

changes to Level_4 and RbR Requirements in RTM MAIN for Release B.**Summary of Changes**

1. S-DSS-04380 is modified to be consistent with the actual functionality of the STMGT CI. The storage of Metadata is performed by the SDSRV CI.
2. S-DSS-20162, S-DSS-20650, and S-DSS-20660 were deleted from RTM by mistake. This CCR restores them.
3. S-DSS-01212 is required in order to satisfy IRD mappings for TRMM5100#B and ASTER-0930#B, also mappings for IMS-0820.
4. S-DSS-00376 is modified to replace "SMC" with "MSS".
5. S-DSS-00377 and S-DSS-00770 are deleted since the specified functionality is provided by MSS, not by DSS.
6. S-DSS-00780 is deleted since it duplicates the functionality specified in S-DSS-00800.
7. S-DSS-00790 is modified because it is a STMGT (not SDSRV) requirement and ECS is not developing or purchasing tools that are not already provided with the FSMS or its associated hardware products. The link to IMS-1440#B is deleted because S-DSS-00790 does not apply to databases. IMS-1440#B is covered by other Level_4s and will not become a parent requirement without descendant(s) as a result of this change.
8. S-DSS-00800 is modified because we are not writing or purchasing tools that are not already provided with the DBMS product.
9. S-DSS-00810 is deleted because the functionality described in this Level_4 is an MSS responsibility. IMS-0240#B, IMS-1440#B, and DADS1340#B are covered by other Level_4 requirements. IMS-0240#B and DADS1340#B should be linked to MSS requirements. In this CCR Level_4 requirement C-MSS-66183 shall be linked to IMS-0240#B and Level_4 requirement C-MSS-66001 shall be linked to DADS1340#B to satisfy the MSS responsibilities. Tables 1 and 5 reflect the addition of the MSS requirements to this CCR.
10. S-DSS-00290 is deleted because it is a duplicate of S-DSS-01220; S-DSS-01220 is modified for clarity.
11. S-DSS-00300 is deleted because it is a duplicate of S-DSS-01310; S-DSS-01310 is modified for clarity.
12. S-DSS-01474 is modified for clarity; new links have been added as shown.
13. S-DSS-03400 is deleted because this is an INGST CI function, not a SDSRV CI function. There are several INS L4s mapped to DADS0320#B.
14. S-DSS-04720, 04730, 04740, 04750, 04770, 04780 are deleted since the functionalities described by these requirements are provided by the CIDM DAR client and GUI, and not by the SDSRV CI.
15. S-INS-00330 is deleted for the following reason:

S-INS-00330 states that "The INGST CI shall determine the Data Type Identifier for a set of ingested files, whenever the identifier was not provided in the Ingest Request". However, the Data Type Identifier is a required field in the Data Availability Notice. Thus, it is not necessary for the INGST CI to determine the Data Type Identifier.
16. S-DSS-20280, 20290 are reworded to be SDSRV requirements instead of STMGT requirements.

TABLE 1: Table 1 represents the Requirements Reference Table for the proposed changes to RTM MAIN by this CCR.

L4 ID	Rel	RTM Key	L4 Text	Clarific	Rqt Type	RbR ID	RTM key	RbR Text	RbR Type	Interpretation
S-DSS-04380	A	9150	The STMGT CI shall store the following Metadata: <u>provide the SDSRV CI the granule id, date and time of storage, data check status and data format type, for each data granule stored as a result of a Data Insert Request.</u>		functional interface					
<u>S-DSS-20162</u>	B	new	<u>The STMGT CI shall provide the capability to mount on-line backup media via automated means.</u>		functional	DADS2276#B	3606	Each DADS shall have the capability to restore its archive by storing a backup copy of EOS data or backup copy of information required to regenerate the data.	functional	
<u>S-DSS-20162</u>						DADS2300#B	3607	Each DADS shall provide a capability for local and offsite backup/restore of system files.	functional	
<u>S-DSS-20650</u>	B	new	<u>The STMGT CI shall provide operations staff the capability to generate a backup of all data holdings.</u>		functional	DADS2270#B	3605	Each DADS shall provide, on a scheduled basis, an off-site backup copy of all EOS data which would be impossible or difficult to recover in case of loss (e.g., ancillary data, metadata, command history, algorithms, engineering data, calibration data, systems and applications software, selected data products, depending on need).	functional	
						DADS2276#B	3606	Each DADS shall have the capability to restore its archive by storing a backup copy of EOS data or backup copy of information required to regenerate the data.	functional	
<u>S-DSS-20660</u>	B	new	<u>The STMGT CI shall provide operations staff the capability to restore backups of specified data holdings.</u>		functional	DADS2270#B	3605	Each DADS shall provide, on a scheduled basis, an off-site backup copy of all EOS data which would be impossible or difficult to recover in case of loss (e.g., ancillary data, metadata, command history, algorithms, engineering data, calibration data, systems and applications software, selected data products, depending on need).	functional	
<u>S-DSS-20660</u>						DADS2276#B	3606	Each DADS shall have the capability to restore its archive by storing a backup copy of EOS data or backup copy of information required to regenerate the data.	functional	

S-DSS-01212	B	New	<u>The SDSRV CI shall provide Data Request Status to a client, concerning pending Data Requests, as specified in Appendix K of the current version of 304-CD-005 for Release B.</u>		functional	IMS-0820#B	5225	The IMS shall provide to the user product order status information from the DADS to confirm or reject an order, which contains the following information at a minimum: a. Requester identification b. Request identification c. Request status d. If rejection, then the reason for the rejection e. If delayed longer than latest completion time specified by user, adjusted start and completion times	functional	
S-DSS-00376	B	8737	<u>The SDSRV CI shall provide User Accounting Information to the SMCSystem Management Subsystem, using MSS application program interfaces.</u>		interface					
S-DSS-00377	B	8738	The SDSRV CI shall support operations staff in the creation of utilization reports, and operations staff shall distribute them on a periodic basis to a predefined list of report recipients.		functional	IMS-1680#B	5383	The IMS status monitoring function shall provide the capability to distribute reports on a periodic basis to a predefined list of report recipients.	functional	
S-DSS-00770	B	8750	The SDSRV CI shall utilize vendor supplied tools to analyze system CPU performance.		functional	DADS1340#B	3549	Each DADS shall use tools to analyze system performance.	functional	
S-DSS-00770						IMS-1440#B	5354	he Virtual IMS Information Management software shall provide local SCF data base administration utilities for, at a minimum: a. Modifying the data base schema b. Performance monitoring c. Administration of user access control d. Data base backup e. Data base recovery	security	
S-DSS-00780	B	8751	The SDSRV CI shall utilize vendor supplied tools to monitor the performance of query processing.		functional	IMS-0240#B	5033	The IMS shall provide, at a minimum, data base administration utilities for: a. Modifying the data base schema b. Performance monitoring c. Performance tuning d. Administration of user access control e. On-line incremental backup f. On-line recovery g. Export/import of data	functional	

S-DSS-00780						IMS-1440#B	5354	he Virtual IMS Information Management software shall provide local SCF data base administration utilities for, at a minimum: a. Modifying the data base schema b. Performance monitoring c. Administration of user access control d. Data base backup e. Data base recovery	security	
S-DSS-00790	B	8752	The <u>STMGT CI shall provide tools to analyze the performance of the storage system when such tools are supplied by the FSMS vendor</u> SDSRV CI shall utilize vendor-supplied tools to analyze system storage performance.		functional	IMS-0240#B	5033	The IMS shall provide, at a minimum, data base administration utilities for: a. Modifying the data base schema b. Performance monitoring c. Performance tuning d. Administration of user access control e. On-line incremental backup f. On-line recovery g. Export/import of data	functional	
S-DSS-00790						IMS-1440#B	5354	he Virtual IMS Information Management software shall provide local SCF data base administration utilities for, at a minimum: a. Modifying the data base schema b. Performance monitoring c. Administration of user access control d. Data base backup e. Data base recovery	security	
S-DSS-00800	B	8753	The <u>SDSRV CI shall provide tools to monitor and tune database performance when such tools are supplied by the database vendor</u> utilize vendor-supplied tools to tune system throughput performance.		functional	IMS-0240#B	5033	The IMS shall provide, at a minimum, data base administration utilities for: a. Modifying the data base schema b. Performance monitoring c. Performance tuning d. Administration of user access control e. On-line incremental backup f. On-line recovery g. Export/import of data	functional	

S-DSS-00800						IMS-1440#B	5354	The Virtual IMS Information Management software shall provide local SCF data base administration utilities for, at a minimum: a. Modifying the data base schema b. Performance monitoring c. Administration of user access control d. Data base backup e. Data base recovery	security	
S-DSS-00810	B	-8754	The SDSRV CI shall utilize vendor supplied tools to analyze system throughput performance.		functional	IMS-0240#B	5033	The IMS shall provide, at a minimum, data base administration utilities for: a. Modifying the data base schema b. Performance monitoring c. Performance tuning d. Administration of user access control e. On-line incremental backup f. On-line recovery g. Export/import of data	functional	
C-MSS-66183	B	10034	The MSS Performance Management Application Service shall have the capability to monitor the performance of ECS relational and object oriented database servers.		functional	IMS-0240#B	5033	The IMS shall provide, at a minimum, data base administration utilities for: a. Modifying the data base schema b. Performance monitoring c. Performance tuning d. Administration of user access control e. On-line incremental backup f. On-line recovery g. Export/import of data	functional	
S-DSS-00810						IMS-1440#B	5354	he Virtual IMS Information Management software shall provide local SCF data base administration utilities for, at a minimum: a. Modifying the data base schema b. Performance monitoring c. Administration of user access control d. Data base backup e. Data base recovery	security	
S-DSS-00810						DADS1340#B	3549	Each DADS shall use tools to analyze system performance.	functional	

<u>C-MSS-66001</u>	B	7815	The MSS performance management service shall be capable of monitoring the performance of the following ECS components a. network components 1. routers 2. links 3. bridges 4. gateways b. hosts c. operating systems d. peripherals e. data f. ECS applications.		functional	DADS1340#B	3549	Each DADS shall use tools to analyze system performance.	functional	
S-DSS-00290	B	8724	The SDSRV CI shall accept Suspend Requests to suspend processing of a client session.		functional	DADS0700#B	3516	Each DADS shall be capable of complying with data transfer cancellation or delay notifications.	functional	B: Service Requests Suspension and Resumption
S-DSS-01220	B	8771	The SDSRV CI shall <u>process Suspend Requests and, as a result, suspend the processing of a specified user session</u> provide the capability for a client to suspend processing of a client session.		functional					
S-DSS-00300	B	8725	The SDSRV CI shall accept Resume Requests to resume processing of a client session.		functional	DADS0700#B	3516	Each DADS shall be capable of complying with data transfer cancellation or delay notifications.	functional	
S-DSS-01310	B	8774	The SDSRV CI shall <u>process Resume Requests and, as a result, resume the processing of a specified user session that was previously suspended</u> provide the capability for the client to resume a client session, previously suspended by the client.		functional					
<u>S-DSS-01474</u>	B	8782	The SDSRV CI shall <u>process Subscription Requests, where the requested Subscription is for one or more actions to be performed at daily, weekly, or monthly intervals</u> validate Subscription Requests for time interval events. Time intervals will be limited to daily, weekly, or monthly.		functional	IMS-0740#B	5210	The IMS shall provide the capability for users to generate and update requests for one-time orders or standing orders for the DADS to distribute DADS archive holdings to include, at a minimum, Standard Products, Standard Product software, EOC historical data, spacecraft housekeeping and ancillary data, and engineering data.	functional	

S-DSS-01474						IMS-0920#B	5252	The IMS shall provide the capability for users to construct and submit standing orders and one-time requests for processing of ECS data by pre-existing processes, which shall contain the following information at a minimum: a. Requester identification b. Algorithm input requirements c. Text description of need for processing d. Level 0-4 data set/subset e. Required time of generation f. Requested priority for product processing g. Resulting product type h. Processing parameters	functional	
S-DSS-01474						IMS-1080#B	5295	The IMS shall accept requests for acquisition of data to be processed one time or as standing orders.	functional	
S-DSS-03400	B	-8812	The SDSRV CI shall verify compliance of scientist provided data with EOSDIS defined standards for file content and structure (not scientific content).		functional	DADS0320#B	3484	Each DADS shall verify compliance of scientist provided data with EOSDIS defined standards for metadata and file content (not scientific content).	functional	
S-DSS-04720	B	-8854	The SDSRV CI shall provide DARs to ASTER ICC.		functional	ASTER-0030#B	5643	ECS (EDC DAAC) shall have the capability to send and ASTER GDS shall have the capability to receive all algorithms, source code, and documentation used by ECS to process ASTER Level 1 data to higher level products.	interface	
S-DSS-04720						IMS-1261#B	5329	The IMS shall provide the capability to forward data acquisition requests to the ASTER GDS, in accordance with applicable IRDs and ICDs.	interface	
S-DSS-04730	B	-8855	The SDSRV CI shall accept DARs from the client.		functional	IMS-0280#B	5059	The IMS shall maintain DAR generation information, for example, instrument information received from the ICC and spacecraft information received from the EOC, in a data base which will be accessible during the DAR planning and submittal process.	interface	B: ASTER GDS interfaces to EDC DAAC only. B: AS1 DARs only?

S-DSS-04740	B	-8856	The SDSRV CI shall provide DAR status to the client, in response to DAR Status Requests.		functional	IMS-0140#B	4984	The IMS shall provide the capability for multiple simultaneous sessions – for example, the capability to transition back and forth smoothly between directory search, inventory search, and data visualization. For example, when viewing a directory entry, the user shall have easy access to the corresponding guide (documentation/reference material) and inventory information.	functional	
S-DSS-04740						IMS-1230#B	5321	The IMS shall accept from the ICC and provide to the requester such information as data acquisition request confirmation or rejection, and notification of data acquisition request scheduling and completion, to include at a minimum: a. Date and time b. Instrument ID c. Data acquisition request ID d. Request status e. Implementation schedule f. If rejection, then the reason for the rejection	functional	
S-DSS-04740						IMS-0665#B	5192	The IMS shall provide informational messages to indicate that a query is being executed, and shall provide the capability for the user to abort any time-intensive operations.	functional	
S-DSS-04750	B	-8858	The SDSRV CI shall accept DAR Status from IPs		functional	IMS-1262#B	5330	The IMS shall provide the capability to receive the ASTER GDS data acquisition request status in accordance with applicable IRDs and ICDs and provide the status to the data acquisition requester.	interface	
S-DSS-04770	B	-8860	The SDSRV CI shall send DAR Status Requests to ASTER ICC.		interface	IMS-0140#B	4984	The IMS shall provide the capability for multiple simultaneous sessions – for example, the capability to transition back and forth smoothly between directory search, inventory search, and data visualization. For example, when viewing a directory entry, the user shall have easy access to the corresponding guide (documentation/reference material) and inventory information.	functional	

S-DSS-04770						IMS-0665#B	5192	The IMS shall provide informational messages to indicate that a query is being executed, and shall provide the capability for the user to abort any time-intensive operations.	functional	
S-DSS-04770						IMS-1230#B	5321	The IMS shall accept from the ICC and provide to the requester such information as data acquisition request confirmation or rejection, and notification of data acquisition request scheduling and completion, to include at a minimum: a. Date and time b. Instrument ID c. Data acquisition request ID d. Request status e. Implementation schedule f. If rejection, then the reason for the rejection	functional	
S-DSS-04780	B	-8861	The SDSRV CI shall receive DAR Status from the ASTER ICC.		interface	IMS-1262#B	5330	The IMS shall provide the capability to receive the ASTER GDS data acquisition request status in accordance with applicable IRDs and ICDs and provide the status to the data acquisition requester.	interface	
S-DSS-04780						ASTER-0020#B	5642	ASTER GDS shall have the capability to send and ECS (EDC DAAC) shall have the capability to receive all algorithms, source code, and documentation used by the ASTER GDS to process ASTER Level 0 data to Level 1 and higher level standard products.	interface	
S-INS-00330	A	-4078	The INGST CI shall determine the Data Type Identifier for a set of ingested files, whenever the identifier was not provided in the Ingest Request.		functional	DADS0350#A	4090	Each DADS shall generate the following metadata items, at a minimum: a. Unique Granule Id for L0 b. Date and time of storage c. Physical location d. Data check status e. Unique format identifiers	functional	A: all

S-INS-00330						DADS0350#B	3485	Each DADS shall generate the following metadata items, at a minimum: a. Unique Granule Id for L0 b. Date and time of storage c. Physical location d. Data check status e. Unique format identifiers	functional	
S-DSS-20280	B	8879	The STMGTSDSRV CI shall provide the capability to directly notify active users when Data Products will be deleted.		functional					
S-DSS-20290	B	8880	The STMGTSDSRV CI shall provide the capability to indirectly notify users when Data Products will be deleted via a bulletin board type mechanism.		functional					
S-DSS-20470	B	-8885	The STMGT CI shall provide the capability to retrieve simulated EOS instrument data to support pre-launch checkout of the ground system.		functional	DADS0282#B	3480	Each DADS shall be capable of storage and retrieval of real and simulated EOS instrument data in support of pre-launch checkout of the ground system.	functional	B: Simulated and real data

TABLE 2: Table 2 shows the current Level_4 requirements that shall be MODIFIED in RTM MAIN by this CCR.

L4 Rqt_Id	RTM Key	Rel	Rqt Status	Text	Verific Method	Clarific	Rqt Type
S-DSS-00376	8737	B	approved	The SDSRV CI shall provide User Accounting Information to the SMC System Management Subsystem, using MSS application program interfaces.	test		interface
S-DSS-00790	8752	B	approved	The STMGT CI shall provide tools to analyze the performance of the storage system when such tools are supplied by the FSMS vendorSDSRV CI shall utilize vendor-supplied tools to analyze system storage performance.	test		functiona
S-DSS-00800	8753	B	approved	The SDSRV CI shall provide tools to monitor and tune database performance when such tools are supplied by the database vendorutilize vendor-supplied tools to tune system throughput performance.	test		functiona
S-DSS-01220	8771	B	approved	The SDSRV CI shall process Suspend Requests and, as a result, suspend the processing of a specified user sessionprovide the capability for a client to suspend processing of a client session.	test		functiona
S-DSS-01310	8774	B	approved	The SDSRV CI shall process Resume Requests and, as a result, resume the processing of a specified user session that was previously suspendedprovide the capability for the client to resume a client session, previously suspended by the client.	test		functiona
S-DSS-01474	8782	B	approved	The SDSRV CI shall process Subscription Requests, where the requested Subscription is for one or more actions to be performed at daily, weekly, or monthly intervalsvalidate Subscription Requests for time interval events. Time intervals will be limited to daily, weekly, or monthly.	test		functiona
S-DSS-20280	8879	B	approved	The STMGT SDSRV CI shall provide the capability to directly notify active users when Data Products will be deleted.	test		functiona
S-DSS-20290	8880	B	approved	The STMGT SDSRV CI shall provide the capability to indirectly notify users when Data Products will be deleted via a bulletin board type mechanism.	test		functiona
S-DSS-04380	9150	A	approved	The STMGT CI shall store the following Metadata: provide the SDSRV CI the granule id, date and time of storage, data check status and data format type, for each data granule stored as a result of a Data Insert Request.	demo		functiona erface

TABLE 3: Table 3 shows the current Level_4 requirements that shall be DELETED from RTM MAIN by this CCR.

L4 Rqt_Id	Rel	RTM Key	Text	Clarific	Rqt Type
S-DSS-00290	B	8724	The SDSRV CI shall accept Suspend Requests to suspend processing a client session.		functional
S-DSS-00300	B	8725	The SDSRV CI shall accept Resume Requests to resume processing of a client session.		functional
S-DSS-00377	B	8738	The SDSRV CI shall support operations staff in the creation of utilization reports, and operations staff shall distribute them on a periodic basis to a predefined list of report recipients.		functional
S-DSS-00770	B	8750	The SDSRV CI shall utilize vendor supplied tools to analyze system CPU performance.		functional
S-DSS-00780	B	8751	The SDSRV CI shall utilize vendor supplied tools to monitor the performance of query processing.		functional
S-DSS-00810	B	8754	The SDSRV CI shall utilize vendor supplied tools to analyze system throughput performance.		functional
S-DSS-03400	B	8812	The SDSRV CI shall verify compliance of scientist provided data with EOSDIS defined standards for file content and structure (not scientific content).		functional
S-DSS-20470	B	8885	The STMGT CI shall provide the capability to retrieve simulated EOS instrument data to support pre-launch checkout of the ground system.		functional
S-DSS-04730	B	8855	The SDSRV CI shall accept DARs from the client.		functional
S-DSS-04740	B	8856	The SDSRV CI shall provide DAR status to the client, in response to DAR Status Requests.		functional
S-DSS-04750	B	8858	The SDSRV CI shall accept DAR Status from IPs		functional
S-DSS-04770	B	8860	The SDSRV CI shall send DAR Status Requests to ASTER ICC.		interface
S-DSS-04780	B	8861	The SDSRV CI shall receive DAR Status from the ASTER ICC.		interface
S-INS-00330	A	4078	The INGST CI shall determine the Data Type Identifier for a set of ingested files, whenever the identifier was not provided in the Ingest Request.		functional
S-DSS-04720	B	8854	The SDSRV CI shall provide DARs to ASTER ICC.		functional

TABLE 4: Table 3 shows the NEW Level_4 requirements that shall be ADDED to RTM MAIN by this CCR.

<u>L4 Rqt_Id</u>	<u>RTM Key</u>	<u>Rel</u>	<u>Rqt Status</u>	<u>Text</u>	<u>Verific Method</u>	<u>Clarific</u>	<u>Rqt Type</u>
<u>S-DSS-01212</u>	<u>new</u>	<u>B</u>	<u>approved</u>	<u>The SDSRV CI shall provide Data Request Status to a client, concerning pending Data Requests, as specified in Appendix K of the current version of 304-CD-005 for Release B.</u>	<u>demo</u>		<u>function</u>
<u>S-DSS-20162</u>	<u>new</u>	<u>B</u>	<u>approved</u>	<u>The STMGT CI shall provide the capability to mount on-line backup media via automated means.</u>	<u>inspection</u>		<u>function</u>
<u>S-DSS-20650</u>	<u>new</u>	<u>B</u>	<u>approved</u>	<u>The STMGT CI shall provide operations staff the capability to generate a backup of all data holdings.</u>	<u>test</u>		<u>function</u>
<u>S-DSS-20660</u>	<u>new</u>	<u>B</u>	<u>approved</u>	<u>The STMGT CI shall provide operations staff the capability to restore backups of specified data holdings.</u>	<u>test</u>		<u>function</u>

TABLE 5: Table 5 shows the RbR-to-Level_4 Links that shall be CREATED by this CCR.

RBR_ID	L4 Rqt_Id
DADS1340#B	<u>C-MSS-66001</u>
DADS2270#B	<u>S-DSS-20650</u>
DADS2270#B	<u>S-DSS-20660</u>
DADS2276#B	<u>S-DSS-20162</u>
DADS2276#B	<u>S-DSS-20650</u>
DADS2276#B	<u>S-DSS-20660</u>
DADS2300#B	<u>S-DSS-20162</u>
IMS-0240#B	<u>C-MSS-66183</u>
IMS-0740#B	<u>S-DSS-01474</u>
IMS-0820#B	<u>S-DSS-01212</u>
IMS-0920#B	<u>S-DSS-01474</u>
IMS-1080#B	<u>S-DSS-01474</u>

TABLE 6: Table 6 shows the RbR-to-Level_4 Links that shall be DELETED by this CCR.

RBR_ID	L4 Rqt_Id
ASTER-0020#B	S-DSS-04780
ASTER-0030#B	S-DSS-04720
DADS0282#B	S-DSS-20470
DADS0320#B	S-DSS-03400
DADS0350#A	S-INS-00330
DADS0350#B	S-INS-00330
DADS0700#B	S-DSS-00290
DADS0700#B	S-DSS-00300
DADS1340#B	S-DSS-00770
DADS1340#B	S-DSS-00810
IMS-0140#B	S-DSS-04740
IMS-0140#B	S-DSS-04770
IMS-0240#B	S-DSS-00810
IMS-0240#B	S-DSS-00780
IMS-0240#B	S-DSS-00790
IMS-0280#B	S-DSS-04730
IMS-0665#B	S-DSS-04740
IMS-0665#B	S-DSS-04770
IMS-1230#B	S-DSS-04740
IMS-1230#B	S-DSS-04770
IMS-1261#B	S-DSS-04720
IMS-1262#B	S-DSS-04750
IMS-1262#B	S-DSS-04780
IMS-1440#B	S-DSS-00790
IMS-1440#B	S-DSS-00810
IMS-1440#B	S-DSS-00770
IMS-1440#B	S-DSS-00780
IMS-1680#B	S-DSS-00377