

ECS Configuration Change Request

1. Originator Cherry Kenney	2. Log Date: 7/2/01	3. CCR #: 01-0531	4. Rev: -	5. Tel: x4177	6. Rm #: 3204d	7. Dept. DEV/CO
8. CCR Title: Patch 6A.04_BMGT.01 to all DAACs. Provides 5BP Capability: BMGT functionality in 6A.04 and fix for NCR29297.						
9. Originator Signature/Date <i>Cherry A. Kenney 6/29/01</i>			10. Class II	11. Type: CCR	12. Need Date: 29JUN/2001	
13. Office Manager Signature/Date <i>Scott Cole 6/29/01</i>			14. Category of Change: Update ECS Baseline Doc.		15. Priority: (If "Emergency" fill in Block 28). Emergency	
16. Documentation/Drawings Impacted: N/A			17. Schedule Impact: N/A	18. CI(s) Affected: SDSRV, OSS.		
19. Release Affected by this Change: 6A		20. Date due to Customer: 29JUN2001		21. Estimated Cost: None - Under 100K		
22. Source Reference: <input checked="" type="checkbox"/> NCR (attach) <input type="checkbox"/> Action Item <input type="checkbox"/> Tech Ref. <input type="checkbox"/> GSFC <input checked="" type="checkbox"/> Other: BMGT Capability ID: plus NCRs 28265 28265 28799, 30699						
23. Problem: (use additional sheets if necessary) Provide the 6A.04 Bulk Metadata and Browse Export Capability to all DAACs (ECSed29297 - Granules in OPS DB have incorrect Beginning DateTime <i>all ready in 6A.04</i>)						
24. Proposed Solution: (use additional sheets if necessary) Provide Patch 6A.04_BMGT.01 to deliver the BMGT capability for use with 6A.04 code. Additional information on how to configure and run the BMGT can be found in document 170-WP-023-002, "Bulk Metadata and Browse Export Capability for the ECS Project White Paper.						
25. Alternate Solution: (use additional sheets if necessary) Wait for 6A.05 availability.						
26. Consequences if Change(s) are not approved: (use additional sheets if necessary) 6A.04 will not have the BMGT functionality.						
27. Justification for Emergency (If Block 15 is "Emergency"): Need for DACCs to have BMGT functionality migration to 6A.04 baseline.						
28. Site(s) Affected: <input type="checkbox"/> EDF <input checked="" type="checkbox"/> PVC <input checked="" type="checkbox"/> VATC <input checked="" type="checkbox"/> EDC <input checked="" type="checkbox"/> GSFC <input checked="" type="checkbox"/> LaRC <input checked="" type="checkbox"/> NSIDC <input checked="" type="checkbox"/> SMC <input type="checkbox"/> AK <input type="checkbox"/> JPL <input type="checkbox"/> EOC <input type="checkbox"/> IDG Test Cell <input type="checkbox"/> Other						
29. Board Comments:			30. Work Assigned To:	31. CCR Closed Date:		
32. EDF/SCDV CCB Chair (Sign/Date): <i>Russell Miller 7/2/01</i>		Disposition: <u>Approved</u> App/Com. Disapproved Withdraw Fwd/ESDIS ERB				
33. M&O CCB Chair (Sign/Date): <i>[Signature]</i>		Disposition: <u>Approved</u> App/Com. Disapproved Withdraw Fwd/ESDIS ERB 7/2/01 Fwd/ECS				
34. ECS CCB Chair (Sign/Date):		Disposition: <u>Approved</u> App/Com. Disapproved Withdraw Fwd/ESDIS ERB				

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ADDITIONAL SHEET

CCR #: 01-0531 Rev: - Originator: Cherry Kenney

Telephone: X4177 Office: DEV/CO

Title of Change: Test Executable 6A.04_BMGT.01 to all DAACs. Provides BMGT functionality and fix for NCR29297

Clearcase:

TAR files were generated based on the following directions
6A.04_BMGT.01 has been tested in Landover by SIT.

Please generate an SGI/IRIX tar file - from
the 6A04 branch for the following package:

.EcOsBMGT.pkg

Also generate a SUN TAR file for the following packages from the 6A.04
baseline:

.EcDsSdOPSWs.pkg
.EcDsSdSDSRV.pkg
.ESDsSdDatabase.pkg

Also generate a SUN TAR FILE for the following files from the 6A.04
baseline:

/ecs/formal/ESDT/sys/DsESDTSyECsMETC.001.desc
/ecs/formal/ESDT/sys/DsESDTSyECsMETG.001.desc
/ecs/formal/ESDT/sys/DsESDTSyECsMETV.001.desc
/ecs/formal/ESDT/sys/DsESDTSyECsBBR.001.desc

/ecs/formal/ESDT/lib/sun5.5/libDsESDTSyECsBBR.001Sh.so

DAAC Install Instructions:

TAR FILES:

This delivery consists of two tar files: SUN and IRIX65.

GENERAL NOTES

It is recommended that you read and familiarize yourself with the ECS White Paper "Bulk Metadata and Browse Export Capability for the ECS Project", document number 170-WP-023-002. This document contains additional information on how to configure and operate the BMGT

CONFIGURATON CHANGES:

- 1) Mkcfs - Mkcfs will only need to be run for the new BMGT component. Additional details are provided in the OSS Subsystem Configuration Parameters section of this document.
- 2) Database Updates - Database patches are provided for the SDSRV database. Depending on the current version of the SDSRV database, the supplied patches may or may not be required. Additional details are provided in the DSS Subsystem Database section of this document.
- 3) Mkcds - Mkcds will not need to be run for any component delivered with the BMGT custom code.
- 4) Registry Patches - Registry patches will not need to be run for any component

Setup, Staging, Mode Preparation:

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This section describes the activities that must be performed to set up the staging area, to stage the drop, and to prepare the mode for installation

A. Setup Preparation

- ___ a) Review any Workarounds for the Setup phase.
- ___ b) Verify/create adequate disk resources on staging server (see Table A)
- ___ c) Create the staging directory for this release:

```
/<distribution_directory>/<stage_directory>/<platform_type>
```

where:

<server_name> is the host name of the staging server (see Table A)

<distribution_directory> is the name of the top-level distribution directory (currently dist at all DAACs)

<stage_directory> is the name of the staging directory for this drop, such as 6A_04_BMGT_01

<platform_type> is the architecture-specific directory name (SUN, IRIX65)

Table 2-1 – Staging Servers

PARAMETER	VALUE
EDC	e0mss01
GSFC	g0mss10
LaRC	l0mss10
NSIDC	n0mss01
VATC	t1code1
PVC	p0msh11

- ___ d) Notify SMC to deliver the release
- ___ e) Verify receipt of the release and file sizes. For each <platform_type>:

```
cd /<distribution_directory>/<stage_directory>/<platform_type>
... verify the <drop_name>_Pkg.tar.gz file is present
verify the <drop_name>_Setup.ksh file is present
```

- ___ f) Check disk resources on each installation host.

STAGING:

A. Unpacking tar files

Unpack the delivery tar files (this step must be performed under a user account with write permission to <stage_directory> and /tools/common) on the staging server. Note: Unpacking the new EcsAssist, which is recommended, requires root privileges.

For each <platform_type>:

- ___ a) Change to the platform staging directory:

```
cd /<distribution_directory>/<staging_directory>/<platform_type>
```

- ___ b) Execute the setup script (change the permissions on the script to 755 if necessary):

```
./<drop_name>_Setup.ksh
```

- ___ c) At the prompt "Press ^C to Cancel, Any Other Key to Continue:", press any key except ^C.

- ___ d) At the "Continue? (Y/N):" prompt, enter Y

- ___ e) At the "Extract ECS tar packages? (Y/N):" prompt, enter Y for all platforms

- ___ f) Verify that the staging area location is correct on the line "Install ECS Staging area to:
<distribution_directory>/<staging_directory>/<platform_type>"

- ___ g) If correct, enter Y at the prompt "Enter ^C to Cancel, 'N' to change, 'Y' to continue:"

- ___ h) Verify that the following messages are received for each <platform_type>:

```
Cleaning up ... done.
```

```
Delivery setup is complete, you may now install ECS from staging area.
```

- ___ i) At the prompt "Update ECS Assist Common Files? (Root only)(Y/N)", enter Y for the Sun tar file.

MODE PREPARATION:

- ___ a) Review any Workarounds for the Mode Preparation phase.

- ___ b) Verify that the CUSTOM code partitions for the mode on each host have adequate space for the new installation.

- ___ c) Obtain a full backup of the system and/or mode for all hosts and databases.

- ___ d) Shut down all servers for the mode [Execute kill_mode]

ECS Assist Automated System Installation

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These procedures are order-dependent. Each individual step should be completed before the follow-on step is attempted.

Replace all occurrences of the string <MODE> with the mode into which you are performing the installation i.e. TS1, TS2 TS3 or OPS. Replace all occurrences of <stage_directory_location> with the path name of the staging directory.

PREREQUISITES:

- ___ a) Review the .sitemap file in the staging area for additions/deletions/changes to the installed configuration.
- ___ b) Obtain the staging area directory path name from the installation lead. This should NOT include the architecture-specific path component (such as SUN, IRIX65):
<stage_directory_location> = _____
- ___ c) Ensure that the host for EASI has sufficient free memory. EASI has significant memory requirements, and if its host runs out of memory during execution of the installation, the end state of the system is indeterminate. Check to make sure that the platform has at least 50 MB of available memory before beginning the installation. E.A.S.I use sockets to connect to the hosts which are being installed.

INSTALLATION:

- ___ a) On any SUN host, activate the ECS Assistant.
- ___ b) Select E.A.S.I.
- ___ c) Select the correct mode.
- ___ d) Enter the staging directory as specified in the Prerequisites(c) above. When entering the Staging Area, don't enter a platform directory name. For example, enter: /net/<staging_host>/codedrop2/6A_04_BMGT_01, not /net/<staging_host>/codedrop2/6A_04_BMGT_01/SUN. During Installation, E.A.S.I. will choose the appropriate architecture depending on the machine on which it is installing custom code. Press: <RETURN>.
- ___ e) Click: CUSTOM and then click: Next
- ___ f) Ensure that the Sort by dialog box has Subsystem selected.
- ___ g) Expand the icons corresponding to DSS and OSS. Expand the EcDsSr and EcOsBm icons. Holding down the shift key, select the .EcDsSdOPSWs, .EcDsSdDatabase, .EcDsSdSDSRV, and .EcOsBMGT packages. Click Next.
- ___ h) Click Install as the Execution Phase. Click: Next.
- ___ i) Installation Type: Staging Area Source File Location: Stage Click: Next.
- ___ j) Review information in the E.A.S.I. Installation Confirmation window. Click: Next.
- ___ k) Click: Yes for Final Confirmation.
- ___ l) The E.A.S.I. Status window appears. Click: COMM

Ensure that only the appropriate hosts are displayed in the E.A.S.I. Status window.

Observe the box next to each host turn green after E.A.S.I. has established communication with the host.

- ___ m) Click: INSTALL

You may expand the hosts, subsystems, and components down to the package level. As the various packages are installed you may watch the progress. NOTE: As the installation starts a window displaying the installation progress will be opened for each host selected.

VERIFICATION

- ___ a) The install is complete when all hosts return to idle status and button to the left of the host names are turned to either green or red. Note warnings are reported as red and not yellow.
- ___ b) When all hosts are idle, exit E.A.S.I by clicking on Cancel and then Exit.
- ___ c) Review the install log for any host for which a red icon is displayed and determine the cause of the installation failure.
- ___ d) When any install failures have been resolved you may proceed to the Configuration section.

DSS - Configuration and Initialization

4.1 DSS – STORAGE MANAGEMENT (STMGT)

There are no STMGT components for 6A.04_BMGT.01. Volume Groups will, however, need to be configured for the 4 new data types being added into the system.

CONFIGURATION:

A. Create New Volume Groups

Follow these procedures to create new volume groups for ECSBBR, ECSMETC, ECSMETG, and ECSMETG:

- ___ a) From the select the "Vol Grp Config." tab.
- ___ b) Select the "Add..." button.
- ___ c) Enter ECSBBR.001 in the Data Type.Version field. Select the appropriate HWCI and enter an appropriate Volume Group Path. Select OK.
- ___ d) Repeat steps a. through c., for each of the following entries into the Data Type.Version field:

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ECSMETC.001
ECSMETG.001
ECSMETV.001

4.2 DSS – DATA DISTRIBUTION (DDIST)

N/A – There are no DDIST components for 6A.04_BMGT.01.

4.3 DSS – SCIENCE DATA SERVER (SDSRV)

These procedures are order-dependent. Each individual step should be completed before the follow-on step is attempted.

Replace all occurrences of the string <MODE> with the mode into which you are performing the installation i.e. TS1, TS2 or OPS. Replace all occurrences of <stage_directory_location> with the path name of the staging directory provided to you by the installation lead. Replace all occurrences of <server_manager> with the UNIX account name that is used to run you servers. Normally this is "cmshared" or "allmode". Replace all occurrences of <mode> with the mode name in lower case letters into which you are performing the installation

CONFIGURATION:

B. Install BMGT Descriptors

Follow these procedures to install the ECSBBR, ECSMETC, ECSMETG, and ECSMETG descriptors:

___ e) From the SDSRV Server (logged in as cm<mode>), copy the four descriptors from the staging area:

```
cp /<Staging Area>/SUN/*.desc /usr/ecs/<MODE>/CUSTOM/data/ESS
```

Note that the staging area location for these descriptors is different from the usual staging area location.

___ f) From the Operations WS, start the SDSRV GUI.

___ g) With the Data Types tab selected, click on the "Add..." button to add the four descriptors. The full names of the descriptors to be added are:

```
DsESDTSyECSBBR.001.desc  
DsESDTSyECSMETC.001.desc  
DsESDTSyECSMETG.001.desc  
DsESDTSyECSMETV.001.desc
```

C. Copy the BMGT DLL:

___ a) Change the directory to <Staging Area>/SUN/

___ b) Copy the appropriate file:

```
cp *.so /usr/ecs/<MODE>/CUSTOM/lib/ESS
```

___ c) Login as the <server_manager> (usually cmshared or allmode) and copy the new DLL to the appropriate directory:

```
cp *.so /usr/ecs/<MODE>/CUSTOM/lib/DSS
```

DATABASE:

Using the procedures indicated in the Verification section below, determine the current database version. If the database version is 6068, the database is at the appropriate version and does not need to be patched. Otherwise, perform the following steps to upgrade to version 60.68.

___ a) Review any Workarounds for the Database phase.

___ b) Obtain the required database parameters:

Table A - Database Parameters

PARAMETER	VALUE
DBO ID, db_user_name	sdsrv_role
Password, db_user_password	<DBO password>
SQL Server Name, server_name	xxXXXnn_srvr
Database Name	EcDsScienceDataServer1[_<MODE>]

Where EcDsScienceDataServer1 is the database name in OPS mode, and EcDsScienceDataServer1_<MODE> is the database name in TS1 and TS2.

___ c) Using EcCoAssist on the primary server, execute the DbPatch function to patch the SDSRV database.

___ d) Select file .dbparms within the select a file box, then select Ok in the Database Config box.

___ e) Enter 60.68 in the PATCH_FILE text box and click on OK.

___ f) Enter the required parameters in the Database Script Parameters dialogue box.

___ g) Select Ok to start the database patch.

___ h) Ensure that installation of the DDM package (an MSS component) is complete on the SDSRV database host.

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VERIFICATION:

- ___ a) Review the file EcDsSrDbPatch.log in /usr/ecs/<MODE>/CUSTOM/logs for any error or warning messages.
- ___ b) Verify that the current EcDbSchemaVersionId is 6068:
 - > isql -S <server_name> -U <db_user_name> -P <db_user_password>
 - > use EcDsScienceDataServer1[_<MODE>]
 - > go
 - > select * from EcDbDatabaseVersions where EcDbCurrentVersionFlag="Y"
 - > go

Note that the value of EcDbSchemaVersionId is 6068.

> quit

COMPLETE SETUP:

INSTALLING THE ATTRIBUTE VALIDS:

To install the Attribute Valid:

1. Select the Subsystem "DSS" and component "EcDsSr" on the ECS Assist Subsystem Manager.
2. Select the Staging location button and enter the following staging location in the indicated window:
/net/<staging_directory>/SUN/
3. Select ESDT Manager from the file menu.
4. From the file menu, select Install Valid Information. (This copies the DsDbSODictionaryData.sql and EcDsSrDbValid files to the appropriate runtime locations.)
5. From the file menu, select Exit
6. Click the database button and select DbValid.
7. Enter your site information in the Database Configurable Parameters dialogue box, and click OK.
8. Enter your site information in the EcDsSrDbValid Script Parameters dialogue box, and click OK.

VERIFICATION OF THE ATTRIBUTE VALIDS INSTALLATION:

- ___ a) Verify in the ECS Assist log that the Attribute Valid processing ended normally without errors

START SERVERS:

- ___ a) Verify that SHARED mode subagent configuration files exist before starting any servers.
- ___ b) For the initial startup, login as the <server_manager>. Change directory to the /usr/ecs/<MODE>/CUSTOM/utilities directory and start each server using the appropriate start script. To start the SDSRV, use the EcDsScienceDataServerStart script by entering the following command EcDsScienceDataServerStart <MODE>.
- ___ c) Use Whazzup to monitor server status.

VERIFICATION

- ___ a) Verify that the server(s) stay up for at least one minute.
- ___ b) Check the server logs for any error messages indicating that the startup may have failed.

START GUI:

- ___ a) From the command line, start the GUIs which are a part of your component on the appropriate host(s):

```
cd /usr/ecs/<MODE>/CUSTOM/utilities
EcDsSdSrvGuiStart <MODE>
```

POST-INSTALLATION:

- ___ a) Compare the installed configuration with the site-specific HW/SW baseline to verify the installation.

WORKAROUNDS:

None

INSTALLATION NOTES:

None

4.4 DSS – HdfEos Servers

N/A – There are no HdfEos components for 6A.04_BMGT.01.

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5. INS - Configuration and Initialization

5.1 INS - Servers

There are no Ingest component deliveries as part of 6A.04_BMGT.01

CONFIGURATION:

Before running BMGT, you must verify that the new ECSBulkExport data provider has been configured with a valid ftp account and password. Use the Ingest GUI to verify and correct, if necessary, the account and password configured for this data provider.

DATABASE

N/A. There is a required Ingest database patch, patch number 61, which is required to add the new ECSBulkExport data provider. This patch, however, was provided with previous releases, including 6A.04, and should already have been installed prior to the installation of 6A.04_BMGT.01.

COMPLETE SETUP:

N/A

START SERVERS

:

___ a) Once the DSS configuration has been completed, the EcInRequestManager must be bounced to retrieve information about the new BMGT ESDTs.

VERIFICATION

___ a) Verify that the server(s) stay up for at least one Monitor window refresh cycle.

___ b) Check the server logs for any error messages indicating that the startup may have failed.

START GUI:

N/A

POST-INSTALLATION:

N/A

WORKAROUNDS:

N/A

INSTALLATION NOTES:

N/A

OSS Configuration and Initialization

14.1 OSS – Tools

These procedures are order-dependent. Each individual step should be completed before the follow-on step is attempted for Install, Make Configuration, Make CDS Entries, Databases, and Complete Setup.

CONFIGURATION:

A. New Configuration Parameters

The following are new configuration parameters that will be added via the mkcfg process:

Parameter	Recommended Value	Description
EcOsBulkMetadataGenerationTool:		
DaaclD EDC	Three character designation of this DAAC	
PdrTargetHost	SubscriberDownloadHost	Hostname inserted into the product PDR file where product files can be accessed by INGEST. Usually the install host.
DbName	->EcDsScienceDataServer1_<MODE>	The Science Data Server (SDS) database name.
DbUserName	SDSRV SQL server user name for <MODE>	The user name to access both the Sybase and SQS databases.
DbUserPasswd	SDSRV user password for <MODE>	The password for this user.
SybaseDbHost	Host where SDSRV SQL server runs for <MODE>	The host where the Sybase database runs.

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SybaseDbPort	Port on SDSRV SQL server host for <MODE>	The socket port to access the Sybase database.
SQSDbHost	Host where SDSRV SQS server runs for <MODE>	The host where the SQS database runs.
SQSDbPort	Port on SDSRV SQS host for <MODE>	The socket port to access the SQS database.
BMGTOutputDir	/usr/ecs/<MODE>/CUSTOM/ProductOutput The directory where BMGT should place the files produced.	
JAVA_HOME	/usr/java The directory where Java is installed.	
JAXP_HOME	/usr/java/lib/ext The directory where the JAXP is installed.	
JDBC_HOME	/tools/sybOCv12.0.0/jConnect-5_2/classes The directory where the Sybase jConnect is installed.	

B. Mkcfg

From the ECS Assist Subsystem Manager running on the xxacgxx platform, run mkcfg on the OSS/EcOsBm component using the values as appropriate from the table above. Note that depending on the location of the COTS installations associated with BMGT, the values that should be used for JAVA_HOME, JAXP_HOME, and JDBC_HOME may be different from the recommended values listed above.

C. Registry Patch

None. The OSS subsystem's EcOsBulkMetadataGenerationTool does not use the Registry.

DATABASE:

None. Note however that there are SDSRV and INGEST database patches that the OSS subsystem depends upon that need to be installed prior to running the BMGT tool.

COMPLETE SETUP:

Three configuration files need to be modified with DAAC-specific information. These file should be modified using any text editor to replace the parameter names (which are located between HTML tags with the same name) with corresponding parameter values. These 3 files, and the modifications to make to them, are listed in the following table:

File	Modification
/usr/ecs/<MODE>/CUSTOM/cfg/EcOsBMGTGeneralPackage.xml	This file needs to be modified to include only those distribution options that the DAAC supports. This list should be the same as that currently being used by the V0-ECS Gateway, which is either the list that was maintained in the /usr/ecs/<MODE>/CUSTOM/data/DMS/EcDmGwPackage.dat file found on the x0ins0n host, or in the Registry with the introduction of the New Media Types capability.
/usr/ecs/<MODE>/CUSTOM/cfg/EcOsBMGTContactInfo.xml	This file needs to be modified to specify the contact information for the user services group. Most of this information should be the same as that listed as the contact information in the V0-ECS Gateway's Registry information. The Registry entries are ContactName, Organization, Address, City, State, Zip, Country, Phone, Fax and Email.
/usr/ecs/<MODE>/CUSTOM/cfg/EcOsBMGTGroup.xml	This file controls which ESDTs are exported to the new ECS ClearingHOuse (ECHO) system. The ESDTs that are exported should be the same set of ESDTs that are currently exported using the DMS subsystem's Data Dictionary Maintenance Tool. The only difference is that the ESDTs are grouped. The complete grouping list can be found on the ECS Info web site at http://observer.gsfc.nasa.gov/welcome.html .

START SERVERS:

- ___ a) Login as <server_manager> (cmshared or allmode at most sites) and change to the /usr/ecs/<MODE>/CUSTOM/cfg directory.
- ___ b) Modify the file EcOsBMGTUserParams.xml using /usr/bin/vi to select a short date range for building the bulk metadata products. Note that this is an XML file and that the date range will likely be commented out (the opening tags will have '!--' after the opening angle bracket and in the closing tag '!--' before the closing angle bracket. For example, "<!-- startDate>11/24/2001 00:00:00<startDate-->" is commented out XML. Simply set the start and end dates to a desired range and remove the exclamation and dashes to uncomment the tags.)
- ___ c) Change directories to /usr/ecs/<MODE>/CUSTOM/utilities.
- ___ d) Start BMGT using the start script EcOsBMGTStart.

VERIFICATION

- ___ a) Check the BMGT logs (EcOsBMGT.ALLOG and EcOsBMGTDebug.log) to determine the outcome of the run. In either case of producing metadata product files or not, the event will be logged in the ALLOG file.
- ___ b) If product files were produced, they will appear in the directory chosen with the BMGTOutputDir during configuration.

START GUI:

None.

POST-INSTALLATION:

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None.

WORKAROUNDS:

None.

INSTALLATION NOTES:

Additional information on how to configure and run the BMGT can be found in document 170-WP-023-002, "Bulk Metadata and Browse Export Capability for the ECS Project "White Paper.

CM01AJA00

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