Notes:				
System:	Subsystem:	Priority: 1	Type: PE	Verification Method: Test
Source:				

EDDS-SR-02292	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall be able to limit the total number of ongoing parallel user requests to a configurable number. RID470				
Notes:				
System:	Subsystem:	Priority: 1	Type: PE	Verification Method: Test
Source:	SWRR			

EDDS-SR-02293	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 12
EDDS shall be configurable to limit the number of parallel ongoing requests to a specific data archive (data source) in mission and domain In case the limit is reached EDDS shall queue other requests until one of the ongoing requests is completed. Limits are configured per mission: I.e. PARC - per domain, Data Provision Service - per domain. SMON is always limited to one request per domain. DARC, FARC and File System are domain agnostic and the limit shall be applied regardless of the domain of the request. Subscription requests (such as FARC File Subscription and File System Subscription) and stream requests shall not count towards the limit, they should always be processed.				

Notes:	The requests originating from subscriptions shall count towards the limit based on the data source.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-02294	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall be able to limit, by configurable means, the total number of ongoing parallel requests to each connected MCS. RID470				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** PE	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-02296	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 9
The EDDS shall provide a mechanism to limit the following process resources used by the EDDS server to a configurable figure: • Memory.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** PE	**Verification Method:** Test
Source:	Product Backlog Item #201			

EDDS-SR-02298	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
For every global limit a mission specific limit shall also be allowed by EDDS. A limit maximum and minimum shall be identified in order to guarantee that no mission is unable to use EDDS services. Only the EDDS administrator shall have the privilege to change any of the imposed limits.eddsdswr#25				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** PE	**Verification Method:** Test
Source:	DSWRR			

5.5.1 Computer Hardware Requirements

EDDS-SR-07590	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
RID463 RID339 The hardware platform to be supported by EDDS server software shall be: Baseline X86-SERVER-HIGH-i1r2 as defined in [AD-18]. Note: This hardware specification is indicative and the EDDS shall run on any hardware having an equivalent or better specification. RID555				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** PO	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07450	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 12
RID463 RID339 The hardware platforms to be supported by EDDS client software shall support at least the following OS platforms: • Windows 7 (and any later version). • SLES 12 64 bit • VMWare compatible VMs. In terms of products the hardware must support they are defined by SLES12-064-ESOCL01-i0r0 (as found in [AD-18]).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** PO	**Verification Method:** Test
Source:	SWRR			

5.5.2 Computer Hardware Resources Utilisation

No specific requirements relating to computer hardware resources have been identified for the EDDS.

5.5.3 Computer Software Requirements

EDDS-SR-02310	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 12
RID463 The EDDS server applications shall support the following operating systems: RID556 • Linux - SLES 12 64 bit (baseline SLES12-064-ESOCL01-i0r0 as defined in in [AD-18])				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** PO	**Verification Method:** Test
Source:	SWRR			

5.6 Development Constraints

EDDS-SR-07460	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
Use of Eclipse RCP shall be considered during the design phase for all client applications of the EDDS.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07470	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The use of SOAP and WDSL shall be used to provide web services during the intial phases of the architectural designeddsdswr#76.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07480	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
Web service technology shall be considered for the design and implementation of EDDS services to users within all network domains. RID511				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07740	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS design shall be based on the use of EGOS Core Components [RD-12]				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

5.7 Security and Privacy Requirements

EDDS-SR-02460	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall support ESOC restrictions applied in the four security domains: • ESA Restricted Networks. • ESA Internal Service Networks. • ESA External Service Networks. • Non-ESA Networks.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-02620	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 2
The EDDS shall allow an administrator the ability to do the following on a User basis: Reset a user's password (the EDDS administrator shall have no visibility over the new password which shall be stored in an encrypted format and sent to the user via e-mail).[eddsdswr#24] Enable or Disable User (User cannot login to EDDS).				
Notes:				
System:	Subsystem:	Priority: 3	Type: F	Verification Method: Test
Source:	[RD-6] R-WEB-0910 [RD-4] SR-TMDR-200580			

EDDS-SR-02640	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The use of a proxy server in the EDDS design shall follow the ESOC restrictions applied to security domains.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-02650	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
All user access to the EDDS shall be governed by user authentication based on established, secured standards and protocols (e.g. LDAP) RID457				
Notes:				
System:	Subsystem:	Priority: 1	Type: O	Verification Method: Test
Source:	[RD-4] SR-TMDR-201800			

EDDS-SR-02652	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
User authentication shall use digital certificates.RID457				
Notes:				
System:	Subsystem:	Priority: 1	Type: O	Verification Method: Test
Source:				

EDDS-SR-07620	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall be configurable to apply mutual authentication of server and client. RID 541				
Notes:				
System:	Subsystem:	Priority: 1	Type: O	Verification Method: Test
Source:	SWRR2			

EDDS-SR-07630	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall be capable to associate client certificates to user accounts. RID 541				
Notes:				
System:	Subsystem:	Priority: 1	Type: O	Verification Method: Test
Source:	SWRR2			

EDDS-SR-07640	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall ensure that secure web pages only contain HTTPS content. RID 541				
Notes:				
System:	Subsystem:	Priority: 1	Type: O	Verification Method: Test
Source:	SWRR2			

EDDS-SR-07650	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall ensure that user login shall be via secure pages with no mixed HTTPS and HTTP content. RID 541				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** O	**Verification Method:** Test
Source:	SWRR2			

EDDS-SR-07490	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Objects created by a user, or as a result of a users request, (data requests, result data files, etc) shall be assigned a privacy tag. RID348 RID381				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07500	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The user associated with the creation of an object shall be able to assign the privacy tag to that object. RID348 RID381				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07510	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The following privacy tags shall be available: • Private - only the user who created the object and the Mission Administrator of that user can access the object. • Role - Only users running a session with the same role as the original user who created the object have access to the object. The Manager and Mission Administrator of the original user also have access. • Mission - Only users running a session under roles that are managed by the same Mission Administrator as the original user who created the object. • Public - There is no restriction placed on the object. All users have access. RID348 RID381				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07520	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
By default the privacy tag associated to objects shall be Private.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-07521	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 9
EDDS shall log important security and user traceability information. This includes at least: • Login attempts • access privileges and user information • activity requests (username, request type, mission).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product Backlog Item #206			

EDDS-SR-07522	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 9
The EDDS MMI and API shall ensure that any input is escaped so that it is not possible to use specific strings to perform malicious injection of data/commands.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product Backlog Item #207			

EDDS-SR-08020	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
The application shall be secure against Denial of Service (DoS) and malicious attempts to get non-authorised data and rights.eddsdswr#14				

Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-08021	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
EDDS shall allow a mechanism to restrict the origin of any EDDS user management request. Any request incoming from a machine which doesn't have the permission shall not be allowed. Note: The users shall still have the possibility to change their own password and contact data independently of the restrictions on the origin of User management requests.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#144			

EDDS-SR-08022	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
EDDS shall ensure that the master instance of the EDDS request and user management databases are located in a secure (internal) ESOC network. Note: This means that the EDDS architecture shall ensure the components which need access to these databases can be located in the internal network as well.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Design, Test
Source:	EDDS Product backlog story #139 and #142			

EDDS-SR-08023	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
EDDS shall ensure that any configuration file containing sensitive information is only accessible to the EDDS operational/deployment account.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	EDDS Product backlog story #140			

EDDS-SR-08024	**Delivery:** EDDS 1.3.0	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 10
EDDS shall log the following audit activities: • Login attempts; • Access privileges (role); • User information and activity requests (username, request type, mission); • Suspending a user; • Incrementing the number of incorrect logins; • Updating the last login time.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

5.8 Portability Requirements

EDDS-SR-02720	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Wherever possible the EDDS shall utilise internationally agreed standards, and shall not use any platform (or implementation) specific features.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** PO	**Verification Method:** Test

Source:	RD-6] R-WEB-1000 RD-6] R-WEB-1003

5.9 Software Quality Requirements

EDDS-SR-02780	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Quality and configuration control procedures consistent with the ESOC QMS (ISO 9002 compatible) requirements shall be employed in the development and delivery of the EDDS deliverables.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-1100			

EDDS-SR-02781	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS design shall implement the formatting of data in such a way that it facilitates mission specialisation. e.g. A plug in architecture, or use of XSLT, or at least interface/abstract classes should be used to provide a Formatting interface that can easily be specialised.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-5] SR 3.1.690			

5.10 Software Reliability Requirements

EDDS-SR-03070	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
EDDS applications shall support the use of a common EDDS error logging system that preserves log records after an application or system crash.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[AD-41] EGGS-SR-RL-00200			

EDDS-SR-07530	**Delivery:**	**Need:** Desirable	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall use a DBMS driven logging system.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-03080	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall not affect the reliability of any MCS system beyond the criticality requirements specified for that system.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** RE	**Verification Method:** Test
Source:	[RD-6] R-WEB-1200 SWRR			

EDDS-SR-03090	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
Should the EDDS be implemented with multiple server processes, it shall be possible to stop and re-start individual server process without having to restart the whole system.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-1201			

5.11 Software Maintainability Requirements

EDDS-SR-07540	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide an automated mechanism to keep EDDS client application software up to date on the user's client platform. (e.g. web start technology for java applications).				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07541	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
EDDS shall ensure that a mechanism is in place/available to migrate from a previous EDDS release to a new major release. This information shall be documented in the EDDS Upgrade Guide.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** M	**Verification Method:** Design, Inspection, Test
Source:	EDDS Product backlog story #134			

5.12 Safety Requirements

EDDS-SR-07550	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07560	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 4
DELETED				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

5.13 Software Configuration and Delivery Requirements

EDDS-SR-03210	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 2
EDDS shall use an installer application based on the EGOS standard installer. RID540				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

EDDS-SR-03220	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
EDDS shall support the browsing of EDDS user documentation (e.g. SUMs and ICDs) via an web site. RID340				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	[RD-6] R-WEB-0800 [RD-6] R-WEB-0801 SWRR			

EDDS-SR-07610	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall provide an automated method to produce a summary of all logable message types that can be used in SUM documentation.RID422				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR			

EDDS-SR-07570	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
It shall be possible to install and run multiple distinct instances of EDDS servers or clients on the same machine. RID418				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	SWRR			

EDDS-SR-07580	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 11
EDDS shall include all 3rd party licenses, the ESA licence and disclaimer in the final product delivery packages.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

5.14 Personnel-related Requirements

No specific requirements relating to personnel have been identified for the EDDS.

5.15 Data Definition and Database Requirements

No specific requirements relating to data definition and database have been identified for the EDDS.

5.16 MMI Specifications

EDDS-SR-03240	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall provide a client based HCI allowing access to all Stream and Batch services.				
Notes:	This MMI is also known as thick-client, RCP application or standalone client application			
System:	Subsystem:	Priority: 1	Type: O	Verification Method: Test
Source:				

EDDS-SR-03292	Delivery: EDDS 1.7.0	Need: Mandatory	Stability: Stable	Last Issued in: 12
EDDS shall support deployment of RAP based MMI web application.				
Notes:	This is also known as RAP application, WebMMI, MMI web application. Most of the functionality that exists in the thick-client (see EDDS-SR-03240), should also be available in the web-based MMI. Advantage over the regular MMI is that users don't need to download or run anything on their machines other than a web browser.			
System:	Subsystem:	Priority: 1	Type: O	Verification Method: Test
Source:				

EDDS-SR-03250	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall provide a server interface that allows the user to upload XML formatted text files containing requests.				
Notes:				
System:	Subsystem:	Priority: 1	Type: O	Verification Method: Test
Source:				

EDDS-SR-03260	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 6
The EDDS shall provide a dedicated, server based, HCI configuration interface. This provides access to all administration functions, e.g. • Management of request queue. • Online configuration of accounts.				
Notes:				
System:	Subsystem:	Priority: 1	Type: O	Verification Method: Test
Source:				

EDDS-SR-03261	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 6
The EDDS shall provide a dedicated, server based, HCI configuration interface. This provides access to all administration functions, e.g. • Statistics reports.				
Notes:				
System:	Subsystem:	Priority: 2	Type: O	Verification Method: Test
Source:				

EDDS-SR-03270	Delivery:	Need: Mandatory	Stability: Stable	Last Issued in: 1
The EDDS shall provide a GUI HCI client, through the EDDS web server, that provides a configuration interface.				
Notes:				
System:	Subsystem:	Priority: 1	Type: O	Verification Method: Test
Source:				

EDDS-SR-03271	Delivery: Sprint #1 of EDDS 1.1	Need: Mandatory	Stability: Stable	Last Issued in: 7
The EDDS MMI shall allow the selection and population of multiple parameters in the parameter list of a parameter batch request. This population shall be done via drag and drop of the selected parameters. This action shall still be possible if even there is an active filter on the parameter browser window.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-03272	Delivery: EDDS 1.1	Need: Mandatory	Stability: Stable	Last Issued in: 8
The EDDS client MMI shall automatically update the status of any request within the EDDS request summary view.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	Product backlog User story#58			

EDDS-SR-03291	Delivery: EDDS 1.7.0	Need: Mandatory	Stability: Stable	Last Issued in: 12
The EDDS client MMI can be configured to limit the number of requests shown within the EDDS request summary view. The default value if not set previously shall be 1000. The maximum limit shall be 10000. For the Web MMI, the limit cannot be disabled. For the Eclipse RCP based MMI, the minimum shall be -1, allowing the limit to be disabled.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:				

EDDS-SR-03273	Delivery: EDDS 1.1	Need: Mandatory	Stability: Stable	Last Issued in: 8
The EDDS client MMI shall provide the ability to select all/de-select all items in a list containing more than five items. It shall be possible to de-select/select individual items manually after selecting/de-selecting all items.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	Product backlog User story#76			

EDDS-SR-03274	Delivery: EDDS 1.1	Need: Mandatory	Stability: Stable	Last Issued in: 8
The EDDS client MMI shall allow a user to download and open any EDDS response file without the need to save the response first. The client shall then support two types of response file “retrieval”: Download; Open. Note: It shall still be possible to save the response file later by pressing the save button.				
Notes:				
System:	Subsystem:	Priority: 1	Type: F	Verification Method: Test
Source:	Product backlog User story#86			

EDDS-SR-03275	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
The EDDS client MMI shall provide a calendar graphical option to allow the selection of any date attribute.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#95			

EDDS-SR-03276	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
It shall be possible to download the response file for any EDDS request (independently from the file format) from the EDDS client MMI as long as the data is still available on the EDDS server.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#99			

EDDS-SR-03277	**Delivery:** EDDS 1.8	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 13
In the EDDS client MMI it shall be possible to filter requests in the Request Summary view. The filterable fields are: Request ID* Response File name* Request type Sub type Status Domain Mission User Datasource				
Notes:	* The RequestID and Response File Name are both text free input fields and therefore allow for wildcard filtering			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#100, #829, #692			

EDDS-SR-03278	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 9
It shall be possible to create a new EDDS request from the EDDS client MMI without having to save it before hand (including re-submit of completed requests). It shall be possible to submit or save such request at any point.				
Notes:	For scheduled requests, only the individual occurrences can be re-submitted, not the entire schedule.			
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#106, #171 and #91.			

EDDS-SR-03279	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
The EDDS client MMI shall provide a display view for the Parameter data stream request. It shall be possible for each display to configure the refresh frequency for the data display.				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#110			

EDDS-SR-03281	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
It shall be possible to execute a “Save as” command for any EDDS request form open within the EDDS Client MMI.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#126			

EDDS-SR-03282	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
EDDS shall support the display of live EDDS logs within the EDDS client MMI. It shall be possible to start/stop the live feed of logs. The live logs display shall support the same filtering options as the historical message display view.				

Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#128			

EDDS-SR-03283	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
The EDDS client MMI shall support the fast filtering of parameter browser data both by the parameter name and description.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#129			

EDDS-SR-03284	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
The EDDS client shall provide a warning in case the user account can be easily associated with an admin account (both at login and when the account is created).				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#137			

EDDS-SR-03285	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
The EDDS client MMI shall allow all EDDS client properties to be set within the MMI preferences page. The preference properties shall be kept in between sessions (i.e. they shall be kept the next time the MMI is used).				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#149			

EDDS-SR-03286	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
The EDDS client MMI shall provide a warning (pop-up window) in case a request is submitted including no data filters. The user shall have the option to cancel the request submission or go ahead without any changes. The same is valid if the request time range exceeds the configured maximum time range.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#152			

EDDS-SR-03287	**Delivery:** EDDS 1.1	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 8
It shall be possible to submit a request without saving it locally. Note: The request shall undergo the same validation process as when it is saved.				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:	Product backlog User story#153			

EDDS-SR-03289	**Delivery:** EDDS 1.6.0	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 11
EDDS shall provide the user with a list of new request types they can create, limited to only those types the user has permission to use				
Notes:				
System:	**Subsystem:**	**Priority:** 2	**Type:** F	**Verification Method:** Test
Source:				

5.17

5.18 Reuse & Reusability Requirements

No specific requirements relating to reuse and reusability have been identified for the EDDS.

5.19 Interface Management Requirements

No specific requirements relating to have been identified for the EDDS.

5.20 Observability Requirements

No specific requirements relating to observability have been identified for the EDDS.

5.21 Other Requirements

EDDS-SR-07750	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
As an EGOS component the EDDS shall follow the requirements specified in the EGGS Development Requirements [AD-41] , unless specifically amended within this document (EDDS SRS) as follows: 1. EGGS-SR-RL-01000 - amended by EDDS-SR-03070				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

6. Verification, Validation, and Acceptance Requirements

6.1 Validation Approach and Requirements

No Additional validation approach requirements have been identified for the EDDS

EDDS-SR-07720	**Delivery:**	**Need:** Mandatory	**Stability:** Stable	**Last Issued in:** 1
The EDDS shall specify a security penetration test in line with the guidelines laid out by ESACERT [RD-14]. RID514				
Notes:				
System:	**Subsystem:**	**Priority:** 1	**Type:** F	**Verification Method:** Test
Source:	SWRR2			

6.2 Acceptance Requirement

No Additional acceptance requirements have been identified for the EDDS.

Appendix A T.B.D.' & 'T.B.C' List

Requirement	*Description*
EDDS-SR-01161	Streaming service protocol is still undecided. It is likely to be based on web services but it is not clear if this will meet performance requirements.
EDDS-SR-02020	Number of TM parameter samples per second to be supported per stream is to be confirmed.
EDDS-SR-07220	The data rate and its measurement structure for packet data is unclear for streaming services.
EDDS-SR-07370	Upper limit of file transfer rate that EDDS shall be capable of delivering to users.
EDDS-SR-07380	Upper limit of file storage rate that EDDS can store on the EDDS server
EDDS-SR-07900	Exception of password for non-modification of corporate managed data.

Appendix B Backwards Compatibility

This appendix summaries the backward compatibility of the EDDS to the predecessor SCOS-2000 subsystems; Telemetry Data Retrieval System (TDRS), Web Remote Monitoring (WebRM), and Generic Data Disposition System (GDDS)

There is no backwards compatibility with predecessor subsystems unless specifically listed below.

Subsystem	*Service*	*Compatibility*	*Requirement*
TDRS	Spreadsheet format for TM parameter data	EDDS will provide a mechanism to allow a mission to define XSLT that can be used to transform TM parameter data to the TDRS spreadsheet format required.	EDDS-SR-00640
GDDS	GDDS FTP service request	The EDDS shall be able to process requests that are in the GDDS FTP service request format. The format of such requests is XML based and defined in the GDDID [RD-14]. The EDDS will not support an FTP server but the file can be uploaded via the EDDS web server as for other requests. It is expected that the EDDS will provide template XSLT that cover only common request types and can be specialised by missions. The missions would have to consider how to map GDDS legacy account details, access rights and product identifiers to those defined in the EDDS.	EDDS-SR-06120
GDDS	GDDS FTP service response	The EDDS shall be able to provide file formatting of response data in the same format used by the GDDS for FTP Service responses (as specified in the GDDID [RD-14]). The EDDS will not support an FTP server to send the response but the user can receive the response via the EDDS 'File Server' delivery mechanism. Only the raw mode is supported and not SFDU formatting.	EDDS-SR-05680

Appendix C Functional Assumptions On External Systems

This section notes assumptions that the EDDS makes of external systems. Here the dedicated parameter archive is included as an external system.

Assumption	*Source*
The Parameter Archive will be capable of using a high capacity, high performance hard disk.	SWRR2 - RID510
Parameter name is a unique identifier for parameters.	SWRR2-RID533
The data set for each parameter defined in a dedicated parameter archive is complete (i.e. all data is available).	SWRR2-RID533
A dedicated parameter archive shall be able to meet the performance requirements.	EDDS-SR-07240 EDDS-SR-07170 EDDS-SR-02037
A dedicated parameter archive shall support the data attributes required by the EDDS.	EDDS-SR-00390
A dedicated parameter archive shall support the parameter types required by the EDDS.	EDDS-SR-00410
A dedicated parameter archive shall support the statistics required by the EDDS.	EDDS-SR-00850
A dedicated parameter archive shall support the calibration values and calibration management required by the EDDS.	EDDS-SR-00720 EDDS-SR-05550 EDDS-SR-05560 EDDS-SR-05570
A dedicated parameter archive shall support the data ordering required by the EDDS.	EDDS-SR-00730 EDDS-SR-00740
A dedicated parameter archive can list parameters that are stored within it.	SWRR2-RID533

	EDDS-SR-05010
A dedicated parameter archive shall support the capability to detect and not return duplicate samples.	EDDS-SR-07880 EDDS-SR-07890
A dedicated parameter archive shall support the capability to detect when a parameter value has changed.	EDDS-SR-02200 EDDS-SR-02210
A dedicated parameter archive shall support the capability to cache parameters.	EDDS-SR-02446

Appendix D Data type Performance
For each data type and delivery mechanism listed in the following table, the EDDS shall be capable of providing the data at the rate indicated.

Delivery / ***Data Type***		*Client*	*File Server*	*EDDS Server*	*RDM*	*Display*	*Stream*		*Email*
							Online	*Offline*	
Packet	*TM*	-	500pps	500pps	TBD	As Stream	20kps[*1] 300kps[*2]	20kps[*1] 300kps[*2]	-
	TC	-	500pps	500pps	TBD	As Stream	20kps[*1] 300kps[*2]	20kps[*1] 300kps[*2]	-
	EV	-	500pps	500pps	TBD	As Stream	20kps[*1] 300kps[*2]	20kps[*1] 300kps[*2]	-
	Statistics	500pps	500pps	500pps	-	-	-	-	-
Parameter	*TM*	-	10000sps	10000sps	TBD	As Stream	500sps	10000sps	-
	Statistics	10000sps	10000sps	10000sps	-	-	-	-	-
	Definition	10000sps	10000sps	10000sps	-	-	-	-	-
Report	*MCS*	TBD	TBD	TBD	-	TBD	-	-	-
	EDDS	TBD	TBD	TBD	-	-	-	-	-
Archived Files	*File*	-	TBD	TBD	TBD	-	-	-	-
	Catalogue	TBD	TBD	TBD	-	-	-	-	-
Acknowledgement		TBD	TBD	TBD	-	-	-	-	TBD

Table 5 - Data Type Performance

Where:

- kps - Kbits per Second
- sps - Samples Per Second
- pps – Packets per Second

