

# Task 52 – ECS Requirements Volume 8 Specification

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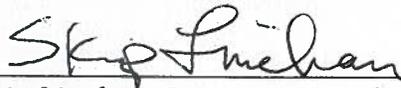


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# **ECS Requirements Volume 8 Specification**

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## ECS Requirements Volume 8 Specification Signature/Approval Page

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## Preface

This document is under ESDIS Project configuration control. Once this document is approved, ESDIS approved changes are handled in accordance with Class I and Class II change control requirements described in the ESDIS Configuration Management Procedures, and changes to this document shall be made by change bars or by complete revision.

Any questions should be addressed to: [esdis-esmo-cmo@lists.nasa.gov](mailto:esdis-esmo-cmo@lists.nasa.gov)

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## Abstract

This document provides the completed Level 4 Science Data Processing Subsystem (SDPS) Requirements for the Order Manager (OMS) subsystem.

*Keywords: SDPS, OMS*

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## 1 INTRODUCTION

The EOSDIS Core System (ECS) performs information management and data archiving and distribution for Earthdata mission datasets at NASA Distributed Active Archive Center (DAAC) locations. Each DAAC performs these functions using a combination of standard capabilities provided by ESDIS, and hardware and software specific to the DAAC. The ECS was developed using special hardware and software to support the high ingest rates of EOS instruments. ECS currently resides and operates at three DAACs: Atmospheric Science Data Center (ASDC), Land Processing (LP) DAAC and National Snow and Ice Data Center (NSIDC) DAAC.

Data products are created by NASA's Science Investigator-led Processing Systems (SIPS) or, in a few cases, by systems interfacing with the ECS at the DAACs. The ECS at the DAACs ingests the data from the processing systems and archives them. ECS has interfaces with the Common Metadata Repository (CMR) to provide metadata to support search and access through CMR clients, for example, Earthdata Search. ECS also provides software toolkits to assist instrument teams in their development of product generation software at their Science Computing Facilities (SCFs) to facilitate ingest of the resulting products into ECS or into other DAAC-specific archiving and distribution systems.

ECS is structured as two segments: the Communications and Systems Management Segment (CSMS) and the Science Data Processing Segment (SDPS).

- The Communications and Systems Management Segment (CSMS) provides the communications infrastructure for the ECS and systems management for all of the ECS hardware and software components. The CSMS provides the interconnection between users and service providers within the ECS, transfer of information between subsystems, Computer Software Configuration Items (CSCIs), Computer Software Components (CSCs), and processes of the ECS.
- The Science Data Processing System (SDPS) provides science data ingest and production, search and access functions, data archive, and system management capabilities.

The ECS includes the following subsystems:

Subsystem	Segment	Subsystem Description
AIM	SDPS	Archive Inventory Management Subsystem
BMGT	SDPS	Bulk Metadata Generation Tool
CSS	CSMS	Communications Subsystem
Data Access	SDPS	Data Access Subsystem
DMS	SDPS	Data Management Subsystem
DPL	SDPS	Data Pool Subsystem
DPL-Ingest	SDPS	Data Pool Ingest Subsystem
DSS	SDPS	Data Server Subsystem
DTS	SDPS	Defect Tracking Subsystem

Subsystem	Segment	Subsystem Description
EMS	SDPS	EOSDIS Metrics Subsystem
HEG	SDPS	HDF-EOS to Geotiff Converter Subsystem
INS	SDPS	Ingest Subsystem
ISS	CSMS	Internetworking Subsystem
MGS	SDPS	Map Generation Service
MSS	SDPS	System Management Subsystem
OMS	SDPS	Order Manager Subsystem
SSS	SDPS	Spatial Subscription Server Subsystem
TKD	SDPS	Toolkit Subsystem for DAACs
TKS	SDPS	Toolkit Subsystem for Science Teams

### 1.1 Purpose

The purpose of the ECS Requirements Document Set is to present the system requirements that have been implemented for ECS. This document is one volume of the set.

### 1.2 Scope

Because the number of requirements is large, this Requirements documentation set has been divided in to a series of Volumes, partitioned by subsystem. This is one volume in the set.

Volume	Subsystems	Requirements
1	AIM, BMGT	462
2	CSS, DMS, Data Access	249
3	DPL	1,670
4	DTS, HEG	125
5	DSS	1,245
6	INS, DPL Ingest	180
7	ISS, MGS, MSS, EMS	374
8	OMS	817
9	SSS	160
10	TKD, TKS	335
	total	5,617

### 1.3 Related Documentation

The latest versions of all documents below should be used. The latest Earth Science Data and Information System (ESDIS) Project documents can be obtained from Uniform Resource Locator (URL): <https://ops1-cm.ems.eosdis.nasa.gov>. ESDIS documents have a document number starting with either 423 or 505. Other documents are available for reference in the

ESDIS project library website at: [http://esdisfmp01.gsfc.nasa.gov/esdis\\_lib/default.php](http://esdisfmp01.gsfc.nasa.gov/esdis_lib/default.php) unless indicated otherwise.

### 1.3.1 Applicable Documents

The following document contains policies or other directive matters that are binding upon the content of this document.

423-46-01	Functional and Performance Requirements Specification for the ECS Science Data Processing System
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### 1.3.2 Reference Documents

The following documents are not binding on the content but referenced herein and amplify or clarify the information presented in this document.

NPR 2810.1A	Security of Information Technology document
170-TP-013-001	HDF-EOS Data Format Converter User's Guide', (170-TP-013-001), January 2002
170-TP-600	HDF-EOS Library Users Guide Volume 1 (170-TP-600)
n/a	BMGTCollectionMetadata.dtd <a href="https://earthdata.nasa.gov/esdis/eso/standards-and-references/echo-metadata-standard">https://earthdata.nasa.gov/esdis/eso/standards-and-references/echo-metadata-standard</a>
n/a	BMGTGranuleMetadata.dtd <a href="https://earthdata.nasa.gov/esdis/eso/standards-and-references/echo-metadata-standard">https://earthdata.nasa.gov/esdis/eso/standards-and-references/echo-metadata-standard</a>
n/a	BMGTBrowseMetadata.dtd <a href="https://earthdata.nasa.gov/esdis/eso/standards-and-references/echo-metadata-standard">https://earthdata.nasa.gov/esdis/eso/standards-and-references/echo-metadata-standard</a>
n/a	ECHO PackageManifest.xsd <a href="https://earthdata.nasa.gov/esdis/eso/standards-and-references/echo-metadata-standard">https://earthdata.nasa.gov/esdis/eso/standards-and-references/echo-metadata-standard</a>
170-WP-023	Bulk Metadata and Browse Export Capability for the ECS Project' (170-WP-023-011, 9/27/00)
209-CD-036	Interface Control Document for ECS Interfaces That Support External Subsetters Located at DAACs', ECS Project document number 209-CD-036-001
304-CD-002	Science and Data Processing Segment (SDPS) Requirements Specification for the ECS Project (March 1995)
311-EMD-xxx	Archive Management Inventory (AIM) Database Design Schema Specifications for the EMD Project
423-41-57	Interface Control Document between the EOSDIS Core System (ECS) and the Science Investigator-led Processing Systems (SIPS), Volume 0
423-41-58	ICD between ECS and the LP DAAC
423-41-63	ICD between EMOS and the SDPS

423-45-02	Interface Control Document between EOSDIS Core System (ECS) and EOS Clearinghouse (ECHO) for Metadata Inventory and Ordering
423-45-03	Interface Control Document for ECS ECHO WSDL Order Component (EWOC) and External Processing Systems Co-located at the DAACs
423-ICD-EDOS/EGS	Interface Control Document Between the Earth Observing System (EOS) Data and Operations System (EDOS) and the EOS Ground System (EGS) Elements, renumbered as 428-ICD-EDOS/EGS
505-41-17	Interface Requirements Document between EOSDIS Core System (ECS) and the NASA Science Internet (NSI), 505-41-17
505-41-30	Interface Control Document Between EOSDIS Core Systems (ECS) and the Version 0 System for Interoperability', ESDIS document number 505-41-30
910-TDA-042	EMD Browsers Baseline
CK_70_01	ECS Ticket: End-To-End Checksum Capability
DP_72_02	ECS Ticket: Ingest of Level 0 Data from EDOS into the Data Pool
DP_72_03	ECS Ticket: Ingest of ASTER L1A and Browse into Data Pool
DP_72_04	ECS Ticket: Data Pool Ingest of Data at the ASDC DAAC
DP_72_05	ECS Ticket: Support for MISR Browse Linkages in Release 7.20
DP_S3_01	ECS Ticket: Populate Data Pool from ECS Archive
DP_S3_02	ECS Ticket: Accommodate Non ECS Data in Data Pool
DP_S4_07	ECS Ticket: Support Compression on Data Pool Insert
DP_S6_01	ECS Ticket: SIPS Ingest Into Data Pool
DP_SY_01	ECS Ticket: Data Pool FTP Service
DP_SY_03	ECS Ticket: Data Pool Cleanup
DP_SY_04	ECS Ticket: Data Pool Insert
DP_SY_06	ECS Ticket: Update Granule Expiration in Data Pool
DP_SY_08	ECS Ticket: Compile & Examine Data Pool Access Statistics
DS_7E_01	ECS Ticket: Removal of Science Data Server
ES_SY_01	ECS Ticket: External Subsetter Support
OD_S3_01	ECS Ticket: Order Manager
OD_S4_01	ECS Ticket: Improve Distribution to End Users through Data Pool
OD_S5_02	ECS Ticket: Managing HEG Orders
OD_S5_06	ECS Ticket: Hiding Order-Only Granules In The Data Pool
OG_S5_01	ECS Ticket: HEG Extensions for OWS
OM_80_01	ECS Ticket: Operational Updates to OMS
OP_S4_06	ECS Ticket: Support Multiple Data Pool File Systems
WD_S3_01	ECS Ticket: HDF-EOS Format Converter Integration with Data Pool
WD_S4_02	ECS Ticket: HEG Integration Enhancements

WL_S4_01	ECS Ticket: Synergy IV 24-Hour Workload Performance
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## 2 REQUIREMENTS

### 2.1 OMS

These are the completed ECS requirements for the OMS subsystem. OMS manages all orders for ECS data received via the ECHO WSDL Order Component (EWOC), the Spatial Subscription Server (SSS), and the External Product Dispatcher (EPD) Server (i.e., external subsetter request and S4PM).

ID	Title	Status
ECS-L4-17227	S-OMS-00120 The Order Management Service shall require that a data distribution request specify a single media type.	Completed
ECS-L4-17228	S-OMS-00010 The Order Management Service shall accept data distribution requests.	Completed
ECS-L4-17229	S-OMS-00100 The Order Management Service shall require that a data distribution request specify a set of distribution options.	Completed
ECS-L4-17230	S-OMS-00110 The Order Management Service shall accept any valid combination of electronic or physical media distribution options that are supported by ECS.	Completed
ECS-L4-17232	S-OMS-00140 The Order Management Service shall accept an optional valid MSS user profile identifier (including ECSGuest) for a distribution request.	Completed
ECS-L4-17234	S-OMS-00160 The Order Management Service shall verify that the MSS user profile, order and request identifiers - if specified for a distribution request - have corresponding associations in the MSS order tracking database.	Completed
ECS-L4-17236	S-OMS-00170 The Order Management Service shall accept an optional UserString parameter of a maximum length of 255 characters for a distribution request.	Completed
ECS-L4-17237	S-OMS-00180 The Order Management Service shall accept an optional PRIORITY parameter for a distribution request that specifies one of the ECS priorities.	Completed
ECS-L4-17239	S-OMS-00200 The Order Management Service shall accept an optional NOTIFY parameter for a distribution request that specifies an e-mail address string of a maximum of (255) characters length.	Completed
ECS-L4-17240	S-OMS-00210 The Order Management Service shall require that a data distribution request specify the list of granules to be distributed by the request.	Completed
ECS-L4-17241	S-OMS-00220 The Order Management Service shall require that the list of granules to be distributed include at least one granule.	Completed
ECS-L4-17242	S-OMS-00230 The Order Management Service shall allow the list of granules to be distributed to include ECS granule UR strings.	Completed
ECS-L4-17243	S-OMS-00240 The Order Management Service shall allow valid Landsat subsetting options to be associated with any granule in the granule list that is identified via an ECS granule UR string.	Completed
ECS-L4-17244	S-OMS-00250 The Order Management Service shall verify the information for a distribution request syntactically before accepting it by verifying: a.that all information specified as mandatory in the requirements is present b.each parameter value against the list of valid values as specified in the requirements c.that no parameter exceeds the maximum length as specified in the requirements d.[DESIRABLE] only valid combinations of parameter values are being used	Completed

ID	Title	Status
ECS-L4-17245	S-OMS-00260 The Order Management Service shall save the distribution request in the Order Management Database if it passes validation.	Completed
ECS-L4-17246	S-OMS-00270 The Order Management Service shall assign a value of 'Queued' to the request status attribute when saving a new distribution request in the Order Management Database.	Completed
ECS-L4-17247	S-OMS-00280 The Order Management Service shall assign the current date and time to the request submission date/time and the last status change date/time attributes when saving a new distribution request in the Order Management Database.	Completed
ECS-L4-17250	S-OMS-00300 When encountering an error, the Order Management Service shall return a detailed error status indicative of the specific error encountered, as well as an indication whether the error is retrievable or fatal.	Completed
ECS-L4-17251	S-OMS-00310 The Order Management Service shall return a fatal error if a distribution request fails validation.	Completed
ECS-L4-17252	S-OMS-00320 The Order Management Service shall return a retrievable error if a distribution request cannot be saved in the database.	Completed
ECS-L4-17253	S-OMS-00325 When used by an ECS server, the Order Management Service shall log all request submission errors and successful submissions to the log of that server.	Completed
ECS-L4-17254	S-OMS-00340 It shall be possible to run different instances of ECS applications that use the Order Management Service in different modes concurrently.	Completed
ECS-L4-17255	S-OMS-00350 The Order Management Service shall be multi-thread safe, capable of accepting distribution requests concurrently from multiple threads in the same client process.	Completed
ECS-L4-17256	S-OMS-00400 The OM GUI shall allow DAAC operators to configure a list of Email addresses of .met-file recipients, i.e., users that need to receive metadata in .met file format.	Completed
ECS-L4-17257	S-OMS-00405 The OMS CI shall by default provide metadata in XML format for all orders.	Completed
ECS-L4-17259	S-OMS-00415 The OMS CI shall distribute metadata files in the format specified by the operator regardless of the Email address for the Distribution Notice if the operator changed the format during request resubmission.	Completed
ECS-L4-17260	S-OMS-00420 When the OMS CI distributes metadata files in ODL .met file format, the metadata files shall be identical in format and content to current .met files, to include collection level metadata.	Completed
ECS-L4-17261	S-OMS-00425 The OMS CI shall include the format used for metadata distribution for a request in the archived order tracking information.	Completed
ECS-L4-17262	S-OMS-00430 The OMS CI shall include .met files in its cleanup of distribution requests.	Completed
ECS-L4-17263	S-OMS-00435 When displaying request details, the OM GUI shall display the format for metadata distribution that the OMS will use for the request.	Completed
ECS-L4-17264	S-OMS-00440 When displaying request details for archived requests, the OM GUI shall display the format for metadata distribution that the OMS used for the request.	Completed
ECS-L4-17265	S-OMS-00445 The OM GUI shall allow operators to update the metadata format to be used for distribution when resubmitting a request that is in a terminal state.	Completed
ECS-L4-17266	S-OMS-01010 The Order Manager shall process new data distribution requests.	Completed
ECS-L4-17267	S-OMS-01020 The Order Manager shall process data distribution requests that were released from hold by the operator.	Completed

ID	Title	Status
ECS-L4-17268	S-OMS-01023 The Order Management Service CI shall process secure copy distribution requests.	Completed
ECS-L4-17269	S-OMS-01024 The Order Management Service CI shall process secure copy distribution requests in Synergy III mode.	Completed
ECS-L4-17270	S-OMS-01030 The Order Manager shall normally process data distribution requests in priority order and within the same priority, on a first-in, first-out basis based on their original submission date and time. [Note: normally means 'when the number of actions in the database that are waiting to be queued is below an operator configurable limit. When that number is above this limit, the Order Manager will start dispatching immediately while continuing to read actions from the database, to avoid idling resources. For example, this would apply to a restart situation when the Order Manager may have to re-queue thousands of requests. In such situations it is possible that the first few requests are not processed in the usual dispatch order.]	Completed
ECS-L4-17271	S-OMS-01032 The Order Manager shall support pacing a set of distribution requests. [See requirement S-OMS-03082 for the purpose.]	Completed
ECS-L4-17272	S-OMS-01033 The Order Manager shall process requests for user notifications by sending them to the email address (or list of email addresses) specified in the notification action, or else to the email address associated with the request.	Completed
ECS-L4-17273	S-OMS-01034 The Order Manager shall include in a user notification the data distribution request information of the request to which the notification pertains.	Completed
ECS-L4-17274	S-OMS-01035 If the user notification pertains to a failed request, the Order Manager shall include in a user notification the reason for the request failure and any provided operator annotation.	Completed
ECS-L4-17275	S-OMS-01036 If the user notification pertains to failed granules, the Order Manager shall include in a user notification the list of the failed granules with the reason for each failure, and any provided operator annotation.	Completed
ECS-L4-17276	S-OMS-01037 For distribution requests that had been routed through the DORRAN billing system, the Order Manager shall send a copy of any user notifications pertaining to the request to the DORRAN e-mail address.	Completed
ECS-L4-17277	S-OMS-01038 Operators shall be able to configure the DORRAN e-mail address.	Completed
ECS-L4-17278	S-OMS-01039 The Order Manager shall process requests for partitioning notices to DORRAN by sending e-mail to the e-mail address configured for DORRAN that includes the following information: a.The order ID b.The original request ID c.Each new request ID d.For each new request ID, the Ids of the granules included in this request in a format compatible with the granule ID format used by the V0 Gateway and Distribution Notifications sent to DORRAN.	Completed
ECS-L4-17279	S-OMS-01040 The Order Manager shall allow operators to suspend the queuing and dispatching of all requests. [Note: meaning: no new requests are fetched from the database; and requests that are already queued in memory but not yet in progress are not dispatched]	Completed
ECS-L4-17280	S-OMS-01045 The Order Manager shall allow operators to suspend the dispatching of e-mail notification requests. [Note: meaning: no new notification requests are fetched from the database; and requests that are already queued in memory but not yet in progress are not dispatched]	Completed
ECS-L4-17281	S-OMS-01050 The Order Manager shall allow operators to resume the queuing and dispatching of data distribution requests if it was suspended.	Completed

ID	Title	Status
ECS-L4-17282	S-OMS-01055 The Order Manager shall allow operators to resume the queuing and dispatching of e-mail notification requests if it was suspended.	Completed
ECS-L4-17283	S-OMS-01060 The Order Manager shall validate the syntax of a request to the extent such validation did not take place during request submission before the request was accepted. [Note: The requirement is only applicable if the API does not perform sufficient syntactic validation. To be resolved during design]	Completed
ECS-L4-17284	S-OMS-01070 The Order Manager shall associate a fatal error with any request that has syntactic errors. [Note: The requirement is only applicable if the API does not perform sufficient syntactic validation. To be resolved during design]	Completed
ECS-L4-17285	S-OMS-01075 The Order Manager shall place on hold any request that encounters a fatal error. [Note: This means, the Order manager should never simply fail a request, but put such requests on hold so the operator can intervene and make a final disposition.]	Completed
ECS-L4-17286	S-OMS-01080 The Order Manager shall validate the size of a request against request size limits in terms of number of granules.	Completed
ECS-L4-17288	S-OMS-01100 The Order Manager shall allow operators to configure request size limits in GB by media type.	Completed
ECS-L4-17289	S-OMS-01110 The Order Manager shall allow operators to configure separate request granule count limits depending on whether the request involves subsetting or not independent of media type. [Note: I.e., whether the request involves Landsat fixed or floating scenes]	Completed
ECS-L4-17290	S-OMS-01120 The Order Manager shall place on hold, i.e., not continue to process, requests that exceed a request limit.	Completed
ECS-L4-17291	S-OMS-01130 The Order Manager shall validate the size of each granule in a distribution request against the capacity limits of the specified media, unless the granule is being subsetted.	Completed
ECS-L4-17292	S-OMS-01140 The Order Manager shall place on hold, i.e., not continue to process, requests containing granules that violated the media capacity limit.	Completed
ECS-L4-17293	S-OMS-01150 The Order Manager shall ignore all configured size limits when processing requests which have been flagged as exempt from limit checking.	Completed
ECS-L4-17294	S-OMS-01160 The Order Manager shall determine for each granule in a request that is to be staged from the ECS archive whether the granule is inaccessible because the granule UR that was provided is invalid.	Completed
ECS-L4-17297	S-OMS-01190 The Order Manager shall flag inaccessible granules as skipped and annotate them with the reason for skipping (i.e., invalid UR, restricted, deleted from archive).	Completed
ECS-L4-17298	S-OMS-01200 The Order Manager shall exclude from validation granules that have been flagged as failed.	Completed
ECS-L4-17299	S-OMS-01210 The Order Manager shall place a request on hold that contains granules that were skipped.	Completed
ECS-L4-17300	S-OMS-01212 The OMS CI shall accept and represent the MD5 checksum value in the form of a 32-character lowercase hexadecimal string.	Completed
ECS-L4-17301	S-OMS-01220 The Order Manager shall request operator intervention when it places a request on hold.	Completed
ECS-L4-17302	S-OMS-01230 When placing a data distribution request on hold, the Order Manager shall update its status to a value of 'Operator Intervention', and its last status change date/time attributes to the current date/time.	Completed

ID	Title	Status
ECS-L4-17304	S-OMS-01250 When requesting operator intervention the Order Manager shall identify the nature of the intervention, including (the complete list of types of intervention requests is TBD during design): a. request exceeds media capacity b. request exceeds maximum size c. request exceeds maximum granule count d. request contains inaccessible granules	Completed
ECS-L4-17305	S-OMS-01260 For a data distribution request that specifies physical media, the Order Manager shall submit a corresponding physical media distribution request to the PDS, including in it all granules that were not failed.	Completed
ECS-L4-17306	S-OMS-01280 The Order Manager shall allow operators to suspend the submission of requests to the PDS in total as well as by media type.	Completed
ECS-L4-17307	S-OMS-01285 The Order Manager shall detect the unavailability of the PDSIS and suspend the submission of requests to it when that occurs until it detects that it is available again or resumption by the operator.	Completed
ECS-L4-17308	S-OMS-01290 The Order Manager shall allow operators to resume the submission of requests to the PDS (in total as well as media type) if it was suspended.	Completed
ECS-L4-17309	S-OMS-01300 For a data distribution request whose granules must be staged from the ECS archive and that specify electronic media, the Order Manager shall submit corresponding asynchronous ACQUIRE requests for electronic distribution to the SDSRV CI, including in it all granules that were not failed.	Completed
ECS-L4-17310	S-OMS-01320 The Order Manager shall allow operators to suspend the submission of requests to the SDSRV in total as well as by media type.	Completed
ECS-L4-17311	S-OMS-01325 The Order Manager shall detect the unavailability of the SDSRV and suspend the submission of requests to it when that occurs until it detects that it is available again or resumption by the operator.	Completed
ECS-L4-17312	S-OMS-01330 The Order Manager shall allow operators to resume the submission of requests to the SDSRV (in total as well as by media type) if it was suspended.	Completed
ECS-L4-17313	S-OMS-01340 The Order Manager shall be able to limit the number of requests it processes concurrently.	Completed
ECS-L4-17314	S-OMS-01350 The Order Manager shall be able to limit the number of requests it submits concurrently to any component external to the Order Manager independently for each external component.	Completed
ECS-L4-17315	S-OMS-01360 The Order Manager shall log the following events as they occur to the Order Manager log file: a. Start and shut down of the Order Manager b. Suspension and resumption of any activities c. Queuing new data distribution requests from the Order Manager Database d. Queuing data distribution requests from the Order Manager Database that were resubmitted e. Generation of operator intervention requests f. Dispatching a data distribution request to another component g. retrieable errors h. non-retrieable errors	Completed
ECS-L4-17316	S-OMS-01370 The Order Manager shall log the following information in the log file for each event, as applicable: a. Unix Process ID b. Date and time of the event (at least to the millisecond) c. Type of event d. Request ID e. User ID f. Error / event details such as shortname, version id, and granule id of the granule associated with the event, or file path name(s) of the file associated with the event, or service to which the request is being dispatched	Completed
ECS-L4-17317	S-OMS-01380 The Order Manager shall generate a default name for the log file compatible with ECS log file names.	Completed

ID	Title	Status
ECS-L4-17318	S-OMS-01390 The Order Manager shall append output to the log file if it already exists.	Completed
ECS-L4-17319	S-OMS-01400 The Order Manager shall create the log file if it does not already exist.	Completed
ECS-L4-17320	S-OMS-01410 Different instances of the Order Manager shall be able to operate in different modes concurrently.	Completed
ECS-L4-17321	S-OMS-01420 The Order Manager startup scripts shall prevent the operation of more than one Order Manager on the same platform in the same mode.	Completed
ECS-L4-17322	S-OMS-01425 The Order Manager startup scripts shall prevent the operation of more than one Order Manager in the same mode within the same DAAC.	Completed
ECS-L4-17323	S-OMS-01430 The Order Manager shall provide client applications with the ability to resubmit requests, e.g., in case of failures, such that a request will be executed only once even if it is submitted more than once.	Completed
ECS-L4-17324	S-OMS-01440 The Order Manager shall allow an operator to shut it down.	Completed
ECS-L4-17325	S-OMS-01450 The Order Manager shall be able to warm restart after abnormal termination or operator shut down such that no requests are lost or left in an inconsistent or unknown state.	Completed
ECS-L4-17326	S-OMS-01460 Upon warm restart, the Order Manager shall resume requests that were being processed at the time of shut down or abnormal termination before processing new requests.	Completed
ECS-L4-17327	S-OMS-01470 Upon warm restart, the Order Manager shall reinstate any suspensions that are currently in force.	Completed
ECS-L4-17328	S-OMS-01480 Client applications shall be able to submit data distribution requests whether the Order Manager is currently operating or not.	Completed
ECS-L4-17329	S-OMS-01500 The Order Management Service shall include provisions for removing operator interventions and related information from the database whose completion date/time exceeds a maximum age.	Completed
ECS-L4-17330	S-OMS-01502 The Order Management Service shall include provisions for removing actions from the database whose completion date/time exceeds a maximum age.	Completed
ECS-L4-17331	S-OMS-01505 The Order Management Service shall include provisions for removing orders, data distribution requests and related information from the database when the corresponding MSS order tracking information is removed from the database.	Completed
ECS-L4-17332	S-OMS-01506 The Order Management Service shall include provisions for removing notifications from the database whose sent date/time exceeds a maximum age.	Completed
ECS-L4-17333	S-OMS-01510 DAAC operations shall be able to configure the maximum age that controls the removal of information from the Order Management Database. [Note: The maximum age typically would be at least several days]	Completed
ECS-L4-17334	S-OMS-01610 The OMS CI shall raise an archive alert and suspend staging for an archive when it receives notification from the Data Pool Insert Service about having raised an alert for that archive, unless staging for that archive was suspended manually by the OMS operator.	Completed
ECS-L4-17335	S-OMS-01615 The OMS CI shall close any open alert for an archive when it receives notification from the Data Pool Insert Service about having closed an alert for that archive, and resume staging for that archive unless staging for it was suspended manually by the OMS operator.	Completed

ID	Title	Status
ECS-L4-17336	S-OMS-01620 The OMS CI shall close any open alert for a Data Pool file system and resume staging to that file system when it receives notification from the Data Pool Insert Service about having closed an alert for that file system. [NOTE: This augments S-OMS-06545 in Ticket OD_S4_01. Note also that OMS does not support the manual suspension and resumption of staging to specific Data Pool file systems.]	Completed
ECS-L4-17337	S-OMS-02010 The Order Management Service shall provide a command line utility for submitting data distribution requests. [OSS]	Completed
ECS-L4-17339	S-OMS-02020 The Order Management Service Command Line Utility shall save the distribution request in the Order Management Database. [OSS]	Completed
ECS-L4-17340	S-OMS-02025 The Order Management Service Command Line Utility shall retry saving a distribution request to the database for a specifiable number of times after a specifiable wait time if it encounters a retrievable database error, with the default being 2 times and a wait time of 10 seconds. [OSS] [Note: specifiable means that there are two optional command line parameters for this]	Completed
ECS-L4-17341	S-OMS-02030 The Order Management Service Command Line Utility shall return status information indicating success or the nature of the failure of a request submission. [OSS]	Completed
ECS-L4-17342	S-OMS-02040 The Order Management Service Command Line Utility shall include provisions for resubmitting the same request in case of a fault during submission such that the request will be processed only once. [OSS]	Completed
ECS-L4-17343	S-OMS-02070 It shall be possible to submit data distribution requests in multiple modes concurrently via the Order Management Service Command Line Utility. [OSS]	Completed
ECS-L4-17344	S-OMS-02080 It shall be possible to submit multiple data distribution requests in the same mode concurrently via the Order Management Service Command Line Utility. [OSS]	Completed
ECS-L4-17345	S-OMS-02110 The OMS CI shall assume a granule resides in the volume group history set for re-processing if the beginning date of the granule's temporal coverage is less than the selection date maintained by the STMGT CI or if that selection date is null. [NOTE: The OMS CI shall behave as today if there is only a single volume group history set defined for the ESDT.]	Completed
ECS-L4-17346	S-OMS-02120 The OMS CI shall assume a granule resides in the volume group history set for forward processing if the beginning date of the granule's temporal coverage is greater than or equal to the selection date maintained by the STMGT CI.	Completed
ECS-L4-17348	S-OMS-02220 The OMS CI shall return an appropriate error to the V0 Gateway for user requests that require a processing service for which the acceptance of requests is stopped. [NOTE: See also the analogous requirement S-OMS-08850 in Ticket OD_S5_02.]	Completed
ECS-L4-17349	S-OMS-02225 If an external processor has been configured in OMS, it shall use its configured name for its identification and the identification passed in by the V0 Gateway otherwise. [NOTE: Requests that reference external subsetters which were not configured in OMS will not be rejected, but their subsetter identifications may have a different look when displayed in the OM GUI, e.g., they may be host+port information rather than a name.]	Completed

ID	Title	Status
ECS-L4-17350	S-OMS-02230 The OMS CI shall be able to identify requests for external processing inputs and the external processing system that originated them based on the unique DN Email address used by that external processing system, if the corresponding information has been configured in OMS. [NOTE: The external processing must use this feature if it expects to use any OMS capabilities that depend on the ability to identify the source of input requests.]	Completed
ECS-L4-17351	S-OMS-02235 The OMS CI shall decompress any compressed files prior to their distribution in response to a distribution request from an external processing service unless the OMS is configured otherwise for that service, using the decompression algorithm registered for the compression type in the Data Pool, unless no decompression algorithm is registered for that type. [NOTE: Doing so must not impede using those files to satisfy other distribution requests that may expect or allow those granules to be in compressed format. Note that OMS will not decompress granules that use HDF internal compression.]	Completed
ECS-L4-17352	S-OMS-02240 For external processing requests that requested distribution via FTP Pull, the OMS CI shall make the outputs available for FTP Pull and queue a DN after the outputs were ingested successfully. [NOTE: Sending the DN for other media types after distribution is complete is covered by existing requirements. This is analogous to requirement S-OMS-08550 in Ticket OD S5 02.]	Completed
ECS-L4-17353	S-OMS-02245 The OMS CI shall not include the list of input granules nor their status in the Distribution Notices sent for external processing requests, but instead include the external processing outputs, as well as additional preamble text that can be configured by the DAAC separately for each configured subsetter.	Completed
ECS-L4-17356	S-OMS-02265 The OMS CI shall queue the outputs of a user request that involves external processing and specifies FTP Push for final distribution after the outputs have been ingested and the request passed any subsequent validations. [NOTE: This is analogous to requirement S-OMS-08570 in Ticket OD S5 02.]	Completed
ECS-L4-17357	S-OMS-02270 The OMS CI shall be able to distribute external processing outputs via any of the electronic media types it supports.	Completed
ECS-L4-17358	S-OMS-02280 The OMS CI shall include in the DN for a user request specifying FTP Pull distribution, URL links for each of the output packaging options that are supported for downloading, including the metadata files of the input granules, if so configured by the DAAC. [NOTE: This is a duplicate of S-OMS-08595 in Ticket OD S5 02, as a reminder that these options must be available for external processing outputs, as well.]	Completed
ECS-L4-17359	S-OMS-02285 The OMS CI shall remove processing outputs received from external processing services from the Data Pool when they are no longer needed for distribution. [NOTE: This augments S-DSS-31670 in Ticket ES_SY_01 and is analogous to S-OMS-08630 in Ticket OD S5 02.]	Completed
ECS-L4-17360	S-OMS-02290 The OMS CI shall remove input granules staged for external processing when they are expired and are no longer needed for distribution or by another user request.	Completed
ECS-L4-17361	S-OMS-02295 [TBD by DDR whether this can be supported.] The OMS CI shall consider FTP Pull orders from an external subsetter expired and eligible for cleanup once the user requests for which these inputs were ordered complete distribution. [NOTE: This requirement cannot be integration tested since the available subsetters do not support FTP Pull.]	Completed

ID	Title	Status
ECS-L4-17362	S-OMS-02300 If the DN Email address and FTP Pull expiration for an external processing system has been configured in OMS, the OMS CI shall use that FTP Pull expiration time for FTP Pull requests received from that external processing system.	Completed
ECS-L4-17363	S-OMS-02305 The OMS CI shall remove any temporary files it created in support of external processing once they are no longer needed. [NOTE: The requirement is analogous to S-OMS-08610 Ticket OD S5 02.]	Completed
ECS-L4-17364	S-OMS-02310 The OMS CI shall log the following events related to external processing: a. Receipt of the external processing outputs. b. Errors related to the receipt of external processing outputs c. Events that are normally logged during distribution.	Completed
ECS-L4-17365	S-OMS-02320 The OMS CI shall format its application log entries compliant with the current ECS log format (e.g., they contain time and severity), and include the following information for log entries related to the receipt and distribution of external processing outputs, as applicable: a. Request ID b. Granule ID c. file name and file size d. error/event identification and explanation e. message types and identifications [NOTE: The requirement is analogous to S-OMS-08660 in Ticket OD S5 02.]	Completed
ECS-L4-17366	S-OMS-02325 The OMS CI shall include order-tracking information for user requests involving external processing when archiving order tracking information, excluding the processing instructions. [NOTE: See also the analogous requirement S-OMS-08920 in Ticket OD S5 02.]	Completed
ECS-L4-17367	S-OMS-02330 The OMS CI shall remove and not archive order-tracking information for user requests involving external processing that are in the NULL state at the time they normally would be archived if they were completed requests. [NOTE: In line with DAAC feedback during RTR, the OMS will not remove 'Aborted' requests from the OMS database when the V0 Gateway updates the state to 'Aborted'.]	Completed
ECS-L4-17368	S-OMS-02335 The OM GUI shall allow authorized operators to specify the following information for each external processing service: a. the unique name (i.e., an operator assigned label) for the external processing service, b. the DN Email address used by that external processing service, and if that information has been provided, also the following: c. Deleted, d. Optional text of up to 255 characters to include as part of the preamble in any Distribution Notices (DN) sent to users after completing the distribution of requests for this subsetter, e. an FTP Pull expiration time, not to exceed the FTP Pull expiration for normal FTP Pull orders. f. the host and port of that external processing service, as configured in the ECS registry. [NOTE: The V0 Gateway passes the host and port to the OMS during the registration, allowing the OMS to associate the request with the applicable configuration entry.] [NOTE: Configuring an external processing service in OMS is optional. However, some OMS capabilities are only available to external processing services that have been configured. This is spelled out in the corresponding requirements.]	Completed
ECS-L4-17369	S-OMS-02340 The OM GUI shall allow operators to delete an external processing service for which no requests are currently pending and for which request acceptance has been stopped, requesting confirmation from the operator before performing the deletion.	Completed

ID	Title	Status
ECS-L4-17370	S-OMS-02345 The OM GUI shall allow operators to view a list of external processing services, including for each: a. its configured identification, b. its DN Email address and other properties as per S-OMS-02335, c. the number of requests and granules currently queued, as well as the total amount of input data, and d. whether the acceptance of requests for that processing service is stopped.	Completed
ECS-L4-17371	S-OMS-02350 The OM GUI shall allow appropriately authorized operators to edit the configuration information for any of the listed external processing services.	Completed
ECS-L4-17372	S-OMS-02355 The OM GUI shall allow appropriately authorized operators to stop the acceptance of requests for an external processing service. [NOTE: See also the analogous requirement S-OMS-08830 in Ticket OD_S5_02.]	Completed
ECS-L4-17373	S-OMS-02360 The OM GUI shall allow appropriately authorized operators to resume the acceptance of requests for an external processing service if this is currently stopped. [NOTE: See also the analogous requirement S-OMS-08840 in Ticket OD_S5_02.]	Completed
ECS-L4-17374	S-OMS-02365 The OM GUI OMS status page shall indicate whether the acceptance of processing requests for any processing service is currently stopped or not. [NOTE: See also the analogous requirement S-OMS-08870 in Ticket OD_S5_02. The intention is to have a single indicator for the status of all processing queues, including the HEG processing queue.]	Completed
ECS-L4-17375	S-OMS-02370 The OM GUI shall be able to filter the user requests so it displays only requests for a specific processing service. [NOTE: See also the analogous requirement S-OMS-08880 in Ticket OD_S5_02.]	Completed
ECS-L4-17376	S-OMS-02375 The OM GUI shall provide the same filter and sort capabilities for request and granule lists that show external processing requests as for the general list of distribution requests and their granule lists.	Completed
ECS-L4-17377	S-OMS-02380 The OM GUI shall be able to filter the list of archived user requests so it displays only requests for a specific processing service. [NOTE: See also the analogous requirement S-OMS-08882 in Ticket OD_S5_02.]	Completed
ECS-L4-17378	S-OMS-02385 The OM GUI shall provide the same filter and sort capabilities for lists of archived requests that show external processing requests as for the general list of archived distribution requests and their granule lists.	Completed
ECS-L4-17379	S-OMS-02390 The OM GUI shall identify requests that involve external processing when listing requests. [NOTE: See also the analogous requirement S-OMS-08890 in Ticket OD_S5_02.]	Completed
ECS-L4-17380	S-OMS-02395 The OM GUI shall identify requests that involve external processing when listing archived requests. [NOTE: See also the analogous requirement S-OMS-08892 in Ticket OD_S5_02.]	Completed
ECS-L4-17381	S-OMS-02400 The OM GUI shall provide request cancellation, and suspension capabilities for distribution requests involving external processing while they are under OMS control, i.e., after their outputs have been ingested.	Completed
ECS-L4-17382	S-OMS-02405 The OM GUI shall not permit an operator to resubmit an external processing request that is in a terminal state (e.g., shipped, aborted, cancelled). [NOTE: The OMS has no interface with the external processing service and hence cannot submit such requests.]	Completed

ID	Title	Status
ECS-L4-17383	S-OMS-02410 When displaying a granule list for a request that involves external processing, the OM GUI shall include the outputs once they have been ingested. [NOTE: During final distribution, the input granules are irrelevant; any errors will be related to the outputs, which are not related to any specific input granule.]	Completed
ECS-L4-17384	S-OMS-02415 The OM GUI shall allow an operator to display the external processing instructions for a request (excluding historic requests), and save them in a locally accessible file. [NOTE: HEG processing instructions and external processing instructions may be stored in different formats.]	Completed
ECS-L4-17386	S-OMS-02510 The OMS CI shall include ECSBBR granules and their files in the cleanup of distribution requests.	Completed
ECS-L4-17387	S-OMS-03010 The Order Management Service shall provide an Operator GUI.	Completed
ECS-L4-17388	S-OMS-03020 The Order Management Operator GUI shall be accessible via the web browsers in the ECS configuration baseline.	Completed
ECS-L4-17389	S-OMS-03025 The Order Management Operator GUI shall display the external request ID in the screens displaying request and order details.	Completed
ECS-L4-17390	S-OMS-03030 The Order Management Operator GUI shall permit an operator to suspend and resume the processing of new data distribution requests.	Completed
ECS-L4-17391	S-OMS-03040 The Order Management Operator GUI shall permit an operator to suspend and resume the submission of requests by the Order Manager to the PDS, in total and by media type.	Completed
ECS-L4-17392	S-OMS-03050 The Order Management Operator GUI shall permit an operator to suspend and resume the submission of requests by the Order Manager to the SDSRV, in total and by media type.	Completed
ECS-L4-17393	S-OMS-03055 The Order Management Operator GUI shall permit an operator to suspend and resume the sending of e-mail notifications.	Completed
ECS-L4-17394	S-OMS-03060 The Order Management Operator GUI shall permit an operator to view the current setting of all suspension options.	Completed
ECS-L4-17395	S-OMS-03070 The Order Management Operator GUI shall permit an operator to monitor for pending or held operator interventions.	Completed
ECS-L4-17396	S-OMS-03080 The Order Management Operator GUI shall permit an operator to select and view a pending or held operator intervention.	Completed
ECS-L4-17397	S-OMS-03082 The Order Management Operator GUI shall permit an operator to select a pending operator intervention, annotate it and place it on hold.	Completed
ECS-L4-17398	S-OMS-03084 The Order Management Operator GUI shall permit an operator to select a held operator request, update its annotation, and retain it on hold.	Completed
ECS-L4-17399	S-OMS-03090 The Order Management Operator GUI shall permit an operator to select and view the data distribution request associated with an operator intervention, as well as the associated order and user profile.	Completed
ECS-L4-17400	S-OMS-03100 The Order Management Operator GUI shall permit an operator to resubmit a data distribution request without changing it, effectively requesting that the Order Manager retry it, thereby implicitly completing the intervention request and removing it from its pending state.	Completed

ID	Title	Status
ECS-L4-17401	S-OMS-03110 For distribution requests that were placed on hold because they failed a check against request size or media capacity limits, the Order Management Operator GUI shall permit an operator to exempt the request from limit checking and then resubmit it, thereby implicitly completing the intervention request and removing it from its pending state (Note: this effectively requests that the Order Manager retry the request without limit checking)	Completed
ECS-L4-17402	S-OMS-03120 The Order Management Operator GUI shall permit an operator to fail a data distribution request that was placed on hold.	Completed
ECS-L4-17403	S-OMS-03130 When the operator fails a data distribution request, the Order Management Operator GUI shall insert an action for user notification into the Order Management Database including an optional operator annotation and the reason for failure, unless the operator explicitly requests the suppression of the user notification.	Completed
ECS-L4-17404	S-OMS-03135 The Order Management GUI shall remove an operator intervention from its pending state after the corresponding data distribution request has been failed.	Completed
ECS-L4-17405	S-OMS-03140 The Order Management Operator GUI shall permit an operator to assign a request that was placed on hold to a different media type.	Completed
ECS-L4-17406	S-OMS-03145 The Order Management Operator GUI shall permit an operator to fail a granule that exceeded the capacity of the media type.	Completed
ECS-L4-17407	S-OMS-03150 The Order Management Operator GUI shall permit an operator to request the automatic partitioning of a data distribution request that was placed on hold because it exceeded request limits.	Completed
ECS-L4-17408	S-OMS-03160 The Order Management Service shall be able to partition a data distribution request into partitions of approximately equal size that is less than a target partition size limit and target granule count limit and assign them to new requests. [Design decision was to handle this in a stored procedure]	Completed
ECS-L4-17409	S-OMS-03170 The operator shall be able to configure the target partition size limit by media type, but no smaller than the capacity of that media and no larger than the request size limit for that media type.	Completed
ECS-L4-17410	S-OMS-03180 The operator shall be able to configure a target granule count limit for requests with and without subsetting, independent of media type.	Completed
ECS-L4-17411	S-OMS-03182 The Order Management Operator GUI shall support the pacing of partitioned requests over an extended time period based on operator input.	Completed
ECS-L4-17412	S-OMS-03210 The Order Management Operator GUI shall save the new requests resulting from partitioning in the Order Management Database.	Completed
ECS-L4-17413	S-OMS-03215 The Order Management Operator GUI shall remove the operator intervention request from its pending state after a request was partitioned. [Note: In this particular case, the operator has the responsibility for sending an email to the user if a notification is deemed necessary.]	Completed
ECS-L4-17414	S-OMS-03216 After a request that was routed through DORRAN has been successfully partitioned, the Order Management Operator GUI shall queue a request for sending a partitioning notice to DORRAN.	Completed
ECS-L4-17415	S-OMS-03220 When reviewing an operator intervention request regarding skipped granules, the Order Management Operator GUI shall permit an operator to view the granule information stored in the OMS database for the granules that were skipped	Completed

ID	Title	Status
ECS-L4-17416	S-OMS-03240 The Order Management Operator GUI shall permit an operator to accept the granules that were skipped as failed.	Completed
ECS-L4-17417	S-OMS-03242 The Order Management Operator GUI shall permit an operator to update the granule identifier of any granules that was skipped because the granule was inaccessible, thereby clearing its 'Skipped' status.	Completed
ECS-L4-17418	S-OMS-03244 The Order Management GUI shall allow an operator to resubmit a data distribution request that contained skipped granules after the status of each skipped granule was either cleared or changed to failed.	Completed
ECS-L4-17421	S-OMS-03262 [DESIRABLE] When displaying a distribution request that is in a status of 'Canceled', 'Cancelled', 'Aborted', 'Abort', or 'Shipped' to the operator for resubmission, the Order Management GUI shall display the status of granules that are marked failed in the DDIST database as 'Skipped'.	Completed
ECS-L4-17422	S-OMS-03264 [DESIRABLE] When editing a distribution request that is in a status of 'Canceled', 'Cancelled', 'Aborted', 'Abort', or 'Shipped', the Order Management GUI shall permit the operator to change the status of granules that are marked as 'Skipped' to 'Failed', or clear the 'Skipped' status (causing the granules to be excluded or included in the resubmission).	Completed
ECS-L4-17423	S-OMS-03270 For requests that contain failed granules, the Order Management Operator GUI shall generate a request for user notification including any optional operator annotation. [Design decision was to handle this in the email notification driver of the OM.]	Completed
ECS-L4-17424	S-OMS-03280 The Order Manager shall be able to include operator configurable text into the e-mail notifications it generates, compatible with current handling by the DDIST CI.	Completed
ECS-L4-17425	S-OMS-03290 The e-mail notifications generated by the Order Manager shall be backwards compatible in contents and format with the Distribution Notices created by the DDIST CI.	Completed
ECS-L4-17426	S-OMS-03310 The Order Management Operator GUI shall update the status of a request released from hold or resubmitted to 'Queued', and its last status change date/time attribute to the current date/time.	Completed
ECS-L4-17428	S-OMS-03330 When saving requests resulting from partitioning in the Order Management Database, the Order Management Operator GUI shall set their status to 'Queued', their submission date/time attribute to that of the original request, and the last status date/time attribute to the current date/time.	Completed
ECS-L4-17430	S-OMS-03350 The Order Management Operator GUI shall update the status of a partitioned request to 'Partitioned', and its last status change date/time attribute to the current date/time.	Completed
ECS-L4-17432	S-OMS-03370 The Order Management GUI shall update the status of a request failed by the operator to 'Canceled', and its last status change date/time attribute to the current date/time.	Completed
ECS-L4-17434	S-OMS-03390 The Order Management GUI shall record the date/time and the nature of the disposition of an operator intervention in the Order Management Database.	Completed
ECS-L4-17435	S-OMS-03400 The Order Management GUI shall record the changes made to a data distribution request in association with an operator intervention in the Order Management Database.	Completed
ECS-L4-17436	S-OMS-03410 The Order Management GUI shall record an operator intervention, as well as any changes made for a 'Canceled', 'Cancelled', 'Aborted', 'Abort', or 'Shipped' data distribution request that was resubmitted by the operator in the Order Management Database.	Completed

ID	Title	Status
ECS-L4-17437	S-OMS-03420 The Order Management GUI shall allow an operator to list past operator interventions, filter the list by creation time period (using today as the default), and to sort the list by date/time when the intervention was requested, the type of intervention, and associated request ID, order ID and user ID (individually and in any combination).	Completed
ECS-L4-17438	S-OMS-03430 The Order Management GUI shall allow an operator to select a past operator intervention and view it.	Completed
ECS-L4-17439	S-OMS-03440 The Order Management GUI shall allow an operator to list data distribution request, filter the list by one or several values of request status, creation time period (using today as the default), user, order, and request identification (individually or in any combination), and to sort the list by date/time of submission or last status change, request status, user, order, and request identification (individually or in any combination).	Completed
ECS-L4-17440	S-OMS-03441 The Order Management GUI shall allow an operator to list archived data distribution requests.	Completed
ECS-L4-17441	S-OMS-03442 The Order Management GUI shall allow an operator to filter the list of archived distribution requests by one or several values of terminal request status and media type; or alternatively, by user name, or user e-mail address, or order identification, or request identification; an allow these filters to be combined with a creation time period.	Completed
ECS-L4-17442	S-OMS-03443 The Order Management GUI shall allow an operator to sort the list of archived data distribution request by date/time of submission, or date/time of last status change, or request status, or user ID, or order identification, or request identification.	Completed
ECS-L4-17443	S-OMS-03450 The Order Management GUI shall allow an operator to select a data distribution request from a request list or an operator intervention and view it, as well as the order and user profile associated with that data distribution request.	Completed
ECS-L4-17444	S-OMS-03451 The Order Management GUI shall allow an operator to select a data distribution request from a list of archived requests and view it, as well as the order and user profile associated with that data distribution request.	Completed
ECS-L4-17445	S-OMS-03452 The Order Management GUI shall allow an operator viewing an archived distribution request to list the granules ordered by the request.	Completed
ECS-L4-17446	S-OMS-03453 The Order Management GUI shall identify failed granules in the list of granules.	Completed
ECS-L4-17447	S-OMS-03460 The Order Management GUI shall allow an operator to display the number of requests received during the preceding, operator selectable time interval, and their granule counts and total size for: a. newly submitted requests, total and by media type b. requests submitted to other services, total and by service	Completed
ECS-L4-17448	S-OMS-03470 The Order Management GUI shall support concurrent operation in multiple modes.	Completed
ECS-L4-17449	S-OMS-03480 An instance of the Order Management GUI shall interface with a single mode designated by the operator, for example, based on the specific web address or port chosen to start the GUI.	Completed
ECS-L4-17450	S-OMS-03485 The Order Management GUI shall display the mode in which it is operating.	Completed
ECS-L4-17451	S-OMS-03490 The capabilities of the Order Management GUI shall be accessible to multiple operators on multiple platforms concurrently.	Completed
ECS-L4-17452	S-OMS-03500 The Order Management GUI shall be accessible whether or not the Order Manager for that mode is operating or not.	Completed

ID	Title	Status
ECS-L4-17453	S-OMS-03510 The Order Management GUI shall allow an operator to monitor whether the Order Manager for the designated mode is operating or not.	Completed
ECS-L4-17455	S-OMS-04010 The OMS CI shall provide a secure distribution service.	Completed
ECS-L4-17456	S-OMS-04015 The OMS CI shall allow DAAC operations to configure whether secure distributions shall be processed in Synergy III or Synergy IV mode.	Completed
ECS-L4-17457	S-OMS-04030 The OMS CI shall allow operators to configure scp destinations, analogous to the manner in which operators can configure ftp destinations.	Completed
ECS-L4-17458	S-OMS-04040 The OMS CI shall allow operators to configure the same staging policy parameters for scp destinations as for ftp destinations.	Completed
ECS-L4-17459	S-OMS-04070 The OMS CI shall be able to execute multiple secure distribution operations to the same as well as different scp destinations concurrently.	Completed
ECS-L4-17460	S-OMS-04080 The OMS CI shall suspend dispatching of scp operations to a destination and generate an operator alert under the following conditions: a. the scp operation exceeded its maximum allowed time, b. a connection to the target host could not be established, c. scp login fails, d. the destination directory does not exist, e. the permission to write to the destination directory is denied, f. the maximum number of consecutive errors has been exceeded g. the destination directory is not a directory (e.g., secure copy is capable of detecting this condition and returning it in an error code) h. protocol mismatch (e.g., secure copy is capable of detecting this condition and returning it in an error code) [NOTE: This extends requirement S-OMS-06625 in Ticket OD_S4_01 to scp, adding items f through h for scp to those already being tested for ftp push.]	Completed
ECS-L4-17461	S-OMS-04090 The OM GUI shall provide capabilities for viewing and handling operator alerts resulting from secure copy operations that match those for ftp push.	Completed
ECS-L4-17462	S-OMS-04100 The OM GUI shall provide capabilities for viewing and handling operator interventions resulting from secure copy operations that match those for ftp push.	Completed
ECS-L4-17463	S-OMS-04110 The OMS CI shall schedule staging and secure distribution operations for secure distribution requests in accordance with the configured staging and push policy parameters, similar to the current handling of ftp push operations.	Completed
ECS-L4-17464	S-OMS-04120 When listing or displaying destinations, the OM GUI shall identify those that are designated for secure distribution.	Completed
ECS-L4-17465	S-OMS-04130 The OMS CI shall transfer the DN for successful secure distribution requests to the user via scp rather than via e-mail, using file formats and file naming conventions that are the same as those used by NCR 41991 and are compliant with ESDIS document number 423-41-57, 'Interface Control Document between the EOSDIS Core System (ECS) and the Science-Investigator-led Processing System (SIPS), Volume 0, Interface Mechanisms'.	Completed
ECS-L4-17466	S-OMS-04132 The OMS CI shall place a secure copy request into operator intervention under the following circumstances: a. A granule associated with the request fails to stage successfully (e.g., failed Data Pool inserts) b. The operator has chosen to cancel the request [NOTE: The legacy behavior is described in requirements OMS-06530 & OMS-06355].	Completed

ID	Title	Status
ECS-L4-17467	S-OMS-04133 In the event of an unsuccessful secure copy transfer of the distribution notice for a secure copy request, the OMS CI shall do the following: a.Send the distribution notice to the user via the email address associated with the request. Send an email to the OMS operator indicating the secure copy notice failure, the associated request ID, and the email address to which the secure copy distribution notice will be sent.	Completed
ECS-L4-17468	S-OMS-04135 The OMS CI shall transfer the DN for failed secure distribution requests to the user via e-mail, using file formats and file naming conventions that are the same as those used by NCR 41991 and are compliant with ESDIS document number 423-41-57, 'Interface Control Document between the EOSDIS Core System (ECS) and the Science-Investigator-led Processing System (SIPS), Volume 0, Interface Mechanisms'.	Completed
ECS-L4-17469	S-OMS-04150 The OMS CI shall queue scp operations for DNs for a destination along with the scp operations for files, and apply any limits on the maximum number of concurrent operations to their combined number of scp operations.	Completed
ECS-L4-17470	S-OMS-04160 The OM GUI shall treat secure distribution as a separate media type, e.g., from the perspective of queue suspension and resumption, and displaying statistics and summary information, for example, as specified in OD_S4_01, S-OMS-06120 and S-OMS-06130.	Completed
ECS-L4-17471	S-OMS-04170 The OM GUI shall treat secure distribution destinations like ftp push destinations, e.g., from the perspective of displaying statistics and summary information (e.g., as specified in OD_S4_01, S-OMS-06120, S-OMS-06130, S-OMS-06170) or handling suspension, resumption and similar destination management functions (e.g., as specified in OD_S4_01, S-OMS-06195, S-OMS-06200, S-OMS-06205, S-OMS-06210).	Completed
ECS-L4-17472	S-OMS-04180 The OM GUI shall treat secure distribution requests similar to ftp push requests, e.g., from the perspective of list, sort, and filter capabilities (e.g., as specified in OD_S4_01, S-OMS-06135, S-OMS-06140, S-OMS-06145, S-OMS-06175, S-OMS-06180, S-OMS-06185, S-OMS-06190), and request editing capabilities (e.g., OD_S4_01, S-OMS-06265, S-OMS-06270, S-OMS-06310, S-OMS-06320, S-OMS-06350).	Completed
ECS-L4-17473	S-OMS-04310 The OMS CI shall provide a DAAC-configurable limit on the number of days of order history that can be requested.	Completed
ECS-L4-17474	S-OMS-05010 The Order Management Operator GUI shall permit an operator who is viewing operator interventions or data distribution requests, to view and edit any associated bundling order and view any bundle associated with the bundling order. [Note the overlap with the NSBRV requirements for viewing and editing bundling orders]	Completed
ECS-L4-17475	S-OMS-05040 The Order Management Operator GUI shall permit an operator to list bundles, filter the list by user ID, ID of the bundling order, and media type; and sort the list by user ID, ID of the bundling order and media type.	Completed
ECS-L4-17476	S-OMS-05050 The Order Management Operator GUI shall permit an operator to select a bundle from a bundle list and view its current size, granule count, creation date, and list the contained granules, as well as the associated bundling order and user profile. [Note: as per requirement S-SSS-10260 above, the operator should then also be able to list the associated subscriptions and pick one for viewing and editing]	Completed
ECS-L4-17477	S-OMS-05110 The Order Management Service shall accept bundled data distribution requests.	Completed

ID	Title	Status
ECS-L4-17479	S-OMS-05210 The Order Manager shall be able to recognize when a data distribution request is bundled, i.e., references a bundling order.	Completed
ECS-L4-17480	S-OMS-05220 The Order Manager shall add the granules in a bundled data distribution request to the bundle for that order, if one exists, else initiate a new bundle and add the granules to it. [Note: NSBRV will submit single granule requests only; however, the design should not be limited to bundled requests containing a single granule.]	Completed
ECS-L4-17481	S-OMS-05250 The Order Manager shall check a bundle against the completion criteria of the related bundling order when adding granules to a bundle.	Completed
ECS-L4-17482	S-OMS-05260 The Order Manager shall check a bundle against the completion criteria of the related bundling order on a regular basis, according to an operator configurable time interval. [Note: this time interval would typically be between 15 minutes and several hours]	Completed
ECS-L4-17483	S-OMS-05270 The Order Manager shall consider a bundle complete if the total size of the granules in the bundle exceed the minimum bundle size, or its granule count exceeds the minimum bundle granule count, or if the age of any granule in the bundle, calculated as the time since the granule was inserted into the bundle, exceeds the maximum bundle age.	Completed
ECS-L4-17484	S-OMS-05290 The Order Manager shall create a data distribution request for the granules to be distributed from a bundle using the distribution information from the bundling order.	Completed
ECS-L4-17485	S-OMS-05310 The Order Manager shall submit the data distribution request created from a bundle to the Order Management Service for processing and distribution.	Completed
ECS-L4-17487	S-OMS-05330 Once a bundle has been turned into a distribution request, it shall not longer be considered an active bundle by the Order Manager.. [Note: in one of the design alternatives, the fact that a request is a bundle is indicated by the request state; the requirement would be satisfied if the request is disassociated from the bundling order and/or its state is changed so it no longer represents an active bundle.]	Completed
ECS-L4-17488	S-OMS-05340 The Order Manager shall be able to recover upon restart after a fault or shut down, the state of bundled requests, bundles, and distribution requests generated from bundles such that no granules are lost or distributed more than once.	Completed
ECS-L4-17489	S-OMS-05510 The Order Management Service Command Line Utility shall allow the submission of data distribution requests that reference bundling orders. [OSS]	Completed
ECS-L4-17490	S-OMS-06000 The OM GUI shall display the OMS processing mode. [NOTE: There is currently no intent to allow operators to change the OMS processing mode via GUI.]	Completed
ECS-L4-17491	S-OMS-06010 The OM GUI shall display the processing mode of a request in a request list if it is different from the current OMS processing mode.	Completed
ECS-L4-17492	S-OMS-06011 The OM GUI shall display the processing mode assigned to an archived request. [NOTE: The processing mode may be blank if the request was terminated before it was assigned a processing mode.]	Completed

ID	Title	Status
ECS-L4-17493	S-OMS-06015 The OMS CI shall allow operators to configure the exceptions that determine whether a distribution request must be processed according to Synergy III mode even if OMS is operating in Synergy IV mode (see S-OMS-06465), to include: a. a list of ECS collections that must be processed in Synergy III mode b. a list of media types that must be processed in Synergy III mode c. a list of the Configured FTP Destinations that must be processed in Synergy III mode. [NOTE: Configuration can be via an OMS configuration script. If it is via GUI, the capability to change these values must be restricted to full capability operators.]	Completed
ECS-L4-17495	S-OMS-06025 The OMS CI shall allow operators to configure the following distribution staging policy parameters for each physical media type: a. A request high water mark (RHWM), specifying the desired maximum number of requests that may be in the Staging state, or that completed staging but are not in a terminal state (such as Shipped). b. A data volume high water mark (DHWM) specifying the desired maximum data volume that may be in staging or staged but not yet shipped; the assumption being that if the data volume and the number of requests in these states is above DHWM, respectively RHWM, the media devices have plenty of work to keep them busy. c. A request low water mark (RLWM), specifying the desired minimum number of requests that should be in staging or staged. d. A data volume low water mark (DLWM) specifying the desired minimum data volume that should be in staging or staged but not yet shipped; the assumption being that if the number of requests or data volume in these states falls below RLWM, respectively DLWM, the media devices may soon be idle. [NOTE: The low water marks are also used in preemptive staging decisions.] [NOTE: Configuration can be via an OMS configuration script. If it is via GUI, the capability to change these values must be restricted to full capability operators.]	Completed
ECS-L4-17496	S-OMS-06030 The OMS CI shall allow operators to configure a RHWM, DHWM and DLWM value for each Configured FTP Push Destination, as well as the General FTP Push Destination Group of FTP Push target hosts that have not been configured explicitly: [NOTE: FTP Push requires no RLWM] [NOTE: Configuration can be via an OMS configuration script. If it is via GUI, the capability to change these values must be restricted to full capability operators.]	Completed
ECS-L4-17497	S-OMS-06035 The OMS CI shall allow operators to configure the following distribution staging policy parameters for FTP Pull: a. A request high water mark (RHWM), specifying the desired maximum number of requests that may be in the Staging state. b. A data volume high water mark (DHWM) specifying the desired maximum data volume that may be in staging or staged but not yet expired. c. A preemption priority, i.e., the priority level at which an FTP Pull distribution request becomes eligible for pre-emptive staging (i.e., to be staged even if the FTP Pull area is at or above the DHWM or the number of requests in staging is above RHWM). [NOTE: FTP Pull requires no RLWM or DLWM; their roles is replaced by the preemption priority] [NOTE: Configuration can be via an OMS configuration script. If it is via GUI, the capability to change these values must be restricted to full capability operators.]	Completed

ID	Title	Status
ECS-L4-17498	S-OMS-06040 The OMS CI shall allow operators to configure the following request aging parameters for each ECS priority level: a. an aging rate indicating the amount by which the priority of a request shall increase for every hour that the request has been waiting, in the range of 0 to 100 (including decimal fractions in increments of 0.1). b. the maximum priority a request can attain through aging. [NOTE: Configuration can be via an OMS configuration script. If it is via GUI, the capability to change these values must be restricted to full capability operators. Note that these are the aging parameters for a request waiting to be promoted into staging and while waiting for its granules to be ftp pushed.]	Completed
ECS-L4-17499	S-OMS-06045 The OMS CI shall allow operators to configure up to at least 64 FTP push destinations, each uniquely identified by the target ftp host and directory, as Configured FTP Push Destinations. [NOTE: Configuration can be via an OMS configuration script. If it is via GUI, the capability to change these values must be restricted to full capability operators.]	Completed
ECS-L4-17500	S-OMS-06050 The OMS CI shall allow operators to configure the following FTP Push policy parameters for each Configured FTP Push Destination: a. The maximum number of concurrent FTP Push operations for that Configured FTP Push Destination (with a default of 1). b. Whether the FTP operations for the Configured FTP Push Destination shall be timed out, and if so, FTP time out parameters consisting of the minimum expected throughput in MB/second and an additional timeout value in seconds, to be used to identify stuck FTP push operations. c. Whether the Configured FTP Push Destination is subject to automated retry when suspended, and if so, the time interval (in minutes) between automatic retries. [NOTE: Configuration can be via an OMS configuration script. If it is via GUI, the capability to change these values must be restricted to full capability operators.]	Completed
ECS-L4-17501	S-OMS-06055 The OMS CI shall allow operators to configure a maximum number of FTP Push operations that may be in progress concurrently for all Configured FTP Push Destinations together. [NOTE: Configuration can be via an OMS configuration script. If it is via GUI, the capability to change these values must be restricted to full capability operators.]	Completed
ECS-L4-17502	S-OMS-06060 The OMS CI shall allow operators to configure the FTP Push policy parameters specified in S-OMS-06050 also for the General FTP Push Destination Group of FTP Push Target Hosts that are not part of a Configured FTP Push Destination. [NOTE: A ftp target host may offer a number of directories for ftp push. It is conceivable, albeit unlikely, that some of them are part of Configured FTP Push Destination, and some are not. A FTP Push request referencing a directory on that host referenced in a Configured FTP Push Destination is considered to be for that destination and subject to its dispatching rules; a FTP Push request referencing a directory on that host not mentioned in a Configured FTP Push Destination would be considered to belong to the General FTP Destination Group and would be subject to the policies in force for that group.] [NOTE: The OMS will allow at most one FTP connection for any destination in the General FTP Destination Group.] [NOTE: Configuration can be via an OMS configuration script. If it is via GUI, the capability to change these values must be restricted to full capability operators.]	Completed

ID	Title	Status
ECS-L4-17503	S-OMS-06065 The OMS CI shall allow operators to configure on a global basis (i.e., irrespective of destination) a maximum number of consecutive ftp transfer failures for a destination (Configured FTP Push Destination or FTP Push Target Host) which - when exceeded - shall lead to the suspension of that destination (Configured FTP Push Destination or the corresponding FTP Push Target Host). [NOTE: This also guards against getting an excessive number of operator interventions.] [NOTE: Configuration can be via an OMS configuration script. If it is via GUI, the capability to change these values must be restricted to full capability operators.]	Completed
ECS-L4-17504	S-OMS-06070 The OM GUI shall allow full capability operators to configure a minimum request size of each media type.	Completed
ECS-L4-17506	S-OMS-06080 The OM GUI shall allow full capability operators to suspend staging for the Synergy IV processing mode.	Completed
ECS-L4-17507	S-OMS-06085 The OM GUI shall allow full capability operators to suspend staging for the Synergy IV processing mode by archive (silos).	Completed
ECS-L4-17508	S-OMS-06090 The OM GUI shall allow full capability operators to resume suspended staging for the Synergy IV processing mode.	Completed
ECS-L4-17509	S-OMS-06095 The OM GUI shall allow full capability operators to resume staging for the Synergy IV processing mode for an archive (silos) for which staging is suspended.	Completed
ECS-L4-17510	S-OMS-06100 The OM GUI shall indicate on its queue status monitoring screen whether staging is suspended for the Synergy IV processing mode.	Completed
ECS-L4-17511	S-OMS-06105 The OM GUI shall indicate on its queue status monitoring screen whether staging is suspended in the Synergy IV processing mode for a specific archive (silos).	Completed
ECS-L4-17512	S-OMS-06110 The OM GUI shall allow operators to display the overall distribution staging status for the Synergy IV processing mode, to include the total amount (number, MB) of ordered granules that are currently: a. waiting for staging, b. in staging, c. staged to the Data Pool but not yet shipped, d. staged and shipped, but still in the Data Pool [NOTE: this excludes data that were inserted into the Data Pool also for other reasons, such as when granules are ordered for FTP Push but are also inserted into the Data Pool via Data Pool insert subscriptions].	Completed
ECS-L4-17513	S-OMS-06115 The OM GUI shall list the Data Pool file systems for which staging is suspended on its queue status monitoring screen.	Completed
ECS-L4-17514	S-OMS-06120 The OM GUI shall allow operators to display the overall distribution staging status for the Synergy IV processing mode by media type, and for FTP Push by Configured FTP Push Destination, and on the same display page, the corresponding staging policy parameter, such as disk low and high watermarks. [NOTE: DAAC operations indicated during the review that displaying request low/high watermarks would not be useful to them and just consume extra screen real estate.]	Completed
ECS-L4-17515	S-OMS-06125 The OM GUI shall allow operators to display the number of Synergy IV OMS distribution requests that are currently in staging.	Completed
ECS-L4-17516	S-OMS-06130 The OM GUI shall allow operators to display the number of Synergy IV OMS distribution requests that are currently in staging by media type, and for FTP Push, by Configured FTP Push Destination as well as the General FTP Push Destination Group.	Completed
ECS-L4-17518	S-OMS-06140 The OM GUI shall allow operators to AND the filter on request state and media type when filtering requests.	Completed
ECS-L4-17519	S-OMS-06141 The OM GUI shall allow operators to AND the filter on request state and media type when filtering archived requests.	Completed

ID	Title	Status
ECS-L4-17520	S-OMS-06145 The OM GUI shall allow operators to display in the list of requests, for each request the number of granules that have been staged.	Completed
ECS-L4-17521	S-OMS-06150 The OM GUI shall display the capacity class to which a request was allocated in the list of requests.	Completed
ECS-L4-17522	S-OMS-06151 The OM GUI shall display the capacity class to which a request was allocated in the request details of archived requests.	Completed
ECS-L4-17523	S-OMS-06155 The OM GUI shall allow operators to sort the list of requests by the capacity class to which each was allocated.	Completed
ECS-L4-17524	S-OMS-06160 The OM GUI shall allow operators to display in the list of granules for a given request, the staging status of each granule.	Completed
ECS-L4-17525	S-OMS-06165 The OM GUI shall allow operators to sort the list of granules for a given request by their staging status.	Completed
ECS-L4-17526	S-OMS-06170 The OM GUI shall allow operators to display the number of FTP Push operations in progress. [NOTE: An FTP push operation is the process of transferring a granule via FTP to its FTP destination.]	Completed
ECS-L4-17527	S-OMS-06175 The OM GUI shall allow operators to display in the list of FTP Push distribution requests, for each request its destination (Configured FTP Push Destination or FTP Push Target Host) and the number of granules that have been pushed.	Completed
ECS-L4-17528	S-OMS-06176 The OM GUI shall display in the request details of archived FTP Push distribution requests, for each request its destination (Configured FTP Push Destination or FTP Push Target Host).	Completed
ECS-L4-17529	S-OMS-06180 The OM GUI shall allow operators to sort the list of FTP Push requests by destination (Configured FTP Push Destination or FTP Push Target Host).	Completed
ECS-L4-17530	S-OMS-06185 The OM GUI shall allow operators to display in the list of granules for a given FTP Push request, its FTP Push status (e.g., whether the granule completed push or not).	Completed
ECS-L4-17531	S-OMS-06190 The OM GUI shall allow operators to sort the list of granules for a given FTP Push distribution request by their FTP Push status. [NOTE: This is only significant if the request has begun but not yet completed FTP Push.]	Completed
ECS-L4-17532	S-OMS-06195 The OM GUI shall allow full capability operators to suspend the dispatching of FTP Push operations for any destination (i.e., Configured FTP Push Destination or FTP Push Target Host).	Completed
ECS-L4-17533	S-OMS-06200 The OM GUI shall allow operators to display a list of the suspended FTP Push destinations (i.e., Configured FTP Push Destination or FTP Push Target Host), including when they were suspended, whether they were suspended automatically by the system or manually by the operator, and the amount of data (number of granules, MB) queued for each.	Completed
ECS-L4-17534	S-OMS-06205 The OM GUI shall allow operators to view details about a suspended destination (i.e., Configured FTP Push Destination or FTP Push Target Host), to include the list of FTP Push operations that caused the suspension and the list of the FTP Push requests that are associated with the destination and are not in a terminal state.	Completed
ECS-L4-17535	S-OMS-06210 The OM GUI shall allow full capability operators to resume dispatching of FTP Push operations to a suspended destination (i.e., Configured FTP Push Destination or FTP Push Target Host).	Completed

ID	Title	Status
ECS-L4-17536	S-OMS-06220 The OMS GUI shall allow full capability operators to configure the time period for which granules for FTP Pull requests shall be retained, as well as the retention priority they shall be assigned. [NOTE: The retention period shall apply to all FTP Pull requests which have not yet completed staging (i.e., their expiration time has not yet been updated by the OMS).]	Completed
ECS-L4-17537	S-OMS-06225 The OM GUI shall allow operators to view operator interventions related to staging (i.e., failed Data Pool inserts) and FTP Push (i.e., failed ftp push operations that did not cause the destination to be suspended).	Completed
ECS-L4-17538	S-OMS-06230 The OMS shall allow operators to configure an optional e-mail address to which notifications about alerts and interventions shall be sent. [NOTE: Configuration can be via an OMS configuration script. If it is via GUI, the capability to change these values must be restricted to full capability operators.]	Completed
ECS-L4-17539	S-OMS-06235 The OMS CI shall send an e-mail containing the information regarding an alert or an operator intervention to the configured email address, if such an email address was configured.	Completed
ECS-L4-17540	S-OMS-06240 The OM GUI shall allow full capability operators to disposition interventions related to staging and FTP Push by having the staging/ftp push operation retried, failing the corresponding granule, or failing the distribution request. [NOTE: See corresponding requirements for the Data Pool Insert Service to react to request cancellations.]	Completed
ECS-L4-17541	S-OMS-06245 The OM GUI shall allow operators to monitor for operator alerts. [NOTE: The list of alerts includes suspension of the following due to errors: a/ FTP destination; b/ archive; c/ Data Pool file system; d/ PDS submissions; e/ SDSRV submissions.]	Completed
ECS-L4-17542	S-OMS-06250 The OM GUI shall allow operators to view FTP Push operator alerts.	Completed
ECS-L4-17543	S-OMS-06255 The OM GUI shall display the current status of the FTP Push destination (i.e., Configured FTP Push Destination or FTP Push Target Host) when displaying an FTP Push alert.	Completed
ECS-L4-17544	S-OMS-06260 The OM GUI shall allow full capability operators to list the FTP Push distribution requests associated with the destination (i.e., Configured FTP Push Destination or FTP Push Target Host) that is the subject of the FTP Push alert being viewed. [NOTE: This is the same list as if the operators had selected the destination from a list.]	Completed
ECS-L4-17545	S-OMS-06262 The OM GUI shall allow full capability operators to resume dispatching to the destination (i.e., Configured FTP Push Destination or FTP Push Target Host) that is the subject of the FTP Push alert they are viewing.	Completed
ECS-L4-17546	S-OMS-06265 The OM GUI shall allow full capability operators to edit the FTP Push parameters of a request for a suspended destination (i.e., Configured FTP Push Destination or FTP Push Target Host). [NOTE: This would allow operators to correct failures due to a changed password or ip address. If host or directory is updated, the request might now match a destination group that is different from the one to which it was assigned originally. If that occurs, the OMS is not required to reallocate the request to that new group and recompute staging and ftp push policy limits. Rather, the request is allowed to run to completion in the FTP Push destination group to which it is currently allocated..]	Completed

ID	Title	Status
ECS-L4-17547	S-OMS-06270 The OM GUI shall allow operators to apply the updates to the FTP Push parameters of a request mentioned in S-OMS-06265 to all FTP Push requests for that destination (i.e., Configured FTP Push Destination or FTP Push Target Host) that are not yet in a terminal state. [NOTE: As a result, these requests may now be allocated to a different destination group. OMS is not required to apply this change to any requests that are currently in progress, i.e., no longer 'Queued'.]	Completed
ECS-L4-17548	S-OMS-06275 The OM GUI shall generate an operator intervention for all updates to request information made by the operator, and allow operators to identify the person who made the change and the reason for the change.	Completed
ECS-L4-17549	S-OMS-06280 The OM GUI shall allow full capability operators to alter the status of an automatically suspended destination (i.e., Configured FTP Push Destination or FTP Push Target Host) from automatic resumption to manual resumption. [NOTE: This means that the OMS will not continue to retry resuming the FTP Push operation to the destination. Instead, the destination must be resumed by the operator.]	Completed
ECS-L4-17550	S-OMS-06285 The OM GUI shall identify the archive affected by an archive related operator alert when listing alerts.	Completed
ECS-L4-17551	S-OMS-06290 The OM GUI shall allow operators to view operator alerts regarding archives.	Completed
ECS-L4-17552	S-OMS-06295 The OM GUI shall identify the Data Pool file system affected by an operator alert related to Data Pool file system when listing alerts.	Completed
ECS-L4-17553	S-OMS-06300 The OM GUI shall allow operators to view operator alerts regarding Data Pool file systems. [NOTE: the details of the information to be displayed should be determined in cooperation with the DAACs during preliminary design. Resumption of Data Pool inserts to a specific Data Pool file system is the subject of Data Pool Maintenance GUI requirements, see ticket OP S4 06]	Completed
ECS-L4-17554	S-OMS-06305 The OM GUI shall allow full capability operators to alter the priority of a distribution request while granules for the request still need to be staged.	Completed
ECS-L4-17555	S-OMS-06310 The OM GUI shall allow full capability operators to alter the priority of a FTP Push requests while granules for the request still need to be pushed.	Completed
ECS-L4-17556	S-OMS-06315 The OM GUI shall allow full capability operators to suspend a distribution request while granules for the request still need to be staged (i.e., not all granules have completed staging or have been otherwise dispositioned).	Completed
ECS-L4-17557	S-OMS-06320 The OM GUI shall allow full capability operators to suspend a FTP Push requests while granules for the request still need to be pushed.	Completed
ECS-L4-17558	S-OMS-06325 The OM GUI shall allow full capability operators to resume a distribution request that was suspended by the OM GUI operator.	Completed
ECS-L4-17559	S-OMS-06330 The OM GUI shall allow full capability operators to suspend the processing of new requests by the OMS. [NOTE: This is mean to emulate the 'suspend all new requests' function of DDIST and is different from S-OMS-01040 in OD_S3_01, since it places the individual requests into Operator Intervention and does not affect the processing and dispatching of requests that are not 'new'.]	Completed
ECS-L4-17560	S-OMS-06335 The OM GUI shall allow full capability operators to resume an individual request while the processing of new requests by the OMS is suspended.	Completed

ID	Title	Status
ECS-L4-17561	S-OMS-06340 The OM GUI shall allow full capability operators to resume the processing of new requests by the OMS if it has been suspended by the OM GUI operator.	Completed
ECS-L4-17562	S-OMS-06345 The OM GUI shall allow full capability operators to cancel a distribution request that is not in a terminal state and while granules for the request still need to be staged	Completed
ECS-L4-17563	S-OMS-06350 The OM GUI shall allow full capability operators to cancel a FTP Push distribution request that is not in a terminal state and while granules for the request still need to be pushed.	Completed
ECS-L4-17564	S-OMS-06355 The OM GUI shall generate an operator intervention for all request cancellations and allow operators to identify the person who cancelled the request and the reason for cancellation.	Completed
ECS-L4-17565	S-OMS-06360 The OM GUI shall require operators to confirm the cancellation of a distribution request.	Completed
ECS-L4-17566	S-OMS-06365 The OM GUI shall provide access to its ability to cancel, suspend and resume distribution requests for any eligible request appearing in a request list, or while such a request is being viewed by an operator. [NOTE: The intent of this requirement is to ensure that the ability to cancel, suspend and resume requests that are under OMS control is available from all screens this list requests, e.g., in response to alerts, filters, etc.]	Completed
ECS-L4-17570	S-OMS-06385 The OM GUI shall allow operators to filter the list of distribution requests by any combination of states, similar to the current DDIST GUI.	Completed
ECS-L4-17571	S-OMS-06386 The OM GUI shall allow operators to filter the list of archived distribution requests by any combination of states, similar to the current DDIST GUI.	Completed
ECS-L4-17572	S-OMS-06390 The OM GUI shall not display an OMS Server Summary Statistics page. [NOTE: This rescinds S-OMS-03460, based on DAAC input that these summary statistics are not used operationally. This obviates the need to update the page with statistics for the OMS processing threads that are new to Synergy IV.]	Completed
ECS-L4-17573	S-OMS-06395 The OMS CI shall accept data distribution requests for pre-staged data that specify a list of granules containing identifiers other than an ECS granule UR, and for each granule, a list of the files to be distributed for that granule, including their absolute path names. [NOTE: the files must be accessible at that location from the platforms performing the distribution]	Completed
ECS-L4-17574	S-OMS-06405 The OMS CI shall accept data distribution requests that specify for all granules either a valid list of ECS granule UR, or a list of ECS granule id or a list of Data Pool granule Id.	Completed
ECS-L4-17575	S-OMS-06415 When validating the size of an order against established limits, the OMS CI shall use for pre-staged granules, their sizes as specified in the OMS database rather than looking the size up in the ECS inventory.	Completed
ECS-L4-17577	S-OMS-06421 The OMS CI shall assume that pre-staged granules (i.e., granules in the public Data Pool) are not restricted and not billable. NOTE: This replaces S-OMS-06420 in Ticket OD S4 01.]	Completed
ECS-L4-17580	S-OMS-06435 The OMS CI shall send an e-mail containing the order information to the user as order confirmation after the data distribution request was successfully submitted to the OMS Database.	Completed
ECS-L4-17581	S-OMS-06440 The OMS CI shall include a DAAC configurable preamble in the email message sent according to S-OMS-06435.	Completed

ID	Title	Status
ECS-L4-17582	S-OMS-06442 The OMS CI shall include in the e-mail confirmation the URL via which the user can obtain the status for this order.	Completed
ECS-L4-17583	S-OMS-06445 The OMS CI shall support two processing modes: a. Synergy III ('old') processing mode. b. Synergy IV ('new') processing mode.	Completed
ECS-L4-17584	S-OMS-06450 The OMS CI shall allow DAAC operations to switch from one processing mode into the other, e.g., via a utility, while the OMS is not operating but while orders are queued and/or in process.	Completed
ECS-L4-17585	S-OMS-06455 The OMS CI shall submit physical media distribution requests from the Data Pool Web GUI to the PDS, including the absolute path for each file and the relevant size information, regardless of processing mode. [NOTE: this requirement applies regardless of the processing mode in which the OMS operates.]	Completed
ECS-L4-17586	S-OMS-06460 When operating in Synergy III mode, the OMS CI shall process all requests except those submitted via the Data Pool Web GUI according to Synergy III system flows, i.e.: a. Physical media distribution requests shall be submitted to the PDS. b. Electronic media distribution requests shall be submitted to the SDSRV. c. The OMS CI shall not queue granules for insertion into the Data Pool.	Completed
ECS-L4-17587	S-OMS-06465 When operating in Synergy IV mode, the OMS CI shall process the following requests according to Synergy III mode unless their granules are pre-staged: a. Requests that were routed through the DORRAN billing system. b. Requests that contain restricted granules. c. Requests that contain granules belonging to a list of ECS collections that is configurable by DAAC operations. d. Requests containing granules whose collections are not configured and enabled for Data Pool insert or configured for metadata-only inserts. e. Requests for distribution on media types configured for processing via Synergy III ops mode. [NOTE: We plan to handle secure FTP in this fashion.] f. FTP Push requests for Configured FTP Push Destinations that were configured for processing via the Synergy III ops mode.	Completed
ECS-L4-17588	S-OMS-06470 When processing a distribution request in Synergy IV mode, the OMS CI shall classify a request as CHEAP, MODERATE, or EXPENSIVE in accordance with the configured size classification parameters, substituting suitable default values if none have been configured by the operator.	Completed
ECS-L4-17589	S-OMS-06475 When processing a distribution request in Synergy IV mode, the OMS CI shall determine whether any of its granules that are not identified as pre-staged do reside in the Data Pool or in an archive cache or on an archive tape.	Completed
ECS-L4-17590	S-OMS-06480 When processing a request in Synergy IV mode, the OMS CI shall queue Data Pool insert actions for any granules that do not reside in the Data Pool but are in an archive cache, unless the granule is marked failed or the request is in a terminal state (e.g., was cancelled by the operator). [NOTE: This would include staging the files for a granule that currently only has its metadata in the Data Pool.]	Completed

ID	Title	Status
ECS-L4-17592	S-OMS-06490 The OMS CI shall promote distribution requests that are queued for promotion into the staging state according to the following policy (see S-OMS-06020 to S-OMS-06040) for the meaning of the various configuration parameters referenced here), unless the queuing and dispatching of all requests is suspended or they reference a resource (such as archive., Data Pool file system. Media type, and Configured FTP Push Destination or FTP Push Target Host) that is currently suspended: a. Distribution requests shall be promoted to the Staging state in queue order (i.e., by effective priority and within the same priority by age) as long as the requests are at a position in the queue that would be below the low watermarks for the respective media type or corresponding FTP destination (i.e., Configured FTP Push Destination or General FTP Push Destination Group), or above the configured preemptive dispatch priority for FTP Pull. b. Distribution requests for each physical media type or FTP Push shall be promoted into the Staging state in queue order as long as the number of requests and data volume for that media type are below the corresponding configured RHW and DHWM. c. However, requests in a size category for which the maximum number of distribution requests currently in the staging state is at or above the configured limit for that size category will not be promoted into the Staging state. d. The effective priority of a request is calculated in accordance with the configured request aging policy parameters. [NOTE: This would include staging the files for a granule that currently only has its metadata in the Data Pool.]	Completed
ECS-L4-17594	S-OMS-06500 The OMS CI shall request Data Pool insert actions for granules that need to be retrieved from archive tapes. [NOTE: The rules for dispatching Data Pool insert actions are specified in requirements S-DPL-42300 through S-DPL-42350.]	Completed
ECS-L4-17595	S-OMS-06505 The OMS CI shall derive a Data Pool insert dispatch priority from the distribution request priority according to the existing priority translation table, and assign that priority to the Data Pool insert actions it queues.	Completed
ECS-L4-17596	S-OMS-06510 The OMS CI shall assign a Data Pool retention period of 0 and priority of 1 to the Data Pool insert actions it queues. [NOTE: For FTP Pull distribution requests, this will be updated again before the request is marked Shipped.]	Completed
ECS-L4-17597	S-OMS-06515 The OMS CI shall identify itself as the request source in the Data Pool insert actions it queues.	Completed
ECS-L4-17598	S-OMS-06520 The OMS CI shall accept notifications from the DPL CI that signal the completion status of a Data Pool insert action requested by the OMS CI.	Completed
ECS-L4-17599	S-OMS-06525 The OMS CI shall propagate the Data Pool insert completion status (including detailed status) of a granule to the corresponding granule entries in the requests that reference the granule.	Completed
ECS-L4-17600	S-OMS-06530 The OMS CI shall queue an operator intervention for a request when one of its granules failed staging, i.e., failed Data Pool insert.	Completed
ECS-L4-17602	S-OMS-06538 The OMS CI shall assume that an archive failure occurred when more than a configurable number of consecutive Data Pool inserts from the same archive fail.	Completed
ECS-L4-17603	S-OMS-06539 The OMS CI shall recognize the failure of an archive service, such as: a. the archive host cannot be reached despite retries (e.g., quick server or AMASS host is down). b. access to AMASS fails despite retries (e.g., AMASS is down).	Completed

ID	Title	Status
ECS-L4-17604	S-OMS-06540 The OMS CI shall suspend staging for an archive and queue a corresponding operator alert if it recognizes or is supposed to assume the occurrence of an archive failure.	Completed
ECS-L4-17605	S-OMS-06545 The OMS CI shall queue a corresponding operator alert if the response from the Data Pool insert service indicates a failure with a Data Pool file system.	Completed
ECS-L4-17606	S-OMS-06550 When processing a physical media distribution request in Synergy IV mode, the OMS CI shall queue the request for submission to the PDS once all of its granules are available in the Data Pool or have been dispositioned by operators.	Completed
ECS-L4-17607	S-OMS-06555 The OMS CI shall include the XML metadata file associated with each granule in the submission of a request to the PDS unless the distribution request specifies otherwise.	Completed
ECS-L4-17608	S-OMS-06560 The OMS CI shall accept notifications regarding the rejection(i.e., cancellation) by a PDS operator of Synergy 4 distribution requests that it submitted to the PDS.	Completed
ECS-L4-17609	S-OMS-06565 When operating in Synergy IV mode, the OMS CI shall queue the granules that belong to FTP Push distribution requests for FTP push as soon as each granule becomes available in the Data Pool, unless the request is in a terminal state (e.g., if the request was cancelled in the mean time) or still waiting to be promoted into the Staging state, or once all granules are in the Data Pool or otherwise dispositioned. [NOTE: The latter would be the case if the request never needs to go into the Staging state.]	Completed
ECS-L4-17610	S-OMS-06570 The OMS CI shall be able to dispatch FTP Push operations in accordance with the operator configured FTP Push policy parameters, and within the limitations of this policy in effective priority order and within the same priority on a first in first out basis, where the effective priority of a request is calculated in accordance with the configured request aging policy parameters.	Completed
ECS-L4-17611	S-OMS-06575 The OMS CI shall not dispatch FTP Push operations for granules that are marked failed or for requests that are in a terminal state (e.g., cancelled by the operator) or are suspended, or if the FTP Push destination (i.e., Configured FTP Push Destination or FTP Push Target Host) is currently suspended, or if the dispatching of all distribution requests is currently suspended. [NOTE: the OMS FTP Push service will not remove files from a target host that have already been pushed and are part of a failed granule; the DN needs to contain adequate information to allow the user to identify the file(s) that represent an incomplete granule.].	Completed
ECS-L4-17612	S-OMS-06580 The OMS CI shall use the FTP parameters specified in the distribution request to perform the FTP Push operations for its granules.	Completed
ECS-L4-17613	S-OMS-06585 The OMS CI shall include the XML metadata file associated with a granule in the FTP Push operation unless the request specifies otherwise.	Completed
ECS-L4-17614	S-OMS-06590 The OMS CI shall not dispatch more concurrent FTP Push operations for a Configured FTP Push Destination than the maximum permitted by the corresponding configuration parameter.	Completed
ECS-L4-17615	S-OMS-06595 The OMS CI shall not dispatch more than one concurrent FTP Push operation for a destination in the General FTP Push Destination Group.	Completed

ID	Title	Status
ECS-L4-17616	S-OMS-06600 The OMS CI shall not dispatch more concurrent FTP Push operation for destinations belonging to the General FTP Push Destination Group (i.e., for destinations not explicitly configured) than the limit configured for this group.	Completed
ECS-L4-17617	S-OMS-06605 The OMS CI shall not dispatch more concurrent FTP Push operation for all Configured FTP Push Destinations together than the configured overall limit.	Completed
ECS-L4-17618	S-OMS-06610 The OMS CI shall push the metadata and science files for single file granules over the same FTP push connection. [Note: To be verified by code inspection.]	Completed
ECS-L4-17619	S-OMS-06615 The OMS CI shall maintain a record of FTP Push throughput by destination (i.e., Configured FTP Push Destination or FTP Push Target Host) in the database.	Completed
ECS-L4-17620	S-OMS-06620 The OMS CI shall consider an FTP Push operation failed and cancel it if it exceeds its maximum allowed execution time as calculated from the corresponding configuration parameters, provided that they have been configured for that FTP destination.	Completed
ECS-L4-17621	S-OMS-06625 The OMS CI shall suspend the dispatching of FTP Push operations for a destination if an FTP Push operation to that destination fails for one of the following reasons: a. An FTP Push operation exceeded its maximum allowed time. b. The connection with the target FTP host could not be established. c. The ftp login to the destination failed. d. There is insufficient space on the target host. e. There are N consecutive transfer failures for the same destination, where N is configurable by operations on a global basis (i.e., not specific to a destination). [NOTE: The suspension does not affect concurrently ongoing FTP Push operations to that destination. They are likely to fail as well, or may succeed but in that case would not alter the state of the destination.]	Completed
ECS-L4-17622	S-OMS-06630 The OMS CI shall queue an operator alert when it suspends the dispatching of FTP Push operations for a destination. [NOTE: This is different from request specific interventions. When an FTP push request fails, the destination is suspended and the operator is notified of the suspension, but the granules remain queued for FTP Push distribution. They will be retried automatically once the destination is resumed. Since the OMS resumes FTP Push operations automatically if a retry to the destination is successful, the destination may be already back in operation by the time the operator may be ready to resume it manually.]	Completed
ECS-L4-17623	S-OMS-06635 If multiple concurrent FTP Push operations fail for the same FTP destination, the operator shall be alerted only once.	Completed
ECS-L4-17624	S-OMS-06640 The OMS CI shall retry FTP Push to an automatically suspended destination on a periodic basis in accordance with the FTP Push policy, unless the suspension has been changed by the operator to require manual resumption.	Completed
ECS-L4-17625	S-OMS-06645 The OMS CI shall resume dispatching of FTP Push operations to a suspended destination if the periodic retry of FTP Push to that destination succeeds.	Completed
ECS-L4-17626	S-OMS-06650 The OMS CI shall mark a pending operator alert about a suspended FTP destination as completed when it resumes dispatching to that destination.	Completed
ECS-L4-17627	S-OMS-06655 The OMS CI shall queue an action for sending a Distribution Notice (DN) after all granules for an FTP Push request have either been pushed successfully or otherwise dispositioned by the operator.	Completed

ID	Title	Status
ECS-L4-17628	S-OMS-06660 The OMS CI shall queue an action for sending a DN after all granules for an FTP Pull request have completed insertion into the Data Pool successfully or been otherwise dispositioned by the operator.	Completed
ECS-L4-17629	S-OMS-06662 The OMS CI shall log an error when the mail submission for a DN fails (e.g., because it was rejected by the mail server) and forward the DN with an appropriate error indication to a DAAC configurable e-mail address. [NOTE: This can be the same e-mail address that is used as Reply To address for DNs. If the forwarding of the DN fails, e.g., because the e-mail address is not configured or configured incorrectly, this should be considered as an additional error and logged, but there is no need to try additional alternate e-mail addresses.]	Completed
ECS-L4-17630	S-OMS-06665 The OMS CI shall create a directory for the FTP Pull request (similar to the STMGIT Pull Monitor) and populate it with links that point to the files for that request and have the same names as the files.	Completed
ECS-L4-17631	S-OMS-06666 The OMS CI shall remove the directories for FTP Pull requests after the requests expired and shall do so no later than midnight (24:00 hours) of the day following their expiration. [NOTE: The manner in which this is accomplished is left to the implementation. It is assumed that the OMS CI will update the current high watermark for FTP Pull on this occasion, as well.]	Completed
ECS-L4-17632	S-OMS-06670 The OMS CI shall update the Data Pool expiration time and retention priority of any granule that is referenced by an FTP Pull request before marking the request as complete in accordance with the corresponding FTP Pull configuration parameters, unless the result would be lower than the corresponding current values of that granule.	Completed
ECS-L4-17633	S-OMS-06673 The OMS CI shall send DN that are backwards compatible with the DN currently sent by DDIST, however, the DN shall list the failed granules and their failure reasons.	Completed
ECS-L4-17638	S-OMS-06695 The OMS CI shall use the DAAC configured retention time period to determine when the order tracking information for an order is considered expired.	Completed
ECS-L4-17639	S-OMS-06700 The OMS CI shall consider the expiration date of an order to be the completion date of the order plus the retention time period, and for FTP Pull orders, plus the FTP Pull expiration time in effect for that order.	Completed
ECS-L4-17640	S-OMS-06705 The OMS CI shall allow DAAC operators to remove order tracking information for orders that are past their expiration date. [NOTE: The capability can be a command line utility suitable for execution via cron.]	Completed
ECS-L4-17642	S-OMS-06707 The OM GUI shall clearly indicate when it is displaying archived (i.e., historical) information.	Completed
ECS-L4-17643	S-OMS-06710 The OMS CI shall log the following events: a. Errors b. Submission of a granule for staging. c. Completion of the staging of a granule d. Start of an FTP Push operation e. Completion of the FTP Push operation f. Suspension of an FTP Push destination g. Resumption of an FTP Push destination h. Sending of a DN i. Cancellation of an FTP Push operation	Completed
ECS-L4-17644	S-OMS-06715 The OMS CI shall log the following information with each logged event as applicable and available: a. priority, identification and description of the error b. request ID c. granule ID and/or file path name, d. size of a granule or file e. media type, and for FTP Push, the destination	Completed

ID	Title	Status
ECS-L4-17645	S-OMS-06720 The OMS CI shall support performance logging. [NOTE: The types of events to be included in performance logging would be TBR during detailed design.]	Completed
ECS-L4-17646	S-OMS-06725 The OMS CI shall generate alerts when it suspends the submission of requests automatically.	Completed
ECS-L4-17647	S-OMS-06730 The Order Management Service Command Line Interface shall accept data distribution requests for pre-staged data that specify a list of granules containing identifiers other than an ECS granule UR, and for each granule, a list of the files to be distributed for that granule including their absolute path names, as well as the size of each granule or file. [NOTE: To be resolved by preliminary design. Non ECS UR might be a DPL granule ID or a Local Granule ID]	Completed
ECS-L4-17648	S-OMS-07010 The OM GUI shall distinguish between read-only and full capability operators in a secure fashion, as was approved by the ARB (e.g., via login and encrypted passwords).	Completed
ECS-L4-17649	S-OMS-07020 The OMS shall allow DAAC operations to maintain independently for each mode, the information that identifies which capability an individual DAAC operators has when using the OM GUI, and allow DAAC operations to restrict who can maintain that information.	Completed
ECS-L4-17650	S-OMS-07030 The OM GUI shall retain the capability level of an individual operator - once it has been established - for the duration of the GUI session.	Completed
ECS-L4-17651	S-OMS-07035 The OMS shall time out an operator session if the last activity in that session is a time out value that can be configured by DAAC operations. [NOTE: The time out value would be measured in minutes. It would be the same for all GUI session, i.e., not operator specific.]	Completed
ECS-L4-17652	S-OMS-07040 The OM GUI shall provide the following functionality only to full capability operators: a. On the OM Server Queue Status page, the ability to change the state of queue; b. On the OM Configuration pages, the ability to change a configuration parameter; c. On the OM Intervention for Request pages, the ability to enter or override the current worker, change the dbid or fail a granule, or change the request level disposition or parameters or modify or enter operator notes; d. On the OM Distribution Request List page, the ability to resubmit a request; and e. On the OM Distribution Request Details page, the ability to resubmit the request.	Completed
ECS-L4-17653	S-OMS-07050 When used by read-only operators, the OM GUI shall disable all screen elements that are related only to functionality that is not available to read-only operators. For example, the OM Configuration page shall disable in that case the ability to type into the data entry boxes intended for updating configuration parameters.	Completed
ECS-L4-17654	S-OMS-07060 The OM GUI shall make the following pages only accessible to full capability operators: a. All intervention confirmation pages.	Completed
ECS-L4-17655	S-OMS-08010 The OMS CI shall maintain a DAAC-configurable list of ECS UserIds (checksum distribution list) for which checksum type and checksum value parameters should be included in Distribution Notice. Effectivity: E3 [Note: The OMS server should not need to be restarted in order to recognize changes to the list.]	Completed
ECS-L4-17656	S-OMS-08012 The OMS CI shall interface with MSS to determine whether the DN for a given UserID needs to include the checksum type and checksum value.	Completed

ID	Title	Status
ECS-L4-17657	S-OMS-08020 The OMS CI shall include checksum type and checksum value parameters in the Distribution Notice for each file where those parameters exist and where the ECS UserId is a member of the checksum distribution list.	Completed
ECS-L4-17658	S-OMS-08021 The OMS CI shall include the checksum type and checksum value for an HDF4 archive map file in the Distribution Notice if the order recipient is a member of the checksum distribution list maintained by OMS.	Completed
ECS-L4-17662	S-OMS-08222 The OMS CI shall generate links in the hidden directories when discovering that the science and metadata files for an ordered granule are already in the public Data Pool but the links are not yet in the hidden directories. [NOTE: A granule belonging to a collection enabled for metadata only insert may be in the public Data Pool, but its science files are not and hence, the granule needs to be inserted for ordering purposes.]	Completed
ECS-L4-17665	S-OMS-08300 In the e-mail message sent to a user after acceptance of an order, the OMS CI shall include also the following information for each granule that requires HEG processing: a. the input granule ID b. the conversion actions requested by the user [NOTE: This replaces S-DPL-06012 in WD S3 01 and extends S-OMS-06435 in OD S4 01.]	Completed
ECS-L4-17666	S-OMS-08310 The OMS CI shall validate requests that require HEG processing like subsetting requests, i.e. validate the total request against the normal request limits (including granule count limit), plus the number of granules that require HEG processing against the granule count limit established for subsetting requests. [NOTE: See ticket OD_S3_01, S-OMS-01090, S-OMS-01110, S-OMS-01130.]	Completed
ECS-L4-17667	S-OMS-08315 The OMS CI shall generate an operator intervention if any of the granules referenced by a HEG processing order no longer reside in the Data Pool and cannot be staged, flagging these granules as inaccessible due to unavailability in the Data Pool. [NOTE: Normal submission from the Data Pool web application ensures that the referenced granules are in the Data Pool. However, when an operator resubmits a shipped or otherwise terminated HEG processing orders, granules referenced by the order may have been cleaned up. The operator intervention should be treated otherwise like those for unavailable / inaccessible granules. See also S-OMS-01190 and related requirements in OD S3 01.]	Completed
ECS-L4-17668	S-OMS-08320 The OMS CI shall invoke a HEG line item generation service to divide the HEG processing instructions for a granule into individual line items.	Completed
ECS-L4-17669	S-OMS-08330 The OMS CI shall provide an initial HEG line item generation service that separates requests into individual line items by band and input file. [NOTE: This requirement cannot be fully tested because there are currently no multi-file granules.]	Completed
ECS-L4-17670	S-OMS-08340 The OMS CI shall queue an operator intervention for a request that requires HEG processing and that specifies a physical media type that requires submission to the PDS.	Completed
ECS-L4-17671	S-OMS-08350 The OMS CI shall activate requests for HEG processing (i.e., start dispatching granules that require HEG processing to the HEG Service) by priority, and within the same priority, on a first-in first-out basis, as HEG processing slots can no longer be filled by requests that are currently active. [NOTE: the granules for HEG orders are staged in the Data Pool and hence, staging policy considerations do not apply.]	Completed

ID	Title	Status
ECS-L4-17672	S-OMS-08360 The OMS CI shall not activate requests for FTP Pull that require HEG processing if the FTP Pull DHWM has been reached or exceeded, unless the priority of the request is equal to or higher than the FTP Pull pre-emptive dispatch priority. [NOTE: Requests that are already active will continue to be processed (to prevent deadlocks). ]	Completed
ECS-L4-17673	S-OMS-08370 The OMS CI shall queue the granules of a request for HEG processing once the request has been activated.	Completed
ECS-L4-17674	S-OMS-08380 The OMS CI shall dispatch the granules queued for HEG processing in accordance with the configured HEG dispatch policy.	Completed
ECS-L4-17675	S-OMS-08390 The OMS CI shall not activate requests for HEG processing nor dispatch HEG processing for them if they are canceled, or in operator intervention, or suspended.	Completed
ECS-L4-17676	S-OMS-08400 After dispatching a granule for HEG processing, the OMS CI shall submit the processing instructions for that granule to the HEG services in accordance with the HEG service interface specified in Synergy 5 ticket OG S5 01.	Completed
ECS-L4-17677	S-OMS-08410 The OMS CI shall comply with the HEG service interface specifications for resubmissions in case of faults.	Completed
ECS-L4-17678	S-OMS-08420 The OMS CI shall accept a completion status from the HEG execution indicating success or failure, in accordance with the HEG service interface specified in Synergy 5 ticket OG S5 01.	Completed
ECS-L4-17679	S-OMS-08430 The OMS CI shall complete dispatching HEG processing for the remaining line items of a granule even if the completion status from the HEG execution indicates a processing failure.	Completed
ECS-L4-17680	S-OMS-08440 The OMS CI shall keep track of the individual line items of a granule that failed HEG processing and whether all or only some of the line items failed.	Completed
ECS-L4-17681	S-OMS-08450 If a request is resubmitted, the OMS CI shall not re-dispatch HEG processing line items for a partially failed granule that were processed successfully already. [NOTE: This means that if an operator resubmits a request after requesting reprocessing of a partially failed granule, only those line items that originally failed will be re-processed.]	Completed
ECS-L4-17682	S-OMS-08460 If a request is resubmitted, the OMS CI shall not include the subsetting outputs of any failed granules. [NOTE: This means that if an operator resubmits a request after failing a granule, any outputs of that granule that may already have been produced must not be included in the distribution and can be removed from the request.]	Completed
ECS-L4-17683	S-OMS-08470 The OMS CI shall generate an operator intervention for a HEG processing error if the HEG execution response indicates an error and suspend the corresponding HEG order. [NOTE: This replaces S-DPL-06116 in WD S3 01.]	Completed
ECS-L4-17684	S-OMS-08480 The OMS CI shall include in the operator intervention for a HEG processing error, the reason for the failure (if available).	Completed
ECS-L4-17685	S-OMS-08490 The OMS CI shall be able to create and send Distribution Failure Notices for requests or granules that were failed by the operator while handling a HEG processing error intervention, at the discretion of the operator. [NOTE: This extends S-OMS-03280, S-OMS-03290 in OD S3 01.]	Completed
ECS-L4-17686	S-OMS-08500 The OMS CI shall generate an operator alert and suspend the dispatching of HEG processing if one of the following errors occur: a. It cannot communicate with the HEG processing service (e.g., HEG processing platform is down, the service is not up, communication is interrupted).	Completed

ID	Title	Status
ECS-L4-17687	S-OMS-08510 The OMS CI shall retry submission to the HEG service while an alert is pending and the queue was not suspended by the operator, as specified in the dispatch policy.	Completed
ECS-L4-17688	S-OMS-08520 The OMS CI shall clear the pending operator alert and resume the queue if retrying submission to the HEG service succeeds.	Completed
ECS-L4-17689	S-OMS-08530 The OMS CI shall stop activation of requests for HEG processing and the dispatching of HEG service requests while the HEG request queue is suspended. [NOTE: It is OK to complete a granule before stopping the dispatching of HEG executions.]	Completed
ECS-L4-17690	S-OMS-08540 The OMS CI shall submit a cancel request to the HEG service when an operator cancels the HEG processing for a currently executing granule.	Completed
ECS-L4-17691	S-OMS-08542 The OMS CI shall submit a cancel requests to the HEG service when an operator cancels a distribution request to cancel granules from that request that are currently executing.	Completed
ECS-L4-17692	S-OMS-08550 The OMS CI shall queue a DN for a request specifying FTP Pull and involving HEG processing after all its granules have been processed or otherwise dispositioned.	Completed
ECS-L4-17693	S-OMS-08560 After all the granules for a request involving HEG processing and specifying physical media distribution have been processed or otherwise dispositioned, the OMS CI shall validate the results against the minimum and maximum request size and media capacity limits for that media type, and queue an operator intervention if the validation fails. [NOTE: The intent is to let the operator disposition this intervention like the interventions for the same limit violations normally detected during initial request validation except for partitioning.]	Completed
ECS-L4-17695	S-OMS-08570 The OMS CI shall queue the output of a request involving HEG processing and specifying FTP Push or physical media distribution for final distribution after all its granules have been processed or otherwise dispositioned.	Completed
ECS-L4-17696	S-OMS-08580 The OMS CI shall be able to distribute HEG outputs via any of the media types it supports.	Completed
ECS-L4-17697	S-OMS-08590 The OMS CI shall include in the Distribution Notices (DN) sent for requests that involve HEG processing, for each granule that required HEG processing and failed, any error detail provided by the HEG. [NOTE: This modifies S-DPL-06114 in WD S3 01.]	Completed
ECS-L4-17698	S-OMS-08595 The OMS CI shall support the following packaging options for FTP Pull downloads: a. gzip.	Completed
ECS-L4-17699	S-OMS-08600 The OMS CI shall include in the DN for a request specifying FTP Pull distribution, URL links for each of the output packaging options that are supported for downloading, including the XML files of the input granules, if so configured by the DAAC.	Completed
ECS-L4-17700	S-OMS-08605 The OMS CI shall allow a DAAC to configure whether a DN for FTP Pull will offer packaging options or not.	Completed
ECS-L4-17701	S-OMS-08610 The OMS CI shall remove HEG service order files related to HEG processing once they are no longer needed.	Completed
ECS-L4-17702	S-OMS-08620 The HEG CI shall remove any temporary processing files once they are no longer needed.	Completed
ECS-L4-17703	S-OMS-08630 The OMS CI shall remove outputs from HEG processing once they are no longer needed for distribution. [NOTE: Outputs of failed or canceled granules or left incomplete due to faults are removed by the HEG service, see OG S5 01.]	Completed

ID	Title	Status
ECS-L4-17704	S-OMS-08650 The OMS CI shall log the follow HEG processing events: a. Dispatching of HEG processing for a granule b. Completion of HEG processing for a granule c. Starting work on a request involving HEG processing d. Completing work on a request involving HEG processing e. Sending a DN for a request involving HEG processing f. Errors. g. HEG related operator interventions and alerts h. HEG Queue suspension and resumption i. Stopping and resuming acceptance of HEG orders.	Completed
ECS-L4-17705	S-OMS-08660 The OMS CI shall format its application log entries compliant with the current ECS log format (e.g., they contain time and severity), and include the following information for HEG related log entries, as applicable: a. Request ID b. Granule ID c. File name and file size d. Error/event identification and explanation e. HEG service assigned f. OMS assigned HEG service request identifier	Completed
ECS-L4-17706	S-OMS-08670 The OMS CI shall include steps related to HEG processing in the performance log.	Completed
ECS-L4-17708	S-OMS-08690 The OMS CI shall maintain the status of each granule requiring HEG processing as follows. a. While a granule is queued for HEG processing, its state shall be 'Waiting for Processing'. b. Once the HEG processing for a granule is dispatched, its state shall be 'Processing'. c. After HEG processing for a granule completed, its state shall be 'Completed Processing', until such time as the granule state is changed by subsequent distribution activities.	Completed
ECS-L4-17709	S-OMS-08692 The OMS CI shall not re-perform HEG processing when operators disposition interventions resulting from errors during electronic or physical media distribution steps.	Completed
ECS-L4-17710	S-OMS-08700 The OM GUI shall allow appropriately authorized operators to configure a dispatch policy for HEG processing which includes: a. the maximum number of HEG Service requests that may be processed concurrently. b. the maximum number of HEG Service requests that may be processed concurrently for a single request c. retry interval for automatic retry in case the queue is suspended automatically.	Completed
ECS-L4-17711	S-OMS-08710 The OMS CI shall allow DAAC operations to configure the host and port for the HEG service.	Completed
ECS-L4-17712	S-OMS-08720 The OM GUI shall allow operators to identify interventions related to HEG processing when monitoring for interventions.	Completed
ECS-L4-17713	S-OMS-08730 The OM GUI shall allow an appropriately authorized operator to disposition an operator intervention that was generated for a request involving HEG processing and specifying a media type configured for PDS processing by: a. failing the request, or b. assigning the request to an electronic media type.	Completed
ECS-L4-17714	S-OMS-08740 When displaying operator interventions related to HEG processing, the OM GUI shall identify the type of the intervention (i.e., HEG processing error) and display status detail information if returned by HEG.	Completed
ECS-L4-17715	S-OMS-08750 The OM GUI shall allow an appropriately authorized operator to disposition an operator intervention for a HEG processing error by: a. failing the request b. failing the granule(s) that caused the error and resubmitting the request. c. deleted d. resubmitting the request, requesting reprocessing of the failed granule(s).	Completed

ID	Title	Status
ECS-L4-17716	S-OMS-08752 When displaying the details of an intervention caused by HEG request outputs violating one of the configured size limits, the OM GUI shall display the output size of the HEG request, respectively of any granule whose outputs exceed media capacity. [NOTE: Normally, the OM GUI displays the input granules and their size. However, on this occasion, the operator needs to know the output size of the HEG. See also S-OMS-08560]	Completed
ECS-L4-17717	S-OMS-08754 When displaying the details of an intervention caused by HEG processing, the OM GUI shall allow operators to display the processing instructions for the granule that caused a processing error.	Completed
ECS-L4-17718	S-OMS-08760 The OM GUI shall not generate a request for user notification when the operator elects to fail granules while handling a HEG processing error intervention, unless instructed otherwise by the operator. [NOTE: The final DN tells the user which granules failed, so this notification is normally superfluous. This augments S-OMS-03130, S-OMS-03270 in OD S3 01 for HEG requests.]	Completed
ECS-L4-17719	S-OMS-08770 The OM GUI shall allow the operator to request suppression of the failed DN when the operator elects to fail a request while handling a HEG processing error intervention. [NOTE: By default, a failed DN is sent and tells the user that the request failed, but the operator can suppress this, e.g., if the operator intends to resubmit the request. This augments S-OMS-03130, S-OMS-03270 in OD_S3_01 for HEG requests.]	Completed
ECS-L4-17720	S-OMS-08780 The OM GUI shall allow operators to view alerts for HEG processing.	Completed
ECS-L4-17721	S-OMS-08790 The OM GUI shall allow operators to view the following information for the HEG processor: a. the current state of the queue for the HEG (suspended or active and whether suspended by operator or automatically) b. the number of distribution requests and granules currently queued for HEG processing, as well as the total amount of input data. c. whether the acceptance of HEG processing requests is stopped.	Completed
ECS-L4-17722	S-OMS-08792 The OM GUI shall allow operators to list the HEG granules that are currently pending with the HEG processing service in order of their submission time, and display for each item in the list: a. the request ID, as a link to the request details page b. the ESDT, version and ID of the input granule c. a link to display the corresponding HEG processing instructions d. the time the granule was submitted to the HEG service e. the identification returned by the HEG service (e.g., the pid).	Completed
ECS-L4-17723	S-OMS-08794 The OM GUI shall allow operators to cancel any of the HEG granules that are currently pending with the HEG processing service.	Completed
ECS-L4-17724	S-OMS-08800 The OM GUI shall allow appropriately authorized operators to edit the configuration information for the HEG processor.	Completed
ECS-L4-17725	S-OMS-08810 The OM GUI shall allow appropriately authorized operators to suspend the dispatching of HEG processing if this is currently not suspended.	Completed
ECS-L4-17726	S-OMS-08820 The OM GUI shall allow appropriately authorized operators to resume the dispatching of HEG processing if it is currently suspended. [NOTE: Resumption will cause any pending alert to be cleared.]	Completed
ECS-L4-17727	S-OMS-08830 The OM GUI shall allow appropriately authorized operators to stop the acceptance of distribution requests involving HEG processing.	Completed

ID	Title	Status
ECS-L4-17728	S-OMS-08840 The OM GUI shall allow appropriately authorized operators to resume the acceptance of distribution requests involving HEG processing if it is currently stopped.	Completed
ECS-L4-17729	S-OMS-08850 The OMS CI shall return an appropriate error to submissions of distribution requests involving HEG processing while the acceptance of such requests is stopped.	Completed
ECS-L4-17730	S-OMS-08860 The OM GUI OMS status page shall indicate whether any processing/subsetting queues are currently suspended or not. [NOTE: This is to ensure that there is an indication of the queue status on the OMS status page even if there is a separate status page for the HEG queue (see S-OMS-08790). The requirement has been formulated in general terms: when other subsetting/processing queues are added, the OMS status page is supposed to show only a summary status of all queues.]	Completed
ECS-L4-17731	S-OMS-08870 The OM GUI OMS status page shall indicate whether the acceptance of any processing/subsetting requests is currently stopped or not. [NOTE: This is to ensure that there is an indication of the queue status on the OMS status page even if there is a separate status page for the HEG queue (see S-OMS-08790). The requirement has been formulated in general terms: when other subsetting/processing queues are added, the OMS status page is supposed to show only a summary status of all queues.]	Completed
ECS-L4-17732	S-OMS-08880 The OM GUI shall be able to filter the request list so it displays only requests involving HEG processing.	Completed
ECS-L4-17733	S-OMS-08882 The OM GUI shall be able to filter the list of archived requests so it displays only requests involving HEG processing.	Completed
ECS-L4-17734	S-OMS-08890 The OM GUI shall indicate requests that involve HEG processing when listing requests.	Completed
ECS-L4-17735	S-OMS-08892 The OM GUI shall indicate requests that involve HEG processing when listing archived requests.	Completed
ECS-L4-17736	S-OMS-08900 The OM GUI shall provide request editing, cancellation, suspension, resubmission, etc. capabilities for requests involving HEG processing similar to other distribution requests to appropriately authorized operators.	Completed
ECS-L4-17737	S-OMS-08908 When displaying a granule list for a request that involves HEG processing, the OM GUI shall display the original input granule. [NOTE: The OMS design may elect to represent the processing outputs as "output granules". However, from an operator perspective, it is more meaningful to display the granule that is the basis for the processing and is the one originally specified by the user.]	Completed
ECS-L4-17738	S-OMS-08910 The OM GUI shall allow an operator to display the HEG processing instructions for each granule that requires HEG processing.	Completed
ECS-L4-17739	S-OMS-08920 The OM GUI shall include order tracking information for requests involving HEG processing when archiving order tracking information. [NOTE: See NCR 39889 for details regarding the archiving of order tracking information.]	Completed
ECS-L4-17740	S-OMS-09010 The OMS CI shall copy browse granules from their ECS archive location into the hidden Data Pool area when processing an order for Browse granules, regardless of whether the Browse granule already resides in the Data Pool or not, and do so without registering it in the Data Pool inventory. [NOTE: This replaces S-DPL-42465 in OD_S4_01 and takes advantage of the fact that browse granules are archived on disk.]	Completed

ID	Title	Status
ECS-L4-17741	S-OMS-09020 The OMS CI shall obtain the location of a browse granule in the ECS archive from the volume group history information stored in the STMGT database.	Completed
ECS-L4-17742	S-OMS-09030 The OMS CI shall remove the browse granules that are in the hidden Data Pool for order-only purposes after the configured cleanup delay if they are no longer referenced by distribution requests that are active (i.e., not in a terminal state) or by FTP Pull requests that are not yet expired. [NOTE: This replaces S-DPL-14512 in OD S4 01.]	Completed
ECS-L4-17743	S-OMS-09100 The OMS CI shall permit DAAC operations to define the external production hosts available for DVD-ROM and CD-ROM generation, including: a. a unique label for that unit b. the OMS media type(s) supported by the unit c. a limit on the 'allocated workload' for the unit, i.e., a limit on the cumulative size of the requests (expressed in MB) allocated to this CDROM/DVD unit which when reached or exceeded causes the automatic activation of such requests to be halted temporarily until the cumulative size drops below that limit, e.g., because of request completions d. a limit on the 'actual workload' for the unit expressed in MB which must not be exceeded by the media production orders submitted to the unit, i.e., the creation and submission of media production order for that unit will be temporarily halted while this would cause the limit to be exceeded e. a descriptive text of at most 255 characters f. the directory used to communicate with the CDROM/DVD host g. optionally, indicate the mode for which the CDROM/DVD host is reserved (CDROM/DVD hosts not reserved for a specific mode are shared across all modes) [NOTE: Limits c. and d. may be different and are interpreted in a slightly different fashion. The first acts as a limit on activating work for CDROM/DVD media (though the limit can be ignored when activation is manual); the second acts as a limit on the amount of work that can actually be submitted to the CDROM/DVD host and this limit cannot be overridden by manual action.	Completed
ECS-L4-17744	S-OMS-09105 The OM GUI shall permit authorized operators to flag a tape device or external CDROM/DVD production host as on-line or off-line and when off-line, associate an explanation with the device of up to 255 characters that will be cleared when the device is returned to the on-line status.	Completed
ECS-L4-17745	S-OMS-09110 When displaying an operator action to activate media creation for an external CDROM/DVD production host manually, the OM GUI shall: a. Display the due date of the request. b. Indicate when all CDROM/DVD hosts are currently above their configured allocated workload limits, and c. offer a list of the available CDROM/DVD hosts for selection, displaying their allocated workload and the configured limit for each, and d. if there is at least one CDROM/DVD host whose allocated workload is below the limit, offer the one where the difference between workload and limit is the highest as the default choice, and if several qualify, select one randomly.	Completed
ECS-L4-17746	S-OMS-09115 If the OMS CI is configured for automatic activation for an CDROM/DVD media type, the OMS CI shall dispatch media creation for that media type while there is an external CDROM/DVD productionhost whose current allocated workload is less than its configured limit.	Completed
ECS-L4-17747	S-OMS-09120 When automatically activating media creation for an external CDROM/DVD production host, the OMS CI shall assign the distribution request to the CDROM/DVD host that is least busy based on current allocated workload, and update the assigned workload for that unit, making a random selection if more than one unit qualifies under that rule.	Completed

ID	Title	Status
ECS-L4-17748	S-OMS-09125 The OMS CI shall be able to process media distribution requests that require multiple CDROM/DVD media volumes.	Completed
ECS-L4-17749	S-OMS-09130 The OMS CI production modules shall interface with Luminex for transferring the generated CD-ROM and DVD-ROM images to physical media and generating the media labels.	Completed
ECS-L4-17750	S-OMS-09135 The OMS CI shall not dispatch the media creation step for a media volume to be created by an external CDROM/DVD production host if the order would cause the configured workload limit for that CDROM/DVD host to be exceeded.	Completed
ECS-L4-17751	S-OMS-09140 The OMS CI production modules shall interface with Luminex in order to detect when a Luminex media creation completed	Completed
ECS-L4-17752	S-OMS-09145 The OMS CI shall maintain the amount of work in progress for an external CDROM/DVD production host when the execution of a production module for CDROM/DVD media creation starts, completes or is terminated.	Completed
ECS-L4-17753	S-OMS-09150 The OMS CI shall generate a physical media distribution alert and set the corresponding external CDROM/DVD production host off-line when the Luminex unit is unreachable, or the Luminex server is unable to accept new jobs. [NOTE: Setting the external CDROM/DVD production host off-line will prevent its allocation to new requests. It does not prevent requests that are already allocated to it from trying to use it. To re-allocate existing requests, the operator would need to 'Stop' their media production operations (see S-OMS-11040).]	Completed
ECS-L4-17754	S-OMS-09155 The OMS CI shall clear any pending alert for an off-line external CDROM/DVD production host when the operator sets it on-line. [NOTE: It is assumed that this is the normal operational scenario. Operations will follow-up on the alert and set the unit back on-line once the fault has been resolved. By that time, media operations for requests that are already allocated to the unit may already have restarted, see S-OMS-12444.]	Completed
ECS-L4-17755	S-OMS-09160 The OMS CI shall retry dispatching media creation operations for an external CDROM/DVD production host that is currently off-line because an alert is pending, and clear the alert and set the unit back on-line when a retried operation succeeds. [NOTE: This ensures that production activities that were interrupted by the outage are resumed as soon as possible, perhaps even before the operator sets the unit back on-line.]	Completed

ID	Title	Status
ECS-L4-17756	S-OMS-09165 When restarting after a fault, the OMS CI shall be able to recover the state of media productions that were in progress at the time of the fault such that no requests are lost, no media volumes are produced twice or not produced at all, no distribution steps are omitted, and steps that were completed or can continue despite the fault do not have to be redone or re-started, and such that the recovery does not place requests into operator intervention. This includes: a. The OMS shall restart media preparations that were in progress at the time of the fault, and not redo as part of the recovery media preparation operations that already completed or had failed at the time of the fault. b. The OMS shall restart media creation for tape transfers that were aborted by the fault, and not redo as part of the recovery tape media creation operations that already completed or had failed at the time of the fault. c. The OMS shall recover media creation orders that were accepted by Luminex for processing (i.e., avoiding creation of duplicate volumes), and not resubmit as part of the recovery media creation orders that were already completed or had failed at the time of the fault. d. The OMS shall restart media verification operations that were aborted by the fault, and not redo as part of the recovery media verification operations for volumes that were already verified successfully at the time of the fault. e. The OMS shall recover media verification related requests that were submitted to PC platforms (i.e., avoid submitting them again), and not resubmit as part of the recovery verification related requests to PC platforms for volumes that already completed or had failed verification at the time of the fault. f. The OMS shall recover operator actions and interventions that were pending at the time of the fault and require their disposition before continuing the distribution of these requests.	Completed
ECS-L4-17757	S-OMS-09170 The OMS CI shall be able to perform media distribution concurrently in multiple modes. [NOTE: This is an extension of existing requirements to physical media creation. This may require reserving specific devices or external CDROM/DVD production hosts for specific modes, e.g., by not including them in the configuration of the modes that are not using them, or by setting them off-line in those modes.]	Completed
ECS-L4-17758	S-OMS-09175 The OM GUI shall permit operators to list the defined physical media devices and their configured attributes (e.g., tape devices and external CDROM/DVD production hosts), plus the following information: a. whether the device / unit is on-line or off-line, b. for non-CDROM/DVD devices, whether they are busy or free, and if busy, the mode in which they are being used, and if used by the same mode as that in which the GUI is operating, the request and volume to which they are allocated and the time of allocation, c. for CDROM/DVD units, their current actual and allocated workload, d. any explanation associated with the device e. an appropriate indication if a device is currently busy but was requested by the operator to go off-line once it frees up.	Completed
ECS-L4-17759	S-OMS-09180 The OM GUI shall allow an operator to retry the failed operation of a volume without waiting for an operator intervention. [NOTE: Since there are no separate dismount actions for external CDROM/DVD production hosts, operators will generally not know that a volume failed during CDROM/DVD production until OMS queues an operator intervention for the request.]	Completed

ID	Title	Status
ECS-L4-17760	S-OMS-09185 The OM GUI shall allow an authorized operator to complete an action for manually activating media creation for a request using an external CDROM/DVD production host for its media production: a. by selecting the offered default device, or b. by selecting any other offered device, or c. by failing the request, optionally after suppressing sending the DN.	Completed
ECS-L4-17761	S-OMS-09190 The OM GUI shall inform an operator who attempts to manually activate a request for media creation on a device other than an external CDROM/DVD production host if there is no device of the required type currently on-line which could be used in this operational mode, and not permit the operator to activate a request under that circumstance.	Completed
ECS-L4-17762	S-OMS-09195 The OM GUI shall display the following additional information when displaying details for a physical media distribution request: a. Request Annotations, b. Identification of the tape production device or external CDROM/DVD production host that was used for the request [NOTE: or the latest if more than one was used] and the time of allocation, c. List of media volumes created for the request in order of volume ID. d. Due Date.	Completed
ECS-L4-17763	S-OMS-09200 If the OMS CI is configured for automatic activation for a media type other than CDROM/DVD the OMS CI shall dispatch requests for that media type for media creation while there is at least one device that is free, on-line, and supports the media type, if there is no request in media creation or verification that could use that device and whose device usage is below the configured maximum for media creation, respectively media verification. [NOTE: In other words, a device may be freed up because a volume of some other request completes production or verification. However, if that request uses fewer devices than the configured limit permits and still has volumes that need to be verified or created, than that active request gets to use available devices first.]	Completed
ECS-L4-17764	S-OMS-09205 After a volume was assigned to a device other than an external CDROM/DVD production host the OMS CI shall generate an operator action to mount media for the volume into the assigned device.	Completed
ECS-L4-17765	S-OMS-10010 The OMS CI shall submit requests for physical media distribution for a given media type to the PDS ('PDS media creation') or handle media creation internally within the OMS ('OMS media creation') based on DAAC configuration (by media type).	Completed
ECS-L4-17766	S-OMS-10020 Unless a request was confirmed for Synergy III processing by the operator, the OMS CI shall generate an operator intervention for any physical media distribution request that it classifies for Synergy III mode processing if a. the media type is configured for OMS media creation, or b. OMS is configured to generate an intervention in this case, [NOTE: The intent is to allow the DAAC to prevent such requests from being submitted to the PDS by accident; and to detect the occurrence of such requests during the transition phase, before the PDS is decommissioned.]	Completed
ECS-L4-17767	S-OMS-10030 The OMS CI shall allow a DAAC to configure the OMS to generate an operator intervention when it classifies a physical media request for Synergy III processing.	Completed
ECS-L4-17768	S-OMS-10100 The OMS CI shall permit EMD Development to configure the available production modules, and for each, the location of the text and image files to be used when printing jewel case inserts. [NOTE: The available production modules are subject to EMD configuration management and cannot simply be modified by a DAAC.]	Completed

ID	Title	Status
ECS-L4-17769	S-OMS-10102 The OMS CI shall permit DAAC operations to specify a default production module.	Completed
ECS-L4-17770	S-OMS-10104 The OMS CI shall permit DAAC operations to define the production module to be used for an ECS collection. [NOTE: Unless otherwise defined, the default production module will be used for a collection; and if there is only one production module defined, it will be the default module.]	Completed
ECS-L4-17771	S-OMS-10130 The OMS CI shall allow DAAC operations to edit the configuration information for a production module.	Completed
ECS-L4-17772	S-OMS-10200 The OMS CI shall permit DAAC operations to configure a printer for printing shipping labels.	Completed
ECS-L4-17773	S-OMS-10210 The OMS CI shall permit DAAC operations to configure a printer for printing tape labels.	Completed
ECS-L4-17774	S-OMS-10220 The OMS CI shall permit DAAC operations to configure a printer for printing jewel case inserts.	Completed
ECS-L4-17775	S-OMS-10230 The OMS CI shall permit DAAC operations to configure a printer for printing packing lists.	Completed
ECS-L4-17776	S-OMS-10232 The OMS CI shall permit DAAC operations to configure OMS to print packing lists by default: a. always b. never	Completed
ECS-L4-17777	S-OMS-10234 The OMS CI shall permit DAAC operations to configure a printer for printing QC reports.	Completed
ECS-L4-17778	S-OMS-10236 The OMS CI shall permit DAAC operations to configure OMS to print QC reports by default: a. always b. never c. only if there was a QC error	Completed
ECS-L4-17779	S-OMS-10240 The OM GUI shall permit DAAC operations to list the printer configuration.	Completed
ECS-L4-17780	S-OMS-10300 The OMS CI shall permit DAAC operations to define the devices available for tape media creation and verification (i.e., 8 mm and DLT), and the CDROM/DVD devices used for verification, including: a. a unique label for the device, b. for Unix devices, the Unix device path name, c. for PC attached devices, the path name of the directory used to communicate with its controlling software and an indication that the device is attached to a PC platform, d. the OMS media type(s) supported by the device, e. a descriptive text of at most 255 characters, f. the purpose for which the device can be used (media creation, media verification, or both). [NOTE: CDROM/DVD devices other than Rimage can be used only for verification], and g. optionally, indicate the operational mode for which the device is reserved (devices not reserved for a specific mode are shared across all modes).	Completed

ID	Title	Status
ECS-L4-17781	S-OMS-10310 The OMS CI shall permit DAAC operations to define the Rimage units available for DVD-ROM and CD-ROM generation, including: a. a unique label for that unit b. the OMS media type(s) supported by the unit c. a limit on the 'allocated workload' for the unit, i.e., a limit on the cumulative size of the requests (expressed in MB) allocated to this Rimage unit which when reached or exceeded causes the automatic activation of such requests to be halted temporarily until the cumulative size drops below that limit, e.g., because of request completions d. a limit on the 'actual workload' for the unit expressed in MB which must not be exceeded by the media production orders submitted to the unit, i.e., the creation and submission of media production order for that unit will be temporarily halted while this would cause the limit to be exceeded e. a descriptive text of at most 255 characters f. the directory used to communicate with Rimage g. optionally, indicate the mode for which the Rimage unit is reserved (Rimage units not reserved for a specific mode are shared across all modes) [NOTE: Limits c. and d. may be different and are interpreted in a slightly different fashion. The first acts as a limit on activating work for Rimage media (though the limit can be ignored when activation is manual); the second acts as a limit on the amount of work that can actually be submitted to the Rimage unit, and this limit cannot be overridden by manual action.	Completed
ECS-L4-17782	S-OMS-10320 The OMS CI shall allow DAAC operations to edit any of the attributes associated with a physical media device.	Completed
ECS-L4-17783	S-OMS-10330 The OM GUI shall permit authorized operators to flag a tape device or Rimage unit as on-line or off-line and when off-line, associate an explanation with the device of up to 255 characters that will be cleared when the device is returned to the on-line status.	Completed
ECS-L4-17785	S-OMS-10350 The OM GUI shall permit operators to sort and filter the list of defined physical media devices by the OMS media type they support.	Completed
ECS-L4-17787	S-OMS-10400 The OMS CI shall allow DAAC operators to configure a media type for PDS or OMS media creation. [NOTE: This is meant to support transition to Synergy 5.]	Completed
ECS-L4-17788	S-OMS-10402 The OMS CI shall allow DAAC operators to configure for each physical media type, whether it shall be activated manually or automatically.	Completed
ECS-L4-17789	S-OMS-10407 The OMS CI shall allow DAAC operators to configure an optional email address for notifications regarding operator actions.	Completed
ECS-L4-17791	S-OMS-10410 The OMS CI shall allow DAAC operations to configure a maximum time interval in minutes within which a Rimage order is expected to be pulled by Rimage after it was created by OMS.	Completed
ECS-L4-17792	S-OMS-10420 The OMS CI shall allow DAAC operations to configure a time interval in days to be added to the time when a request completes staging to establish a Due Date for the request.	Completed

ID	Title	Status
ECS-L4-17793	S-OMS-10500 The OM GUI shall allow an operator to disposition an intervention indicating that a physical media distribution request was classified as a Synergy 3 mode request in one of the following manners: a. confirm the assignment of a request to the Synergy 3 processing mode, optionally changing the media type to a different physical media type. b. change the media type to FTP Pull or FTP Push, and in the latter case, add the required distribution options, c. fail the request. d. resubmit the request without change e. resubmit the request in Synergy 4 mode [NOTE: The ability to manually change the processing mode for a request is currently the subject of Synergy 4 NCR 40501. This requirement adds the capability to confirm the processing mode that was assigned by the OMS and supports transition from PDS to OMS.]	Completed
ECS-L4-17797	S-OMS-10525 The OM GUI shall allow an operator to select a request for operator action / intervention for viewing and disposition.	Completed
ECS-L4-17800	S-OMS-10550 The OM GUI shall allow an authorized operator to disposition a request for operator action to mount media by: a. confirming the successful completion of the requested action, or b. indicating that the requested action failed, optionally requesting that the device be set to off-line and associating an explanation with the off-line device.	Completed
ECS-L4-17802	S-OMS-10562 When displaying an operator action to activate media creation for Rimage manually, the OM GUI shall: a. Display the due date of the request. b. Indicate when all Rimage units are currently above their configured allocated workload limits, and c. offer a list of the available Rimage units for selection, displaying their allocated workload and the configured limit for each, and d. if there is at least one Rimage unit whose allocated workload is below the limit, offer the one where the difference between workload and limit is the highest as the default choice, and if several qualify, select one randomly.	Completed
ECS-L4-17805	S-OMS-10592 The OM GUI shall identify in the granule list for a physical media request: a. the granules for which the physical media creation encountered an error or was not completed, b. the media volume to which a granule was written, c. the granule status [NOTE: The states of a granule during physical media creation and verification is implied by the state of the media volume to which it is allocated. For example, if the volume state is 'Created', the granule was written to the media. Granules that are 'Failed' and whose failure was confirmed by the operator are not allocated to media volumes and their state is 'Failed'.]	Completed
ECS-L4-17807	S-OMS-10620 The OM GUI shall allow an operator to monitor for physical media distribution alerts. [NOTE: For an example of an alert, see S-OMS-12440]	Completed
ECS-L4-17808	S-OMS-10630 The OM GUI shall allow an operator to view alerts related to physical media distribution.	Completed
ECS-L4-17817	S-OMS-10710 The OM GUI shall update the state of an open operator action to 'Closed' once the action has been completed. [NOTE: This extends S-OMS-03215 in OD S3 01 to operator actions.]	Completed
ECS-L4-17818	S-OMS-10720 The Order Management GUI shall record the date/time and the nature of the disposition of an operator action in the Order Management Database. [NOTE: This extends S-OMS-03390 in OD S3 01 to operator actions.]	Completed

ID	Title	Status
ECS-L4-17819	S-OMS-10740 The Order Management GUI shall allow an operator to list past operator actions, filter the list by creation time period (using today as the default), and to sort the list by date/time when the operator action was requested, the type of operator action, and associated request ID, order ID and user ID. [NOTE: This extends S-OMS-03420 in OD_S3_01 to operator actions.]	Completed
ECS-L4-17820	S-OMS-10750 The Order Management GUI shall allow an operator to select a past operator action and view it. [NOTE: This extends S-OMS-03430 in OD_S3_01 to operator actions.]	Completed
ECS-L4-17821	S-OMS-10760 The OMS CI shall apply the configured maximum age that controls the removal of interventions from the Order Management Database to the removal of operator actions. [NOTE: This extends S-OMS-01510 in OD_S3_01 to operator actions.]	Completed
ECS-L4-17822	S-OMS-10800 The OM GUI shall display the following additional information when displaying a list of distribution requests that are not in a terminal state: a. Request Priority	Completed
ECS-L4-17823	S-OMS-10810 The OM GUI shall allow an operator to sort the list of distribution requests that are not in a terminal state by the following additional attributes: a. Request Priority	Completed
ECS-L4-17824	S-OMS-10820 The OM GUI shall allow an operator to filter the list of distribution requests that are not in a terminal state by the following additional attributes: a. Request Priority	Completed
ECS-L4-17826	S-OMS-10860 The OM GUI shall allow an authorized operator to edit the following additional information for a physical media distribution request that is not shipped: a. any of the addresses associated with the request	Completed
ECS-L4-17828	S-OMS-10930 The OM GUI shall display the following additional information in the granule list of a physical media distribution request: a. the identification of the media volume to which the granule was written	Completed
ECS-L4-17829	S-OMS-10932 The OM GUI shall be able to display in the granule list of a physical media distribution request, any new failure explanations that may apply.	Completed
ECS-L4-17830	S-OMS-11010 The OM GUI shall allow an authorized operator to annotate a distribution request or change its existing annotation, up to a total annotation size of at least 2,000 characters.	Completed
ECS-L4-17831	S-OMS-11040 The OM GUI shall allow authorized operators to stop the physical media creation for a physical media distribution request that is currently in the 'Transferring' state, optionally for a specific volume. [NOTE: The OMS will cancel the execution of the corresponding production module(s) and queue a media creation error. The operator can handle any necessary actions in the resulting operator intervention.]	Completed
ECS-L4-17833	S-OMS-11070 The OM GUI shall allow an authorized operator also to cancel a physical media distribution request that is not in a terminal state and while granules for the request still need to be transferred to media (i.e., the request cannot be in a 'QC Hold' or 'Waiting for Shipment' state). [NOTE: This extends the requirement for cancellation in Ticket OD_S4_01, S-OMS-06345 for physical media distribution requests. Note the applicability of related requirements from Ticket OD_S4_01, such as S-OMS-06355, S-OMS-06360, S-OMS-06365.]	Completed

ID	Title	Status
ECS-L4-17834	S-OMS-11080 The OM GUI shall allow authorized operators to suspend a physical media distribution request also while it is pending media production, if it is for a media type that is activated automatically. [NOTE: This extends suspension requirements in Ticket OD_S4_01, S-OMS-06315, for physical media requests. The request for suspension may be rejected if the request has already been allocated to a device.]	Completed
ECS-L4-17835	S-OMS-11100 The OM GUI shall allow authorized operators to alter the priority of a physical media distribution request also while it is pending media production. NOTE: This extends requirement S-OMS-06305 in Ticket OD_S4_01 for physical media distribution requests. The priority change will affect only the automatic activation of requests.]	Completed
ECS-L4-17836	S-OMS-11130 The OM GUI shall allow multiple operators to monitor physical media distribution concurrently from different workstations.	Completed
ECS-L4-17837	S-OMS-11140 The OM GUI shall support concurrent physical media distribution in multiple modes. [NOTE: This is an extension of existing requirements to physical media creation. Separate modes will require separate web browser windows.]	Completed
ECS-L4-17838	S-OMS-11200 The OM GUI shall allow an operator to view current physical media distribution information, including the: a. number of devices of each media type that are currently off-line, or on-line and if applicable, busy vs. free; b. number of physical media requests of each media type currently pending media production; c. total amount of data in MB in physical media distribution requests pending media production for each media type.	Completed
ECS-L4-17839	S-OMS-12010 The OMS CI shall queue a physical media distribution request for media creation after all its granules are available in the Data Pool or were otherwise dispositioned and the media type is configured for OMS media creation.	Completed
ECS-L4-17840	S-OMS-12020 The OMS CI shall establish a Due Date for a physical media request that is a DAAC configurable number of days from the time the request completed staging.	Completed
ECS-L4-17842	S-OMS-12070 The OMS CI shall not automatically activate media creation for a media type whose queue is suspended.	Completed
ECS-L4-17843	S-OMS-12072 The OMS CI shall not automatically activate media creation for a distribution request that is currently suspended.	Completed
ECS-L4-17844	S-OMS-12078 The OMS CI shall activate media creation automatically by priority and within the same priority on a first-in first-out basis.	Completed
ECS-L4-17846	S-OMS-12082 If the OMS CI is configured for automatic activation for an Rimage media type, the OMS CI shall dispatch media creation for that media type while there is a Rimage unit whose current allocated workload is less than its configured limit.	Completed
ECS-L4-17848	S-OMS-12100 When automatically activating media creation for an Rimage unit, the OMS CI shall assign the distribution request to the Rimage unit that is least busy based on current allocated workload, and update the assigned workload for that unit, making a random selection if more than one unit qualifies under that rule.	Completed
ECS-L4-17849	S-OMS-12120 When queuing a physical media distribution request for media types that are configured for manual activation, the OMS CI shall request an operator action to dispatch the distribution request manually.	Completed
ECS-L4-17852	S-OMS-12160 The OMS CI shall exclude from the media creation process any granules flagged as failed.	Completed

ID	Title	Status
ECS-L4-17854	S-OMS-12200 The OMS CI shall include the production modules supported by PDS, altered as necessary for execution within the OMS CI. [NOTE: The intent is to re-use the existing production modules and adapt them for operation within the OMS CI.]	Completed
ECS-L4-17855	S-OMS-12205 The OMS CI shall determine the applicable production module for each granule in a request that needs to be written to physical media in a fashion compatible with the existing PDS.	Completed
ECS-L4-17856	S-OMS-12210 The OMS CI shall perform media creation using the required production modules, grouping granules by production module if the request requires the execution of more than one module.	Completed
ECS-L4-17857	S-OMS-12220 The OMS CI shall be able to execute production modules on a DAAC configured target platform other than the one on which the OM server is executing. [NOTE: For Synergy 5, the intent is to execute the production modules on the current PDS platform.]	Completed
ECS-L4-17858	S-OMS-12240 The OMS CI production modules shall be able to retrieve the data to be written to physical media from the Data Pool SAN for transfer to physical media devices or device handling software.	Completed
ECS-L4-17859	S-OMS-12250 The OMS CI production modules shall transfer the distributed granules to tape media volumes such that the resulting tapes are backwards compatible in format with those created by the PDS.	Completed
ECS-L4-17860	S-OMS-12251 The OMS CI production modules shall create and transfer an Order Summary to each media reflecting the contents of this media volume.	Completed
ECS-L4-17861	S-OMS-12252 The OMS CI shall be able to process tape media distribution requests that require multiple tape volumes.	Completed
ECS-L4-17862	S-OMS-12254 The OMS CI production modules shall generate tape media labels backwards compatible with the PDS [NOTE: The intent is to re-use the existing production modules and adapt them for operation within the OMS CI. Since unit numbering restarts with each volume, unit numbers on the label have become superfluous.]	Completed
ECS-L4-17863	S-OMS-12256 For multi-volume requests, the OMS CI shall be able to overlap the media preparation step for one volume with the media creation step of another volume. [NOTE: The requirement shall be verified via inspection during Code Review.]	Completed
ECS-L4-17864	S-OMS-12260 The OMS CI shall be able to process media distribution requests that require multiple Rimage media volumes.	Completed
ECS-L4-17865	S-OMS-12270 The OMS CI production modules shall create CD-ROM and DVD-ROM images for the distributed granules such that the resulting CD/DVD media are backwards compatible in format with those created by the PDS.	Completed
ECS-L4-17866	S-OMS-12280 The OMS CI production modules shall interface with R-Image for transferring the generated CD-ROM and DVD-ROM images to physical media and generating the media labels. [Note: Media labels may differ in detailed content from those produced by the PDS because of changes in unit numbering and the format of volume labels.]	Completed
ECS-L4-17867	S-OMS-12290 The OMS CI shall not dispatch the media creation step for a media volume to be created by Rimage if the order would cause the configured workload limit for that Rimage unit to be exceeded.	Completed
ECS-L4-17868	S-OMS-12300 The OMS CI production modules shall interface with R-Image in order to detect when an Rimage media creation completed.	Completed
ECS-L4-17869	S-OMS-12330 The OMS CI production modules shall return a status indicating success or an appropriate error indication and the failure status of each granule that encountered an error.	Completed

ID	Title	Status
ECS-L4-17870	S-OMS-12340 The OMS CI production modules shall generate logs containing the information that is recorded in the current PDS media production logs.	Completed
ECS-L4-17874	S-OMS-12400 During media verification, the OMS CI shall generate an operator intervention for a QC error if a media mount action is failed.	Completed
ECS-L4-17877	S-OMS-12410 The OMS CI shall maintain the amount of work in progress for an Rimage unit when the execution of a production module for Rimage media creation starts, completes or is terminated.	Completed
ECS-L4-17878	S-OMS-12420 The OMS CI shall delete all temporary files used in the course of physical media distribution automatically after they are no longer needed.	Completed
ECS-L4-17880	S-OMS-12432 The OMS CI shall provide an indication of the nature of the media creation error in the media creation error intervention that it generates.	Completed
ECS-L4-17883	S-OMS-12440 The OMS CI shall generate a physical media distribution alert when the physical media platform or the OMS agent running on that platform is down or cannot be reached, and suspend dispatching of activities to that platform. [NOTE: Synergy 5 assumes that all physical media distribution will be via a single platform, currently dig06. No alert conditions are intended for PC host platforms because the number of attached devices is small, and the subsequent QC error intervention will alert operations, as well as block the device for use by other requests until the operator dispositioned the error.]	Completed
ECS-L4-17884	S-OMS-12441 The OMS CI shall generate a physical media distribution alert and set the corresponding Rimage unit off-line when a media order that it created for Rimage is not pulled by Rimage within an operator configurable time. [NOTE: Setting the Rimage unit off-line will prevent its allocation to new requests. It does not prevent requests that are already allocated to it from trying to use it. To re-allocate existing requests, the operator would need to 'Stop' their media production operations (see S-OMS-11040).]	Completed
ECS-L4-17885	S-OMS-12442 The OMS CI shall retry dispatching of activities to the physical media distribution platform while an alert is pending for it, and if a retry succeeds, clear any pending physical media distribution alert for that platform and resume dispatching physical media distribution activities to it.	Completed
ECS-L4-17886	S-OMS-12443 The OMS CI shall clear any pending alert for an off-line Rimage unit when the operator sets it on-line. [NOTE: It is assumed that this is the normal operational scenario. Operations will follow-up on the alert and set the unit back on-line once the fault has been resolved. By that time, media operations for requests that are already allocated to the unit may already have restarted, see S-OMS-12444.]	Completed
ECS-L4-17887	S-OMS-12444 The OMS CI shall retry dispatching media creation operations for an Rimage unit that is currently off-line because an alert is pending, and clear the alert and set the unit back on-line when a retried operation succeeds. [NOTE: This ensures that production activities that were interrupted by the outage are resumed as soon as possible, perhaps even before the operator sets the unit back on-line.]	Completed
ECS-L4-17888	S-OMS-12459 The OMS CI shall update the status of a request to 'QC Hold' when the operator acknowledges that collection of the media for QC was completed successfully and any of its media need verification.	Completed

ID	Title	Status
ECS-L4-17890	S-OMS-12462 The OMS CI shall queue an intervention for a media creation error if the request for collecting the media for a distribution request for QC is failed.	Completed
ECS-L4-17894	S-OMS-12466 The OMS CI shall invoke media verification for each of the media volumes that were determined to need verification by executing a media verification module on the DAAC configured media production platform.	Completed
ECS-L4-17898	S-OMS-12470 The OMS CI verification modules shall be able to interface with QC devices attached to the SGI media distribution platform. [NOTE: This is only testable to the extent such devices are available in the PVC.]	Completed
ECS-L4-17899	S-OMS-12472 The OMS CI verification modules shall be able to interface with DVD/CDROM QC devices attached to PC platforms. [NOTE: This is only testable to the extent such devices are available in the PVC.]	Completed
ECS-L4-17900	S-OMS-12473 The OMS CI verification modules shall generate a QC Report for a volume that is backwards compatible with the PDS.	Completed
ECS-L4-17901	S-OMS-12474 The OMS CI shall print a QC Report for a request backwards compatible with the PDS when it queues an operator intervention for QC error for the request, if configured to print a QC report by default always or only when a QC error occurs.	Completed
ECS-L4-17904	S-OMS-12500 The OMS CI shall print shipping labels backwards compatible with the PDS for physical media distribution requests after the request completed QC for all volumes successfully.	Completed
ECS-L4-17905	S-OMS-12510 The OMS CI shall print jewel case inserts backwards compatible with the PDS for CD-ROM/DVD-ROM distribution requests after the request completed QC for all volumes successfully.	Completed
ECS-L4-17906	S-OMS-12520 The OMS CI shall print a Packing List for a physical media distribution request backwards compatible with the PDS after it completed QC for all volumes successfully, if the DAAC configured OMS to print Packing Lists by default always.	Completed
ECS-L4-17907	S-OMS-12522 The OMS CI shall print a QC Report for a physical media distribution request backwards compatible with the PDS after it completed QC for all volumes successfully, if the DAAC configured OMS to print QC Reports by default always.	Completed
ECS-L4-17910	S-OMS-12545 The OMS CI shall queue an operator intervention for QC error if the request to assemble the distribution package for shipment is failed.	Completed
ECS-L4-17911	S-OMS-12610 The OMS CI shall queue a Distribution Notice (DN) when a physical media distribution request completed or failed, unless the operator requested suppression of the DN. [NOTE: Listing the failed granules and the reason for failure in the DN is already an existing requirement, but there may be new failure reasons.]	Completed
ECS-L4-17912	S-OMS-12620 The OMS CI shall generate Distribution Notices (DN) for physical media distribution requests that are compatible with the ICD 423-41-57, 'ICD Between ECS and the Science Investigator-led Processing Systems (SIPS)'. [NOTE: Changes will need to be agreed with the DAACs and will require approval of CCRs to the ICDs that include or reference them.]	Completed
ECS-L4-17913	S-OMS-12630 The OMS CI shall queue a DN for DORRAN when a physical media distribution request completed or failed that was routed via the DORRAN billing system. [NOTE: This notice needs to be sent even if the operator suppressed the DN.]	Completed

ID	Title	Status
ECS-L4-17914	S-OMS-12640 The OMS CI shall generate Distribution Notices for DORRAN for physical media requests that are compatible with the ICD 423-41-58 'Interface Control Document Between EOSDIS Core System (ECS) and the Land Processes Distributed Active Archive Center (LP DAAC)'.	Completed
ECS-L4-17916	S-OMS-12660 The OMS CI shall no longer count a physical media distribution request against the High and Low Watermarks when it is waiting for shipment or is suspended or canceled/failed, or in operator intervention (not including interventions representing operator actions normally occurring in the course of media distribution).	Completed
ECS-L4-17917	S-OMS-12662 The OMS CI shall count a physical media distribution request once it has been activated against the High and Low Watermarks until it reaches a terminal state (i.e., shipped or canceled/failed. NOTE: This requirement replaces S-OMS-12660, as per DAAC request, see NCR 8047157.)	Completed
ECS-L4-17918	S-OMS-12690 The OMS CI shall send e-mail notifications for actions to the configured e-mail address if such an address is configured, and include the following information as part of the e-mail: a. The nature of the action and the identification of the affected request as part of the subject line. b. Any additional information that the OM GUI would display for the action, as part of the message body.	Completed
ECS-L4-17919	S-OMS-12710 The OMS CI shall log the following events: a. Start and completion of media preparation for individual media volumes (to the extent this occurs under OMS control), b. Start and completion of media preparation for a distribution request (to the extent this occurs under OMS control), c. DELETED d. Start and completion of media creation for individual media volumes (or the formatted media volume files in the case of CD-ROM and DVD-ROM) (to the extent this occurs under OMS control), e. Start and completion of media generation for a distribution request, f. Start and completion of media verification for a media volume (to the extent this occurs under OMS control), g. Start and completion of media verification for an individual distribution request, h. Errors, i. Devices or device handling software going off-line / on-line, j. Alerts, k. Queuing of interventions and actions (to the extent these are initiated by the server), l. Suspensions and resumptions.	Completed
ECS-L4-17920	S-OMS-12720 The OMS CI shall log the following information as applicable: a. File name and size, b. granule ID and granule number, c. request ID, d. volume ID, e. device identification, f. Error type, severity, explanation, g. Nature of alert or intervention.	Completed
ECS-L4-17921	S-OMS-12730 The OMS CI shall provide the capability to remove production module log information and QC reports after a time period that is operator configurable by type of log information. [NOTE: This is meant to match the PDS Cleanup requirements.]	Completed
ECS-L4-17922	S-OMS-12740 The OMS CI shall provide the capability to archive production module log information and QC reports that is no longer retained to a DAAC configurable location. [NOTE: This is meant to match the PDSIS 'archive root' configuration parameter.]	Completed
ECS-L4-17923	S-OMS-12745 The OMS CI shall provide the capability to archive order tracking information for physical media requests after their retention time has expired. [NOTE: This extends S-OMS-06705 in OD_S4_01 and NCR 39889 to physical media types.]	Completed

ID	Title	Status
ECS-L4-17924	S-OMS-12750 The OMS CI shall include provisions for removing operator actions and related information from the database whose completion date/time exceeds a maximum age. [NOTE: This extends S-OMS-01500 in OD S3 01 to operator actions.]	Completed
ECS-L4-17925	S-OMS-12810 When restarting after a fault, the OMS CI shall be able to recover the state of media productions that were in progress at the time of the fault such that no requests are lost, no media volumes are produced twice or not produced at all, no distribution steps are omitted, and steps that were completed or can continue despite the fault do not have to be redone or re-started, and such that the recovery does not place requests into operator intervention. This includes: a. The OMS shall restart media preparations that were in progress at the time of the fault, and not redo as part of the recovery media preparation operations that already completed or had failed at the time of the fault. b. The OMS shall restart media creation for tape transfers that were aborted by the fault, and not redo as part of the recovery tape media creation operations that already completed or had failed at the time of the fault. c. The OMS shall recover media creation orders that were accepted by Rimage for processing (i.e., avoiding creation of duplicate volumes), and not resubmit as part of the recovery media creation orders that were already completed or had failed at the time of the fault. d. The OMS shall restart media verification operations that were aborted by the fault, and not redo as part of the recovery media verification operations for volumes that were already verified successfully at the time of the fault. e. The OMS shall recover media verification related requests that were submitted to PC platforms (i.e., avoid submitting them again), and not resubmit as part of the recovery verification related requests to PC platforms for volumes that already completed or had failed verification at the time of the fault. f. The OMS shall recover operator actions and interventions that were pending at the time of the fault and require their disposition before continuing the distribution of these requests.	Completed
ECS-L4-17926	S-OMS-12910 The OMS CI shall be able to perform media distribution concurrently in multiple modes. [NOTE: This is an extension of existing requirements to physical media creation. This may require reserving specific devices or Rimage units for specific modes, e.g., by not including them in the configuration of the modes that are not using them, or by setting them off-line in those modes.]	Completed
ECS-L4-17927	S-OMS-12915 The OMS CI shall be able to perform media distribution in a test mode concurrently with PDS operating in another mode. [NOTE: This is intended to support transition.]	Completed
ECS-L4-17928	S-OMS-12920 The OMS CI shall share media devices and maintain their status across modes. [NOTE: That is, a defined media device is available to all ECS modes, and its status and attributes are mode independent.]	Completed
ECS-L4-17929	S-OMS-12922 The OMS CI shall be able to allocate devices automatically for production across modes if they support a media type that is dispatched automatically.	Completed
ECS-L4-17930	S-OMS-12924 The OMS CI shall be able to allocate devices automatically for QC across modes.	Completed

ID	Title	Status
ECS-L4-17931	S-OMS-13000 The OMS CI shall be able to perform physical media distribution for granules whose collections are being moved concurrently, or that are being replaced concurrently by a reprocessed granule, or that are being made publicly visible by a concurrent Data Pool insert when they were originally inserted for order-only purposes. [NOTE: This extends existing requirement to the physical media distribution by OMS. Examples of acceptable behavior include recognizing and automatically correcting the problem (e.g., by substituting the correct path name for the original one); generating an operator intervention which allows the operator to update and/or resubmit the request such that it will succeed without failing any granules.]	Completed
ECS-L4-17934	S-OMS-13100 The OMS CI shall provide a command line interface that is backwards compatible with the SDSRV command line interface (SCLI) in terms of interface functionality and behavior, but which submits data requests to the OMS rather than the SDSRV. [NOTE: This interface does not need to support the submission of Landsat subsetting requests.]	Completed
ECS-L4-17935	S-OMS-13101 The OMS CI Command Line Interface shall provide an option to request that the distribution of metadata files with the order shall be suppressed. [This requirement expands S-OMS-13100 to ensure that this option is maintained through future releases.]	Completed
ECS-L4-17936	S-OMS-13110 The OMS CI version of the SCLI shall be configurable to submit data requests to the OMS or the SDSRV.	Completed
ECS-L4-17937	S-OMS-13120 The OMS CI version of the SCLI shall provide a backwards compatible interface to obtain MCF files from the SDSRV.	Completed
ECS-L4-17938	S-OMS-13200 The OM GUI shall permit operators to list the defined physical media devices and their configured attributes (e.g., tape devices and Rimage units), plus the following information: a. whether the device / unit is on-line or off-line, b. for non-Rimage devices, whether they are busy or free, and if busy, the mode in which they are being used, and if used by the same mode as that in which the GUI is operating, the request and volume to which they are allocated and the time of allocation, c. for Rimage units, their current actual and allocated workload, d. any explanation associated with the device e. an appropriate indication if a device is currently busy but was requested by the operator to go off-line once it frees up.	Completed
ECS-L4-17939	S-OMS-13210 The OM GUI shall permit an authorized operator to change the status of a device to free that is currently marked busy if it is used by a request operating in the mode in which the GUI is operating, except if the device is a production device currently allocated to a volume that is in the creating phase (i.e., Prepping, Prepped, Creating state) or verifying phase (i.e., Verifying state). [NOTE: The exceptions are intended to prevent operator mistakes. Testing this presumes an error in OMS device status maintenance and thus, it may not be possible to test this requirement during integration testing.]	Completed

ID	Title	Status
ECS-L4-17940	S-OMS-13220 The OMS CI shall allow DAAC operators to configure for each physical media type the following information: a. a default QC policy, to include the options to either verify by default all or none of the produced volumes, b. for tape media types that are activated automatically, the maximum number of devices that a request may use concurrently for media production while there are distribution requests pending or in media production that could use these devices, c. for any media type activated automatically, the maximum number of devices that a request may use concurrently for media verification while there are distribution requests waiting for QC activation or in QC that could use these devices.	Completed
ECS-L4-17941	S-OMS-13230 The OM GUI shall allow DAAC operators to list the configuration settings in S-OMS-10400, S-OMS-10402, S-OMS-10407, S-OMS-10410, S-OMS-10420, and S-OMS-13220.	Completed
ECS-L4-17942	S-OMS-13240 The OM GUI shall allow an operator to monitor for the following request-related operator actions: a. to activate media creation manually, b. DELETED c. to collect the created media for QC, d. to assemble a distribution package for shipment, e. to activate media verification manually.	Completed
ECS-L4-17943	S-OMS-13250 The OM GUI shall allow an operator to monitor for the following request-related operator interventions: a. to handle media creation errors, b. to handle media verification errors, c. to handle the assignment of a physical media distribution request to Synergy III mode,	Completed
ECS-L4-17944	S-OMS-13260 The OM GUI shall allow an operator to monitor for the following media device related actions: a. to assign a device to a volume, b. to confirm the mount of a volume on the assigned device, c. to confirm the dismount of a volume from the device to which it has been assigned.	Completed
ECS-L4-17945	S-OMS-13270 The OM GUI shall allow an operator to monitor for device related actions and request related actions concurrently on a single screen.	Completed
ECS-L4-17946	S-OMS-13280 The OM GUI shall allow an operator to filter the request related operator actions and interventions by type of action, respectively intervention.	Completed
ECS-L4-17947	S-OMS-13290 The OM GUI shall allow an operator to sort the request related operator actions and interventions by media type.	Completed
ECS-L4-17948	S-OMS-13300 The OM GUI shall organize the device related operator actions by media type.	Completed
ECS-L4-17949	S-OMS-13310 The OM GUI shall allow an operator to leave any of the request related operator actions / interventions related to OMS media creation, QC and shipment pending, optionally after providing an annotation.	Completed
ECS-L4-17950	S-OMS-13320 When displaying an action to assign a device for media production, the OM GUI shall offer the operator a list of volumes eligible to be produced on this device, i.e., the volumes of requests for that media type that have been activated for media creation, still require production, and have not yet been assigned to a device.	Completed
ECS-L4-17951	S-OMS-13330 When displaying an action to assign a device for media verification, the OM GUI shall offer the operator a list of volumes eligible to be verified on this device, i.e., the volumes of requests for that media type that have been activated for media verification, still require verification, and have not yet been assigned to a device.	Completed

ID	Title	Status
ECS-L4-17952	S-OMS-13340 The OM GUI shall display the list of volumes offered for production or verification on a device grouped by request in ascending order of request ID and within the same request, in ascending order of volume identification.	Completed
ECS-L4-17953	S-OMS-13350 When displaying a list of volumes eligible to be verified on a device, the OM GUI shall identify volumes that were produced on that device.	Completed
ECS-L4-17954	S-OMS-13360 The OM GUI shall warn the operator when the operator assigns a device to the verification of a volume that was produced on that device, and accept that assignment only after the operator has confirmed it.	Completed
ECS-L4-17955	S-OMS-13370 The OM GUI shall not allow an operator to assign a device unless the dismount of the volume previously mounted in that device had been confirmed before.	Completed
ECS-L4-17956	S-OMS-13380 When displaying an operator action to confirm the mount or dismount of media, the OM GUI shall display the following information: a. the identification of the request, b. the purpose of the mount or dismount (e.g., whether for media production or verification), c. the media type, d. the identification of the device, e. for media mounts and dismounts during QC, the ID of the volume that will be or was verified, f. for media mounts and dismounts during media creation, the ID of the volume that will be or was created.	Completed
ECS-L4-17957	S-OMS-13390 The OM GUI shall allow an authorized operator to disposition a request for operator action to dismount media by: a. confirming the successful completion of the requested action, or b. indicating that the requested action failed, optionally requesting that the device be set to off-line and associating an explanation with the off-line device. [NOTE: Failing a dismount will mark the corresponding media volume as failed. It will also disassociate the volume from the device and the device will be assumed to be unassigned.]	Completed
ECS-L4-17958	S-OMS-13400 When displaying the confirmation for dismounting a volume, the OM GUI shall indicate to the operator when the operation failed for which the volume was originally mounted.	Completed
ECS-L4-17959	S-OMS-13410 The OM GUI shall allow an operator to retry the failed operation of a volume without waiting for an operator intervention. [NOTE: Since there are no separate dismount actions for Rimage, operators will generally not know that a volume failed during Rimage production until OMS queues an operator intervention for the request.]	Completed
ECS-L4-17960	S-OMS-13420 When displaying an operator action to activate media creation for tapes manually, the OM GUI shall: a. Display the due date of the request (device selection removed), b. Display the number of volumes that need to be produced. [NOTE: If the media production of volumes is retried, the number of volumes to be produced may be less than the total number of volumes in that request.]	Completed
ECS-L4-17961	S-OMS-13430 The OM GUI shall allow an authorized operator to complete an action for manually activating media creation for a request using Rimage for its media production: a. by selecting the offered default device, or b. by selecting any other offered device, or c. by failing the request, optionally after suppressing sending the DN.	Completed
ECS-L4-17962	S-OMS-13440 The OM GUI shall inform an operator who attempts to manually activate a request for media creation on a device other than Rimage if there is no device of the required type currently on-line which could be used in this operational mode, and not permit the operator to activate a request under that circumstance.	Completed

ID	Title	Status
ECS-L4-17963	S-OMS-13450 The OM GUI shall allow an authorized operator to complete an action for manually activating media creation for tape: a. by activating the request, or b. by failing the request, optionally after suppressing sending the DN.	Completed
ECS-L4-17964	S-OMS-13460 The OMS CI shall generate a media creation error intervention for an active request that is in media creation if there is no on-line device of the required type which can be used by this processing mode. [NOTE: In this situation, any active requests that still require volumes to be created cannot proceed because their volumes can no longer be assigned to devices until a device is set on-line and/or made available to the mode. The intervention will alert the operator to that fact and prevent the request from seemingly hanging indefinitely. The operator can close the intervention by retrying the request. This will requeue the request for activation.]	Completed
ECS-L4-17965	S-OMS-13470 When displaying intervention details related to media creation errors, the OM GUI shall: a. display the nature of the media creation error, b. display the media type, c. list the media volumes, their status, the related production module, d. identify for each media volume, the device to which it was assigned, the time volume production was started, and whether the dismount of the volume needs to be confirmed, e. identify the volumes whose creation encountered an error, as well as the nature of the error, f. identify the request and allow the operator to access details related to the distribution request, g. in the case of tape distribution, ask the operator to confirm for those media volumes for which the dismount has not yet been confirmed that the media were removed from their respective production devices and the devices are now available for other requests, h. allow the operator to change the status of selected volumes, e.g., to indicate that volumes have been written successfully or were found to be defective.	Completed
ECS-L4-17966	S-OMS-13480 The OM GUI shall allow an authorized operator to complete an operator intervention related to physical media creation errors after any pending dismounts have been confirmed, by: a. retrying the media creation for the entire distribution request, optionally after failing granules that experienced media creation errors, or b. retrying the media creation for volumes that failed or were marked failed by the operator, optionally after failing granules that experienced media creation errors on those volumes, or c. failing the distribution request, optionally after suppressing sending the DN.	Completed
ECS-L4-17967	S-OMS-13490 When displaying a request for operator action to collect the created media for QC, the OM GUI shall: a. identify the distribution request and provide access to the request details, b. identify the media type, c. list the created media volumes and the related production module, d. identify for each media volume, the device on which it was produced, e. identify the media volumes currently selected for verification (e.g., by default or in case of a retry, because of a prior selection).	Completed
ECS-L4-17968	S-OMS-13500 The OM GUI shall allow an authorized operator who is completing an action requesting collection of the created media for QC to change the current selection of the media volumes that are to be verified by: a. selecting all volumes for verification in a single operator action, b. selecting no volumes for verification in a single operator action, c. selecting individual volumes for verification, d. de-selecting individual volumes that are currently selected for verification.	Completed

ID	Title	Status
ECS-L4-17969	S-OMS-13510 The OM GUI shall allow an authorized operator to complete an action requesting collection of the created media for QC by: a. acknowledging that the media have been collected and are ready for verification, or b. failing the action, e.g., because the media could not be collected or because the operator discovered a problem that prevents QC.	Completed
ECS-L4-17970	S-OMS-13520 When displaying an operator action to activate media verification manually, the OM GUI shall display: a. the due date of the request, b. the number of volumes that need to be verified.	Completed
ECS-L4-17971	S-OMS-13530 The OM GUI shall allow an authorized operator to complete an action for manually activating media verification: a. by activating the request, or b. by failing the action, thereby causing a QC error intervention.	Completed
ECS-L4-17972	S-OMS-13540 The OM GUI shall inform an operator who attempts to manually activate a request for media verification if there is no device of the required type currently on-line which could be used in this operational mode, and not permit the operator to activate a request under that circumstance.	Completed
ECS-L4-17973	S-OMS-13550 The OMS CI shall generate a media verification error intervention for an active request that is in media verification if there is no on-line device of the required type which can be used by this processing mode.	Completed
ECS-L4-17974	S-OMS-13560 When displaying an operator intervention related to media verification errors, the OM GUI shall: a. display the nature of the media verification error, b. display the media type, c. list the media volumes, d. identify for each volume the responsible production module, the device on which it was produced, (if applicable) the device used for verification and whether the dismount still requires confirmation, and its status, i.e., whether it failed verification, passed verification, or whether verification was skipped by the operator or not performed, e. change the selection of volumes to be verified (except for those volumes which are already verified), f. identify the request and allow the operator to access details related to the distribution request, g. allow the operator to change the status of a volume, e.g., to indicate that it is defective or passed, h. ask the operator to confirm for those media volumes for which the dismount has not yet been confirmed that the media were removed from their respective verification devices and the devices are now available for other requests, i. identify the printer to which the QC report was sent if one was generated, j. allow the operator to print a QC report.	Completed
ECS-L4-17975	S-OMS-13570 The OM GUI shall allow an authorized operator to complete an operator intervention related to media verification errors after any pending dismounts have been confirmed, by: a. retrying the media creation for the entire distribution request, optionally after failing granules that experienced media creation errors, or b. retrying the media creation only for volumes that failed or were marked failed by the operator, optionally after failing granules that experienced media creation errors on those volumes, or c. failing the distribution request, optionally after suppressing sending the DN, or d. requesting re-verification of volumes that failed or were marked failed by the operator if they are still flagged for verification, as well as the verification of volumes that are selected for verification and for which verification has not yet been performed.	Completed

ID	Title	Status
ECS-L4-17976	S-OMS-13580 When displaying a request for operator action to assemble the final distribution package for shipment, the OM GUI shall: a. display request information, b. identify the media type, c. list the created media volumes, identify their status, the devices used for their production and verification, and the responsible production module, d. list the printed outputs and identify the printers where each is located, e. allow the operator to re-print any of the following (as applicable to the media type): shipping label, packing list, tape labels, jewel case inserts, and QC report. f. let the operator acknowledge the successful collection of all media volumes.	Completed
ECS-L4-17977	S-OMS-13590 The OM GUI shall allow an authorized operator to complete an operator action requesting assembly of the final distribution package for shipment by: a. acknowledging the successful assembly of the package, and confirming that the request can transitioned to the 'Shipped' state, optionally suppressing the DN, b. indicating that the distribution package could not be assembled successfully, thereby causing a QC error intervention, c. failing the request, optionally suppressing the DN.	Completed
ECS-L4-17978	S-OMS-13600 The OM GUI shall display the following additional information when displaying details for a physical media distribution request: a. Request Annotations, b. Identification of the tape production device or Rimage unit that was used for the request [NOTE: or the latest if more than one was used] and the time of allocation, c. List of media volumes created for the request in order of volume ID. d. Due Date.	Completed
ECS-L4-17979	S-OMS-13610 The OM GUI shall display the following information when listing media volumes: a. volume identification, b. volume status, i.e., one of the following: NULL, Prepping (volume is being prepared), Prepared (volume was prepared but not yet created), Creating (volume is being created), Created (volume was created by not yet verified), Verifying (volume is being verified), Verified (volume was verified successfully), Failed (volume failed the current operation, i.e., prepping, creating, or verifying), QC Skipped by Ops (verification of volume was skipped by the operator). c. associated production module, d. The time volume creation started if the volume is currently in the 'Creating' state (i.e., the time of last status change), e. The time volume verification started if the volume is currently in the 'Verifying' state (i.e., the time of last status change), f. for each volume, the devices used for production and verification, g. whether the dismount of the media volume still needs to be confirmed. [NOTE: The above ensures that the time the respective operation started as well as the device being used for a volume is displayed when the GUI offers the operator the option to stop this operation.]	Completed
ECS-L4-17980	S-OMS-13620 The OM GUI shall display the list of volumes for a request when displaying historic request details.	Completed
ECS-L4-17981	S-OMS-13630 The OM GUI shall include the following information for each volume when displaying the volume list for historic requests: a. the final status of the volume (usually 'Verified' or 'QC Skipped By Ops'), b. the device on which the volume was created, c. the device on which the volume was verified (if it was verified).	Completed
ECS-L4-17982	S-OMS-13640 The OM GUI shall allow authorized operators to stop the physical media verification for a physical media distribution request that is currently in the 'QC Hold' state, optionally for a specific volume. [NOTE: The OMS will cancel the execution of the current QC module and queue a QC error. The operator can handle any necessary actions in the resulting operator intervention.]	Completed

ID	Title	Status
ECS-L4-17983	S-OMS-13650 The OM GUI shall remind the operator who is canceling a request that any of its media volumes that are currently assigned to devices will be considered dismounted once the cancellation of the request has occurred.	Completed
ECS-L4-17984	S-OMS-13660 If the OMS CI is configured for automatic activation for a media type other than Rimage, the OMS CI shall dispatch requests for that media type for media creation while there is at least one device that is free, on-line, and supports the media type, if there is no request in media creation or verification that could use that device and whose device usage is below the configured maximum for media creation, respectively media verification. [NOTE: In other words, a device may be freed up because a volume of some other request completes production or verification. However, if that request uses fewer devices than the configured limit permits and still has volumes that need to be verified or created, than that active request gets to use available devices first.]	Completed
ECS-L4-17985	S-OMS-13670 The OMS CI shall be able to re-execute the physical media distribution steps for a request or a volume, re-assigning the same volume identifications to volumes that have been created before and are not being re-created. [NOTE: Re-dispatching may be needed after operator interventions. For example, a multi-volume job may encounter a device error after some media have been written; or some of the media failed verification. Note that in the case of Rimage, this implies that the OMS can distinguish between the response to a re-dispatch and the original dispatch.]	Completed
ECS-L4-17986	S-OMS-13680 When automatically activating a request for media creation for a tape device, the OMS CI shall make its volume available for automatic device assignment.	Completed
ECS-L4-17987	S-OMS-13685 For media types configured for automatic activation, the OMS CI shall assign their devices to volumes of active requests for media creation automatically by priority and within the same priority in the order in which the requests were activated for media creation, and within the same request in sequence of volume ID, subject to the configured limits for concurrent device usage.	Completed
ECS-L4-17988	S-OMS-13690 When an operator action for activating a distribution request manually is completed successfully, the OMS CI shall make its volumes eligible for manual device assignment.	Completed
ECS-L4-17989	S-OMS-13700 After a volume was assigned to a device other than Rimage, the OMS CI shall generate an operator action to mount media for the volume into the assigned device.	Completed
ECS-L4-17990	S-OMS-13710 The OMS CI shall re-queue a volume for allocation to a different device if the mount action for its current device is failed and the media type is dispatched automatically. [NOTE: ECS tracks a single device for a distribution request. If a distribution request used several production devices, the tracking information will only show the most recent device that was used.]	Completed
ECS-L4-17991	S-OMS-13720 The OMS CI shall generate an operator action for device assignment for a volume if its mount action is failed and the media type is dispatched manually.	Completed
ECS-L4-17992	S-OMS-13730 The OMS CI shall flag a volume as having failed its current media operation because of a failed dismount when the operator fails the action to dismount the volume and disassociate the volume from the device on which it was mounted. [NOTE: The volume is disassociated from the device so it can be retried if the copy that is currently in the device cannot be used.]	Completed

ID	Title	Status
ECS-L4-17993	S-OMS-13740 The OMS CI shall make a device available for another volume when it completes the physical media operation for the current volume (whether successfully or with an error), or the media operation is stopped, or the mount of the currently assigned volume is failed, provided that the device was not set off-line and that the operator confirms or fails the dismount of the previously mounted media, or acknowledges the dismount when the request is cancelled.	Completed
ECS-L4-17994	S-OMS-13750 The OMS CI shall no longer allocate a device to volumes if the operator requested that it be set off-line at a time when the device was busy, even if the device becomes free, until such time as the operator sets the device on-line again.	Completed
ECS-L4-17995	S-OMS-13760 If a production module returns an error the OMS CI shall indicate that the media creation for the affected volume failed.	Completed
ECS-L4-17996	S-OMS-13770 The OMS CI shall generate an operator intervention for a media creation error when it completes media creation for a request (i.e., all volumes are in a created or a failed state) if there are any volumes that have failed during media creation.	Completed
ECS-L4-17997	S-OMS-13780 The OMS CI shall fail the affected volumes when it cancels one or several production modules in response to the operator stopping the creation of the corresponding volume(s) or distribution request, indicating that the media creation for these volumes was stopped by the operator.	Completed
ECS-L4-17998	S-OMS-13790 The OMS CI shall fail the affected volumes when it cancels one or several media verification operation in response to the operator stopping media verification of the corresponding volume(s) or distribution request indicating that the media verification for these volumes was stopped by the operator.	Completed
ECS-L4-17999	S-OMS-13800 The OMS CI shall queue an action requesting the operator to collect the media for the distribution request for QC when it completes physical media production and any dismount actions for volumes of that request have been confirmed, if any of its media need verification.	Completed
ECS-L4-18000	S-OMS-13810 The OMS CI shall update the status of volumes that have not been selected for verification to 'QC Skipped by Ops'.	Completed
ECS-L4-18001	S-OMS-13820 The OMS CI shall queue distribution requests for which the operator acknowledged the successful collection of media for QC for automatic activation for media verification if the media type is configured for automatic activation and the request includes volumes that require verification.	Completed
ECS-L4-18002	S-OMS-13830 The OMS CI shall automatically activate distribution requests for media verification in order of priority, and within the same priority, on a first-in first-out basis if the media type is configured for automatic activation.	Completed
ECS-L4-18003	S-OMS-13840 The OMS CI shall automatically activate distribution requests for media verification only while there is at least one device that is free, on-line, and could be used for QC by that request, provided there is no request in media verification that could use that device and whose device usage is below the configured maximum for media verification.	Completed
ECS-L4-18004	S-OMS-13860 The OMS CI shall generate a QC error intervention if a request is waiting for automatic activation for QC but there are no devices on-line that support QC of the required media type and are available to this mode (i.e., are not reserved for use by a different mode).	Completed

ID	Title	Status
ECS-L4-18005	S-OMS-13870 If the OMS CI is configured for automatic activation for a media type, it shall assign the volumes of distribution requests that were activated for verification to on-line free QC devices that support the requested media type by priority, and within the same priority in the order in which the requests were activated for QC, subject to the configured limits for concurrent device usage.	Completed
ECS-L4-18006	S-OMS-13880 The OMS CI shall not automatically assign a volume for QC to the device that was used to create that volume while there are other QC devices for that media type are on-line.	Completed
ECS-L4-18007	S-OMS-13890 The OMS CI shall give preference to QC over media creation when assigning devices to volumes automatically.	Completed
ECS-L4-18008	S-OMS-13900 The OMS CI shall fail the media verification for the affected volume if a media verification module returns an error.	Completed
ECS-L4-18009	S-OMS-13910 The OMS CI shall identify the media volumes that fail verification, but continue to verify the remaining media volumes designated for verification.	Completed
ECS-L4-18010	S-OMS-13920 The OMS CI shall queue an operator intervention for QC error when it completes media verification for a request (i.e., all volumes are in a verified or failed or QC skipped by operator state) if there are any media volumes that have failed verification.	Completed
ECS-L4-18011	S-OMS-13930 The OMS CI shall fail the media verification for the affected volume when a request that it created for a PC-attached QC device is not completed within an operator configurable time.	Completed
ECS-L4-18012	S-OMS-13940 The OMS CI shall queue an operator action for manual activation of QC for a distribution request once the operator acknowledges the successful collection of media for QC and the media type is configured for manual activation and there are volumes that need to be verified, and skip the media verification step if no volumes remain to be verified.	Completed
ECS-L4-18013	S-OMS-13960 When an operator action for manual activation of QC for a distribution request is completed successfully, the OMS CI shall make its volume eligible for manual QC device assignment.	Completed
ECS-L4-18014	S-OMS-13970 The OMS CI shall queue a request for operator action to assemble the distribution package, i.e., the printed output and the created media after the request completes QC for all volumes successfully and all dismount actions for that request have been confirmed.	Completed
ECS-L4-18015	S-OMS-13980 The OMS CI shall include the list of volumes associated with a physical media distribution request and the devices used to create and verify each volumes in the order tracking information that it archives.	Completed
ECS-L4-18017	S-OMS-14010 The OMS CI shall use as file names for distributed granules the local granule ID (if present) else the original file name regardless of the file names under which the granule is staged in the Data Pool, except if there is more than one granule in the same distribution request which would use the same file names (this is called a file name collision).	Completed
ECS-L4-18018	S-OMS-14020 In the presence of a file name collision, OMS shall deliver the files of the first granule using the rules in requirement S-OMS-14010 and for subsequent colliding granules, append a numerical suffix to the file names that were derived in accordance of requirement S-OMS-14010; the numerical suffix used shall be unique for each of the colliding granules and the same for all files of that granule.	Completed

ID	Title	Status
ECS-L4-18019	S-OMS-14030 When distributing a granule with file names different from those under which the granule is staged in the Data Pool, the OMS CI shall create a copy of the metadata file (.met or .xml) using the names assigned for distribution and modify the metadata element 'DistributionFile' to be consistent with the file names actually used for distribution.	Completed
ECS-L4-18020	S-OMS-14040 The OMS CI shall place any additional copies of metadata files created as per S-OMS-14030 in the hidden Data Pool in the same directory as the original metadata file or the link to the original metadata file if the granule is public, except if creating a copy of that metadata file in the FTP Pull directory for that distribution request.	Completed
ECS-L4-18021	S-OMS-14050 When distributing a granule for FTP Pull with file names different from those under which the granule is staged in the Data Pool, the OMS CI shall create a copy of the granule files using the names assigned for distribution in the FTP Pull directory for that distribution request instead of creating links.	Completed
ECS-L4-18022	S-OMS-15000 The OMS CI shall not remove ECS granules from the Data Pool. [NOTE: This replaces requirement S-OMS-08230. It can be implemented by having the DPL CI ignore requests from OMS for granule removal, but OMS still needs to make sure it will not remove the corresponding files.]	Completed
ECS-L4-18027	S-OMS-15100 The OMS GUI shall allow the DAAC operator to control the circumstances under which checksum verification will be performed based on media type and days since last checksum.	Completed
ECS-L4-18028	S-OMS-15110 For each media type (ftp-pull, ftp-push, scp, CDROM, DLT, or DVD) the OMS GUI shall allow the operator to dynamically specify the minimum number of days since the last checksum was performed on a file before verifying the checksum again.	Completed
ECS-L4-18029	S-OMS-15120 For data distribution using ftp-push or scp push, the OMS CI shall provide a DAAC configurable capability to dynamically turn off checksum verification for each destination.	Completed
ECS-L4-18030	S-OMS-15130 The OMS CI shall update the DataPool database after successful checksum verification of a file by setting the last checksum timestamp and the checksum status.	Completed
ECS-L4-18031	S-OMS-15140 The OMS CI shall generate an operator intervention event upon detection of checksum failure during data distribution and shall identify checksum failure as the reason for the intervention, including the name of the file that failed checksum verification. The checksum status will be marked as failed in the DataPool database.	Completed
ECS-L4-18036	S-OMS-15190 The OMS CI shall log the following information for each checksum verification: Granule ID ESDT ShortName and Version ID Complete file name and path Checksum type Computed checksum Checksum value in database Execution time of checksum operation	Completed
ECS-L4-18037	S-OMS-15310 The OMS CI shall accept granule order options for distributing the QA, PH, and Browse granules associated with an ordered granule. [NOTE: This requirement cannot be integration testing because the capabilities for submitting external processing orders will not submit such requests to OMS.]	Completed
ECS-L4-18038	S-OMS-15311 The OMS CI shall support the distribution of HDF4 archive map granules associated with an ordered granule.	Completed
ECS-L4-18039	S-OMS-15312 The OMS CI shall accept distribution requests from EWOC that target SDPS mediated processing capabilities. [NOTE: This extends existing OMS requirements for accepting processing request for HEG.]	Completed

ID	Title	Status
ECS-L4-18040	S-OMS-15313 The OMS CI shall use the SDPS-DAAC Internal On-demand Processing API to invoke the processing service(s) that implement the SDPS mediated processing capabilities needed by a distribution request and accept their outputs and other returned information. [NOTE: This replaces the corresponding HEG interface requirement S-OMS-08400, S-OMS-08420 in Ticket OD S5 02.]	Completed
ECS-L4-18041	S-OMS-15314 The OMS CI shall request an operator intervention if the SDPS-DAAC Internal On-demand Processing API returns an error in response to a submitted processing request for an OMS line item. [NOTE: OMS will not retry any errors returned from the Internal On-demand Processing API. This is because classifying general error codes that are retryable for all potential service tools is complex and the retry logic is better imposed by the tool adapter itself.] [NOTE: This replaces S-OMS-08410 in Ticket OD S5 02. ]	Completed
ECS-L4-18042	S-OMS-15315 The OMS CI shall request an operator intervention if the SDPS-DAAC Internal On-demand Processing API returns an error categorized as non-retriable. [NOTE: This replaces S-OMS-08470 in Ticket OD S5 02.]	Completed
ECS-L4-18043	S-OMS-15316 The OMS CI shall, upon receiving an error from the SDPS-DAAC Internal On-demand Processing API indicating the unavailability of a required resource, handle the resource outage such that: All requests run to successful completion after the unavailable resource is made available again. Dispatching of line items to the unavailable resource is paused until the resource is again available (with the exception of periodic dispatches to determine if the resource has come back on line). The OMS CI will automatically determine when the resource has been made available again and resume normal dispatching of line items at that point.	Completed
ECS-L4-18044	S-OMS-15317 The OMS CI shall accept distribution requests that require SDPS mediated processing services for some or all of their line items. [NOTE: In Release 8.1, an OMS line item is a granule. This requirement was rephrased in a more general fashion to allow for line items that represent a collection (e.g., when requesting GLAS subsetting) or a set of granules (e.g., when requesting mosaicing. However, the requirement itself is not meant to imply that such services are actually supported by OMS.]	Completed
ECS-L4-18045	S-OMS-15318 In the e-mail message sent to a user after acceptance of an order, the OMS CI shall include the following information for each line item that requires processing services: the input granule ID the URL via which the user can obtain the status of this order. [NOTE: This augments (i.e., is in addition to) S-OMS-06442 and replaces S-OMS-08300 in Ticket OD S5 02.]	Completed
ECS-L4-18046	S-OMS-15319 The OMS CI shall validate distribution requests that require processing services, i.e. validate the total request against the normal request limits (including granule count limit), plus the number of line items that require processing against the configured corresponding limit, and request an operator intervention if any of the limitations are violated. [NOTE: See ticket OD_S3_01, S-OMS-01090, S-OMS-01110, S-OMS-01130. This replaces S-OMS-08310 in Ticket OD S5 02.]	Completed
ECS-L4-18047	S-OMS-15320 The OMS CI shall reject external processing requests that contain granules with QA and/or PH and/or Browse distribution options. [Note: This requirement cannot be integration tested because the capabilities for submitting external processing orders will not submit such requests to OMS.]	Completed

ID	Title	Status
ECS-L4-18048	S-OMS-15321 The OMS CI shall activate distribution requests that include processing instructions by priority and within the same priority on a first-in, first-out basis, as processing slots can no longer be filled by distribution requests that are currently active. [NOTE: This replaces S-OMS-08350 in Ticket OD S5 02.]	Completed
ECS-L4-18049	S-OMS-15322 The OMS CI shall queue the line items of a distribution request that include processing instructions for processing once the request has been activated. [NOTE: This replaces S-OMS-08370 in Ticket OD S5 02.]	Completed
ECS-L4-18050	S-OMS-15323 The OMS CI shall dispatch distribution line items queued for processing in accordance with the configured on-demand dispatch policy. [NOTE: This replaces S-OMS-08380 in Ticket OD S5 02.]	Completed
ECS-L4-18051	S-OMS-15324 The OMS CI shall not activate a distribution request or dispatch processing for any of its line items if the request is canceled, or in operator intervention, or suspended. [NOTE: This replaces S-OMS-08390 in Ticket OD S5 02.]	Completed
ECS-L4-18052	S-OMS-15325 If a distribution request is resubmitted by DAAC staff following an operator intervention, the OMS CI shall not include the processing outputs from the previous submission of any failed line items in the distribution. [NOTE: This means that if an operator resubmits a request after failing a line item during an operator intervention, any outputs of that line item that may already have been produced must not be included in the distribution and can be removed from the request. This replaces S-OMS-08460 in Ticket OD S5 02.]	Completed
ECS-L4-18053	S-OMS-15326 The OMS CI shall include in the operator intervention triggered by a processing error, the reason for the failure (if available). [NOTE: This replaces S-OMS-08480 in Ticket OD S5 02.]	Completed
ECS-L4-18054	S-OMS-15327 The OMS CI shall be able to create and send Distribution Failure Notices at the discretion of the operator for distribution requests or line items that were failed by the operator while handling an operator intervention triggered by a processing error. [NOTE: This replaces S-OMS-08490 in Ticket OD S5 02.]	Completed
ECS-L4-18055	S-OMS-15328 The OMS CI shall retry submission to a processing service affected by an alert as specified in the dispatch policy unless the service was suspended by the operator. [NOTE: Here and in other requirements, references to multiple 'services' and 'queues' do not mean that OMS must maintain a separate queue for each processing service. Organization of the queues for the processing services and management of the associated resources are left to the OMS design for Release 8.1.] [NOTE: This replaces S-OMS-08510 in Ticket OD S5 02.]	Completed
ECS-L4-18056	S-OMS-15329 The OMS CI shall resume submission for a processing service affected by an alert and clear that alert if a resubmission to that service succeeds (i.e., the associated service or required resource can be assumed to be available.) [NOTE: This replaces S-OMS-08520 in Ticket OD S5 02.]	Completed
ECS-L4-18057	S-OMS-15330 The OMS CI shall include the QA, PH and Browse granule associated with a granule in a distribution request if so requested by the corresponding order option for a granule. [NOTE: As a result, OMS will include both the granule file and the XML metadata file in the distribution (see the corresponding design TBD in S-DPL-10200). OMS would translate the XML file into a .met file if the corresponding option is in effect for this request.]	Completed

ID	Title	Status
ECS-L4-18058	S-OMS-15331 While submissions for a processing service are suspended by the operator, the OMS CI shall not activate distribution requests requiring that service and no longer dispatch line items for that service. [NOTE: It is OK to complete a processing of a line item that was already submitted.] [NOTE: This replaces S-OMS-08530 in Ticket OD S5 02.]	Completed
ECS-L4-18059	S-OMS-15332 When an operator cancels a line item involving processing, the OMS CI shall submit a cancel request to the corresponding processing service via the SDPS-DAAC Internal On-demand Processing API. [NOTE: This replaces S-OMS-08540 in Ticket OD S5 02.]	Completed
ECS-L4-18060	S-OMS-15333 When an operator cancels a distribution request that involves on-demand processing, the OMS CI shall submit cancel requests for all of its line items that are currently executing to the corresponding on-demand processing service via the SDPS-DAAC Internal On-demand Processing API. [NOTE: This replaces S-OMS-08542 in Ticket OD S5 02.]	Completed
ECS-L4-18061	S-OMS-15334 The OMS CI shall queue a DN for a FTP Pull distribution request that involves processing after all its line items have been processed or otherwise dispositioned. [NOTE: This replaces S-OMS-08550 in Ticket OD S5 02.]	Completed
ECS-L4-18062	S-OMS-15335 After the processing for a distribution request is complete, the OMS CI shall update the distribution request size in the OMS order tracking information to contain the total size of the output data that are distributed, i.e., for line items involving processing, the OMS CI shall use the size of the outputs rather than the input size to calculate the request size for this purpose. [NOTE: This replaces S-OMS-08562 in Ticket OD S5 02.]	Completed
ECS-L4-18063	S-OMS-15336 The OMS CI shall queue the output of a FTP Push request involving processing for final distribution after processing has completed. When possible, it is acceptable and desirable to begin pushing the outputs as individual line items finish processing rather than waiting for all the line items to complete. [NOTE: For requests that require packaging options( e.g. gzip), it is acceptable to begin pushing the outputs only after all of the line items complete.] [NOTE: This replaces S-OMS-08570 in Ticket OD S5 02.]	Completed
ECS-L4-18064	S-OMS-15337 The OMS CI shall be able to distribute processing outputs via any of the media types it supports. [NOTE: This replaces S-OMS-08580 in Ticket OD S5 02.]	Completed
ECS-L4-18065	S-OMS-15338 The OMS CI shall include in the Distribution Notices (DN) sent for requests that involve processing, for each line item that required processing and failed, any error detail provided by the SDPS-DAAC Internal On-demand Processing API. [NOTE: This replaces S-OMS-08590 in Ticket OD S5 02.]	Completed
ECS-L4-18066	S-OMS-15339 The OMS CI shall allow a DAAC to configure whether a DN for FTP Pull will offer packaging options or not. [NOTE: This replaces S-OMS-08605 in Ticket OD S5 02.]	Completed
ECS-L4-18067	S-OMS-15340 The OMS CI shall not consider it an error if an ordered science granule does not have a QA, PH and Browse association even if corresponding order option was specified for that granule.	Completed
ECS-L4-18068	S-OMS-15341 The OMS CI shall remove any files it created to support processing once they are no longer needed. [NOTE: This replaces S-OMS-08610 in Ticket OD S5 02.]	Completed

ID	Title	Status
ECS-L4-18069	S-OMS-15342 The OMS CI shall remove outputs from processing services once they are no longer needed for distribution. [NOTE: For corresponding HEG requirements, see OG_S5_01.] [NOTE: This replaces S-OMS-08630 in Ticket OD S5 02.]	Completed
ECS-L4-18070	S-OMS-15343 The OMS CI shall log the following events related to the use of processing services: a. Dispatching of a processing request Completion of a processing request Starting work on a distribution request involving processing Completing work on a distribution request involving processing Sending a DN for a distribution request involving processing Errors Operator interventions and alerts related to processing Suspension and resumption of a processing service Stopping and resuming acceptance of distribution requests that involve processing. [NOTE: This replaces S-OMS-08650 in Ticket OD S5 02.]	Completed
ECS-L4-18071	S-OMS-15344 The OMS CI shall format its application log entries compliant with the current SDPS log format (e.g., containing time and severity), and include the following information for log entries related to the use of processing services, as applicable and where the requested information is available: OMS Request ID ECS Granule ID File name and file size Error/event identification and explanation Any service request identifier which OMS may have assigned to the individual processing request. [NOTE: This replaces S-OMS-08660 in Ticket OD S5 02.]	Completed
ECS-L4-18072	S-OMS-15345 The OMS CI shall include steps related to the use of processing services in the OMS debug log. [NOTE: This replaces S-OMS-08670 in Ticket OD S5 02.]	Completed
ECS-L4-18073	S-OMS-15346 While executing a distribution request that uses processing services, the OMS CI shall maintain the order tracking status of the request in the order tracking information as follows: While a request is queued for processing services, its state shall be 'Waiting for Processing'. Once a request has been activated and until all its line items that require processing services completed processing or are dispositioned otherwise, its state shall be 'Processing'. After some granules for a FTP Push request (with or without processing) have begun to transfer and until all FTP Push operations for the request are complete, the state of the request shall be 'Transferring'. [NOTE: This replaces S-OMS-16360 in Ticket OM 80 01.]	Completed
ECS-L4-18074	S-OMS-15347 The OMS CI shall maintain the status of each line item requiring processing services as follows: While a line item is queued for processing services, its state shall be 'Waiting for Processing'. Once the processing service for a line item is dispatched, its state shall be 'Processing'. After processing for a line item completed, its state shall be 'Completed Processing', until such time as the line item state is changed by subsequent distribution activities. [NOTE: This replaces S-OMS-08690 in Ticket OD S5 02.]	Completed
ECS-L4-18075	S-OMS-15348 The OMS CI shall not re-perform processing services when operators disposition interventions resulting from errors during the subsequent distribution steps. [NOTE: This replaces S-OMS-08692 in Ticket OD S5 02.]	Completed

ID	Title	Status
ECS-L4-18076	S-OMS-15349 The OM GUI shall allow appropriately authorized operators to configure a dispatch policy for OMS line items that require processing services which is independent of the dispatch policy for requests received via the SDPS Web API and which shall include: a. the maximum number of line items that involve processing which may be executing concurrently for a given processing service. retry interval for automatic retry in case dispatching for a processing service is suspended automatically. [NOTE: There is no requirement of a per request concurrent processing limit. It is assumed that a FIFO dispatching mechanism along with the ability to prioritize requests is sufficient. In cases where performance of a request is vital and care must be taken to avoid any one request starving out others, the request should be submitted directly to the SDPS Web API rather than to OMS.] [NOTE: OMS will maintain multiple on-demand processing queues, one per service.] [NOTE: This replaces S-OMS-08700 in Ticket OD S5 02.]	Completed
ECS-L4-18077	S-OMS-15350 The OMS CI shall reflect the QA, PH and Browse granules that were added to a distribution request because of ordering options in the order tracking information.	Completed
ECS-L4-18078	S-OMS-15351 The OMS CI shall allow DAAC operations to define and maintain the configuration settings for the DAAC processing services as provided for in the ICD Between ESI and its Clients and Service Providers, for example, the interface end point if the API for a processing service uses a REST or SOAP interface. [NOTE: This functionality may be provided by the Data Access GUI rather than the OM GUI] [NOTE: This replaces S-OMS-08710 in Ticket OD S5 02.]	Completed
ECS-L4-18079	S-OMS-15352 When displaying operator interventions related to on-demand processing, the OM GUI shall identify the type of the intervention (i.e., the nature of the error returned by the SDPS-DAAC Internal On-demand Processing API) and any status detail information returned by the API. [NOTE: This replaces S-OMS-08740 in Ticket OD S5 02.]	Completed
ECS-L4-18080	S-OMS-15353 The OM GUI shall allow an appropriately authorized operator to disposition an operator intervention for a processing error by: failing the distribution request failing some or all of the line items that caused the intervention (i.e., whose processing returned an error) and request re-processing of any of the line items that caused errors and were not failed. [NOTE: This replaces S-OMS-08750 in Ticket OD S5 02.]	Completed
ECS-L4-18081	S-OMS-15354 When displaying the details of a processing request or an intervention against a processing request, the OM GUI shall display both the input size and, if available (i.e. if processing has completed), the output size of line items and distribution requests. [NOTE: Since the output size cannot be known prior to running the processing, all request size limits are calculated against the input granule size. The output size may be larger or smaller than the input (generally smaller though in the case of subsetting requests). The output size will not be shown if the line item or request in question has not yet been processed] [NOTE: This replaces S-OMS-08752 in Ticket OD S5 02.]	Completed
ECS-L4-18082	S-OMS-15355 When displaying the details of an intervention triggered by processing errors, the OM GUI shall allow operators to display the processing instructions for any line item that caused a processing error. [NOTE: This replaces S-OMS-08754 in Ticket OD S5 02.]	Completed

ID	Title	Status
ECS-L4-18083	S-OMS-15356 The OM GUI shall not generate a request for user notification when the operator elects to fail line items while handling an operator intervention that was triggered by processing errors, unless the operator requests otherwise. [NOTE: The final DN tells the user which line item failed, so this notification is normally superfluous.] [NOTE: This replaces S-OMS-08760 in Ticket OD S5 02.]	Completed
ECS-L4-18084	S-OMS-15357 The OM GUI shall allow operators to request suppression of the failed DN when they fail a distribution request while handling an operator intervention triggered by a processing error. [NOTE: By default, a failed DN is sent and tells the user that the request failed, but the operator can suppress this, e.g., if the operator intends to resubmit the request.] [NOTE: This replaces S-OMS-08770 in Ticket OD S5 02.]	Completed
ECS-L4-18085	S-OMS-15358 The OM GUI shall allow operators to view alerts for processing services. [NOTE: This replaces S-OMS-08780 in Ticket OD S5 02.]	Completed
ECS-L4-18086	S-OMS-15359 The OM GUI shall allow operators to view information for a processing service, to include the (operator configured) names of the processing service, the current state of the service (suspended or active), and the current queue size for that service (in terms of distribution requests, granules, and input size). [NOTE: While the OM GUI must allow the operator to view configuration, the modification of these values may be performed by another GUI such as the Data Access GUI.] [NOTE: This replaces S-OMS-08790 in Ticket OD S5 02.]	Completed
ECS-L4-18087	S-OMS-15360 The OMS CI shall reflect the QA, PH and Browse granules that were added to a distribution request because of ordering options in the granule-, file- and byte counts maintained in the order tracking information.	Completed
ECS-L4-18088	S-OMS-15361 The OM GUI shall allow operators to list the processing requests that are currently being executed by a processing service, in order of their submission time, and display for each: the request ID, as a link to the request details page the ESDT, version and ID of the input granule a link to display the corresponding processing instructions the time the request was submitted to the processing service [NOTE: This replaces S-OMS-08792 in Ticket OD S5 02.]	Completed
ECS-L4-18089	S-OMS-15362 The OM GUI shall allow appropriately authorized operators to suspend the dispatching for a specific processing service if this is currently not suspended. [NOTE: This replaces S-OMS-08810 in Ticket OD S5 02.]	Completed
ECS-L4-18090	S-OMS-15363 The OM GUI shall allow appropriately authorized operators to resume the dispatching for a specific processing service if it is currently suspended, clearing any currently pending alert that service. [NOTE: This replaces S-OMS-08820 in Ticket OD S5 02.]	Completed
ECS-L4-18091	S-OMS-15364 The OM GUI OMS shall indicate whether any processing services are currently suspended or not. [NOTE: This replaces S-OMS-08860 in Ticket OD S5 02.]	Completed
ECS-L4-18092	S-OMS-15365 The OM GUI shall be able to filter the distribution request list so it displays only requests involving processing. [NOTE: This replaces S-OMS-08880 in Ticket OD S5 02.]	Completed
ECS-L4-18093	S-OMS-15366 The OM GUI shall be able to filter the distribution request list so it displays only requests involving a specific, operator-selected processing service.	Completed

ID	Title	Status
ECS-L4-18094	S-OMS-15367 The OM GUI shall be able to filter the list of archived distribution requests so it displays only requests that involved processing. [NOTE: This replaces S-OMS-08882 in Ticket OD S5 02.]	Completed
ECS-L4-18095	S-OMS-15368 The OM GUI shall be able to filter the list of archived distribution requests so it displays only requests that used a specific, operator-selected processing service.	Completed
ECS-L4-18096	S-OMS-15369 The OM GUI shall identify distribution requests that involve processing in any screen that lists distribution requests. [NOTE: This replaces S-OMS-08890 in Ticket OD S5 02.]	Completed
ECS-L4-18097	S-OMS-15370 The OMS CI shall not include the QA, PH, and Browse granules that were added to a distribution request because of ordering options when checking the request against request size limits.	Completed
ECS-L4-18098	S-OMS-15371 The OM GUI shall identify distribution requests that involved processing in any screen that lists archived distribution requests. [NOTE: This replaces S-OMS-08892 in Ticket OD S5 02.]	Completed
ECS-L4-18099	S-OMS-15372 The OM GUI shall provide request editing, cancellation, suspension, resubmission, etc. capabilities for requests involving processing similar to other distribution requests to appropriately authorized operators. [NOTE: This replaces S-OMS-08900 in Ticket OD S5 02.]	Completed
ECS-L4-18100	S-OMS-15373 When displaying a list of line items for a distribution request that involves processing, the OM GUI shall display the original input granule in that list. [NOTE: The OMS design may elect to represent the processing outputs as 'output granules'. However, from an operator perspective, it is more meaningful to display the granule that is the basis for the processing and is the one originally specified by the user. Note that future extensions may involve use of multiple input granules; this will require extensions to this and other OM GUI requirements involving the display of a list of line items.] [NOTE: This replaces S-OMS-08908 in Ticket OD S5 02.]	Completed
ECS-L4-18101	S-OMS-15374 The OM GUI shall allow an operator to display the processing instructions for each line item that requires processing. [NOTE: This replaces S-OMS-08910 in Ticket OD S5 02.]	Completed
ECS-L4-18102	S-OMS-15375 The OM GUI shall include the order tracking information for requests that involved processing when archiving order tracking information. [NOTE: This replaces S-OMS-08920 in Ticket OD S5 02.]	Completed
ECS-L4-18103	S-OMS-15376 The OMS CI shall queue a DN for a request specifying HTTP Pull after all its granules have been processed or otherwise dispositioned.	Completed
ECS-L4-18104	S-OMS-15377 The OMS CI shall include in the DN for a request specifying HTTP Pull distribution, URL links for each of the output packaging options that are supported for downloading.	Completed
ECS-L4-18105	S-OMS-15378 The OMS CI shall allow a DAAC to configure whether a DN for HTTP Pull will offer packaging options or not.	Completed
ECS-L4-18106	S-OMS-15379 The OMS CI shall support the following packaging options for HTTP Pull downloads: gzip tar tar compress tar gzip zip	Completed
ECS-L4-18107	S-OMS-15380 The OMS CI shall submit a request for staging QA and PH granules to the Data Pool Insert Service for any QA and PH granules that are not in the Data Pool.	Completed
ECS-L4-18108	S-OMS-15381 For external processing requests that requested distribution via HTTP Pull, the OMS CI shall make the outputs available for HTTP Pull and queue a DN, specifying HTTP protocol.	Completed

ID	Title	Status
ECS-L4-18109	S-OMS-15382 The OMS CI shall include in the DN for a user request specifying HTTP Pull distribution, URL links for each of the output packaging options that are supported for downloading, including the metadata files of the input granules, if so configured by the DAAC.	Completed
ECS-L4-18110	S-OMS-15383 [NOTE: This requirement Supersedes S-OMS-00410] The OMS CI shall distribute metaadata files in ODL .met file format if the following apply: The Email address for the Distribution Notice matches the Email address of a .met-file recipient. The collection data model type is ECS	Completed
ECS-L4-18111	S-OMS-15390 The OMS CI shall be able to distribute QA and PH granules via any of the media types supported by OMS. [NOTE: The OMS distribution file renaming rules apply when file name conflicts exist within a distribution request.]	Completed
ECS-L4-18112	S-OMS-15400 The OMS CI shall obtain any Browse granule required for distribution directly from the Browse archive, i.e., without requesting staging of the Browse granule from the Data Pool Insert Service).	Completed
ECS-L4-18113	S-OMS-15410 The OMS CI shall not create links to Browse files that reside in the Browse archive for FTP Pull access. [NOTE: For FTP Pull access, the OMS will need to make copies of Browse files outside the Browse archive. The OMS distribution file renaming rules apply in case of file name conflicts within a distribution request.]	Completed
ECS-L4-18114	S-OMS-16000 The ECS Order Management service (OMS CI) shall support the following order/request states: Pending Operator Intervention Staging Transferring Waiting for Shipment Shipped Aborted Canceled Terminated Subsetting Subsetting Staging Prep for Distribution SDSRV Staging Queued Waiting for data Waiting for processing Being processed Completed processing Expired Awaiting L1B L1B received Null Staged Pending Media Prod Partitioned [NOTE: This replaces requirement C-MSS-75047 and C-MSS-75924, adding 'Staged' and 'Pending Media Prod' and 'Partitioned'. Note that the following states are no longer used by order processing: 'SDSRV Staging', 'Awaiting L1B', 'L1B received'. They are listed only for backwards compatibility, to ensure that historic order and request information can be supported.]	Completed
ECS-L4-18115	S-OMS-16010 The OMS CI shall mark an order complete when all its subordinate requests have reached one of the following states: Shipped Aborted Canceled Terminated [NOTE: This replaces C-MSS-75046. See NCR 8049131.]	Completed
ECS-L4-18116	S-OMS-16020 The OMS CI shall provide the capability to identify on demand processing orders and requests in its order tracking information. [NOTE: This replaces C-MSS-75056. See NCR 8049131.]	Completed
ECS-L4-18117	S-OMS-16030 The OMS CI shall be able to create an order with a pre-assigned order/request ID. [NOTE: This replaces C-MSS-75075. See NCR 8049131.]	Completed
ECS-L4-18118	S-OMS-16040 The OMS CI shall offer an interface that requires that a data distribution request specify a valid pre-existing order and request identifier. [NOTE: This replaces S-OMS-00130. See NCR 8049131.]	Completed
ECS-L4-18119	S-OMS-16050 The OMS CI shall offer an interface that accepts a valid pre-existing order and request identifier as optional parameters, such that the order identifier can be omitted if the request identifier is omitted, as well, that is, specifying a request ID but no order ID shall be invalid. [NOTE: This replaces S-OMS-00150. See NCR 8049131.]	Completed

ID	Title	Status
ECS-L4-18120	S-OMS-16060 The OMS CI shall create the order and request tracking information if the data distribution request does not specify a pre-existing order or request ID, and return their identifiers to the calling application. [Note that this includes filling in the applicable request attributes, including the ESDT shortname and version (or 'MULTIPLE').] [NOTE: This replaces S-OMS-00165. See NCR 8049131.]	Completed
ECS-L4-18121	S-OMS-16070 The OMS CI shall set the status of a request in the order tracking information to a value of 'Queued' as part of initially saving the order tracking information. [NOTE: This replaces S-OMS-00285. See NCR 8049131.]	Completed
ECS-L4-18122	S-OMS-16080 The OMS CI shall be capable of tracking the status of an order and each of its subordinate requests in accordance with the states listed in S-OMS-xx010. [NOTE: This replaces C-MSS-75045. See NCR 8049131.]	Completed
ECS-L4-18123	S-OMS-16090 When placing a data distribution request on hold, the OMS CI shall update the status of the request to a value of 'Operator Intervention'. [NOTE: This replaces S-OMS-01240. See NCR 8049131.]	Completed
ECS-L4-18124	S-OMS-16100 The OMS CI Command Line Utility shall accept MSS user ID, order ID and request ID as optional parameters. [NOTE: This replaces S-OMS-02015. See NCR 8049131.]	Completed
ECS-L4-18125	S-OMS-16110 The Order Management GUI shall allow an operator to resubmit a data distribution request whose MSS request tracking status is 'Canceled' or 'Cancelled', 'Aborted' or 'Abort', or 'Shipped'. [NOTE: This replaces S-OMS-03250. See NCR 8049131.]	Completed
ECS-L4-18126	S-OMS-16120 The Order Management GUI shall allow an operator to edit a data distribution request whose MSS request tracking status is 'Canceled' or 'Cancelled', 'Aborted' or 'Abort', or 'Shipped' in the following ways: a. Modify Media type and/or media parameters (e.g., FTP Push information or physical media shipping address), b. Select one or several granules and mark them as failed, c. Automatically partitioning the request, d. Update the granule identifier of one or several granules. [NOTE: This replaces S-OMS-03260. See NCR 8049131.]	Completed
ECS-L4-18127	S-OMS-16130 The Order Management GUI shall update the order tracking status for requests released from hold to 'Queued'. [NOTE: This replaces S-OMS-03320. See NCR 8049131.]	Completed
ECS-L4-18128	S-OMS-16140 The Order Management GUI shall generate MSS order tracking information for any new data distribution requests it generates, and link them to the same order to which the partitioned request is linked.	Completed
ECS-L4-18129	S-OMS-16150 The Order Management GUI shall update the MSS order tracking information for partitioned requests to reflect a terminal status of 'Partitioned'. (Note: The partitioned requests are considered complete and replaced by the new requests)	Completed
ECS-L4-18130	S-OMS-16160 The Order Management GUI shall update the MSS order tracking information for a request failed by the operator to a status of 'Canceled'.	Completed
ECS-L4-18131	S-OMS-16170 The Order Management GUI shall not allow an operator to edit a data distribution request whose status is 'Canceled' or 'Cancelled', 'Aborted' or 'Abort', or 'Shipped' in the following way: a. Change the media type to secure copy. [NOTE: This replaces S-OMS-03631. See NCR 8049131.]	Completed

ID	Title	Status
ECS-L4-18132	S-OMS-16180 The OMS CI shall update the status of an order representing a bundling order to 'Expired' after the expiration date of the bundling order. [Note: This could be done with some delay, though a delay of more than two hours is undesirable.] [NOTE: This replaces S-SSS-05205. See NCR 8049131.]	Completed
ECS-L4-18133	S-OMS-16190 For all data distribution orders submitted by the Spatial Subscription Service, the Order Management Service shall set the order source in the order tracking information to 'NSBRV'. [NOTE: This replaces S-OMS-05112. See NCR 8049131.]	Completed
ECS-L4-18134	S-OMS-16200 The OMS CI shall create order and request tracking information for the data distribution request created from a bundle, such that the requests are linked to a new, one time order that references the original bundling order. [NOTE: This replaces S-OMS-05320. See NCR 8049131.]	Completed
ECS-L4-18135	S-OMS-16210 The OMS CI order tracking information shall allow an order to be identified as a standing bundling order. [NOTE: This replaces C-MSS-75290. See NCR 8049131.]	Completed
ECS-L4-18136	S-OMS-16220 The OMS order tracking information shall allow identification of an order and a request as being related to a standing bundling order. [NOTE: This replaces C-MSS-75291. See NCR 8049131.]	Completed
ECS-L4-18137	S-OMS-16230 The OMS GUI shall allow operators to view orders and requests by external request ID. [NOTE: This replaces C-MSS-75107. See NCR 8049131.]	Completed
ECS-L4-18138	S-OMS-16240 The OMS CI shall include the external request ID as part of the order tracking information. [NOTE: This replaces C-MSS-75106. See NCR 8049131.]	Completed
ECS-L4-18139	S-OMS-16250 The OMS CI shall allow operators to configure the retention time period for order tracking information according to: whether the order completed successfully or not; for successful orders, the source of the order and the type of media. [NOTE: Configuration can be via an OMS configuration script. If it is via GUI, the capability to change these values must be restricted to full capability operators.] [NOTE: This replaces S-OMS-06075. See NCR 8049131.]	Completed
ECS-L4-18140	S-OMS-16260 The OM GUI shall allow operators to filter the distribution request list so it shows only the distribution requests in specific states, such as those that: The OM GUI shall allow operators to filter the distribution request list so it shows only the distribution requests in specific states, such as those that: are currently in the staging state, are in the staging state but no granules have been staged for them as yet, are in the staging state and have begun but not yet completed staging, have completed staging (i.e., all granules are staged) but are yet shipped, (for FTP Push requests) have begun FTP Push, have been submitted to PDS. (i.e., are no longer managed by OMS), have shipped. [NOTE: This replaces S-OMS-06135. See NCR 8049131.]	Completed
ECS-L4-18141	S-OMS-16270 The OM GUI shall update the order tracking status of a distribution request to 'Operator Intervention' when it is suspended by the operator. [NOTE: the status update may actually be performed by an OMS database procedure.] [NOTE: This replaces S-OMS-06370. See NCR 8049131.]	Completed

ID	Title	Status
ECS-L4-18142	S-OMS-16280 The OM GUI shall update the order tracking status of a suspended distribution request to the state it had before the request was suspended. [NOTE: The status update may actually be performed by an OMS database procedure.] [NOTE: This replaces S-OMS-06375. See NCR 8049131.]	Completed
ECS-L4-18143	S-OMS-16290 The OM GUI shall update the order tracking status of a distribution request to 'Cancelled' when it is cancelled by the operator. [NOTE: the status update may actually be performed by an OMS database procedure.] [NOTE: This replaces S-OMS-06380. See NCR 8049131.]	Completed
ECS-L4-18146	S-OMS-16320 The OMS CI shall update the order tracking status of a request to 'Staging' when it is promoted into the Staging state. [NOTE: This replaces S-OMS-06370. See NCR 8049131.]	Completed
ECS-L4-18147	S-OMS-16330 The OMS CI shall update the order tracking status of a FTP Push request to 'Transferring' once all granules have been staged or otherwise dispositioned and at least one granule has been dispatched for FTP Push. [NOTE: Note that granules may be pushed while others are still staging, i.e., while the request is still in the Staging state.] [NOTE: This replaces S-OMS-06680. See NCR 8049131.]	Completed
ECS-L4-18148	S-OMS-16340 The OMS CI shall update the order tracking status of a FTP Push request to 'Shipped' once all granules have been pushed or otherwise dispositioned and the DN has been sent. [NOTE: This replaces S-OMS-06685. See NCR 8049131.]	Completed
ECS-L4-18149	S-OMS-16350 The OMS CI shall update the order tracking status of a FTP Pull request to 'Shipped' once all granules have been staged or otherwise dispositioned and the DN has been sent. [NOTE: This replaces S-OMS-06690. See NCR 8049131.]	Completed
ECS-L4-18150	S-OMS-16360 While executing a request involving HEG processing, the OMS CI shall maintain the order tracking status of the request as follows: While a request is queued for HEG processing, its state shall be 'Waiting for Processing'. Once a request has been activated and until all its HEG granules completed processing or are dispositioned otherwise, its state shall be 'Processing'. After all granules for a FTP Push request completed HEG processing or were otherwise dispositioned, and until the first FTP Push operation for the request is started, the state of the request shall be 'Staged'. [NOTE: FTP Pull requests are complete at this time, and physical media requests are 'Pending Media Prod.']. [NOTE: This replaces S-OMS-08680. See NCR 8049131.]	Completed
ECS-L4-18151	S-OMS-16370 The OMS CI shall allow DAAC operators to archive the order tracking information for orders that are past their expiration date (to include billing information). [NOTE: The capability can be a command line utility suitable for execution via cron. The capability is not expected to clean up order tracking information for orders that did not go through OMS.] [NOTE: This replaces S-OMS-06706. See NCR 8049131.]	Completed
ECS-L4-18152	S-OMS-16380 After the processing for a request is complete, the OMS CI shall update the request size in the order tracking information to contain the total size of the granules that are distributed, i.e., for granules involving HEG processing, the OMS CI shall use the size of the outputs rather than the input size to calculate the request size for this purpose. [NOTE: This replaces S-OMS-08562. See NCR 8049131.]	Completed

ID	Title	Status
ECS-L4-18153	S-OMS-16390 The OMS CI shall update the request size in the order tracking information for external processing requests after their outputs have been ingested to contain the total size of the granules that are distributed, i.e., for granules involving processing, the OMS CI shall use the size of the outputs rather than the input size. [NOTE: This replaces S-OMS-02255. See NCR 8049131.]	Completed
ECS-L4-18154	S-OMS-16400 The OMS CI shall update the number of files in the order tracking information for external processing requests after their outputs have been ingested to contain the total number of the files that are distributed, i.e., for granules involving external processing, the OMS CI shall use the number of the output files rather than the number of input files. [NOTE: This replaces S-OMS-02260. See NCR 8049131.]	Completed
ECS-L4-18155	S-OMS-16410 The OMS CI shall use the DPL FTP Service for FTP Push distribution. [See NCR 7049093.]	Completed

DRAFT

## Appendix A Abbreviations and Acronyms

These are the abbreviations and acronyms used in the SDPS requirements Volumes 1-10. This section is replicated in all volumes.

ACL	access control list
ACVU	AIM checksum verification utility
ADC	Affiliated Data Center
ADEOS	Advanced Earth Observing Satellite
AIM	Archive Inventory Management
AIRS	Atmospheric Infrared Sounder
AMFS	Archival Management and Storage System File System
AMSR	Advanced Microwave Scanning Radiometer
ANSI	American National Standards Institute
API	Application Program Interface
APIDs	Application Process Identifiers
APIs	Application Program Interfaces?
ARP	Address Resolution Protocol
ASDC	Atmospheric Science Data Center
ASF	Alaska Satellite Facility
ASTER	Advanced Spaceborne Thermal Emission and Reflection Radiometer
AST_L1A, AST_L1B	ASTER Level 1 A and Level 1 B data types
AVG	average
AVN	National Center for Environmental Prediction (NCEP) Aviation model, later renamed to Global Forecast System (GFS)
BGT	Bulk Metadata Generation Tool, also known as BMGT
BIL	Band Interleaved
BMGT	Bulk Metadata Generation Tool
BPI	Bits per inch
BRF	Browse Reference File
BRWS	Browse
BUFR	Binary Universal Form for the Representation of meteorological data
CCB	Configuration Control Board
CCR	Configuration Change Request
CCSDS	Consultative Committee for Space Data Systems
CD	Compact Disc

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CFG	Configuration
CI	Configuration Item
CKSUM	refers to a particular algorithm or program to calculate a file checksum
CLS	Client Subsystem
CM	Configuration Management
CMO	Configuration Management Office
CMR	Common Metadata Repository
COTS	Commercial Off-The Shelf (hardware or software)
CPU	Central Processing Unit
CRON	A linux system utility to perform time scheduled executions
CS	Client Server
CSC	Computer Software Component
CSCI	Computer Software Configuration Item
CSDT	Computer Scient Data Type
CSH	C-Shell
CSMS	Communication and Systems Management Segment
CSS	Communications Subsystem
DAAC	Distributed Active Archive Center
DADS	Data Archive and Distribution System
DAR_ID	Data Acquisition Request Identifier
DB	Database
DBID	Database Identifier
DB	Database
DCLI	DDIST (Data Distribution) Command Line Interface
DD	Data Dictionary
DDIST	Data Distribution CSCI
DDR	Detailed Design Review
DEM	Digital Elevation Model
DESKT	Desktop (Computer Software Configuration Item)
DFA	Delete From Archive
DHWM	Data High Water Mark
DIF	Directory Interchange Format
DIPHW	Distribution and Ingest Peripheral HWCI
DMS	Data Management Subsystem
DN	Delivery Notification
DORRAN	Distributed Ordering, Researching, Reporting, and Accounting Network (at EDC)

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DPAD	Data Pool Action Driver
DPCV	Data Pool Checksum Verification Utility
DPIU	Data Pool Insert Utility
DPL	Data Pool
DPLINGST	Data Pool Ingest
DPLINSERT	Data Pool Insert
DPM	Data Pool Maintenance
DRPHW	Data Repository HWCI
DSS	Data Server Subsystem
DTD	Document Type Definition (XML)
DTF	Sony Digital Tape Format Tape cartridge system
DTS	Defect Tracking Subsystem
EBNET	EOSDIS Backbone Network
ECHO	EOS Clearing House
ECI, ECR	Earth Centered Inertial, Earth Centered Rotating
ECNBDB	Spatial Subscription Server database
ECS	Earth Observing System Data and Information Core System
EDC	Earth Resource Observation System Data Center
EDOS	Earth Observing System (EOS) Data and Operations System
EDR	Expedited Data Set Request
EDS	Expedited Data Set
EED	EOSDIS Evolution and Development Project
EGS	EOSDIS Ground System
EMD	EOSDIS Maintenance and Development Project
EMOS	EOS Mission Operations System
EMS	ESDIS Metrics System
EOC	Earth Observation Center (Japan), EOS Operations Center
EOS	Earth Observing System
EOSDIS	Earth Observing System Data and Information System
EPD	External Processor Dispatcher
EPSG	European Petroleum Survey Group
ESDIS	Earth Science Data and Information System
ESDT	Earth Science Data Type
ESG	Earth Science Gateway
ESI	EOSDIS Service Interface
ETE	End to End
EWOC	ECHO WSDL Order Component

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F&PRS	Functional and Performance Requirements Specification
FCAPS	Fault, Configuration, Accountability, Performance, and Security
FDDI	Fiber Distributed Data Interface
FDF	Flight Dynamics Facility
FOS	Flight Operations Segment
FSMS	File and Storage Management System
FTP	File Transfer Protocol
FTPD	File Transfer Protocol Daemon
GB	Gigabyte or Gigabit
GBYTE	Gigabyte
GCMD	Global Change Master Directory
GDS	Ground Data System
GEOTIFF	Georeferenced Tagged Image File Format
GFE	Government Furnished Equipment
GIS	Geographical Information System
GLAS	Geoscience Laser Altimeter System
GPS	Global Positioning System
GRIB	Grid in Binary
GSFC	Goddard Space Flight Center
GUI	Graphical User Interface
GZIP	GNU zip
HDF	Hierarchical Data Format
HDF-EOS	an EOS proposed standard for a specialized HDF data format
HEG	HDF-EOS-To-Geotiff Conversion Tool
HIPPI	High Performance Parallel Interface
HIRDLS	High-Resolution Dynamics Limb Sounder
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
HTTPD	Hypertext Transfer Protocol Daemon
HWCI	Hardware Configuration Item
I/O	Input/Output
I&T	Integration and Test
IAS	Image Assessment System
ICD	Interface Control Document
ICLHW	Ingest Client HWCI
ICMP	Internet Control Message Protocol

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IDL	Interactive Data Language
ID	Identifier
IEEE	Institute of Electrical and Electronics Engineering
IGS	International Ground Station
IIU	Inventory Insert Utility
IMS	Information Management System
INCI	Internetworking Hardware HWCI
INHCI	Ingest Hardware (Configuration Item)
INHWP	Ingest Hardware (Configuration Item)
INS	Ingest Subsystem
IP	Internet Protocol
IR-1	Initial Release 1
IRD	Interface Requirements Document
IRIX	Silicon Graphics version of Unix
ISS	Internetworking Subsystem
IV&V	Independent Verification and Validation
JDT	Java DAR (Data Acquisition Request) Tool
JPEG	Joint Photographic Experts Group image file format
JPG	JPEG file extension
JPL	Jet Propulsion Laboratory
KFTP	Kerberized File Transfer Protocol
LAN	Local Area Network
LARC	Langley Research Center
LAT/LON	Latitude and Longitude
LGID	Local Granule Identifier
LLBOX	Latitude/Longitude Box
LP-DAAC	Land Processes Distributed Active Archive Center
LPS	Landsat 7 Processing System
LSM	Local System Management (network)
LUNs	Logical Unit Numbers
M&O	Maintenance and Operations
MAN	Metropolitan Area Network
MAX	Maximum
MB	Megabyte (10 <sup>6</sup> )
MB/sec	Megabytes per second
MBITS/SEC	Megabits per second
MBPS	Megabytes per second

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MCF	Metadata Configuration File
MD5	Message Digest checksum algorithm number 5
MDT	Maximum Down Time
METC	refers to file containing Collection Metadata
MGS	Map Generation Subsystem
MGU	Map Generation Utility
MISBR	MISR Browse
MISR	Multi-Imaging SpectroRadiometer
MLCI	Management Logistics Configuration Item
MM	Millimeter
MM/DD/YYYY	date code representation for month, day, year
MODAPS	MODIS Adaptive Processing System
MODIS	Moderate Resolution Imaging SpectroRadiometer
MRTG	Multi Router Traffic Grapher
MSEC	Millisecond
MSM	Media Storage Manager (part of Stornext)
MSS	System Management Subsystem
MTMGW	Machine to Machine Gateway
MUTEX	Mutually Exclusive
N/A	Not Applicable/Not Available
NARA	National Archives and Records Administration
NASA	National Aeronautics and Space Administration
NBSRV	Spatial Subscription Server
NCEP	National Centers for Environmental Prediction
NCR	Non-conformance report
NESDIS	National Environmental Satellite, Data, and Information Service (NOAA)
NFS	Network File System
NIST	National Institute of Standards and Technology
NM	Name Server Subsystem
NMC	National Meteorological Center (NOAA)
NMF	Network Management Facility
NOAA	National Oceanic and Atmospheric Administration
NSBRV	Spatial Subscription Server
NSI	NASA Science Internet
NSIDC	National Snow and Ice Data Center
NTP	Network Transport Protocol

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OBU	OWS Binding Utility
ODC	Other Data Center
ODL	Object Description Language
OGC	Open GIS Consortium
OLA	On-line Archive
OMS	Order Manager Subsystem
OPS	Operations
ORNL	Oak Ridge National Laboratory
OSI	Open Systems Interconnection
OSS	Operational Support Software
OWS	OGC Web Services Subsystem
PANs	Production Acceptance Notifications
PB	Petabyte (10 <sup>15</sup> )
PC	Personal Computer
PDF	Portable Document Format
PDPS	Planning and Data Processing Subsystems
PDR	Product Delivery Record
PDRD	Product Delivery Record Discrepancy
PDSIS	Product Distribution System Information Server
PF	Process Framework
PGE	Product Generation Executable
PGEEXE	PGE executable tar file ESDT
PH	Production History
PID	Process Identifier
PO.DAAC	Physical Oceanography Distributed Active Archive Center
POSIX	Portable Operating System Interface
PREPROCERR	Preprocessing Error
PSA	Product-Specific Attribute
PTHREADS	Portable Operating System Interface (POSIX) threads
PUBERR	Publication Error
PVC	Performance Verification Center
PVL	Parameter Value Language
Q/A, QA	Quality Assurance
QAMUT	Quality Assurance Metadata Update Tool
QC	Quality Control
RARP	Reverse Address Resolution Protocol
RDBMS	Relational Database Management System

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RFC	Request for Comments
RHWM	Request High Water Mark
RLWM	Request Low Water Mark
ROM	Read Only Memory
RPC	Remote Procedure Call
RPCID	Remote Procedure Call Identifier
RTR	Requirements Technical Review
SBSRV	Subscription Server
SCF	Science Computing Facility
SCI	science
SCP	Secure Copy
SDP	Science Data Processing
SDPF	Science Data Processing Facility
SDPS	Science Data Processing Segment
SDRSV	misspelled SDSRV
SDS	Scientific Dataset(HDF-EOS term), Science Data System
SDSRV, SDSVR	Science Data Server
SIPS	Science Investigator-led Processing System
SMAP	Soil Moisture Active Passive
SNAC	StorNext Archive Cache
SNFS	StorNext File System
SNMP	Simple Network Management Protocol
SOM	Space Oblique Mercator
SORCE	Solar Radiation and Climate Experiment
SQL	Structured Query Language
SRF	Server Request Framework
SS	two digit seconds field in a time string
SSH	Secure Shell (protocol)
SSI&T	Science System Integration and Test
SSM/I	Special Sensor for Microwave/Imager
SSS	Spatial Subscription Server Subsystem
STGMT	Storage Management Subsystem
TB	Terabyte
TBD	To Be Determined/To Be Defined
TBR	To Be Resolved
TCP	Transmission Control Protocol
TCP/IP	Transmission Control Protocol/Internet Protocol

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TES	Trophospheric Emission Spectrometer
TKD	Toolkit for DAAC
TKS	Toolkit for Scientists
TOMS	Total Ozone Mapping Spectrometer
TSDIS	TRMM Science Data and Information System
TSM	Tertiary Storage Manager, component of StorNext
TTPro	TestTrack Pro
UDF	Universal Disk Format
UDP	User Datagram Protocol
UPS	Uninterruptible Power Supply
URL	Uniform Resource Locator
UR	Universal Reference, granule UR
UTC	Universal Time Coordinated/Universal Time Code
UTM	Universal Transverse Mercator
V0	Version 0, Refers to the Archive System and Protocols used in the predecessor to the ECS
VPN	Virtual Private Network
VS	versus (abbr)
W*S	refers to any member of the family of Open Geospatial Consortium (OGC) web services: WCS, WMS, WFS, WPS
WAN	Wide Area Network
WCS	Web Coverage Service
WGS84	World Geodetic System 1984
WKBCHCI	Workbench Configuration Item
WKSHW	Working Storage Hardware Configuration Item
WMS	Web Map Service
WRS	Worldwide Reference System, used by Landsat
WSDL	Web Service Definition Language
WU-FTP	Washington University File Transfer Protocol program
WWW	World Wide Web
XFR	Transfer (abbr)
XML	Extensible Markup Language
XSD	XML Schema Definition
XVU	XML Validation Utility