322-DR-001-001

EOSDIS Core System Project

Release B
Integration and Test Procedures for the ECS Project
Volume 1: CSMS

Draft

September 1996

Hughes Information Technology Systems
Upper Marlboro, Maryland

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CDRL Item 055

SUBMITTED BY

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Preface

This document, intended as a draft submittal, is a contract deliverable with an approval code 2. It does not require formal Government approval, however, the Government reserves the right to request changes within 45 days of the initial submittal. Once this document is approved, Contractor approved changes are handled in accordance with Class I and Class II change control requirements described in the EOS Configuration Management Plan, and changes to this document shall be made by document change notice (DCN) or by complete revision.

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Abstract

The Release B Integration and Test Procedures satisfies the requirements for CDRL Items 055, DID 322/DV3(Release Integration and Test Procedure), as specified in the Statement of Work, as deliverable under the Earth Observing System Data and Information System (EOSDIS) Core System (ECS), Contract NAS5-60000.

The Release B Integration and Test Procedures contains two sub-documents. Volume 1: CSMS Procedures, contains the test cases and procedures primarily to verify the CSMS related Level 3 and Level 4 requirements. Volume 2: SDPS Procedures, contains the test cases and procedures primarily to verify the SDPS related Level 3 and Level 4 requirements. In some cases CSMS or SDPS requirements have been mapped to test cases in Volumes 2 or 1, respectively, to support a more efficient verification approach. This document should be considered as a whole, the CSMS and SDPS volumes serve only to partition the document into manageable size sub-documents for publication.

This is the draft version of the Release B Integration and Test Procedures, Volume 1: CSMS Procedures. This sub-document contains the test cases and selected test procedures to demonstrate CSMS functionality and performance as specified in the Level 3 and Level 4 requirements. This document is intended to provide insight into the consolidated and refined test cases and a sample of the test procedures. This document will be incrementally updated as the remaining procedures are added, refined and delivered according to the schedule in Section 1.4

Keywords: System Integration, Test, I&T, Build, Thread, Release B, SDPS, CSMS, CSS, MSS, ECS

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1. Introduction

1.1 Identification

The DID 322/DV2 Release B Integration and Test Procedures for the ECS Project satisfies the requirements for CDRL Items 055, 322/DV3 (Segment/Element Integration & Test Procedures) and 414/VE1 (ECS System Integration and Test Procedures), as specified in the Statement of Work Revision A, as deliverable under the Earth Observing System Data and Information System (EOSDIS) Core System (ECS), Contract NAS5-60000.

1.2 Scope

The Release B Integration and Test Procedures defines the plan for integration, test, and verification of ECS Configuration Items, and verifies that ECS complies with the Functional and Performance Requirements Specification (F&PRS), Interface Requirements Documents (IRDs), Level 3 functional requirements (system), Level 4 functional requirements (segment), and the ECS design specifications. The roles and activities of the System Integration and Test (SI&T) Organization are described and schedules for performing Release B activities are provided. There is a separate test plan for the Flight Operations Segment (FOS). Changes and additions to spacecraft and instruments for Release B will be incorporated in later versions of this document.

This is a draft version of the document, delivered by special agreement with the Government. Some of the Phase 1 test procedures are written at a high level. This version of the draft does not include any procedures for the verification of Phase 2 requirements. During the mini-Test Readiness Reviews (TRRs), the appropriate test procedures will be updated/added, as required, to their final form.

The Release B Integration and Test Procedures contains two sub-documents. Volume 1: CSMS Procedures, contains the test cases and procedures primarily to verify the Communication and Management Support related Level 3 and Level 4 requirements. Volume 2: SDPS Procedures, contains the test cases and procedures primarily to verify the Science Data Processing Segment related Level 3 and Level 4 requirements. In some cases CSMS or SDPS requirements have been mapped to test cases in Volumes 2 or 1, respectively, to support a more efficient verification approach. This document should be considered as a whole, the CSMS and SDPS volumes serve only to partition the document into manageable size sub-documents for publication.

This document reflects the Technical Baseline submitted via contract correspondence no. ECS 194-00343.

1.3 Purpose

This is the draft version of the Release B Integration and Test Procedures, Volume 1: CSMS Procedures. This sub-document contains test cases and selected test procedures to demonstrate CSMS functionality and performance as specified in the Level 3 and 4 requirements. This

document is intended to provide insight into the consolidated and refined test cases due to ECS organizational and implementation plan changes and a sample of the test procedures. This document will be incrementally updated as the remaining procedures are added, refined and delivered according to the schedule in Section 1.4.

1.4 Status and Schedule

This is the draft version of the ECS Release B Integration and Test Procedures. This document contains the Segment and System test cases revised due to ECS organizational and implementation plan changes. A mapping of the test cases from the Release B System Integration and Test Plans (319-CD-006-001/402-CD-003-001) to the test cases in this document are provided in Appendix B. Once approved this document supersedes the respective System and Segment Integration and Test Plan. Future changes to the Release B test cases and procedures will be reflected in this document.

Several more formal releases are scheduled for this document. At the Test Readiness Review (TRR) the document is released containing test procedures for all Release B test cases. Prior to the Release Readiness Review (RRR) the document is released containing test procedures for all Release B phase 1 & 2 test cases.

Updates to test cases and procedures will be delivered at the appropriate mini-TRR, as needed, for each of the tests described in this document. These updates are considered working versions of this document and are released informally on an " as required" basis.

1.5 Organization

This document is organized into five sections, three appendices and an acronyms list:

Section 1	The Introduction contains the identification, scope, purpose, status, schedule, and document organization
Section 2	The Related Documents provides a bibliography of parent, applicable and reference documents for the Release B Integration and Test Procedures Document
Section 3	The Release B Integration and Test Overview describes the process used to integrate and test the segments, and subsystem interfaces
Section 4	The Release B Test Cases describes the thread and build test cases, which will be used to verify the functionality of Release B
Section 5	Release B Test Procedures describe the step by step test procedures of the specific segment and system level thread and build test cases
Appendix A	The Level 3 and 4 Requirements Verification Matrix contains a mapping of Paragraph ID to Test Cases and Level 3 and 4 Requirements
Appendix B	The Old New Test Cases Matrix contains a mapping of the test cases from the Release B System integration and Test plans (319-CD-006-001/402-CD-003-001) to the test cases in this document

The Abbrieviations and Acronyms List contains a list of acronyms included in the document.

2. Related Documentation

2.1 Parent Documents

The parent documents are the documents from which this Release B CSMS Integration and Test Plan and Procedures' scope and content are derived.

101-CD-001-004	Project Management Plan for the ECS Project, DCN No. 1
107-CD-001-007	Level 1 Master Schedule for the ECS Project
194-201-SE1-001	Systems Engineering Plan for the ECS Project
319-CD-006-001	Release B Integration and Test Procedures for the ECS Project
322-CD-002-002	Release A Integration & Test Procedures for the ECS Project, Volume 1: CSMS, Preliminary
322-CD-005-002	Release A Integration & Test Procedures for the ECS Project, Volume 2: SDPS
194-401-VE1-002	Verification Plan for the ECS Project
402-CD-001-002	System Integration and Test Plan for the ECS Project, Volume 1: Interim Release 1 (IR-1)
402-CD-002-002	System Integration and Test Plan for the ECS Project, Volume 2: Release A
402-CD-003-001 319-CD-006-001	Release B System and Segment Integration and Test Plan for the ECS Project
420-05-03	Earth Observing System (EOS) Performance Assurance Requirements for the EOSDIS Core System (ECS)
423-41-01	Goddard Space Flight Center, EOSDIS Core System (ECS) Statement of Work
423-41-03	Goddard Space Flight Center, EOSDIS Core System (ECS) Contract Data Requirements List Document

2.2 Applicable Documents

The following documents are referenced within this Plan and Procedures, or are directly applicable, or contain policies or other directive matters that are binding upon the content of this volume.

194-207-SE1-001	System Design Specification for the ECS Project
301-CD-002-003	System Implementation Plan for the ECS Project
304-CD-005-002	Release B System Requirements Specification for the ECS Project
305-CD-020-002	Release B SDPS/CSMS Design Overview for the ECS Project
305-CD-021-002	Release B SDPS Client Subsystem Design Specification for the ECS Project
305-CD-022-002	Release B SDPS Interoperability Subsystem Design Specification for the ECS Project
305-CD-023-002	Release B SDPS Data Management Subsystem Design Specification for the ECS Project
305-CD-024-002	Release B SDPS Data Server Subsystem Design Specification for the ECS Project
305-CD-025-002	Release B SDPS Ingest Subsystem Design Specification for the ECS Project
305-CD-026-002	Release B SDPS Planning Subsystem Design Specification for the ECS Project
305-CD-027-002	Release B SDPS Data Processing Subsystem Design Specification for the ECS Project
305-CD-028-002	Release B Communications Subsystem Design Specification for the ECS Project
305-CD-029-002	Release B CSMS System Management Subsystem Design Specification for the ECS Project
305-CD-030-002	Release B GSFC DAAC Design Specification for the ECS Project
305-CD-031-002	Release B LaRC DAAC Design Specification for the ECS Project
305-CD-033-002	Release B EDC DAAC Design Specification for the ECS Project
305-CD-034-002	Release B ASF DAAC Design Specification for the ECS Project
305-CD-035-002	Release B NSIDC DAAC Design Specification for the ECS Project
305-CD-036-002	Release B JPL DAAC Design Specification for the ECS Project
305-CD-037-002	Release B ORNL DAAC Design Specification for the ECS Project
305-CD-038-002	Release B System Monitoring and Coordination Center Design Specification for the ECS Project

305-CD-039-002	Release B Data Dictionary for the ECS Project Subsystem Design Spec
307-CD-004-001 329-CD-004-001	Release B Science Data Processing Segment (SDPS) Release and Development Plan for the ECS Project
307-CD-005-001 329-CD-005-001	Release B Communications and System Management Segment (CSMS) Release and Development Plan for the ECS Project
403-CD-002-002	Release B Verification Specification for the ECS Project
501-CD-001-004	Performance Assurance Implementation Plan (PAIP) for the ECS Project
604-CD-002-003	Operations Concept for the ECS Project: Part 2B - ECS Release B
222-WP-002-001	Release B Interface Requirements Analysis, White Paper for the ECS Project
423-41-02	Goddard Space Flight Center, Functional and Performance Requirements Specification [F&PRS] for the Earth Observing System Data and Information System (EOSDIS) Core System
505-41-13	Goddard Space Flight Center, Interface Requirements Document between Earth Observing System Data and Information System (EOSDIS) and the Landsat 7 System

2.3 Information Documents

2.3.1 Information Documents Referenced

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

102-CD-001-004	Configuration Management Plan for the ECS Project
193-103-MG3-001	Configuration Management Procedures for the ECS Project

2.3.2 Information Documents Not Referenced

The following documents although not referenced herein and/or not directly applicable, do amplify or clarify the information presented in this document. These documents are not binding on the content of this Test Plans and Procedures document.

311-CD-008-001	Release B SDPS/CSMS Database Design and Database Schema for the ECS Project
313-CD-006-002	Release B CSMS/SDPS Internal Interface Control Document for the ECS Project
409-CD-002-001	ECS Overall System Acceptance Test Plan for Release B

160-TP-002-001	Version 1 Data Migration Plan for the ECS Project
222-TP-003-008	Release Plan Content Description for the ECS Project
194-WP-904-002	Multi-Track Development for the ECS Project

3. Release B Integration and Test Overview

This section contains an overview of the approach taken by the Release B Integration and Test Organization to ensure complete and thorough testing at the segment and system levels. Included is information concerning the I&T approach, verification activities, and responsibilities.

3.1 Release B I&T Overview

3.1.1 Functional Overview

ECS is comprised of three segments, each comprised of various subsystems. The three segments are the Flight Operations Segment (FOS), Science Data Processing Segment (SDPS) and Communications and System Management Segment (CSMS). Each of these segments are decomposed into subsystems and the subsystems are composed of CIs. This document provides the procedures for testing the design and implementation of the CSMS and SDPS CIs and their integration into ECS subsystems for Release B.

This sub-document, Volume 1: CSMS Procedures, focuses on the integration of CSMS subsystems. CSMS is responsible for the interconnection of users and services providers, the transfer of information between ECS components and systems management. CSMS is also responsible for supporting and providing interoperability for the Science Data Processing Segment (SDPS) and the Flight Operations Segment (FOS). CSMS contains three internal subsystems: Communications Subsystem (CSS), Inter-networking Subsystem (ISS) and the System Management Subsystem (MSS). CSS is a collection of services that are responsible for providing flexible interoperability and information transfer between clients and servers. ISS is a layered stack of communications services corresponding to layers 1-4 of the OSI-RM. MSS is made up of a collection of applications that are responsible for the management of all ECS resources, including all SDPS, FOS, ISS and CSS components.

The CIs for CSMS at Release B are listed in Table 3.1-1. Included are CI names and CSMS subsystems. A short description of each CI is given in the following Table 3.1-1.

Table 3.1-1. CSMS Release B CIs

CI	Subsystem Superclass
Distributed Computing Software CI (DCCI)	CSS
Distributed Communications Hardware CI (DCHCI)	CSS
Management Software CI (MCI)	MSS
Management Agents CI (MACI)	MSS
Management Logistics CI (MLCI)	MSS
Management Hardware CI (MHCI)	MSS
Internetworking CI (INCI)	ISS
Internetworking Hardware CI (INHCI)	ISS

The Release B CSMS design will continue to evolve from the Release A design due to various factors, including additional requirements for Release B, new COTS selections, completion of trade studies and prototypes, changes to the technical baseline, and refinement of the object models. A summary of some of the major Release B CSMS additions or enhancements to the Release A design are summarized below in Table 3.1-2.

Table 3.1-2. CSMS Release B Changes and Enhancements to Release A Capabilities

Release B Enhancement	Release A Capability	Subsystems Affected
Continued full TRMM support, plus support for Landsat7, COLOR, AM-1, ADEOSII, SAGEIII, RADAR ALT and ACRIM. Support for ERS, JERS and RADARSAT at ASF. Support for DAO at GSFC	Complete data handling/processing of TRMM, CERES, and LIS instrument data. Interface testing for ASTER GDS to EDC DAAC; LPS to EDC DAAC; MODIS SCF to GSFC and EDC DAACs; and AM-1 MOPITT, MISR, and CERES SCFs to LaRC DAAC.	All
Greatly increased (by at least an order of magnitude) maximal network rates, data processing and required data product storage, esp. for AM-1 mission support.	Moderate data rates, data processing and data storage requirements.	All
Enhanced Release A WAN to support additional data traffic requirement for Release B.	Use of Release A ESN WAN for inter-DAAC communications.	ISS
System & Network Management to include additional security features and DAAC interfaces (esp. the ASTER GDS and ASF support).	System & Network Management for Release A network configuration.	CSS, ISS, MSS
Additional DCE services.	Distributed Object Framework.	CSS
SMC integrated with LSM. SMC capabilities for the security management and performance management are automated.	SMC activated. Many of the SMC capabilities are performed manually.	MSS
Mode Management	No comparable Release A capability	MSS

3.2 Release B I&T Testing Approach

3.2.1 Release B I&T Testing

The Release B I&T organization integrates and verifies SDPS and CSMS CI functionality on an phased basis. As incremental integration and testing proceeds, larger portions of the segments are assembled. The integration focuses on integrating functionally related components rather than on the structural decomposition achieved through the design process. As such, components from multiple CIs or segments may be integrated and tested early in the integration process. Therefore there is no strict delineation between CI, Segment, or System Integration and Test. An attempt has been made to delineate SDPS from CSMS based on the emphasis of the requirement verification activities.

As unit testing on software and hardware items is completed, the I&T organization incrementally assembles lower-level functionality into progressively higher levels until a Release is completely integrated and tested. Functional components that are integrated are threads, and the result of combining threads is a build. Functional testing verifies Level 3 and 4 functional requirements.

3.2.2 Build/Thread Methodology

The build/thread concept, which is based on the incremental aggregation of functions, is used to plan I&T activities. A thread is the set of components (Software CIs, hardware and data) and operational procedures that implement a function or set of related functions. Threads are tested individually to facilitate Level 4 requirements verification and to isolate software problems. A build is an assemblage of threads to produce a gradual buildup of segment capabilities. This orderly progression of combining lower level software and/or hardware items to form higher level items with broader capability is the basis of CSMS and SDPS Release B integration.

Earlier Threads and Builds focus on demonstration of selected segment functionality and verification of primarily Level 4 requirements and are thus considered segment threads and builds. Later integration activities, primarily builds, demonstrate end-to-end system level functionality and verify primarily Level 3 requirements, thus they are considered system builds.

Build/thread diagrams are developed for each release. The build/thread diagram for Release B is presented in Figure 3.2.2-1. Threads and builds are defined by examining CIs, Level 4 requirements, the release implementation plan and segment/element design specifications. The Release I&T organization, with support from the development community, logically groups the release into functional categories divided along noticeable boundaries. These categories are the basis for threads. Threads are combined to define builds. Builds include several integrated threads and/or other builds functions. The build/thread diagram for each release acts as a framework for test case definition. From each build and thread on the diagram, test cases are developed. These test cases provide the basis for development of step-by-step test instruction to be documented as test procedures.

Volume 1 of this document contains the test cases for the threads and builds on Figure 3.2.2-1 that focus on CSMS functionality. These threads and builds explicitly integrate and test the functionality specified by most of the CSMS Level 3 and 4 requirements. Some CSMS requirements, such as external interfaces, are mapped to test threads or builds in Volume 2 to improve the efficiency of the verification approach.

Volume 2 of this document contains the test cases for the threads and builds on Figure 3.2.2-1 that focus on SDPS functionality. In addition to the explicit SDPS functionality verified in these threads and builds, they also integrate and test many CSMS components, such as CSS communication services, that are not shown on the figure.

Concurrent integration and verification of CSMS components in both the CSMS and SDPS threads and builds ensures these underlying critical components are thoroughly tested and improves system reliability. Isolated testing of CSMS functionality described in Volume 1 provides intensive testing and requirements verification of these service oriented components. Early integration of CSMS components with the SDPS applications that rely on their services reduces integration risk and driver development costs.

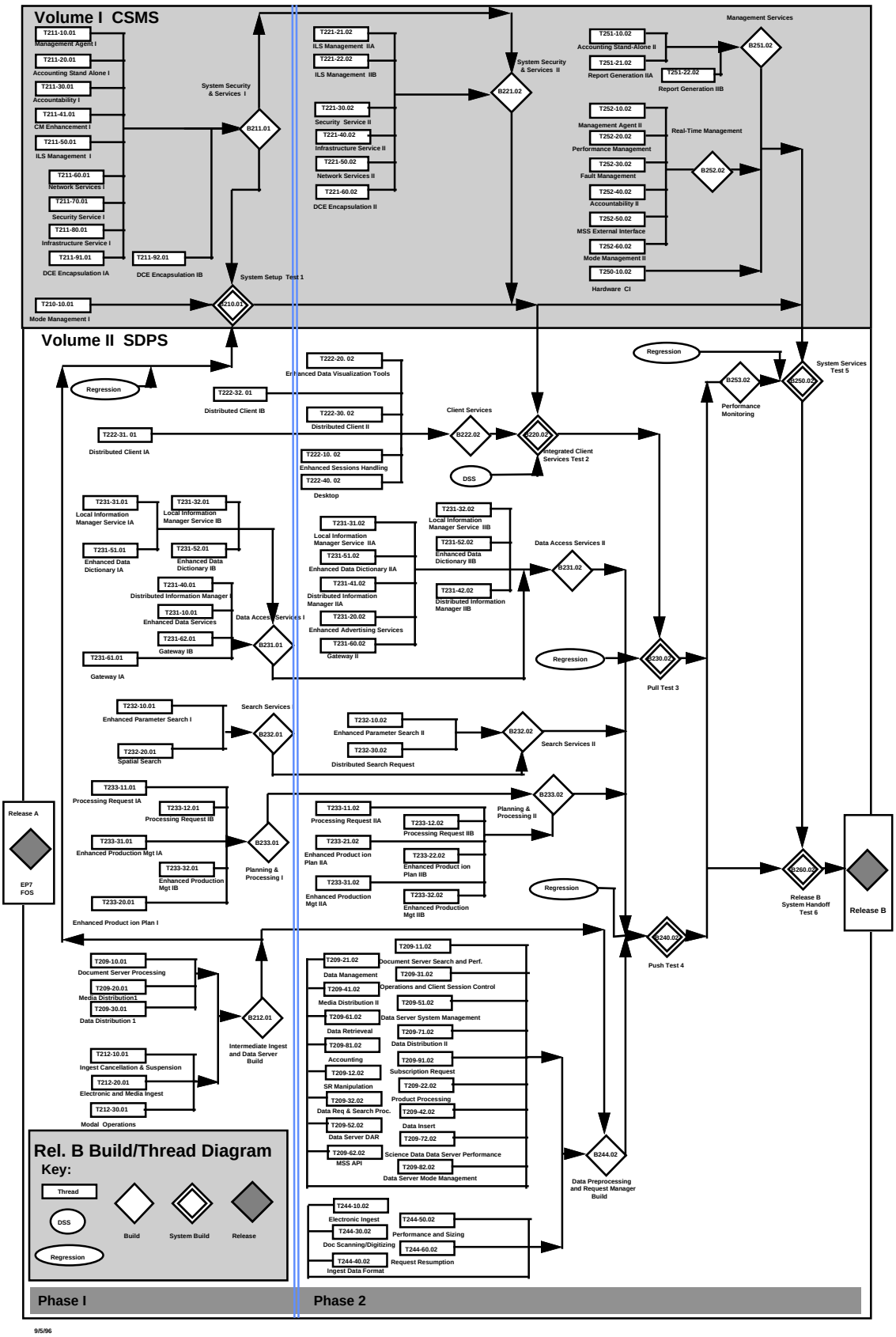

Figure 3.2.2-1. Release B Build/Thread Diagram

3.3 I&T Test Verification

The following sections define responsibilities and activities of the I&T organization. I&T verification includes definition of verification methods, post test analysis, regression testing, and verification resources.

3.3.1 Verification Methods

The four verification methods used for I&T include: inspection, analysis, demonstration, and test. They are defined in the ECS Verification Plan (ECS document number 194-401-VE1-002).

a. Inspection. The visual, manual examination of the verification item and comparison to the applicable requirement or other compliance documentation, such as engineering drawings.

b. Analysis. Technical or mathematical evaluation based on calculation, interpolation, or other analytical methods.

c. Demonstration. Observation of the functional operation of the verification item in a controlled environment to yield qualitative results without the use of elaborate instrumentation or special test equipment.

d. Test. A procedure or action taken to determine under real or simulated conditions the capabilities, limitations, characteristics, effectiveness, reliability, or suitability of a material, device, system, or method.

Each requirement is verified by one or more of these methods. A requirements matrix mapping Release B segment and system level requirements to Release B test cases, is provided in Appendix A of this document.

3.3.2 Post Test Analysis

Post analysis includes data reduction and comparison of actual results against expected results. Post test analysis required for I&T is performed by the I&T organization with support from system engineering or development organizations and the user communities when appropriate. Methods for performing post-test analysis are documented in the Segment/Element Integration and Test Procedures on a test by test basis. Results of post-test analysis is documented in I&T reports. Data, data logs, event logs and any other test output required for post test analysis is captured and stored under CM control.

3.3.3 Regression Testing

Regression testing is supplemental testing performed at any time upon any thread or build during I&T testing to ensure that existing software is not adversely affected by modified or new software. I&T members are responsible for planning, documenting, executing and reporting all regression testing. Automated test tools are used when practical, for regression testing by the I&T organization. This ensures that regression tests duplicate initial test procedures.

For Release B, the following changes may result in regression testing:

- software changes
- hardware changes
- operational enhancements
- new versions delivered after the unit level testing

The I&T organization is responsible for reporting any discrepancies encountered during regression testing. Discrepancies resulting from any level of testing which result in modifications at the unit level, will be regression tested by the I&T organization.

4. CSMS Release B Test Cases

4.1 Phase I

4.1.1 MSS

4.1.1.1 Management Thread I (T211-10.01)

The objectives of the management agent thread are as follows:

- Provide the interface to exchange mode information.
- Provide the capability to exchange user registration status and user profile information.
- Provide the interface to receive plan and scheduling information.

The following tests verify the capability to interface with all ECS subsystem for conveying mode, accountability, and planning information:

4.1.1.1.1 Test Case 1: Mode Receive Test (T211-10.01.01)

This test verifies the Management Agent Service have the capability to receive the current mode within varies subsystem, such as IOS, DMS, PLS, DPS, INS, DSS, and CSS.

Test Configuration:

- Hardware: ECS server, IOS, DMS, PLS, DPS, INS, DSS and CSS interface simulator, HP OpenView Server, X-terminal.
- Software: Release B
- Data:
- Tools: XRunner

Test Input:

MIB for subsystem resource : IOS, DMS, PLS, DPS, INS, DSS and CSS are set with a software mode. Request to read current mode within subsystem.

Test Output:

A request for setting the software mode within the subsystem - IOS, DMS, PLS, DPS, INS, DSS and CSS.

Success Criteria:

Request for setting the software mode is sent to the appropriate subsystem. Appropriate MIB in the subsystem is set with corresponding mode request. Set Mode request is logged in the MSS log file.

L3 Requirements:

SMC-3300#B, SMC-3305#B

L4 Requirements:

C-MSS- 36305, C-MSS-36355, C-MSS-36405, C-MSS-36455, C-MSS-36505, C-MSS-36555, C-MSS-36705

4.1.1.1.2 Test Case 2: Mode Request Test (T211-10.01.02)

This test verifies the Management Agent Service have the capability to send mode requests to varies subsystem such as : IOS, DMS, PLS, DPS, INS, DSS, and CSS.

Test Configuration:

- Hardware: ECS server, IOS, DMS, PLS, DPS, INS, DSS and CSS interface simulator, HP OpenView, X-terminal.
- Software: Release B
- Data:
- Tools: XRunner

Test Input:

MIB for all the subsystem resource is set with a software mode. Mode request send to varies subsystem.

Test Output:

A request for setting the software mode within the subsystem is received by subsystem.

Success Criteria:

A request for setting the software mode is sent to the subsystem. Appropriate MIB in subsystem is set with the corresponding mode request. Set mode request is logged in the MSS log file.

L3 Requirements:

SMC-3300#B

L4 Requirements:

C-MSS- 36335, C-MSS-36380, C-MSS-36440, C-MSS-36485, C-MSS-36545, C-MSS-36605, C-MSS-36755

4.1.1.2 Accounting Stand-Alone Thread I (T211-20.01)

The objectives of the MSS Accounting Stand-Alone Thread I are to provide the ability to manage accounting/accountability policies and procedures, invoicing and billing.

Testing verifies the Billing/Accounting Application Service functional requirements conform to the functional requirements defined by the Federal Financial Management System Requirements issued by the Joint Financial Management Improvement Program (JFMIP) and provide the ability to manage accounts.

4.1.1.2.1 Test Case 1: Accounting Functions (T211-20.01.01)

This test verifies the BAAS (Billing/Accounting Application Service) functional requirements conform to the functional requirements defined by the Federal Financial Management System Requirements issued by the Joint Financial Management Improvement Program (JFMIP). This test also verifies the BAAS provide the following functions : request processing, billing & invoicing, accounts receivable, accounts payable, collections, general ledger, cost accounting, and reporting.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

The tester reviews the BAAS COTS product documentation and the JFIMP Federal Management System requirement.

Test Output:

Verification that the BAAS COTS product functional requirements conform to the JFIMP functional requirements and provides the required accounting functions.

Success Criteria:

The BAAS COTS product functional requirements conform to the JFIMP functional requirements and provides the required accounting functions.

L3 Requirements:

SMC-6301#B

L4 Requirements:

C-MSS-78010, C-MSS-78030.

4.1.1.2.2 Test Case 2: Billing & Invoicing process (T211-20.01.02)

This test verifies the BAAS (Billing/Accounting Application Service) has the ability to process user account activity with "standardized pricing tables", "pre-paid amount", "apply credits", "apply past due" and "apply special rate. It can also consolidate multiple user accounts into a single group account. The billing statements as well as billing invoices are also generate on paper as well as electronic formats. Upon Bring up the statement and billing invoice can be reprinted.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

BAAS Billing and Invoicing function is initiated. Via manipulation of the system data and billing cycle parameters for the system simulates the billing process. ECS Management Database will be invoked and Account activity data will be distributed to the BAAS Billing and Invoicing function.

Test Output:

Billing statements and invoices for the user accounts which had user activity during the billing cycle is generated accordingly.

Success Criteria:

The account activity data are collected and appropriate billing statements and invoices for the user accounts which had user activity during the billing cycle will be generated in electronic formats as well as on paper.

L3 Requirements:

SMC-6400#B, SMC-6410#B

L4 Requirements:

C-MSS- 78100, C-MSS-78110, C-MSS-78120, C-MSS-78130, C-MSS-78150, C-MSS-78160, C-MSS-78180, C-MSS-78190

4.1.1.2.3 Test Case 3: Account Management (T211-20.01.03)

This test verifies that the MSS BAAS Billing and Invoicing function can access the ECS management database to collect Account activity data for use in billing and invoicing for

purchases of ECS products and services. BAAS Billing and Invoicing function can alos access to the account billing information. The user activity information can be collected daily and the billing invoices can be generated in multiple billing cycles.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

BAAS Billing and Invoicing function is initiated. Via manipulation of the system data and billing cycle parameters for the system simulates the billing process. ECS Management Database will be invoked and Account activity data will be distributed to the BAAS Billing and Invoicing function.

Test Output:

Account activity data will be collected from the ECS Management Database, for use in the billing of accounts, billing statements and invoices are generated and proper system messages indicating that the science user activity information is collected will be loged.

Success Criteria:

Data for all user activities within the billing cycle will be collected from the ECS Management Database, for use in the billing of accounts, all the account activity data are collected and logged.

L3 Requirements:

SMC-6410#B

L4 Requirements:

C-MSS-78200, C-MSS-78220, C-MSS-78240, C-MSS-78260.

4.1.1.3 Accountability Thread I (T211-30.01)

Testing verifies the Accountability Management Service provides the capabilities of User Registration and the end-to-end tracking of user orders and requests. The Accountability Management Service makes the user profile available to the various subsystems, such as the Data Server subsystem for information such as the user’s electronic mail address and the shipping address, used for the distribution of data products ordered.

Test Configuration:

- Hardware: workstations
- Software: MSS Accountability Management Service
- Tools: XRunner
- Data: Science

4.1.1.3.1 Test Case 1: User Profile services (T211-30.01.01)

This test verifies the ability of the Accountability Management Service to allow M&O Staff to modify and delete user profile records, receive user registration data and send user registration data to the MMO and from the MMO service .

Test Configuration:

- Hardware: workstations
- Software: MSS Accountability Management Service
- **Tools: XRunner**
- **Data: Science**

Test Input:

1. The tester will attempt to modify a user profile record, and then try to delete a user profile record.
2. The tester will attempt to receive the user registration data from the MMO service.
3. The tester will attempt to send user registration data to the MMO service.

Test Output:

Messages indicating that the modifications were made to the one user profile record and other was deleted, received and sent to user registration data to and from the MMO.

Success Criteria:

Modifications were made to the one user profile record, and other was deleted. The user registration data was received and sent to MMO by the Accountability Service.

L3 Requirements:

SMC-7300#B

L4 Requirements:

C-MSS-75001, C-MSS-75015, C-MSS-75100, C-MSS-75110.

4.1.1.3.2 Test Case 2: System Profile services (T211-30.01.02)

This test verifies the ability of the Accountability Management Service to maintain and allow M&O Staff to modify and delete system profile inventory records.

Test Configuration:

- Hardware: workstations
- Software: MSS Accountability Management Service
- Tools: XRunner
- Data: Science

Test Input:

1. The tester will attempt to access and query the system profile inventory database of system software and non product data.
2. The tester will review the schema for the system profile inventory database.
3. The tester, acting as a member of the M&O staff, will attempt to enter new system profile inventory records.
4. The tester, acting as a member of the M&O staff, will attempt to modify a system profile inventory record, and delete another.

Test Output:

Messages indicating that the Accountability Management Service received the new system profile inventory records, accepted the modified system profile inventory record, and deleted the other.

Success Criteria:

The results of the queries contain information on system software and non product data as maintained by the system profile inventory database. The system profile inventory database schema supports the storage of the information for each inventory entry. The new system profile inventory records are received and modified profile inventory record, as entered by the tester, was accepted by the Accountability Management Service, and the other record was deleted.

L3 Requirements:

SMC-7320#B, EOSD-3220#B

L4 Requirements:

C-MSS-75060,C-MSS-75070, C-MSS-75080,C-MSS-75090

4.1.1.3.3 Test Case 3: CLS Accountability services (T211-30.01.03)

This test verifies the ability of the Accountability Service to receive an account balance status request, user registration requests, comment information, request for user profile updates, user registration status request, and user comment survey requests for service.

Test Configuration:

- Hardware: workstations
- Software: MSS Accountability Management Service
- Tools: XRunner
- Data: Science

Test Input:

1. The tester will attempt to receive an account balance status request, user registration requests, comment information, request for user profile updates, user registration status request, and user comment survey requests from the CLS.
2. The tester will attempt to send user registration information, user registration status, user profile information, account status and user comment surveys, to the CLS.

Test Output:

Messages indicating that the Accountability Service received the account balance status request, user registration requests, comment information, request for user profile updates, user registration status request, user comment survey requests and sent the user registration information, user registration status, user profile information, account status and user comment surveys for services.

Success Criteria:

The status requests and information, as entered by the user, was received and sent by the Accountability Service.

L3 Requirements:

IMS-0040#B, IMS-0080#B, IMS-1360#B, IMS-1645#B, SMC-3421#B, SMC-5320#B, SMC-7300#B

L4 Requirements:

C-MSS-75102,C-MSS-75105,C-MSS-75112,C-MSS-75115,C-MSS-75120,C-MSS-75125, C-MSS-75130,C-MSS-75135, C-MSS-75140,C-MSS-75145, C-MSS-75150.

4.1.1.3.4 Test Case 4: INS and DSS Accountability services (T211-30.01.04)

This test verifies the ability of the Accountability Service to receive data delivery records and data delivery notices from the INS and receive TDRSS schedule request from the DSS service.

Test Configuration:

- Hardware:workstations
- Software: MSS Accountability Management Service
- Tools: XRunner
- Data: Science

Test Input:

The tester will attempt to receive the data delivery records and data delivery notices from the INS and TDRSS schedule request from the DSS service.

Test Output:

Messages indicating that the Accountability Service received the data delivery records, data delivery notices and TDRSS schedule request.

Success Criteria:

The data delivery records, delivery and TDRSS schedule request was received by the Accountability Service.

L3 Requirements:

SMC-3350#B, IMS-1640#B

L4 Requirements:

C-MSS-75155,C-MSS-75160, C-MSS-75165.

4.1.1.4 CM Enhancement Thread I (T211-40.01)

The objective of the CM Enhancement Thread is as follows:

- Provides the ability to manage the site and network configuration

Testing will demonstrate that new functions for configuration management of site and network software is supported. Tests will verify that the automated Software License Administration function provides the ability to verify that software licenses are in agreement with existing license agreements, and that software license can be reallocated so that COTS software can be made available where and when it is needed. Testing will confirm that contingencies are supported to provide media delivery. Inter-DAAC configuration management will be verified through testing. Testers will verify that AM-1 (ASTER, CERES, MISR, MODIS and MOPPIT), Landsat 7 (ETM+), FOO (COLOR), ADEOS II (SeaWinds) and Meteor-3 (SAGEIII) provided

instrument hardware and software documentation can be accessed. Testing will verify the ability to generate summary and detailed configuration status reports that include the status of hardware, system and scientific software and notification of non-operational configuration items, in support of maintain baseline configuration management.

4.1.1.4.1 Test Case 1: MSS Software Distribution Service (T211-40.01.01)

This test case verifies that the required functions provided by the Software Distribution Service for Phase I meet the requirements established by the CSMS system design. Phase II delivery provides for the installation of COTS products and the capabilities of SMC-LSM distribution.

Test Configuration:

- Hardware: Configurations associated with Software Distribution Service, MSS Baseline Manager Service, and CSS Bulletin Board Service.
- Software: Configurations associated with Software Distribution Service, MSS Baseline Manager Service, and CSS Bulletin Board Service.
- Data: Checklist, screen selections, data repository displays, and messages indicating completion/results of tasks
- Tools: XRunner

Test Input:

Test inputs involve screen selections to complete tasks and view stored data. Actions will be performed to complete the following:

1. Verify that version controlled repositories for toolkit software, software upgrades, and documentation are maintained and that the contents of each repository can be retrieved from the MSS Baseline Manager Service.
2. Verify that the Software Distribution Service provides access to the toolkit repository/information through the CSS Bulletin Board Service.
3. Verify that the Software Distribution Service packages software, databases, and documentation for delivery to LSM destinations and will determine destinations from stored lists as well as interactive input.
4. Verify that the Software Distribution Service can schedule automatic and operator-assisted distribution of software packages.
5. Verify that the Software Distribution Service can push software packages from a central distribution point/depot to remote target platforms as well as pull these software packages from a central distribution point/depot onto individual target destinations.
6. Verify that the Software Distribution Service has the capability to initiate electronic transfer of distribution packages either automatically according to schedule or upon direct command and maintain a record of successful package transfers as well as of each target that fails to receive a package intended for it.

Test Output:

A checklist showing success or failure for each requirement. Messages indicating results and completion of tasks. Displays of data repositories and stored lists.

Success Criteria:

This test is successful when all the above requirements are met.

L3 Requirements:

SMC-2110#B, SMC-2120#B, SMC-2450#B, SMC-2535#B, SMC-2620#B

L4 Requirements:

C-MSS-42000, C-MSS-42010, C-MSS-42020, C-MSS-42030, C-MSS-42035, C-MSS-42050, C-MSS-42070, C-MSS-42080, C-MSS-42090, C-MSS-42100, C-MSS-42110

4.1.1.5 ILS Management Thread I (T211-50.01)

The objective of the ILS Management Thread is :

- Provide the ability to manage the inventories of spares and consumable

Testing will demonstrate verification that spare parts and consumable item inventories can be monitored and replenished both system-wide and at the site level..

4.1.1.5.1 Test Case 1: MSS License Management Service (T211-50.01.01)

This test case verifies that the required functions provided by the License Management Service meet the requirements established by the CSMS system design. All functionality for the License Management Service is being delivered in Phase II.

Test Configuration:

- Hardware: License Management configuration
- Software: License Management Configuration
- Data: Checklist, screen selections, stored data displays, messages indicating completion/results of tasks, and generated reports
- Tools: XRunner

Test Input:

Test inputs involve screen selections to complete tasks and view stored data. Actions will be performed to complete the following:

1. Verify that the License Management Service can distribute software license provisions system-wide in addition to maintaining information on product identification, licensing

provisions, numbers and types of users. Also verify that this service can create, install, modify, and reinstall software licenses on ECS servers.

2. Verify that the License Management Service meters the use of software licenses and provides notification to the M&O staff when license metering events occur.
3. Verify that the License Management Service logs license management events and compiles/reports license utilization statistics.

Test Output:

A checklist showing success or failure for each requirement. Messages indicating results and completion of tasks. Displays of stored data and generated reports.

Success Criteria:

This test is successful when all the above requirements are met.

L3 Requirements:

SMC-2130#B

L4 Requirements:

C-MSS-42200, C-MSS-42230, C-MSS-42240, C-MSS-42250, C-MSS-42270, C-MSS-42280, C-MSS-42290, C-MSS-42300

4.1.1.6 Mode Management Thread I (T210-10.01)

This thread testing is performed to verify the test/training environment can be executed simultaneously with the operational system environment. Testing is also performed to verify the mode management service is capable of using GUI interface..

4.1.1.6.1 Test Case 1: Concurrent Execution of Test and Production Modes (T210-10.01.01)

This test verifies that the capability of the concurrent execution of a test mode and production mode by executing the GUI interface for mode initialization and monitoring functions.

Test Configuration:

- Hardware: DCE cell, Workstation, X terminal
- Software: mode management application
- Data: mode management script
- Tools: XRunner, HPOpenView

Test Input:

1. Log onto the system and start-up the Application in production mode.
2. Initialize a test mode environment with a given mode ID and home directory, and monitor/control the test mode environment.
3. Initialize another production mode, then initialize another test mode with a simulated time value.

Test Output:

HP OpenView shows the successful initialization of various test mode of application, but display errors when more than one production is started.

Successful Criteria:

Test modes and not more than one production mode can be executed concurrently.

L3 Requirements:

EOSD-0510#B, EOSD-0630#B, EOSD-0720#B, EOSD-0780#B, FOS-0020#B, FOS-0025#B, EOC-9510#B, SMC-3300#B

L4 Requirements:

C-MSS-56010, C-MSS-56020, C-MSS-56070, C-MSS-56082, C-MSS-56084, C-MSS-56086, C-MSS-56088, C-MSS-56090, C-MSS-56092, C-MSS-56094, C-MSS-56096, C-MSS-56098, C-MSS-56100.

4.1.1.6.2 Test Case 2: Concurrent Execution of Training and Production Modes (T210-10.01.02)

This test verifies that the capability of the concurrent execution of a training mode and production mode by executing the GUI interface for mode initialization and monitoring functions.

Test Configuration:

- Hardware: DCE cell, Workstation, X terminal
- Software: mode management application
- Data: mode management script
- Tools: XRunner, HPOpenView

Test Input:

1. Log onto the system and start-up the Application in production mode.
2. Initialize a training mode environment with a given mode ID and home directory, and monitor/control the test mode environment.

3. Initialize another production mode, then initialize another training mode with a simulated time value.

Test Output:

HP OpenView shows the successful initialization of various training mode of application, but display errors when more than one production is started.

Successful Criteria:

Training modes and not more than one production mode can be executed concurrently.

L3 Requirements:

EOSD-0510#B, EOSD-0630#B, EOSD-0780#B, FOS-0020#B, FOS-0025#B, EOC-9510#B, SMC-3300#B

L4 Requirements:

C-MSS-56010, C-MSS-56030, C-MSS-56070, C-MSS-56082, C-MSS-56084, C-MSS-56086, C-MSS-56088, C-MSS-56090, C-MSS-56092, C-MSS-56094, C-MSS-56096, C-MSS-56098, C-MSS-56100.

4.1.2 CSS

4.1.2.1 Network Services Thread I (T211-60.01)

This thread tests the E-mail service and the BBS service enhancements. Testing verifies that e-mail supports the Post Office Protocol (POP) and can deliver this file to the receiver and can provide access to on-line help document. Testing also verifies that user can withdraw/delete a message after posting and to verify that BBS support on-line help functionality.

4.1.2.1.1 Test Case 1: E-mail Enhancements (T211-60.01.01)

This test verifies that the capability of the e-mail to support the Post Office Protocol (POP) and to display on-line help information to users .

Test Configuration:

- Hardware: DCE cell, Workstation
- Software: E-mail service
- Data: regular mail message
- Tools: XRunner

Test Input:

Send e-mail via POP protocol to ECS user

Test Output:

User receives e-mail and can click on the HELP menu

Success Criteria:

E-mail text is displayed and HELP screen is displayed.

L3 Requirements:

ESN-0010#B, ESN-0340#B

L4 Requirements:

C-CSS-61070, C-CSS-61397

4.1.2.1.2 Test Case 2: BBS Enhancements (T211-60.01.02)

This test verifies that the capability of the BBS enhancement to allow user to delete a message after posting. It verifies that the BBS can display on-line help information.

Test Configuration:

- Hardware: Workstation, PC with modem.
- Software: PC communication package.
- Data: BBS forum
- Tools: XRunner

Test Input:

Send out a e-mail, bring up the OUT. log, and delete the message.

Test Output:

The message in the out log is deleted.

Success Criteria:

Log onto the receiver account, and the message is not in the BBS forum.

L3 Requirements:

ESN-0010#B, ESN-1181#B

L4 Requirements:

C-CSS-62314, C-CSS-62317

4.1.2.2 Security Services Thread I (T211-70.01)

The objective of the Security Services Thread (1) are as follows:

- Provide the ability to regulate access to networked resources based on names and group membership privilege for authorization through GSSI gateway.
- Provide the ability to prove authenticity in a client/ server environment before access is granted for the resource through GSSI gateway.

Testing is performed to verify that user authentication request for DAAC privileges are processed and that product generation requests are generated for authorized users. The security of sending and receiving the data is made possible by the unique key that is agreed upon by the sender and receiver.

4.1.2.2.1 Test Case 1: Generic Security Services (T211-70.01.01)

This test verifies that the DCE allows clients outside of a DCE cell to be authenticated by DCE security. The GSS provides a mechanism for clients outside the DCE realm to communicate security with servers inside the DCE realm.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service
- Data:
- Tools: XRunner

Test Input:

Invoke a DCE Server, log onto the client application in the non-DCE system. The security context between the client and server is established. Transfer data from client to server via GSS API or TCP socket, check the message, the SecureMsg function ensure an encrypted buffer is sent.

Test Output:

All communication between client and server is authenticated. The message sent via TCP socket should have the same security.

Success Criteria:

Successfully connected to DCE server with non-DCE client, the message is secured via GSS API and TCP socket.

L3 Requirements:

ESN-1365#B

L4 Requirements:

C-CSS-21220.

4.1.2.3 Infrastructure Service Thread I (T211-80.01)

The ECS contains several infrastructure features which facilitate the implementation of client-server applications. The primary objective of the Process Framework is to ensure design and implementation consistency for all ECS Client and Server applications. This thread tests the ability to initialize the process application and infrastructure in a consistent way and provide some basic process information, interface to Error-Event logging and support for life cycle services.

4.1.2.3.1 Test Case 1: PF Life Cycle Control (T211-80.01.01)

This test verifies the ability of the process framework services to provide the ability to log errors and events for both client and server processes, interface to the FTP batch processing facility, interface to the server, asynchronous message passing service, interface with the management agent framework to shutdown an application, to suspend an application and to resume the application

Test Input:

1. The tester will attempt to provide ability to log errors and events for both client and server processes.
2. The tester will attempt to provide interface to the FTP batch processing facility, interface to the server, interface to the asynchronous message passing service, interface with the management agent framework to shutdown an application, to suspend an application and to resume the application.

Test Output:

Message indicating that the process framework services are provided ability to log errors and events for both client and server processes, interface to the FTP server, asynchronous message passing service, shutdown, suspend and resume the application.

Success Criteria:

The Process framework information entered by the tester is provided.

L3 Requirements:

EOSD-3000#B, ESN-0450#B

L4 Requirement:

C-CSS-30130, C-CSS-30160, C-CSS-30170

4.1.2.4 DCE Encapsulation Thread 1A (T211-91.01)

This thread has the function of encapsulating test COTS product, OODCE from HP was selected as the encapsulation method. With OODCE comes the ability for the application developer to use object orientation in their client /server development use of C++ class libraries and pass object. OODCE provides a C++ class library and a DCE Interface Definition Language (IDL) to C++ compiler. OODCE encapsulates easy-to-use objects. Testing is performed to verify that user authentication request for ASTER GDS privileges are processed and that product generation requests are generated for authorized users.

4.1.2.4.1 Test Case 1: DOF Daemon Process services (T211-91.01.01)

This test will verify the capability of the Distributed Object Framework (DOF) services: a daemon process service that enables secure remote administration of object services and enable control of service configuration parameters.

Test configuration:

- Hardware: Workstations
- Software: CSMS CSS, DCE
- Data: EcTint
- Tools: XRunner

Test Inputs

Remote administration of object services and service configuration parameters

Test Outputs:

DCE provides the daemon process service that enables secure remote administration.

Success Criteria:

Users can secure remote administration of object services and enable control of service configuration parameters

L3 Requirements:

EOSD-0500#B

L4 Requirements:

C-CSS-01240

4.1.2.4.2 Test Case 2: Time Services (T211-91.01.02)

This test verifies that the CSS time service provides APIs to perform the functionality and support time access.

Test configuration:

- Hardware: Workstations
- Software: CSMS CSS, DCE
- Data: EcTint
- Tools: XRunner

Test Inputs:

1. Distributed time with millisecond resolution (Provided by CSS time service.)
2. External time source.(TPI provided)

Test Outputs:

Time in various formats and Standardized time.

Success Criteria:

The CSS time services provides synchronization among different hosts within the ECS domain and provides access to standardized time.

L3 Requirements:

ESN-1000#B, EOSD-0510#B

L4 Requirements:

C-CSS -25150, C-CSS -25160, C-CSS-25170

4.1.2.5 DCE Encapsulation Thread IB (T211-92.01)

This thread has the function of Directory Naming Service, Message Passing Service and Thread. Testing is performed to verify that Directory Naming Service provide a reliable mechanism by which distributed applications can associate information with names. The Message Passing Service allows for the exchange of information between applications running on different platforms. And Thread service provides functionality to create, maintain (scheduling, locking, etc.) threads.

4.1.2.5.1 Test Case 1: DOF Cell Namespace services (T211-92.01.01)

This test will verify the capability of the Distributed Object Framework (DOF) services to provide namespace aliases for directory service to permit administrative ease of changes, hierarchical namespace structure for directory service.

Test configuration:

- Hardware: Workstations
- Software: CSMS CSS, DCE

- Data: EcTint
- Tools: XRunner

Test Inputs

Verify that the DCE administrator support utility provides a name alias to a resource, Servers create ECS composite namespace structure for directory service.

Test Outputs:

DCE provides the functions to the user resource with a name alias, directory service path name and hierarchical cell namespace structure.

Success Criteria:

Users can access the resource with the name alias, directory service, (soft links, object entries), read entry names, add elements (attribute/value list pair), read element information, delete elements and hierarchical cell namespace structure.

L3 Requirements:

ESN-0010#B, EOSD-0500#B

L4 Requirements:

C-CSS-01250, C-CSS-01260

4.1.2.5.2 Test Case 2: Name Services (T211-92.01.02)

This test verifies that the CSS name service provides independent directories based on the mode identifier for each mode.

Test configuration:

- Hardware: Workstations
- Software: CSMS CSS, DCE
- Data: EcTint
- Tools: XRunner

Test Inputs:

Specify the mode identifier, either production mode or test mode in the configuration file.

Test Outputs:

For each mode the independent directories are created.

Success Criteria:

The CSS name services provides independent directories for each specify mode.

L3 Requirements:

EOSD-0510#B

L4 Requirements:

C-CSS -20140

4.1.2.5.3 Test Case 3: Message Services for Receiving Messages (T211-92.01.03)

This test verifies the DCE CSS functions of message services to allow receiver to register interest in receiving messages from a certain sender.

Test configuration:

- Hardware: Workstations
- Software: CSMS CSS, DCE
- Data: EcTint
- Tools: XRunner

Test Input:

The receiver sends the sender's process name to the API, and the sender sends data to the receiver. Another sender also sends the data to the receiver.

Test Output:

Message indicating the receipt of data br the receiver.

Success Criteria:

The receiver receives the data from the first sender only.

L3 Requirements:

ESN-0450#B

L4 Requirements:

C-CSS -22080

4.1.2.5.4 Test Case 4: Message Service and Thread Process (T211-92.01.04)

This test verifies the DCE CSS functions of message services allow thread processes, allow a user to retrieve the results, supply the status, inform the user service.

Test configuration:

- Hardware: Workstations
- Software: CSMS CSS, DCE

- Data: EcTint
- Tools: XRunner

Test Input:

1. The user application assigns the thread process to the message scheduler.
2. The user application sends "status <thread name>" to the message service.
3. A thread is executed, and the message service monitors the status.
4. The user application sends the thread process name to the message service.

Test Output:

The data is display the data the thread process is in the queue of the scheduler, the message service replies is received with the status of the thread process and user application receives "execution completed" from the message service.

Success Criteria:

The receiver receives the status of the scheduler shows the thread process is in the queue, user application displays the status and user application displays the message.

L3 Requirements:

ESN-0450#B

L4 Requirements:

C-CSS -22180,C-CSS -22190,C-CSS -22200,C-CSS -22210

4.1.2.6 System Security and Services I (B211.01)

The following threads verify the set of requirements related to System Security and Services (1):

- Network Service Thread I
- Security Service Thread I
- Infrastructure Service Thread I
- DCE Encapsulation Thread IA
- DCE Encapsulation Thread IB
- Management Agent Thread I
- Accounting Stand Alone Thread I
- Accountability Thread I

- CM Enhancement Thread I
- ILS Management Thread I

The objective of the System Security & Service I are as follows:

- Provide the ability to regulate access to networked resources based on names and group membership privilege. (Authorization)
- Provide the ability to prove authenticity in a client/ server environment before access is granted for the resource. (Authentication)
- Provide the ability to perform management system functions for the DCE user and gateway user.
- Provide the ability to perform configuration management functions.

Testing is performed to verify that user authentication request for DAAC privileges are processed and that product generation requests are generated for authorized users. Product generation request will include an associated product distribution request. Network security or authentication for access to resources in a client/server environment is verified by validating users authorization to use the system and make request to a server in the network, authenticate the server, and in turn, the server authenticates the client prior to resources being accessed. The Security of sending and receiving the data is made possible by the unique key that is agreed upon by the sender and receiver.

Testing is performed to verify each DAAC collects management data which the communication and system management functions will have access to in order to report and log security events, and generate a security compromise report. A security compromise report indicates compromises of ground resources and facilities. Security breeches will also be tested. Testing is performed to verify security requirements of local and remote access and enhanced e-mail and bulletin board access.

4.1.2.6.1 Test Case 1: Authorized Read-Only Access (B211.01.01)

This test verifies the ability to authenticate read-only capability from various sources depending on defined privileges.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service
- Data:
- Tools: XRunner

Test Input:

User directives, other user interface input(login id or password etc.)

Test Output:

DCE systems message will display.

Success Criteria:

Availability of read-only functions matches the access privilege definitions based on the sign-on user name/password provided for DCE read-only users.

L3 Requirements:

ESN-1365#B

L4 Requirements:

C-CSS-21220

4.1.2.6.2 Test Case 2: Unauthorized Users (B211.01.02)

This test verifies the ability to screen unauthorized users from various sources.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service
- Data:
- Tools: XRunner

Test Input:

A DCE authenticated user attempt to login with valid and invalid password.

Test Output:

Messages indicating the success or failure of login attempts are displayed.

Success Criteria:

Only users with valid login are allowed access to the system. No unauthorized user is allowed access to any DCE functionality: Repeated attempts to enter the system disengage user name/password prompt and warning message are displayed/logged.

L3 Requirements:

ESN-1365#B

L4 Requirements:

C-CSS-21220

4.1.2.6.3 Test Case 3: Security Authorization Users (B211.01.03)

This test verifies that the Security authorization criteria are verified before allowing any client access to the ECS system.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service
- Data:
- Tools: XRunner

Test Input:

Input login name and password.

Test Output:

Messages indicating the success login attempts are displayed.

Success Criteria:

Users securely access the DCE client and all executions correspond to the access permissions with in the access control list(ACL).

L3 Requirements:

ESN-1365#B

L4 Requirements:

C-CSS-21220

4.1.2.6.4 Test Case 4: Gateway User Requests Billing Data via E-mail (B211.01.04)

This test verifies the ability to allow Gateway user to use e-mail and request user billing/accounting data.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE GSSI service, billing/accounting service,
- Data: username, billing records.
- Tools: XRunner

Test Input:

An authenticated gateway user logon to the system, startup e-mail.

Send mail to System Administrator for billing record. User receives billing in the e-mail..

Test Output:

E-mail including billing data is received by the user.

Success Criteria:

User logon to the system and receives billing data.

L3 Requirements:

ESN-0010#B, ESN-1365#B, ESN-0340#B, SMC-6400#B, SMC-6410#B

L4 Requirements:

C-CSS- 10550, C-CSS-10510, C-CSS-10830, C-CSS-21220, C-CSS-61070, C-MSS-78100, C-MSS-78190

4.1.2.6.5 Test Case 5: Authorized DCE User Retrieves Training Information (B211.01.05)

This test verifies that the DCE user can dial-up to the system and access the ILM processes and products.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service, dial-up service, training tracked tool.
- Data: DCE username, training database
- Tools: XRunner

Test Input:

Input login name and password to the DCE. Invoke user home page and request training data. Retrieve and display training data.

Test Output:

Messages indicating the success login attempts are displayed.

Training is displayed.

Success Criteria:

Users securely access the DCE client and all executions correspond to the access permissions.

L3 Requirements:

ESN-0370#B, SMC-2415#B, SMC-2400#B, SMC-2410#B, SMC-8300#B, SMC-8705#B

L4 Requirements:

C-CSS-10500, C-CSS-10520, C-CSS-10540, C-MSS-51010, C-MSS-51060, C-MSS-51070

4.1.2.6.6 Test Case 6: Data Integrity and Data Privacy (B211.01.06)

This test verifies that DCE security is capability to maintain data integrity and privacy.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service, FTP service
- Data: username and application database
- Tools: XRunner

Test Inputs:

Logon to DCE environment, open the file and update the file.

FTP to the remote host and transfer the file.

Test Outputs:

Updated file is transferred to the destination host correctly.

Success Criteria:

No file and data corruption.

L3 Requirements:

ESN-0010#B

L4 Requirements:

C-CSS-60330, C-CSS-60340

4.1.2.7 System Setup Test 1 (B210.01)

The system setup test is an integrated build of the following builds and threads:

- System Security & Service I build
- Intermediate Ingest and Data Server I build
- Mode Management thread I

The objectives of the System Setup test are as follows:

- Provide the capability to setup the concurrent system environment for test mode, and operational mode.
- Provide the capability for the ECS Servers to utilize the basic DCE functionality and basic system management features.
- Provide the capability of incorporating the intermediate Ingest and Data Server to CSMS environment during the ECS system initialization.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE GSSI security service, BBS, E-mail, Mode Management, Comment Survey Server, Software Distribution, Ingest Server, Data Server, MSS BAAS
- Data: username and password, ingested data, Landsat & IAS data
- Tools: Xrunner, HP OpenView

4.1.2.7.1 Test Case 1: Gateway Client Requests DCE Security and Network Services (B210.01.01)

This test verifies that the Gateway client can log onto the ECS system after the process of user authorization and user authentication, and access the E-mail and Bulletin Board Service.

Test Input:

1. Users of Gateway client log onto ECS and request the BBS.
2. Log onto BBS and retrieve the messages.

Test Output:

Successful ECS logon and BBS message is received.

Success Criteria:

ECS accepts the user and allows to use E-mail and bulletin board services.

L3 Requirements:

EOSD-0500#B, ESN-0340#B, ESN-1181#B, ESN-1365#B

L4 Requirements:

C-CSS-01280, C-CSS-21220, C-CSS-61070, C-CSS-62314.

4.1.2.7.2 Test Case 2: Administrator Interfaces to Management Services (B210.01.02)

This test verifies that the ECS system can accept and provide system administration information of management services for the operator .

Test Input:

1. Log on as an administrator, bring up the User Account Management Tool and delete a user account.
2. Bring up Trouble Ticket system as a user and submit the trouble ticket.
3. As an administrator, select the ticket submitted and change the status to “Close”.

Test Output:

The user account does not exist. User receives a “ticket closed” e-mail notification.

Success Criteria:

The user account is deleted. The originator of the ticket receives an e-mail notification of the close status automatically.

L3 Requirements:

EOSD-3000#B, SMC-7300#B

L4 Requirements:

C-CSS-10580, C-CSS-10590, C-CSS-75001, C-CSS-75015.

4.1.2.7.3 Test Case 3: Initialization and Concurrent Execution of Server (B210.01.03)

This test verifies that the concurrent system environment can be setup for the comment survey server and the user can access to it.

Test Input:

1. Specify the production and test mode identifiers and define home directory for the comment survey server in the configuration.
2. Start the GUI to bring up two comment survey servers, one for the production mode, and another one for the test mode.
3. Log onto the production and test modes of the Survey server home page with valid and invalid usernames.
4. Enter into comment survey page to fill out the survey and submit the survey.

Test Output:

The confirmation message is received in the production mode.

In the test mode, a message is received showing the comment survey is sent to the test server.

Success Criteria:

HP OpenView shows that both production and test modes of server can be started up. Invalid user can not log on.

Valid user log onto the Survey page and the survey is sent to the server.

Data integrity is maintained.

L3 Requirements:

EOSD-0510#B, EOSD-0630#B, EOSD-720#B, EOSD-780#B,EOC-95100#B, FOS-0025#B

L4 Requirements:

C-MSS-56010, C-MSS-56020, C-MSS-52070, C-MSS-56082, C-MSS-56084, C-MSS-56086, C-MSS-56088, C-MSS-56092, C-MSS-56094.

4.1.2.7.4 Test Case 4: Software Transfer and Execution in the Test Mode (B210.01.04)

This test verifies that the software can be distributed to local site and installed in the test mode before being added to the production environment.

Test Input:

1. Invoke Software Distribution Manager, select a host site and transfer one Application software from the ClearCase library.
2. Retrieve the software and dispatch the software to the host.
3. Start up the test mode in the host and executes the software.

Test Output:

No error message shows for incorrect software distribution and initialization of the test mode.

Success Criteria:

The application is transferred and is executed in the test mode along with the production mode.

L3 Requirements:

EOSD-0510#B, EOSD-0630#B, EOSD-0780#B, EOSD-2440#B, SMC-2110#B, SMC-2120#B, SMC-2535#B, SMC-2620#B,

L4 Requirements:

C-MSS-18046, C-MSS-42010, C-MSS-42020, C-MSS-42070, C-MSS-42080, C-MSS-42090, C-MSS-56082, C-MSS-56086, C-MSS-56088.

4.1.2.7.5 Test Case 5: Transfer Ingest Data to Remote Host (B210.01.05)

This test verifies that the ingest data can be transferred via network to the host using FTP.

Test Input:

1. Invoke ingest service and request to submit data.
2. Request network FTP service.
3. Ingested data is transferred to the host through network and is placed on the staging disk.

Test Output:

Ingested data is transferred and accepted.

Success Criteria:

Network transfers ingested data successfully.

L3 Requirements:

EOSD-0030#B, EOSD-0500#B, EOSD-1607#B, EOSD-1608#B, DADS-0170#B, LAND-0110#B

L4 Requirements:

S-INS-00785, C-CSS-10520, C-CSS-10560.

4.1.2.7.6 Test Case 6: Simple Data Retrieval and User Information (B210.01.06)

This test verifies that the Data Server is accessible for a remote user to execute simple data search and retrieval and user accounting/billing information is updated after the data retrieval.

Test Input:

1. Log onto ECS and request the Data Server service.
2. Invoke data search tool, give the criteria and begin data search.
3. Retrieve the data to the local host.
4. Invoke MSS Billing /Accounting application and select the user account.
5. Print out user accounting/billing information.

Test Output:

Searched data is accessible and transferred to the host.

User billing information is printed.

Success Criteria:

Data Server executes the search and bring data over to the network.

User accounting/billing information is updated.

L3 Requirements:

SMC-6400#B, SMC-6410#B, ASTER-0130#B, ASTER-0700#B, DADS-2330#B, DADS-2340#B, DADS-2345#B, DADS-2360#B, DADS-2370#B, DADS-2380#B, DADS-2390#B,

L4 Requirements:

S-DSS-04038, S-DSS-04332, C-MSS-78100, C-MSS-78190, C-MSS-78220

4.2 Phase 2

4.2.1 MSS

4.2.1.1 ILS Management Thread IIA (T221-21.02)

The objective of the ILS Management Thread are:

Provide the ability to manage the inventories of spares and consumable.

Testing will demonstrate the ability for M&O to track the management of consumable items to identify potential problem orders, and to coordinate/consolidate orders for greater efficiency and lower cost will be demonstrated. It will also demonstrate that the training requirements, materials, resources, documentation, records, and scheduling can be prepared, updated, stored and disseminated system-wide.

4.2.1.1.1 Test Case 1: MSS Inventory/Logistics Management Service (Global) (T221-21.02.01)

This test case verifies that the required system-wide functions provided by the Inventory/Logistics Management Service meet the requirements established by the CSMS system design

Test Configuration:

- Hardware: Inventory/Logistics Management Service configuration
- Software: Inventory/Logistics Management Service configuration

- Data: Checklist, screen selections, displays of stored data, messages indicating completion/results of tasks, and generated reports
- Tools: XRunner

Test Input:

Test inputs involve screen selections to complete tasks and view stored data. Actions will be performed to complete the following:

1. Verify that the Inventory/Logistics Management Service at the SMC maintains an on-line, system-wide catalog of non-expendable and consumable ECS resources and provides consolidated, system-wide views of ECS sites' inventory data.
2. Verify that the Inventory/Logistics Management Service at the SMC tracks excess resources designated for reutilization or disposal and generates site and multi-site inventory reports for printout and display.
3. Verify that the Inventory/Logistics Management Service maintains inventory records of individual non-expendable and consumable ECS resources, provide the capability to update and track ECS resources' status, and record attributes of inventoried resources. In addition, verify that this service provides the capability to distinguish between ECS resources and non-ECS resources in the inventory and can generate site inventory reports for printout and display.
4. Verify that the Inventory/Logistics Management Service at the SMC can produce individual site or consolidated sites spare parts or consumable items related reports based on operator entered criteria.
5. Verify that the Inventory/Logistics Management Service at the SMC provides the capability to input, store, update, and view/print information concerning site spare parts or consumable items order information.
6. Verify that the Inventory/Logistics Management Service at the SMC can generate individual site or consolidated sites consumable items on-order reports based on operator entered criteria.

Test Output:

A checklist showing success or failure for each requirement. Messages indicating results and completion of tasks. Displays of stored data and generated reports.

Success Criteria:

This test is successful when all the above requirements are met.

L3 Requirements:

SMC-2300#B, SMC-2320#B, SMC-2330#B, SMC-2500#B, SMC-2505#B, SMC-8300#B, SMC-8705#B

L4 Requirements:

C-MSS-45010, C-MSS-45020, C-MSS-45030, C-MSS-45040, C-MSS-45070, C-MSS-45080, C-MSS-45090, C-MSS-45210, C-MSS-45220, C-MSS-45280, C-MSS-45320

4.2.1.1.2 Test Case 2: MSS Inventory/Logistics Management Service (Local) (T221-21.02.02)

This test case verifies that the required site functions provided by the Inventory/Logistics Management Service meet the requirements established by the CSMS system design.

Test Configuration:

- Hardware: Inventory/Logistics Management Service configuration
- Software: Inventory/Logistics Management Service configuration
- Data: Checklist, screen selections, displays of stored data, messages indicating completion/results of tasks, and generated reports
- Tools: XRunner

Test Input:

Test inputs involve screen selections to complete tasks and view stored data. Actions will be performed to complete the following:

1. Verify that the Inventory/Logistics Management Service maintains inventory records of individual non-expendable and consumable ECS resources, provide the capability to update and track ECS resources' status, and record attributes of inventoried resources. In addition, verify that this service provides the capability to distinguish between ECS resources and non-ECS resources in the inventory and can generate site inventory reports for printout and display.
2. Verify that the Inventory/Logistics Management Service can produce site spare parts or consumable items related reports based on operator entered criteria.
3. Verify that the Inventory/Logistics Management Service provides the capability to input, store, update, and view/print information concerning site spare parts or consumable items order information.
4. Verify that the Inventory/Logistics Management Service can keep track of spares on-hand quantities and quantities used, and generate site spare related reports.
5. Verify that the Inventory/Logistics Management Service provides the capability to generate order information for resupply of spare parts and identify those items whose on-hand quaintly has reached the established reorder point. In addition verify the capability to input, store, maintain, and view/print site spar parts (orders) information.

Test Output:

A checklist showing success or failure for each requirement. Messages indicating results and completion of tasks. Displays of stored data and generated reports.

Success Criteria:

This test is successful when all the above requirements are met.

L3 Requirements:

SMC-2300#B, SMC-2305#B, SMC-2310#B, SMC-2315#B, SMC-2320#B, SMC-2325#B, SMC-2330#B, SMC-2335#B, SMC-2500#B, SMC-2505#B, SMC-8300#B, SMC-8705#B

L4 Requirements:

C-MSS-45050, C-MSS-45060, C-MSS-45070, C-MSS-45080, C-MSS-45090, C-MSS-45200, C-MSS-45230, C-MSS45240, C-MSS-45245, C-MSS-45250, C-MSS-45260, C-MSS-45270, C-MSS-45290, C-MSS-45300, C-MSS-45310

4.2.1.1.3 Test Case 3: Preventive Maintenance (T221-21.02.03)

This test verifies the ability of the Maintenance Management Application Service to provide the capability to view specified site's PM and input, store, maintain, and view/print the preventive maintenance (PM) information for site equipment, key information concerning the preventive maintenance performed.

Test Configuration:

- Hardware: workstations
- Software: MSS Accountability Management Service
- Tools: XRunner
- Data: Science

Test Input:

The tester will attempt to view specified site's PM and Input, store, maintain, and view/print the PM information for a unit of the site equipment and key the information concerning PM performed.

Test Output:

The view of the specified site's PM will be displayed, the input, storage, and update of the PM information for a unit of site equipment and key information concerning PM performed is displayed. The PM information will be viewed, printed and displayed.

Success Criteria:

The PM information entered by the tester is input, stored updated and displayed. The PM information is viewed and printed.

L3 Requirements:

SMC-2200#B, SMC-2205#B, SMC-8705#B, SMC-8730#B

L4 Requirements:

C-MSS-50000,C-MSS-50020, C-MSS-50040, C-MSS-50050, C-MSS-50070

4.2.1.1.4 Test Case 4: Corrective Maintenance (T221-21.02.04)

This test verifies the ability of the Maintenance Management Application Service to provide the capability to view specified site's corrective maintenance information and provide the M&O staff the capability to produce PM and corrective maintenance reports based on operator entered criteria, retrieve and display information relevant to PM and corrective maintenance services previously performed, input, store, maintain, and view/print corrective maintenance performed (CMP) information.

Test Configuration:

- Hardware: workstations
- Software: MSS Accountability Management Service
- Tools: XRunner
- Data: Science

Test Input:

1. The tester will attempt to view specified site's PM and corrective maintenance information.
2. The tester will attempt to produce PM and corrective maintenance reports by entering a criteria.
3. The tester will attempt to input, store, maintain, and view/print corrective maintenance performed for a unit of the site equipment.
4. The tester will attempt to retrieve and display information relevant to PM and corrective maintenance services previously performed.

Test Output:

The view site's PM and corrective maintenance informations are displayed, the corrective maintenance reports are displayed. The input, storage, and the update of the corrective maintenance performed for a unit of the site equipment. The PM and corrective maintenance is performed. The services are retrieved, displayed, viewed and printed.

Success Criteria:

The view specified site's PM and corrective maintenance reports are retrieved, displayed, stored and updated. The view will contain information pertaining to the criteria entered by the tester.

L3 Requirements:

SMC-2200#B, SMC-2205#B, SMC-8705#B, SMC-8730#B

L4 Requirements:

C-MSS-50010, C-MSS-50020, C-MSS-50060, C-MSS-50070

4.2.1.1.5 Test Case 5: General Maintenance (T221-21.02.05)

This test verifies the ability of the Maintenance Management Application Service to generate chronological reports of logged events associated with user delectable: time frames, operation type, userid, hosts and detected errors: operation type, user-id of initiator, date time stamp and host name. Receive specified site maintenance data at the SMC for use in maintenance trends analysis, access a specified site's off site maintenance repair information and produce maintenance status reports. The test also verifies the capability to replace/ modify the equipment information and schedule maintenance events via the MSS Planning and Scheduling Service.

Test Configuration:

- Hardware: workstations
- Software: MSS Accountability Management Service
- Tools: XRunner
- Data: Science

Test Input:

1. The tester will attempt to log the information for operation performed and detected errors: operation type, user-id of initiator, date time stamp and host name.
2. The tester will attempt to generate chronological reports of logged events associated with user delectable: time frames, operation type, userid and hosts.
3. The tester at a simulated SMC, using the MSS Maintenance Management Application Service, will attempt to receive specified site maintenance data for use in maintenance trends analysis.
4. The tester will attempt to access a specified site's off site maintenance repair information and produce maintenance status reports.

5. The tester, using the Maintenance Management Application Service, will attempt to schedule maintenance events via the MSS Planning and Scheduling Service.
6. The tester will attempt to replace/ modify the equipment information maintained in the MSS base line Manager Service database.

Test Output:

The information for operation performed and detected errors are logged and displayed, the chronological reports will be displayed. The statistics based on the site maintenance data for use in maintenance trends analysis are displayed. The maintenance repair information and status reports are replaced/modified, displayed and maintenance events are scheduled.

Success Criteria:

The operation type, userid of initiator, date time stamp and host name are logged, replaced/modified , chronological reports are generated, successfully received specified site maintenance data into the simulated SMC, and view the statistics based on the site maintenance data, the maintenance repair information and status reports are displayed and the requested maintenance events are scheduled via the MSS Planning and Scheduling Service.

L3 Requirements:

SMC-1300#B, SMC-1305#B, SMC-1310#B, SMC-1320#B, SMC-1350#B, SMC-2100#B, SMC-2105#B, SMC-2200#B, SMC-2205#B, SMC-2220#B

L4 Requirements:

C-MSS-50100,C-MSS-50110,C-MSS-50030,C-MSS-50230,C-MSS-50235,C-MSS-50090

4.2.1.1.6 Test Case 6: Office Maintenance (T221-21.02.06)

This test verifies the ability of the Maintenance Management Application Service to provide off-site maintenance reports based on the operator entered criteria and maintenance information, off-site corrective hardware and software maintenance information: input; store; update and view, record off-site maintenance information: identification of component; description of problem; and corrective action taken, access a specified site's off site maintenance repair information, produce maintenance status reports and generate off-site maintenance reports based on operator entered criteria.

Test Configuration:

- Hardware: workstations
- Software: MSS Accountability Management Service
- Tools: XRunner
- Data: Science

Test Input:

The tester will attempt to produce off-site maintenance reports and maintenance information, record, and view/print off-site maintenance information for a unit of site equipment, input, store, update and view off-site corrective hardware and software maintenance information, generate off-site maintenance reports, by entering a criteria, access a specified site's off site maintenance repair information and produce maintenance status reports.

Test Output:

The off-site maintenance and information, off-site corrective hardware and software maintenance information and maintenance repair information and status reports are stored, updated, displayed, viewed and printed.

Success Criteria:

The off-site maintenance information as entered by the tester is recorded, stored, updated, viewed, displayed and printed. The off-site maintenance records will contain information pertaining to the ongoing maintenance.

L3 Requirements:

SMC-2210#B, SMC-2215#B, SMC-2200#B

L4 Requirements:

C-MSS-50120, C-MSS-50130,C-MSS-50140,C-MSS-50160, C-MSS-50170, C-MSS-50180, C-MSS-50190,C-MSS-50200,C-MSS-50210

4.2.1.2 ILS Management Thread IIB (T221-22.02)

The objective of the ILS Management Thread are:

- Provide the ability to manage the inventories of spares and consumable.

Testing for IIB will demonstrate the ability for M&O at SMC to access, select, display/print, input, store, maintain and view print site specific policies and procedures and ECS policies and procedures.

4.2.1.2.1 Test Case1: Policies and Procedure (T221-22.02.01)

This test verifies the ability of the Policy and Procedure Application Service to provide the capability to access, select, display/print, input, store, maintain and view print site specific policies and procedures and also provide and maintain bulletin board service with information on ECS, status, events and news and at the SMC provide the capability to prepare, store, maintain and make available for distribution ECS policies and procedures.

Test Configuration:

- Hardware: workstations
- Software: MSS Accountability Management Service
- Tools: XRunner
- Data: Science

Test Input:

The tester, using the Policy and Procedure Application Service, will attempt to access, select, display, input, store, maintain and view/print the site specific policies and procedures. The tester will attempt to maintain the bulletin board service with information on ECS, status, events and news and at the SMC provide the capability to prepare, store, maintain and make available the information for the distribution ECS policies and procedures.

Test Output:

Messages indicating the specific policies and procedures and bulletin board services with information on ECS, are selected, stored, maintained, viewed, displayed and printed.

Success Criteria:

The specific policies and procedures as well as bulletin board services with information on ECS, as entered by the tester are selected, stored, maintained, displayed, viewed and printed.

L3 Requirements:

SMC-2600#B, SMC-2605#B, SMC-8300#B, SMC-8705#B

L4 Requirements:

C-MSS-52010, C-MSS-52020, C-MSS-52030

4.2.1.3 Accounting Stand-Alone Thread II (T251-10.02)

The objectives of the MSS Accounting Stand-Alone Thread II are to provide the ability to manage accounting/accountability policies and procedures, accounts payable and receivable, credit tracking, price estimation, invoicing and billing and reporting.

Testing verifies the ability to perform accounting of ground segment resources by ECS and external users, end-to-end cost accounting, accounts payable and receivable and resource utilization. Testing will demonstrate verification of accounting and accountability management for conformance with GAO and OMB policies and procedures. Accounting policies such as privileges for guest versus registered users, definition of accounting processes to be applied to various user classes, pricing, payment handling and supply/service ordering/payment are distributed and available system-wide will be tested. Testing will verify that accounts payable and receivable handles payments for user account refunds, external suppliers and shipping providers, and handles receiving amounts due from users for products, media, consumable and

shipping, and credits from external providers. Credit tracking provides distributed, mostly automated deduction or posting of charges or credits from or to user account balances, excluding non-ECS data services (ADC, ODC). Price estimation provides representative pricing information (based on a standardized pricing table up datable by the SMC accountant) for ECS and non-ECS providers to give the user a feel for the price prior to ordering a product. Invoicing and billing provides periodic formal reporting of account status to users and notification of payment requirements (if necessary). Reports can be generated to assist in trending/planning, policy reviews and financial audits.

4.2.1.3.1 Test Case 1: Account Receivable Functions (T251-10.02.01)

This test verifies that the MSS BAAS Accounts Receivable (AR) function has the capability to maintain user account balance, to update transaction with support documents, to accept manual entry, to record the receipt and can apply to more than one receivable.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Select one account number and verify its balance, check its invoice number of one particular transaction. Update the account manually upon the partial receipt of the payment and apply the receipt to several account receivable.

Test Output:

The AR function correctly record each full or partial receipts of payment, update and maintain the correct balance for the account.

Success Criteria:

The user's account shows correct balance after various transactions.

L3 Requirements:

SMC-6420#B

L4 Requirements:

C-MSS-78300, C-MSS-78310, C-MSS-78330, C-MSS-78340, C-MSS-78350

4.2.1.3.2 Test Case 2: Account Receivable Functions - Batch Processing (T251-10.02.02)

This test verifies that the BAAS AR provides transactions in batches, full or partial receipts of payment, and can provide a batch listing of all activity and items.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Start the AR with a batch job which includes full and partial receipts of payment.

Request AR to list the activities and items of this batch job on a selected user account.

Test Output:

The list shows correct balance of the user account.

Success Criteria:

Batch job is executed correctly, the user account shows correct balance after running the batch job of the receipts of the payment.

L3 Requirements:

SMC-6420#B, SMC-8920#B

L4 Requirements:

C-MSS-78320, C-MSS-78340, C-MSS-78600

4.2.1.3.3 Test Case 3: Account Receivable - Pre-Paid Processing (T251-10.02.03)

This test verifies that the BAAS AR have the capability to post credit balancing and adjustment and identify the receivable, to accept "pre-pay" accounts with balance data, supports automatic balancing of the accounts receivable master file, provides account payment profile.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management

- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Submit a payment adjustment to the regular and "pre-pay" accounts, and supply with a account receivable master file, Bring up the current balance and account payment profile.

Test Output:

The balance is reported in the "pre-pay" account, and the account payment profile is displayed for the account background and history information.

Success Criteria:

The correct balance is reported in the "pre-pay" account after executing the adjustment, the payment profile shows the account history.

L3 Requirements:

IMS-0080#B, SMC-6420#B, SMC-8920#B

L4 Requirements:

C-MSS-78140, C-MSS-78360, C-MSS-78370, C-MSS-78380, C-MSS-78390, C-MSS-78450, C-MSS-78580, C-MSS-78610.

4.2.1.3.4 Test Case 4: Account Receivable - Refunds Processing (T251-10.02.04)

This test verifies that the BAAS AR provides the capability to identify the receivable and submit the refund request to a NASA accounting system, to apply the refund to the account because of the advance deposit, overpayment, product returned, and to apply the refund to current balance or to future amount due.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Submit a refund request to the account and apply the credit to different account situations.

Test Output:

NASA accounting system is notified for the refund, the account balance is correctly reported.

Success Criteria:

The refund is applied to the account and the balance is correctly displayed.

NASA is informed for the refund request.

L3 Requirements:

SMC-6420#B, SMC-8920#B

L4 Requirements:

C-MSS-78410, C-MSS-78420, C-MSS-78430, C-MSS-78425, C-MSS-78450, C-MSS-78530, C-MSS-78580, C-MSS-78610.

4.2.1.3.5 Test Case 5: Account Receivable - Re-Establish Processing (T251-10.02.05)

This test verifies that the BAAS AR has the capability to re-establish a receivable for checks returned due to insufficient funds. The payment profile shows the roll-back activity.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Select a user account with a check payment previously applied, and re-establish a receivable of the same amount of the check due to insufficient funds.

Test Output:

The balance of the account is rolled back.

Success Criteria:

The correct balance is displayed.

L3 Requirements:

SMC-6420#B, SMC-8920#B

L4 Requirements:

C-MSS-78440, C-MSS-78450, C-MSS-78580, C-MSS-78610.

4.2.1.3.6 Test Case 6: Account Receivable - Account History (T251-10.02.06)

This test verifies that the BAAS AR has capability to monitor and control the user account, to indicate the aging of individual receivable, to provide the history of the account, and can remove the closed account to a history file.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

request to list the individual account data with the aging of receivable. Select an account which is closed and move it to a archive file.

Test Output:

The aging data is displayed. The closed account is not shown in the current accounting, it appears in the archive file.

Success Criteria:

Only the active account is displayed in the AR, closed account is in a history file.

L3 Requirements:

SMC-6320#B, SMC-6420#B

L4 Requirements:

C-MSS-78460, C-MSS-78480, C-MSS-78490, C-MSS-78500.

4.2.1.3.7 Test Case 7: Account Receivable - Order Processing (T251-10.02.07)

This test verifies that the BAAS AR is capable of accepting a purchase order, and receive accounts receivable data for the over-the-counter sale at a site.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management

- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

The AR at the field office can process the account receivable data after accepting a purchase order, and the account receivable data is stored to the accounting system.

Test Output:

The purchase order is accepted, and the transaction is recored in the accounting system.

Success Criteria:

The user account shows the correct over-the-counter transaction and correct balance.

L3 Requirements:

SMC-6420#B

L4 Requirements:

C-MSS-78400, C-MSS-78510.

4.2.1.3.8 Test Case 8: Account Receivable - Balance Report (T251-10.02.08)

This test verifies that the BAAS AR is capable of sending revenue information to NASA accounting system, to produce the account opening and closing balance and its period activity and the summary report for the science user. It can list all accounts with credit balances and the account receivable aging report.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

AR submits the revenue data to NASA. Select a user account and Bring up the periodic statement to show the balance and activities. Request to produce the accounts credit report and account receivable aging report.

Test Output:

The balance and activity statement is displayed. The accounts credit report and aging report is shown.

Success Criteria:

The balance is correct and the activities are verified. The data in the reports are correctly stated.

L3 Requirements:

SMC-6420#B, SMC-8920#B, IMS-1370#B

L4 Requirements:

C-MSS-78520, C-MSS-78540, C-MSS-78550, C-MSS-78560, C-MSS-78570, C-MSS-78590.

4.2.1.3.9 Test Case 9: Price Estimation (T251-10.02.09)

This test verifies that the BAAS Billing & Invoicing function is capable to generate price estimation based on the pricing algorithms which is maintained in standard pricing tables.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Request for price estimation.

Test Output:

The price estimation is successfully generated.

Success Criteria:

Price estimation which based on pricing algorithms, provided by BAAS Billing & Invoicing functions is generated.

L3 Requirements:

SMC-6370#B, IMS-1340#B

L4 Requirements:

C-MSS-78270.

4.2.1.3.10 Test Case 10: Account Collection - Rules Setup (T251-10.02.10)

This test verifies the ability of the BAAS Collections function to allow ECS-defined collections parameters and to override specific accounts from the collections process.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Change the ECS-defined collections parameters. Select an account and override it from the collections process.

Test Output:

Messages indicating the changes to the ECS-defined collections parameters. The updated new account information is recorded.

Success Criteria:

The collection parameter is changed, the overridden data is updated.

L3 Requirements:

SMC-6420#B

L4 Requirements:

C-MSS-79110, C-MSS-79120.

4.2.1.3.11 Test Case 11: Account Collections - Delinquent Account (T251-10.02.11)

This test verifies that the ability of the BAAS Collections function to identify delinquent accounts which have violated ECS-determined account aging parameters, to generate custom and form dunning letters to delinquent accounts, to keep log of contacts with users of delinquent accounts.

Test Input:

Set the aging parameter for the delinquent account, list the account name and print out the dunning letters. Create a log to record the contact history.

Test Output:

The delinquent account and the letter are listed. The log shows the cintact history.

Success Criteria:

The delinquent account information is correct, the log is available.

L3 Requirements:

SMC-6420#B

L4 Requirements:

C-MSS-79100, C-MSS-79140, C-MSS-79150.

4.2.1.3.12 Test Case 12: Account Collections - Write-Off Processing (T251-10.02.12)

This test verifies that the BAAS Collection is capable of calculating and recording the non-collectible (write-off) amounts.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Request to list the amount of non-collectible amounts and request to calculate the write-off for non-collectible accounts.

Test Output:

The non-collectible amount of the delinquent account is listed, messages indicating that the account has been declared non-collectible. The amount of the write-off for non-collectible accounts will be displayed.

Success Criteria:

The calculated amount of the write-off for non-collectible accounts will be displayed, and will contain the amount for the delinquent account declared non-collectible by the tester.

L3 Requirements:

SMC-6420#B

L4 Requirements:

C-MSS-79180, C-MSS-79190.

4.2.1.3.13 Test Case 13: Account Collections - Record History (T251-10.02.13)

This test verifies that the BAAS Collection function is capable of recording the payment arrangements history, of controlling the service, and all collection history is stored in a special account.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

The payment arrangement is recorded in a file and keep the collection history to a special account.. Suspend, cancel and restore some accounts that are delinquent or cleared.

Test Output:

The account data shows the current service status, the collection history is available in a particular account.

Success Criteria:

The service of the account can be manipulated, a special account shows the collection history.

L3 Requirements:

SMC-6320#B, SMC-6420#B

L4 Requirements:

C-MSS-79160, C-MSS-79170, C-MSS-79200.

4.2.1.3.14 Test Case 14: General Ledger Account Processing (T251-10.02.14)

This test verifies that the BAAS General Ledger (GL) has the capability to set up a chart of accounts, to accept the batch job and direct entries, to update and edit the account on-line, to provide on-line inquiry.

Test Input:

Request to draw a chart of accounts. Submit the entries via balanced batch, and manually submit the direct entries. Bring up the account and update the account information. While the account is available, request to show the account balance.

Test Output:

The account chart is displayed. Batch and direct entry are accepted. The updated account information is displayed.

Success Criteria:

The chart shows correct account information. The updated account information is correct.

L3 Requirements:

SMC-6420#B

L4 Requirements:

C-MSS-79500, C-MSS-79510, C-MSS-79520, C-MSS-79530, C-MSS-79540.

4.2.1.3.15 Test Case 15: General Ledger - Standardized Transactions (T251-10.02.15)

This test verifies that the BAAS General Ledger (GL) has the capability to allow M&O staff to establish and modify standardized transactions.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Invoke a standardized transaction, then submit a transaction with different procedures.

Test Output:

Message shows the successful transactions.

Success Criteria:

No error occurs during and after the transactions.

L3 Requirements:

SMC-6420#B

L4 Requirements:

C-MSS-79550, C-MSS-79560.

4.2.1.3.16 Test Case 16: General Ledger - Account Creation and Transaction Processing (T251-10.02.16)

This test verifies that the BAAS GL is capable of creating a new account, accommodating prior period and future period transaction entries.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Create a new account. Submit the transaction entries without processing them, then close the GL and re-open it, the entries can still be processed.

Submit an entries with a future time period, the entries is processed when the setting time is reached.

Test Output:

The transaction entries are posted and processed in any given open periods.

Success Criteria:

New account is established. The transaction entries are successfully executed without errors.

L3 Requirements:

SMC-6420#B

L4 Requirements:

C-MSS-79570, C-MSS-79580, C-MSS-79590.

4.2.1.3.17 Test Case 17: General Ledger - Account Processing (T251-10.02.17)

This test verifies that the BAAS GL is capable of performing end-of-period process, accruals, and consolidation process, can post current period data during multiple preliminary end-of-period closings and before final closings, and final report is created. The GL can apply standardized transaction and control transaction editing, posting and updating of information, keep a file of any changes of out-of-balance accounts, and can move the accounts to a history file.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Post the current period data, and execute multiple preliminary end-of-period closings, then execute the final closings, post the final report. Invoke the standard transaction, start the management function to update the transaction information. List all out-of-balance account and move some closed account to a history file.

Test Output:

The statement shows the account information of preliminary closings and final closing after the current period data is posted in the final report. The updated transaction information is recorded. A history file displayed he closed accounts.

Success Criteria:

The account statement in the final report shows correct end-of-period closings information, the updated transaction is displayed. And the history file is available.

L3 Requirements:

SMC-6320#B, SMC-6420#B, SMC-8920#B

L4 Requirements:

C-MSS-79600, C-MSS-79610, C-MSS-79620, C-MSS-79630, C-MSS-79640, C-MSS-79650, C-MSS-79690.

4.2.1.3.18 Test Case 18: General Ledger - Account Re-Open and Data Archive (T251-10.02.18)

This test verifies that the BAAS GL is capable of re-opening the closed account, and can provide archive data for comparative analysis.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management

- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or "past due amount"
- Tools: XRunner

Test Input:

Bring up the history file and select a closed account. Open the account and display the history information, i.e. the monthly balance and deposit amounts for past years.

Test Output:

The closed account is in the active account list. retrieve the archive data and list out monthly deposit amounts.

Success Criteria:

The closed account has active status and can be monitored for the activity. History account information is analyzed.

L3 Requirements:

SMC-6320#B, SMC-8920#B

L4 Requirements:

C-MSS-79660, C-MSS-79670.

4.2.1.3.19 Test Case 19: Cost Accounting - Processing (T251-10.02.19)

This test verifies that the BAAS Cost Accounting is capable of receiving product cost information, providing a trail to assign identifiable sources to all resource unit (RU) costs, assigning resource unit costs to processes, ECS products, several users, and establishing historical accounts of RU costs to users and processes. The reports of the assigned users and processes are produced.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Assign the resources unit costs to the identified users and processes, and list historical accounts of RU costs of users and processes the

Test Output:

The RU costs of users and processes are identified in the reports.

Success Criteria:

Authorized cost algorithm is used to create correct RU costs in the reports.

L3 Requirements:

LAND-0140#B, SMC-6360#B, SMC-6380#B, SMC-6390#B, SMC-8920#B

L4 Requirements:

C-MSS-79700, C-MSS-79760, C-MSS-79780, C-MSS-79790, C-MSS-79800, C-MSS-79810, C-MSS-79820, C-MSS-79830, C-MSS-79880, C-MSS-79890.

4.2.1.3.20 Test Case 20: Cost Accounting - ECS Access (T251-10.02.20)

This test verifies that the BAAS Cost Accounting (CA) function has the ability to access resource unit costs information from the ECS Management Database to determine costs consumed to serve different users, and enable ECS to allocate costs to processes and products.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Invoke the CA indirectly by bringing up the Billing and Invoicing function of the BAAS using simulation of the end of the monthly billing cycle. This can be accomplished through manipulation of the system date. The BAAS Cost Accounting function will run to assign costs to ECS users, process, and products using the resource unit costs information from the ECS Management Database.

Test Output:

The resource unit costs information is accessed and displayed. ECS allocates costs to users, processes, and products.

Success Criteria:

The correct costs are determined and allocated to users, processes, and products.

L3 Requirements:

SMC-6380#B

L4 Requirements:

C-MSS-79850, C-MSS-79860, C-MSS-79870.

4.2.1.3.21 Test Case 21: Reporting Processing (T251-10.02.21)

This test verifies that the BAAS Reporting function has ability to provide standard automated financial statements and summary reports in accordance with Federal accounting standards, to maintain prior reports, and can tailor a report to special needs.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Request to display the statements and summary reports of accounts.

Test Output:

The report formats of the statements and reports are displayed..

Success Criteria:

The formats of the report formats meets the FASAB and OMB standards.

L3 Requirements:

SMC-8920#B

L4 Requirements:

C-MSS-79900, C-MSS-79930, C-MSS-79940, C-MSS-79960, C-MSS-79970.

4.2.1.3.22 Test Case 22: Reporting - Information Transfer (T251-10.02.22)

This test verifies that the BAAS Reporting function allows the transfer of information to other applications outside of the Billing/Accounting Application Service.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User have set up for either "special rate", "pre-paid amount", or " past due amount"
- Tools: XRunner

Test Input:

Transfer information to other applications outside of the Billing/Accounting Application Service.

Test Output:

Log-in to the outside application to verify the information is received.

Success Criteria:

The information is successful transferred to other applications outside of the Billing/Accounting Application Service.

L3 Requirements:

SMC-6370#B, SMC-8920#B

L4 Requirements:

C-MSS-79980.

4.2.1.4 Report Generation Thread IIA (T251-21.02)

The objectives of the CSMS Report Generation Thread IIA are:

- Provide the ability to generate standard reports of results of accounting audits of ground resources, security, work in process and uses of the system.

This Thread tests the ability to generate reports showing maintenance schedules for system hardware, software, and scientific software for routine, non-routine and upgrade maintenance activities. Testing will demonstrate the ability to generate reports on the standard analysis of system event logs and ad-hoc reports utilizing a fourth generation language.

4.2.1.4.1 Test Case 1: Standard and Enhancement Reports Generation (T251-21.02.01)

This test verifies that the MSS Report Generation Service (RGS) function has ability to generate standard and ad-hoc reports and queries on the management data using Motif GUI, to generate an Enhancement Proposal Status Report, and to output report and query results to user console and file, and can be imported to analysis tools i.e. spreadsheets.

Test Configuration:

- Hardware: workstations
- Software: MSS Report Generation
- Data:
- Tools: XRunner

Test Input:

Start up GUI and query the RGS to generate standard and ad-hoc reports from the database. Request to generate an Enhancement Proposal Status Report.

Test Output:

The reports of the query results are generated to the console and printer. An Enhance Report is generated.

Success Criteria:

The generate standard and ad-hoc reports can be imported to other analysis tools.

L3 Requirements:

SMC-8300#B, SMC-8790#B

L4 Requirements:

C-MSS-92010, C-MSS-92020, C-MSS-92040, C-MSS-92050, C-MSS-92070.

4.2.1.5 Report Generation Thread IIB (T251-22.02)

The objectives of the CSMS Report Generation Thread IIB are:

- Provide the ability to generate detailed reports of results of accounting audits of ground resources, security, work in process and uses of the system.

This Thread tests the ability to generate reports showing maintenance schedules for system hardware, software, and scientific software for routine, non-routine and upgrade maintenance activities. Testing will demonstrate the M&O staff has the ability to generate reports to analyzing trends in workload, capacity utilization, system performance, security, reliability, and user satisfaction.

4.2.1.5.1 Test Case 1: HTML Compatible Format Report Generation (T251-22.02.01)

This test verifies the ability of the MSS Report Generation Service function to provide an HTML based user interface for requesting standard reports, and to output report to a file in an HTML compatible format.

Test Configuration:

- Hardware: workstations
- Software: MSS Report Generation
- Data:
- Tools: XRunner

Test Input:

using the HTML based user interface requests to generate a standard report.

Test Output:

The standard report is generated.

Success Criteria:

By using the HTML based user interface for use by non-database specialists on the M&O staff a requested standard report is generated.

L3 Requirements:

SMC-8300#B

L4 Requirements:

C-MSS-92030, C-MSS-92060.

4.2.1.5.2 Test Case 2: Data Production Performance Reports Generation (T251-22.02.02)

This test verifies that the MSS Report Generation Service has the capability to generate various performance detail and summary reports.

Test Configuration:

- Hardware: workstations
- Software: MSS Report Generation
- Data:
- Tools: XRunner

Test Input:

Bring up the RGS to generate the following reports:

1. Routine Data Production Performance Detail and Summary Reports;
2. User Requested Data Production Performance Detail and Summary Reports;

3. Ground Operations Event Performance Detail and Summary Reports;
4. Resource Performance Detail and Summary Reports;
5. User Service Performance Detail and Summary Reports;
6. Data distribution Performance Detail and Summary Reports;
7. Media Distribution Profile Report;
8. Utilization of User Services Personnel Summary Report.

Test Output:

The performance detail and summary reports are produced.

Success Criteria:

The required contents are included in the reports.

L3 Requirements:

SMC-8800#B, SMC-8840#B, SMC-8841#B, SMC-8890#B

L4 Requirements:

C-MSS-92080, C-MSS-92090, C-MSS-92100, C-MSS-92110, C-MSS-92120, C-MSS-92130, C-MSS-92160, C-MSS-92250, C-MSS-92260, C-MSS-92270, C-MSS-92460.

4.2.1.5.3 Test Case 3: Product Generation Status Reports Generation (T251-22.02.03)

This test verifies that the Report Generation Service has the capability to generate the product generation status detail and summary reports.

Test Configuration:

- Hardware: workstations
- Software: MSS Report Generation
- Data:
- Tools: XRunner

Test Input:

Bring up the RGS to generate the Product Generation Status Detail and Summary Reports.

Test Output:

The detail and summary reports are produced.

Success Criteria:

The required contents are included in the reports.

L3 Requirements:

SMC-8820#B

L4 Requirements:

C-MSS-92140, C-MSS-92150.

4.2.1.5.4 Test Case 4: Product Tracking Reports Generation (T251-22.02.04)

This test verifies that the Report Generation Service has the capability to generate the tracking reports for data orders, product distribution and returned product.

Test Configuration:

- Hardware: workstations
- Software: MSS Report Generation
- Data:
- Tools: XRunner

Test Input:

Bring up the RGS to produce a Data Orders Tracking Summary Report, a Data Products Tracking Summary Report, a Returned Product Summary Report.

Test Output:

The summary reports are produced.

Success Criteria:

The required contents are included in the reports.

L3 Requirements:

SMC-8800#B, SMC-8890#B

L4 Requirements:

C-MSS-92280, C-MSS-92290, C-MSS-92300.

4.2.1.5.5 Test Case 5: Audit Reports Generation (T251-22.02.05)

This test verifies that the Report Generation Service has the capability to generate the audit and service reports.

Test Configuration:

- Hardware: workstations
- Software: MSS Report Generation
- Data:
- Tools: XRunner

Test Input:

Bring up the RGS to produce the following reports:

1. Ground Resource Availability Audit Report;
2. Data Accountability Audit Report;
3. Pending Service Request Audit Report;
4. User Activity Audit Report;
5. Security Audit Report;
6. User Characterization Report
7. System Access Report.

Test Output:

The detail and summary reports are produced.

Success Criteria:

The required contents are included in the reports.

L3 Requirements:

SMC-8890#B

L4 Requirements:

C-MSS-92390, C-MSS-92400, C-MSS-92410, C-MSS-92420, C-MSS-92430, C-MSS-92440, C-MSS-92450.

4.2.1.5.6 Test Case 6: Subsystem Production Reports Generation (T251-22.02.06)

This test verifies that the Report Generation Service has the capability to generate the subsystem production reports.

Test Configuration:

- Hardware: workstations
- Software: MSS Report Generation

- Data:
- Tools: XRunner

Test Input:

Bring up the RGS to generate the following reports:

1. Storage Management Report;
2. Storage Management Inventory Update Report;
3. Ingest History Report;
4. Ingest Error Report;
5. Processing Log Report;
6. Production and Data Processing Request Status Report.

Test Output:

The detail and summary reports are produced.

Success Criteria:

The required contents are included in the reports.

L3 Requirements:

SMC-6335#B, SMC-8800#B, SMC-8820#B, SMC-8890#B

L4 Requirements:

C-MSS-92470, C-MSS-92480, C-MSS-92490, C-MSS-92500, C-MSS-92510, C-MSS-92520.

4.2.1.5.7 Test Case 7: Fault and Trouble Reports Generation (T251-22.02.07)

This test verifies that the Report Generation Service has the capability to generate the system fault and trouble reports.

Test Configuration:

- Hardware: workstations
- Software: MSS Report Generation
- Data:
- Tools: XRunner

Test Input:

Bring up the RGS to produce the following reports:

1. Fault Management Report containing summary and detailed information on fault management of ground resources.
2. Trouble Status Report.

Test Output:

The detail and summary reports are produced.

Success Criteria:

The required contents are included in the reports.

L3 Requirements:

SMC-8860#B

L4 Requirements:

C-MSS-92310, C-MSS-92320.

4.2.1.5.8 Test Case 8: Management Reports Generation (T251-22.02.08)

This test verifies that the Report Generation Service has the capability to generate management reports, such as planning management report, account authorization report and functional allocation report.

Test Configuration:

- Hardware: workstations
- Software: MSS Report Generation
- Data:
- Tools: XRunner

Test Input:

Bring up the RGS to produce the following reports:

1. Planning Management Report;
2. Account Authorization Report;
3. Functional Allocation Report.

Test Output:

The detail and summary reports are produced.

Success Criteria:

The required contents are included in the reports.

L3 Requirements:

SMC-3315#B, SMC-8700#B, SMC-8800#B, SMC-8920#B, PGS-0420#B

L4 Requirements:

C-MSS-92530, C-MSS-92540, C-MSS-92550, C-MSS-92600.

4.2.1.5.9 Test Case 9: Cost Schedule Reports Generation (T251-22.02.09)

This test verifies that the Report Generation Service has the capability to generate the service cost schedule report and standard product cost schedule report.

Test Configuration:

- Hardware: workstations
- Software: MSS Report Generation
- Data:
- Tools: XRunner

Test Input:

Bring up the RGS to produce a Service Cost Schedule Report and a Standard Product Cost Schedule Report.

Test Output:

The detail and summary reports are produced.

Success Criteria:

The required contents are included in the reports.

L3 Requirements:

SMC-8920#B

L4 Requirements:

C-MSS-92560, C-MSS-92570.

4.2.1.5.10 Test Case 10: Training Reports Generation (T251-22.02.10)

This test verifies that the Report Generation Service has the capability to generate a training report which will contains training programs, schedules, course contents, course locations and attendees.

Test Configuration:

- Hardware: workstations
- Software: MSS Report Generation
- Data:
- Tools: XRunner

Test Input:

Bring up the RGS to produce a Training Program Report.

Test Output:

The detail and summary reports are produced.

Success Criteria:

The contents of the reports follows the specification in the requirements.

L3 Requirements:

SMC-8750#B

L4 Requirements:

C-MSS-92680.

4.2.1.5.11 Test Case 11: Security Reports Generation (T251-22.02.11)

This test verifies that the Report Generation Service has the capability to generate the security reports.

Test Configuration:

- Hardware: workstations
- Software: MSS Report Generation
- Data:
- Tools: XRunner

Test Input:

Bring up the RGS to produce a Security Compromise Report, a Security Compromise Statistics Report, and a Virus Detection Report.

Test Output:

The detail and summary reports are produced.

Success Criteria:

The required contents are included in the reports.

L3 Requirements:

SMC-8880#B

L4 Requirements:

C-MSS-92700, C-MSS-92710, C-MSS-92720.

4.2.1.6 Management Agent Thread II (T252-10.02)

The objectives of the management agent thread are as follows:

- Provide the interface to exchange mode information.
- Provide the capability to exchange user registration status and user profile information.
- Provide the interface to receive plan and scheduling information.

The following tests verify the capability to interface with all ECS subsystem for conveying mode, accountability, and planning information.

4.2.1.6.1 Test Case 1: Processing Status Test (T252-10.02.01)

This test verifies the Management Agent Service have the capability to receive processing status from varies subsystem, such as IOS, DMS, PLS, DPS, INS, DSS, and CSS.

Test Configuration:

- Hardware: ECS server, IOS, DMS, PLS, DPS, INS, DSS and CSS interface simulator, HP OpenView Server, X-terminal.
- Software: Release B, MSS Request Tracking, IOS, DMS, PLS, DPS, INS, DSS and CSS
- Data:
- Tools: XRunner

Test Input:

MIB for subsystem resource : IOS, DMS, PLS, DPS, INS, DSS and CSS are set with appropriated processing status. Request to issue processing status within subsystem.

Test Output:

Receive processing status from the subsystem - IOS, DMS, PLS, DPS, INS, DSS and CSS.

Success Criteria:

Request for sending the processing status is set in the appropriate subsystem. Appropriate MIB in the subsystem is set with corresponding processing status. Receive processing status is logged in the MSS log file.

L3 Requirements:

SMC-3350#B, DADS-0910#B

L4 Requirements:

C-MSS- 36300, C-MSS-36350, C-MSS-36400, C-MSS-36450, C-MSS-36500, C-MSS-36550, C-MSS-36575, C-MSS-36700

4.2.1.6.2 Test Case 2: Fault Detection Test (T252-10.02.02)

This test verifies the Management Agent Service have the capability to receive detected hardware and software fault information from varies subsystem such as: IOS, DMS, PLS, DPS, INS, DSS, and CSS.

Test Configuration:

- Hardware: ECS server, IOS, DMS, PLS, DPS, INS, DSS and CSS interface simulator, HP OpenView, X-terminal.
- Software: Release B
- Data: Acc
- Tools: XRunner

Test Input:

Hardware or software fault are generated for the subsystem such as: IOS, DMS, PLS, DPS, INS, DSS and CSS. MIB for all the subsystems resource are set with hardware or software fault.

Test Output:

A hardware or software fault is generated within the subsystem.

Success Criteria:

Appropriated notification is sent from subsystem to Management Agent Service and logged in the MSS log file.

L3 Requirements:

IMS-1760#B, PGS-0330#B

L4 Requirements:

C-MSS-36310, C-MSS-36360, C-MSS-36410, C-MSS-36460, C-MSS-36510, C-MSS-36560, C-MSS-36710

4.2.1.6.3 Test Case 3: Event Notification Test (T252-10.02.03)

This test verifies the MSS Management Data Access Service have the capability to receive event notification from varies subsystem such as: CLS, IOS, DMS, PLS, DPS, INS, DSS and CSS. It also provide the capability for the M&O staff to load log files into the management database at the site.

Test Configuration:

- Hardware: ECS server, IOS, DMS, PLS, DPS, INS, DSS and CSS interface simulator, HP OpenView, X-terminal.
- Software: Release B
- Data: Acc
- Tools: XRunner

Test Input:

MIB for all the subsystem resource is set with a software or software fault.

Test Output:

An event notification is sent from a subsystem to the Management Agent Service.

Success Criteria:

Appropriated event notification is sent from subsystem to Management Agent Service and logged in the MSS log file.

L3 Requirements:

SMC-4311#B, SMC-6380#B, EOSD-0050#B, EOSD-1710#B, EOSD-3492#B, ESN-0010#B, ESN-0070#B, ESN-1000#B, ESN-1070#B, PGS-0330#B, SDPS-0010#B, IMS-1760#B

L4 Requirements:

C-MSS-18072, C-MSS-18074, C-MSS-18360, C-MSS-36215, C-MSS-36320, C-MSS-36365, C-MSS-36415, C-MSS-36465, C-MSS-36515, C-MSS-36565, C-MSS-36715

4.2.1.6.4 Test Case 4: Resource Utilization Test (T252-10.02.04)

This test verifies the Management Agent Service have the capability to receive resource utilization data from varies subsystem.

Test Configuration:

- Hardware: ECS server, IOS, DMS, PLS, DPS, INS, DSS and CSS interface simulator, HP OpenView, X-terminal.
- Software: B
- Data: Acc
- Tools: XRunner

Test Input:

MIB for all the subsystem resource is set with resource utilization.

Test Output:

An event notification is sent from a subsystem to the Management Agent Service.

Success Criteria:

Appropriated event notification is sent from subsystem to Management Agent Service and logged in the MSS log file.

L3 Requirements:

SMC-3350#B, SMC-6380#B, SMC-6385#B, SMC-1330#B, EOSD-0510#B, EOSD-1705#B, EOSD-5250#B

L4 Requirements:

C-MSS- 36325, C-MSS-36370, C-MSS-36420, C-MSS-36470, C-MSS-36490#B, C-MSS-36520, C-MSS-36570, C-MSS-36720, C-MSS-36800

4.2.1.6.5 Test Case 5: Life Cycle Command Test (T252-10.02.05)

This test verifies the Management Agent Service have the capability to send life cycle commands (start or stop a processor) to varies subsystem such as : IOS, DMS, PLS, DPS, INS, DSS, and CSS.

Test Configuration:

- Hardware: ECS server, IOS, DMS, PLS, DPS, INS, DSS and CSS interface simulator, HP OpenView, X-terminal.
- Software: Release B
- Data: Acc
- Tools: XRunner

Test Input:

MIB for all the subsystem resource is set with life cycle command, such as : start a processor, stop a processor.

Test Output:

An event notification is sent from a subsystem to the Management Agent Service.

Success Criteria:

Appropriated event notification is sent from subsystem to Management Agent Service and logged in the MSS log file.

L3 Requirements:

SMC-3300#B

L4 Requirements:

C-MSS- 36330, C-MSS-36375, C-MSS-36435, C-MSS-36480, C-MSS36540, C-MSS-36600, C-MSS-36750

4.2.1.7 Performance Management Thread (T252-20.02)

The objectives of the Performance Management Application thread are as follows:

- Provide the capability to monitor performance of the EMC components.
- Provide the capability to determine the operational state of all network components, hosts and peripherals.

Testing is performed to demonstrate the ability to determine the operational state of all network components, hosts, and peripherals. The network components include routers, links, bridges, and gateways. Submission of performance tests will be verified for system scenarios. A performance testing request will generate a report with the operational availability calculations of the requested scenario. Invalid tests are submitted to verify the error detection, handling, and reporting of the functionality.

4.2.1.7.1 Test Case 1: Monitoring the Performances of ECS Components (T252-20.02.01)

The following tests verify the capability of the performance management application service to determine the operational state of all ECS components. These components consist of network components, hosts, operating system, data, peripherals and ECS applications. Reports are generated to verify statistical data collection and event logging of network and system activity.

Test Configuration:

- Hardware: workstation, X-terminal, peripherals
- Software: HP OpenView, Peer Network's Agent, X-runner
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli

Test Input:

MSS performance management application service to Monitor the Performances of the following ECS components.

a. network components
    1. router
    2. links
    3. bridges
    4. gateways
b. hosts
c. operating systems
d. peripherals
e. data
f. ECS applications

Test Output:

ECS component is recorded in the MSS log file to be in a undefined operational state.

Success Criteria:

Performance statistics are reported for the ECS component in on-line state. All performance data recorded in the MSS log file is identified as on-line state.

L3 Requirements:

EOSD-0500#B, ESN-0010#B, ESN-0210#B, ESN-0620#B, PGS-0430#B, SMC-3300#B, SMC-3305#B, SMC-3315#B, SMC-3320#B, SMC-3325#B, SMC-3330#B, SMC-3335#B, SMC-3380#B, SMC-3385#B, SMC-3390#B

L4 Requirements:

C-MSS-66001, C-MSS-66183

4.2.1.7.2 Test Case 2: Performances Operational State of All Network Components (T252-20.02.02)

This test verifies the capability of the performance management application service to determine the operational state of all network components, host, and peripherals to be. Test Configuration:

- Hardware: workstation, X-terminal
- Software: On-line, off-line, in test mode, in maintenance, and in simulation mode.
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli

Test Input:

Test inputs include: Simulated network and system map in HP OpenView. ECS component's state is set to on-line, off-line, in test mode, in maintenance, and in simulation mode.

Test Output:

Performance monitoring should report statistics for the ECS component in on-line, off-line, test mode, maintenance, and simulation mode. All performance data recorded in the MSS log file is identified as test mode.

Success Criteria:

This test is considered successful if the MSS Performance Management Application Service

L3 Requirements:

EOSD0780#B, ESN-0790#B, ESN-1060#B, SMC-3300#B, SMC-3305#B

L4 Requirements:

C-MSS-66121

4.2.1.7.3 Test Case 3: Requests Performances Testing (T252-20.02.03)

This test verify the MSS Performance Management Application Service requests for performance testing requests. Performance testing requests consist of system scenario scripts for calculating operational availability of the involved ECS components. Reports are generated to verify the calculations of the performance testing requests. Event logging of performance testing requests is verified as well.

Test Configuration:

- Hardware: workstation, X-terminal
- Software:
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli

Test Input:

Performance testing data and system scenario scripts. Submission of performance testing request.

Test Output:

Report of performance testing for the ECS component.

Success Criteria:

This test is considered successful if a report is generated which includes the required resources, purpose, requested priority, required environment, operations impacts, and expected results of the performance testing request. Performance testing events are recorded in the MSS log file.

L3 Requirements:

SMC-3397#B, SMC-3400#B

L4 Requirements:

C-MSS-66123

4.2.1.7.4 Test Case 4: Request Performance Data (T252-20.02.04)

This test verifies the capability of the performance management application service to request performance data from the Site performance management applications, EBnet, ASTER, NOAA(SAA), Landsat(MMO), NSI, and NOLAN.

Test Configuration:

- Hardware: workstation, X-terminal,
- Software: EBnet simulator.
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli

Test Input:

Test input includes: Site performances management applications, EBnet, ASTER, NOAA(SAA), Landsat(MMO), NSI, and NOLAN summarized performance notification.

Test Output:

The EBnet selected host should show which selected pairs of host are being identified.

Success Criteria:

This test is considered successful if the MSS Performance Management Application Service receive the request performance data from the equipment at Site performances management applications, EBnet, ASTER, NOAA(SAA), Landsat(MMO), NSI, and NOLAN.

L3 Requirements:

EOSD1710#B

L4 Requirements:

C-MSS-66141

4.2.1.7.5 Test Case 5: Receiving Performances Data (T252-20.02.05)

This test verifies the capability of the performance management application service to receive performance data from Site performances management applications, EBnet, ASTER, NOAA(SAA), Landsat(MMO), NSI, and NOLAN .

Test Input:

Diagnostic test requests and diagnostic test results.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: Diagnostic test simulator
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli, Load Runner, performance monitoring tools, and data analysis tools

Test Output:

Alarm detecting the performances data, management framework visually updates the performance location, and event log updated with performance notification.

Success Criteria:

This test is considered successful if the MSS Performance Management Application Service detecting the performance and performance degradation events from ISS.

L3 Requirements:

EOSD1710#B, NSI-0060#B

L4 Requirements:

C-MSS-66151

4.2.1.7.6 Test Case 6: Receiving Summarized Performances Data (T252-20.02.06)

This test verifies the capability of the MSS EMC Performance Management Application service to receive summarized performance data from the Site performances management applications, EBnet, ASTER, NOAA(SAA), Landsat(MMO), NSI, and NOLAN.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: Site performances and management applications simulator, EBnet simulator. ASTER GDS simulator, NOAA(SAA) simulator, Landsat(MMO) simulator, NSI simulator, and NOLAN simulator
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

Site performances management applications, EBnet, ASTER, NOAA(SAA), Landsat(MMO), NSI, and NOLAN summarized performance notification.

Test Output:

Summary information on performance data. All summarized requests are viewed. All requests submitted are logged.

Success Criteria:

This test is considered successful if the MSS Performance Management Application Service received summarized performances data to the level of subsystem and equipment at Site performances management applications, EBnet, ASTER, NOAA(SAA), Landsat(MMO), NSI, and NOLAN.

L3 Requirements:

EOSD1710#B

L4 Requirements:

C-MSS-66161

4.2.1.7.7 Test Case 7: Log ECS performance Data to ECS Network (T252-20.02.07)

This test verifies the capability of the MSS Performance Management Application service to Log ECS performance data to ECS network components, ECS applications and operating system resources.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: ECS Applications and Operating System Resources
- Data: ECS performance data
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

MSS Performances management applications service logs with ECS performance data form ECS network components, ECS applications and operating system resource.

Test Output:

Summary information on ECS performance data from ECS network components, ECS applications and operating system resource.

Success Criteria:

This test is considered successful if the MSS Performance Management Application Service received summarized ECS performances data to the log files that pertains to ECS network components, ECS applications and operating system resource.

L3 Requirements:

ESN-0750#B, SMC-3340#B, SMC-3345#B

L4 Requirements:

C-MSS-66171

4.2.1.7.8 Test Case 8: CPU Load Graphical Report (T252-20.02.08)

This test verifies the capability of the performance management application service to generate a CPU Load Report graphically depicting the average number of jobs in the run queue over the last 1, 5 and 15 minute period for each selected node.

Test Configuration:

- Hardware: workstation, X-terminal, peripherals
- Software: HP OpenView, Peer Network's Agent, X-runner
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli

Test Input:

MIB for the CPU load is set in HP OpenView, number of jobs are started.

Test Output:

A graphical report is generated to represent the CPU load for the average number of jobs in the run queue over the last 1, 5, and 15 minute period for a selected node.

Success Criteria:

This test is considered successful if the MSS Performance Management Application Service is able to collect the CPU Load and Graphical Report is generated .

L3 Requirements:

SMC-8840#B

L4 Requirements:

C-MSS-92170

4.2.1.7.9 Test Case 9: Traffic Graphical Report (T252-20.02.09)

This test verifies the capability of the MSS performance Management Application service to generate an Interface/Ethernet/SNMP Traffic Report graphically plotting network packet statistics in real-time for the operator selected SNMP node(s).

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent, X-runner
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli

Test Input:

Test inputs include: the MIB for Interface/Ethernet/SNMP traffic is set up in HP OpenView. Traffic is generated between selected SNMP node(s).

Test Output:

Graphical Reports for the Interface Traffic, Ethernet Traffic and SNMP Traffic are generated for the selected SNMP node(s).

Success Criteria:

This test is considered successful if the MSS Performance Management Application Service is able to collect the traffic information and graphical reports are generated.

L3 Requirements:

SMC-8840#B

L4 Requirements:

C-MSS-92180, C-MSS-92190, C-MSS-92200

4.2.1.7.10 Test Case 10: SNMP Operations Graphical Report (T252-20.02.10)

This test verifies the MSS Performance Management Application Service is capable to generate a SNMP Operations Report graphically plotting the number of selected SNMP operations/sec requested to be performed by the SNMP agent on the selected node(s).

Test Configuration:

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent, X-runner
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli

Test Input:

Test inputs include: the MIB for SNMP Operations is set up in HP OpenView. Operation Request is generated for SNMP agent on the selected node(s).

Test Output:

Graphical Report of Operation Request performed by the SNMP agent on the selected node(s) is generated.

Success Criteria:

This test is considered successful if a graphical report is generated which includes the number of selected SNMP operations/sec requested to be performed by the SNMP agent on the selected node(s).

L3 Requirements:

SMC-8840#B

L4 Requirements:

C-MSS-92210

4.2.1.7.11 Test Case 11: Site Host Resource Utilization Graphical Report (T22-20.02.11)

This test verifies the capability of the performance management application service to collect the Site host resource utilization information and generate a graphical report.

Test Configuration:

- Hardware: workstation, X-terminal,
- Software: HP OpenView, Peer Network's Agent, X-runner
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli

Test Input:

Test input includes: the MIB for Site host resource utilization is set up in HP OpenView. Several jobs are brought up to utilize the disk reads, writes, etc.

Test Output:

The data of CPU and memory resources and disk reads and writes usage are collect and graphical report is generated.

Success Criteria:

This test is considered successful if the MSS Performance Management Application Service receives the desired data from Site Host and generates a graphical report .

L3 Requirements:

SMC-8840#B

L4 Requirements:

C-MSS-92220

4.2.1.7.12 Test Case 12: SMC Host Resource Utilization Report (T252-20.02.12)

This test verifies the capability of the performance management application service to collect the SMC host resource utilization information and generate a graphical report.

Test Configuration:

- Hardware: workstation, X-terminal,
- Software: HP OpenView, Peer Network's Agent, X-runner
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli

Test Input:

Test input includes: the MIB for SMC host resource utilization is set up in HP OpenView. Several jobs are brought up to utilize the disk reads, writes etc.

Test Output:

The data of CPU and memory resources and disk reads and writes usage are collect and graphical report is generated.

Success Criteria:

This test is considered successful if the MSS Performance Management Application Service receives the desired data from SMC Host and generates a graphical report .

L3 Requirements:

SMC-8840#B

L4 Requirements:

C-MSS-92230

4.2.1.7.13 Test Case 13: Disk Space Report (T252-20.02.13)

This test verifies the capability of the MSS Performance Management Application service to generate a report which lists the file system space available on a selected managed host node.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

Test input includes: the MIB for disk utilization is set up in HP OpenView. Perform some file transfer.

Test Output:

Information of disk space on a selected managed host node is collected

Success Criteria:

This test is considered successful if the MSS Performance Management Application Service receives the disk space information of a selected managed host node and generates a report.

L3 Requirements:

SMC-8840#B

L4 Requirements:

C-MSS-92240

4.2.1.7.14 Test Case 14: Network Traffic Error Graphical Report (T252-20.02.14)

This test verifies the capability of the MSS Performance Management Application service to collect Ethernet error or SNMP error statistics in real-time for the selected network nodes and to generate a graphical report.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent

- Data: simulator
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

Test input includes: the MIB for Ethernet Traffic error or SNMP Traffic error is set up in HP OpenView. Simulates some traffic error to the selected network node.

Test Output:

Graphical Report of Ethernet error or SNMP error in real-time for the selected network node.

Success Criteria:

This test is considered successful if the MSS Performance Management Application Service collects the Ethernet or SNMP network traffic error and generates the graphical report.

L3 Requirements:

SMC-8860#B

L4 Requirements:

C-MSS-92330, C-MSS-92340

4.2.1.7.15 Test Case 15: SNMP Authentication Failure Report (T252-20.02.15)

This test verifies the capability of the MSS Management Application service to collect SNMP Authentication Failures from the selected node.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent
- Data: simulator
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

Test input includes: the MIB for Authentication Failure is set up in HP OpenView. Simulates authentication failure on the selected network node.

Test Output:

Report of Authentication Failure on the selected network node is generated.

Success Criteria:

This test is considered successful if the MSS Management Application Service collects the Authentication Failure on the selected network node and generates the graphical report.

L3 Requirements:

SMC-8860#B

L4 Requirements:

C-MSS-92350

4.2.1.7.16 Test Case 16: SNMP Event Log/Event Notification Report (T252-20.02.16)

This test verifies the capability of the MSS Management Application service to collect the chronological list of SNMP Events which occurred over the report interval for the selected network nodes and to generate a report.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent
- Data: simulator
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

Test input includes: the MIB for SNMP Event is set up in HP OpenView. Simulates some SNMP events to the selected network node.

Test Output:

A chronological list of SNMP events is collected and a event log/notification report is generated for the selected network node.

Success Criteria:

This test is considered successful if the MSS Management Application Service collects the SNMP events and generates a chronological list of report or a notification report.

L3 Requirements:

SMC-2510#B, SMC-8860#B

L4 Requirements:

C-MSS-92360, C-MSS-92630

4.2.1.7.17 Test Case 17: Site Host Error Report (T252-20.02.17)

This test verifies the capability of the MSS Management Application service to collect types of error for the selected Site host node over the reporting period and to generate a summary Error report.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent
- Data: simulator
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

Test input includes: the MIB for types of error is set up in HP OpenView. Simulates some errors to the selected Site host node.

Test Output:

Summary Error Report of types error over the report interval for the selected Site host node is generated.

Success Criteria:

This test is considered successful if the MSS Management Application Service collects the types of error for the selected Site host node over a report interval and generates the summary error report.

L3 Requirements:

SMC-8860#B

L4 Requirements:

C-MSS-92370

4.2.1.7.18 Test Case 18: EMC Host Error Report (T252-20.02.18)

This test verifies the capability of the MSS Management Application service to collect types of error for the selected EMC host node over the reporting period and to generate a summary Error report.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent
- Data: simulator
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

Test input includes: the MIB for types of error is set up in HP OpenView. Simulates some errors to the selected EMC host node.

Test Output:

Summary Error Report of types error over the report interval for the selected SMC host node is generated.

Success Criteria:

This test is considered successful if the MSS Management Application Service collects the types of error for the selected SMC host node over a report interval and generates the summary error report.

L3 Requirements:

SMC-8860#B

L4 Requirements:

C-MSS-92380

4.2.1.7.19 Test Case 19: Configuration Status Report (T252-20.02.19)

This test verifies the capability of the MSS Management Application service to collect the operational status of all H/W, system S/W and science S/W with a reason why an item is not currently operational and to generate a configuration status report.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent
- Data: simulator
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

Test input includes: operational and non-operational H/W, system S/W, and science S/W.

Test Output:

Configuration Status Report noting the operational status of all H/W, system S/W and science S/W with a reason why an item is not currently operational.

Success Criteria:

This test is considered successful if the Configuration Status Report contains all the operational status of H/W, system S/W and science S/W with a reason why an item is not currently operational.

L3 Requirements:

SMC-8710#B

L4 Requirements:

C-MSS-92610

4.2.1.7.20 Test Case 20: System Information Report (T252-20.02.20)

This test verifies the capability of the MSS Management Application service to generate a System Information Report for a selected managed object containing name, description, contact person, location, and system object identification.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent
- Data: simulator
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

Select managed object.

Test Output:

A System Information Report for a selected managed object containing name, description, contact person, location, and system object identification is generated.

Success Criteria:

This test is considered successful if the generated System Information Report for a selected managed object containing name, description, contact person, location, and system object identification.

L3 Requirements:

SMC-8710#B

L4 Requirements:

C-MSS-92620

4.2.1.7.21 Test Case 21: Indentured Level of Assembly List Report (T252-20.02.21)

This test verifies the capability of the MSS Management Application service to collect the information for all the managed configuration items (CIs) and generate an Indentured Level of Assembly List Report.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent
- Data: simulator
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

Test input includes all managed objects.

Test Output:

An Indentured Level of Assembly List Report is generated for all managed configuration items.

Success Criteria:

This test is considered successful if the Indentured level of Assembly List Report is generated.

L3 Requirements:

SMC-2510#B

L4 Requirements:

C-MSS-92640

4.2.1.7.22 Test Case 22: Document Configuration Status Report (T252-20.02.22)

This test verifies the capability of the MSS Management Application service to collect the status of documents associated with ECS resources and generate a Document Configuration Status Report.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent
- Data: simulator
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

Start up the Tivoli.

Test Output:

Document Configuration Status Report containing the identity and status of documents associated with ECS resources is generated.

Success Criteria:

This test is considered successful if the Document Configuration Status Report contains all the identity and status of documents associated with ECS resources is generated.

L3 Requirements:

SMC-2510#B

L4 Requirements:

C-MSS-92650

4.2.1.7.23 Test Case 23: System Configuration Tracking Report (T252-20.02.23)

This test verifies the capability of the MSS Management Application service to collect the system migration of upgrades into the operational environment information and generate a System Configuration Tracking Report.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent
- Data: simulator
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

Start up Tivoli.

Test Output:

System Configuration Tracking Report noting the migration of upgrades into the operational environment is generated.

Success Criteria:

This test is considered successful if the System Configuration Tracking Report is generated .

L3 Requirements:

SMC-2510#B

L4 Requirements:

C-MSS-92660

4.2.1.7.24 Test Case 24: Maintenance Schedule Report (T252-20.02.24)

This test verifies the capability of the MSS Management Application service to collect the information on the type of maintenance (i.e., routine, non-routine and upgrade) for all the H/W, system S/W and science S/W and generates a Maintenance Schedule Report.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent
- Data: simulator
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

Start up the Tivoli.

Test Output:

A Maintenance Schedule Report on H/W, system S/W and science S/W indicating the type of maintenance (i.e., routine, non-routine and upgrade) is generated.

Success Criteria:

This test is considered successful if the Maintenance Schedule Report on H/W, system S/W and science S/W indicating the type of maintenance (i.e., routine, non-routine and upgrade) is generated.

L3 Requirements:

SMC-8730#B

L4 Requirements:

C-MSS-92670

4.2.1.7.25 Test Case 25: Inventory Status Report (T252-20.02.25)

This test verifies the capability of the MSS Management Application service to collect the summary and detailed status information on H/W, system S/W and science S/W and listing spares and consumable status at sites and generate the Inventory Status Report.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: HP OpenView, Peer Network's Agent

- Data: simulator
- Tools: HP OpenView, X-runner, Tivoli, LoadRunner

Test Input:

Start up the Tivoli.

Test Output:

An Inventory Status Report containing summary and detailed status information on H/W, system S/W and science S/W and listing spares and consumable status at sites is generated.

Success Criteria:

This test is considered successful if the Inventory Status Report containing summary and detailed status information on H/W, system S/W and science S/W and listing spares and consumable status at sites is generated.

L3 Requirements:

SMC-8770#B

L4 Requirements:

C-MSS-92690

4.2.1.8 Fault Management Thread (T252-30.02)

The objectives of the Fault Management Application thread are as follows:

- Provide the capability to exchange fault notification data with Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN external interfaces.
- Provide the capability to exchange performance degradation data with Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN external interfaces.
- Provide the capability to receive diagnostic test results from the ISS

The Fault Management Application, service provides the capability to detect, diagnose, isolate and recover from faults that occur in the managed objects within ESC. The entities or managed objects in ECS that need to be monitored for faults include network devices (such as hosts, hubs and routers), system software (databases and middleware such as DCE) and applications (such as the planning subsystem and the data server subsystem). The detection of faults involves the identification of an unacceptable change in the state of a managed object. The diagnosis and isolation of a fault involves the determination of the cause of the, fault from the correlation of the recorded symptom through the use of diagnostic test, where necessary. Testing is performed to

verify the capability of MSS to exchange fault management information with the EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN external interfaces. Also, testing is performed to verify the capability of the diagnostic test results from ISS.

4.2.1.8.1 Test Case 1: Receive Notification of Detected Faults and Degradation of Performance (T252-30.02.01)

This test verifies the capability of the fault management application service to receive notifications of detected faults degradation of performance from the Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: Site faults and management applications simulator, EBnet simulator, ASTER GDS simulator, NOAA(SAA) simulator, Landsat(MMO) simulator, NSI simulator, and NOLAN simulator
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli

Test Input:

Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN fault notification.

Test Output:

Alarm detecting the faults and degradation of performance, management framework visually updates the fault location, and event log updated with fault notification.

Success Criteria:

This test is considered successful if the MSS EMC Fault Management Application Service detecting the fault and degradation of performance from Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN.

L3 Requirements:

EOSDI710#B, ESN-0800#B

L4 Requirements:

C-MSS-60161

4.2.1.8.2 Test Case 2: Request Notification of Detected Faults and Performance Degradation Data (T252-30.02.02)

This test verifies the capability of the fault management application service to request notifications of detected faults performance degradation data from the Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: Site faults and management applications simulator, EBnet simulator, ASTER GDS simulator, NOAA(SAA) simulator, Landsat(MMO) simulator, NSI simulator, and NOLAN simulator
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli

Test Input:

Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN fault notification.

Test Output:

Alarm detecting the faults and performance degradation data, management framework visually updates the fault location, and event log updated with fault notification.

Success Criteria:

This test is considered successful if the MSS EMC Fault Management Application Service detecting the fault and performance degradation events from Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN.

L3 Requirements:

EOSDI710#B, ESN-0800#B, SMC-3390#B, SMC-4310#B

L4 Requirements:

C-MSS-60171

4.2.1.8.3 Test Case 3: Receiving Summarized Faults and Performance Degradation Data (T252-30.02.03)

This test verifies the capability of the MSS EMC Fault Management Application service to receive summarized notifications and performance degradation data from the Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: Site faults and management applications simulator, EBnet simulator, ASTER GDS simulator, NOAA(SAA) simulator, Landsat(MMO) simulator, NSI simulator, and NOLAN simulator
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli

Test Input:

Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN summarized fault notification.

Test Output:

Alarm detecting the faults and performance degradation data, management framework visually updates the fault location, and event log updated with fault notification.

Success Criteria:

This test is considered successful if the MSS EMC Fault Management Application Service detecting the fault and performance degradation events from Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN.

L3 Requirements:

EOSDI710#B, NSI-0050#B

L4 Requirements:

C-MSS-60181

4.2.1.8.4 Test Case 4: Identify Routes Between Selected Pairs (T252-30.02.04)

This test verifies the capability of the fault management application service to identify routes between selected pairs of hosts on the EBnet,

Test Configuration:

- Hardware: workstation, X-terminal,
- Software: EBnet simulator.
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli

Test Input:

Identify the Selected pairs of hosts on the EBnet

Test Output:

The EBnet selected host should show which selected pairs of host are being identified and identify the Selected pairs of hosts.

Success Criteria:

This test is considered successful if the MSS EMC Fault Management Application Service can select the selected pairs of host on EBnet

L3 Requirements:

EOSD0730#B, ESN-0760#B, ESN-0810#B

L4 Requirements:

C-MSS-60301

4.2.1.8.5 Test Case 5: ISS Diagnostic Test Results (T252-30.02.05)

This test verifies the capability of the fault management application service to receive diagnostic test results form ISS and to send diagnostic test requests to ISS.

Test Input:

Diagnostic test requests and diagnostic test results.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: Diagnostic test simulator
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli, Load Runner, performance monitoring tools

Test Output:

Alarm detecting the faults and performance degradation data, management framework visually updates the fault location, and event log updated with fault notification.

Success Criteria:

This test is considered successful if the MSS Fault Management Application Service detecting the fault and performance degradation events from ISS.

L3 Requirements:

SMC-3400#B, SMC-4320#B

L4 Requirements:

C-MSS-60303, C-MSS-60305

4.2.1.8.6 Test Case 6: Reported Faults for Levels of Subsystem (T252-30.02.06)

This test verifies the fault management application service at the SMC the capability to send gathered isolation, location, identification and characterization of reported faults data to the level of subsystem and equipment to Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN.

Test Configuration:

- Hardware: workstation, X-terminal
- Software: Site faults and management applications simulator, EBnet simulator. ASTER GDS simulator, NOAA(SAA) simulator, Landsat(MMO) simulator, NSI simulator, and NOLAN simulator
- Data: Simulator
- Tools: HP OpenView, X-runner, Tivoli

Test Input:

Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN summarized fault notification.

Test Output:

Reports of faults data from Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN that shows the gathered isolation, location, identification and characterization of reported faults data to the level of subsystem and equipment .

Success Criteria:

This test is considered successful if the MSS Fault Management Application Service at SMC sends the gathered isolation, location, identification and characterization of reported faults data to the level of subsystem and equipment at Site faults management applications, EBnet, ASTER GDS, NOAA(SAA), Landsat(MMO), NSI, and NOLAN.

L3 Requirements:

EOSD1710#B, SMC-4310#B, SMC-4311#B, NSI0030#B, NSI-0040#B

L4 Requirements:

C-MSS-60371

4.2.1.9 Accountability Thread II (T252-40.02)

Testing verifies the MSS ability to use request tracking tool to show the current status of user requests. Testing will verify the tracking of user account balance status. Testing is performed to verify the tracking of user registration request.

4.2.1.9.1 Test Case 1: User Account Balance Request Tracking (T252-40.02.01)

This test verifies the ability of Accountability Management service to track user account balance request.

Test Configuration:

- Hardware: workstations
- Software: MSS Accountability Management Service
- **Tools: XRunner**
- **Data: User account balance**

Test Input:

Log onto the ECS and bring up Client's service.

Submit the request for user account balance status.

Start up the tracking tool to display the request status.

Test Output:

The request status is shown.

Success Criteria:

User account balance request status matches the current state.

L3 Requirements:

IMS-1360#B

L4 Requirements:

C-MSS-75102.

4.2.1.9.2 Test Case 2: User Registration Request Tracking (T252-40.02.02)

This test verifies the ability of Accountability Management service to track user registration request.

Test Configuration:

- Hardware: workstations
- Software: MSS Accountability Management Service
- **Tools: XRunner**
- Data: User registration information

Test Input:

Log onto the ECS and bring up Client's service.

Submit the request for user registration status.

Start up the tracking tool to display the request status.

Test Output:

The request status is shown.

Success Criteria:

User registration request status matches the current state.

L3 Requirements:

SMC-5320#B

L4 Requirements:

C-MSS-75120.

4.2.1.10 MSS External Interfaces Thread (T252-50.02)

Testing verifies the various objectives of the MSS interface thread. performance, fault, security, scheduling, and accountability management application services interfaces are tested.

System and network management information are exchanged between MSS system and a simulated external entity to verify its interface implementation.

Testing verifies the simple network management protocol is provided to supply the network management information. Testing demonstrates the ability to satisfy the request from external entity for network protocol status and diagnostics.

Testing is performed to verify the services of data transfer and remote file access.

4.2.1.10.1 Test Case 1: ASTER GDS Interface (T252-50.02.01)

This test verifies the MSS have the capability to send EOS Long Term Science Plans, EOS Long Term Instrument Plans to/from ASTER GDS. The MSS Human Machine Interface (HMI) is compatible with ECS User Interface Style Guide (Version 5.1).

Test Configuration:

- Hardware: Workstation, X-terminal.
- Software: Release B, a receiver simulator (RS), and a sender simulator (SS)

- Data:
- Tools: XRunner

Test Input:

For "send" capability, the MSS Management Service opens the RS. Enter the "sendfile <filename>" command to send science plans, instrument plans to ASTER GDS.

For "receive" capability, the SS opens the MSS Management Service.

Test Output:

For "send" capability, the RS shows the plans or data is received .

For "receive" capability, the MSS shows the data received.

Success Criteria:

For "send" capability, the RS receives the plans and displays the message indicating the files received.

For "receive" capability the MSS receives the plans and displays the message indicating the files received.

The MSS Human Machine Interface (HMI) is compatible with ECS User Interface Style Guide (Version 5.1).

L3 Requirements:

EOSD-1480#B, ASTER-0040#B, ASTER-0045#B, IMS-1380#B

L4 Requirements:

C-MSS- 0500, C-MSS-0510, C-MSS-0540

4.2.1.10.2 Test Case 2: Fault Management Service for ASTER GDS (T252-50.02.02)

This test verifies the MSS Fault Management Application Service have the capability to send/receive ECS/ASTER GDS system management inf., network management inf., request to/from ASTER GDS.

Test Configuration:

- Hardware: Workstations, X-terminal
- Software: Release B, a receiver simulator (RS), and a sender simulator (SS)

- Data:
- Tools: XRunner

Test Input:

For "send" capability, the MSS Fault Management Application opens the RS. Enter the "send status" command to send system management information. Enter the "send netstatus" command to send network information from ECS. Enter the "send reqnet" command to send request for ASTER GDS network management information.

For the "receive" capability, the SS opens the MSS Fault Management Application and issues the above commands.

Test Output:

For "send" capability, the RS shows CPU status, network status data and the request data.

For "receive" capability, the MSS Fault Management Application shows CPU status, network status data and the request data.

Success Criteria:

For "send" capability, the RS receives CPU status inf., network status inf., request and displays it.

For "receive" capability, the MSS Fault Management Application receives CPU status inf., network status inf., request and displays it.

L3 Requirements:

ASTER-1000#B, ASTER-1005#B, ASTER-1010#B, ASTER-1015#B

L4 Requirements:

C-MSS- 60240, C-MSS-60242, C-MSS-60244, C-MSS-60246, C-MSS-60248, C-MSS-60250

4.2.1.10.3 Test Case 3: Fault Management Service for SAA (T252-50.02.03)

This test verifies the MSS Fault Management Application Service have the capability to send/receive network management information to/from SAAs.

Test Configuration:

- Hardware: Workstations, X-terminal.
- Software: Release B, a receiver simulator (RS), and a sender simulator (SS)
- Data:
- Tools: XRunner

Test Input:

For "send" capability, the MSS Fault Management Application opens the RS. Enter the "send netstatus" command to send network management information to the SAAs.

For the "receive" capability, the SS opens the MSS Fault Management Application. Enter the "send netstatus" command to receive network management information from the SAAs.

Test Output:

For "send" capability, the RS shows network status data .

For "receive" capability, the MSS Fault Management Application shows network status data .

Success Criteria:

For "send" capability, the RS receives network status inf. and displays it.

For "receive" capability, the MSS Fault Management Application receives network status inf. and displays it.

L3 Requirements:

NOAA-0600#B, NOAA-0610#B

L4 Requirements:

C-MSS- 60252, C-MSS-60254

4.2.1.10.4 Test Case 4: Fault Management Service for MMO (T252-50.02.04)

This test verifies the MSS Fault Management Application Service have the capability to send/receive System Management Status to/from MMOs.

Test Configuration:

- Hardware: Workstations, X-terminal.
- Software: Release B, a receiver simulator (RS), and a sender simulator (SS)
- Data:
- Tools: XRunner

Test Input:

For "send" capability, the MSS Fault Management Application opens the RS. Enter the "send status" command to send system management information to the MMOs.

For the "receive" capability, the SS opens the MSS Fault Management Application. Enter the "send status" command to receive system management information from the MMOs.

Test Output:

For "send" capability, the RS shows CPU status data .

For "receive" capability, the MSS Fault Management Application shows CPU status data.

Success Criteria:

For "send" capability, the RS receives CPU status info and displays it.

For "receive" capability, the MSS Fault Management Application receives CPU status inf. and displays it.

L3 Requirements:

LAND-0120#B, LAND-0130#B

L4 Requirements:

C-MSS- 60260, C-MSS-60262

4.2.1.10.5 Test Case 5: Fault Management Service for NSI (T252-50.02.05)

This test verifies the MSS Fault Management Application Service have the capability to query from NSI periodic summary information about fault and information such as fault status, estimated time to repair, fault resolution that may have affected the quality of NSI services between ECS and its users.

Test Configuration:

- Hardware: Workstations, X-terminal
- Software: Release B, a receiver simulator (RS)
- Data:
- Tools: XRunner

Test Input:

For query NSI information, the MSS Fault Management Service opens the RS. Enter the "qry faultStatus" command, or "qry timeRepair" command, or "qry result" command.

For query NSI periodic fault summary information, the MSS Fault Management Service opens the RS. Enter the "qry suminfo" command

Test Output:

For query NSI information, the MSS Fault Management Service receives and display the query results.

For query NSI periodic fault summary information, the MSS Fault Management Service receives and display the summary which contains the faults information.

Success Criteria:

For query NSI information, the RS receives the query and reply to MSS Fault Management Service with fault status, time to repair, and resolution.

For query NSI periodic fault summary information, the MSS Fault Management Service receives the fault information.

L3 Requirements:

LAND-0130#B

L4 Requirements:

C-MSS-60264, C-MSS- 60266, C-MSS-60268

4.2.1.10.6 Test Case 6: Fault Management Service for NOLAN (T252-50.02.06)

This test verifies the MSS Fault Management Application Service have the capability to receive from NOLAN, notification of faults in the NOLAN network, information regarding fault status and estimated time to repair or resolve NOLAN faults, and periodic summary information about faults that may affect the quality of NOLAN services between ECS and its users.

Test Configuration:

- Hardware: Workstations, X-terminal
- Software: Release B, a sender simulator (SS)
- Data:
- Tools: XRunner

Test Input:

For receive fault notification, the SS opens the MSS Fault Management Service . Enter the "send notice" command

For receive NOLAN information, the SS opens the MSS Fault Management Service. Enter the "send faultStatus" command, or "send timeRepair" command, or "send result" command.

For receive NOLAN periodic fault summary information, the SS opens the MSS Fault Management Service. Enter the "send suminfo" command

Test Output:

For receive fault notification, the MSS Fault Management Service receives and displays the notification.

For receive NOLAN information, the MSS Fault Management Service receives and display the results of information.

For receive NOLAN periodic fault summary information, the MSS Fault Management Service receives and display the summary which contains the faults information.

Success Criteria:

For receive notification, the MSS Fault Management Service receives notification of breaches.

For receive NOLAN information, the SS receives the request and reply to MSS Fault Management Service with fault status, time to repair, and resolution.

For receive NOLAN periodic fault summary information, the MSS Fault Management Service receives the fault summary information.

L3 Requirements:

NI-0430#B, NI-0440#B, NI-0450#B

L4 Requirements:

C-MSS- 60278, C-MSS-60280, C-MSS-60282

4.2.1.10.7 Test Case 7: Performance Management Service for ASTER GDS (T252-50.02.07)

This test verifies the MSS performance Management Application Service have the capability to send ECS system management information, ECS network management information, requests for ASTER GDS to ASTER GDS, and to receive ASTER GDS system management information, ASTER GDS network management information, requests for ECS network management information from ASTER GDS.

Test Configuration:

- Hardware: Workstations, X-terminal
- Software: Release B, a receiver simulator (RS), and a sender simulator (SS)
- Data:
- Tools:

Test Input:

For "send" capability, the MSS Performance Management Application opens the RS. Enter the "send status" command to send system management information. Enter the "send netstatus" command to send network information from ECS. Enter the "send reqnet" command to send request for ASTER GDS network management information.

For the "receive" capability, the SS opens the MSS Performance Management Application and issues the above commands.

Test Output:

For "send" capability, the RS shows CPU status, network status data and the request data.

For "receive" capability, the MSS Performance Management Application shows CPU status, network status data and the request data.

Success Criteria:

For "send" capability, the RS receives CPU status inf., network status inf., request and displays it.

For "receive" capability, the MSS Performance Management Application receives CPU status inf., network status inf., request and displays it.

L3 Requirements:

ASTER-1000#B, ASTER-1005#B, ASTER-1010#B, ASTER-1015#B

L4 Requirements:

C-MSS- 66500, C-MSS-66505, C-MSS-66510, C-MSS-66515, C-MSS-66520, C-MSS-66525

4.2.1.10.8 Test Case 8: Performance Management Service for SAA (T252-50.02.08)

This test verifies the MSS Performance Management Application Service have the capability to send/receive Network Management information to/from the SAAs.

Test Configuration:

- Hardware: Workstations, X-terminal
- Software: B, a receiver simulator (RS), and a sender simulator (SS)
- Data: Acc
- Tools:

Test Input:

For "send" capability, the MSS Performance Management Application opens the RS. Enter the "send netstatus" command to send network management information to the SAAs.

For the "receive" capability, the SS opens the MSS Performance Management Application. Enter the "send netstatus" command to receive network management information from the SAAs.

Test Output:

For "send" capability, the RS shows network status data .

For "receive" capability, the MSS Performance Management Application shows network status data .

Success Criteria:

For "send" capability, the RS receives network status inf. and displays it.

For "receive" capability, the MSS Performance Management Application receives network status inf. and displays it.

L3 Requirements:

NOAA-0600#B, NOAA-0610#B

L4 Requirements:

C-MSS- 66530, C-MSS-66535

4.2.1.10.9 Test Case 9: Performance Management Service for MMO (T252-50.02.09)

This test verifies the MSS Performance Management Application Service have the capability to send/receive System Management status to/from the MMO.

Test Configuration:

- Hardware: Workstations
- Software: Release B, a receiver simulator (RS), and a sender simulator (SS)
- Data:
- Tools:

Test Input:

For "send" capability, the MSS Performance Management Application opens the RS. Enter the "send status" command to send system management information to the MMOs.

For the "receive" capability, the SS opens the MSS Performance Management Application. Enter the "send status" command to receive system management information from the MMOs.

Test Output:

For "send" capability, the RS shows CPU status data .

For "receive" capability, the MSS Performance Management Application shows CPU status data.

Success Criteria:

For "send" capability, the RS receives CPU status info and displays it.

For "receive" capability, the MSS Performance Management Application receives CPU status inf. and displays it.

L3 Requirements:

LAND-0120#B, LAND-0130#

L4 Requirements:

C-MSS- 66550, C-MSS-66555

4.2.1.10.10 Test Case 10: Performance Management Service for NSI, NOLAN (T252-50.02.10)

This test verifies the MSS Performance Management Application Service have the capability to query from NSI periodic reports of link utilization and transmission errors, reflecting or summarizing NSI performance measurements over various time intervals. It also have the capability to receive, from NOLAN, periodic information regarding NOLAN network performance and link utilization.

Test Configuration:

- Hardware: Workstations, X-terminal
- Software: Release B, a receiver simulator (RS), and a sender simulator (SS)
- Data: Acc
- Tools: XRunner

Test Input:

For receive from NSI, summarizing or reflecting NSI performance measurements, the Performance Management Service opens the RS. Enter the "qry rpt" command.

For receive from NOLAN, periodic information and link utilization, the SS opens the Performance Management Service. Enter the "send netdata" command to send information about NOLAN network and link data.

Test Output:

For receive from NSI, the Performance Management Service receives and display the report which contains the error and performance data.

For receive from NOLAN, the Performance Management Service displays the summary.

Success Criteria:

The RS receive the query and reply to Performance Management Service with performance measurements data.

For receive from NOLAN, the Performance Management Service accepts and displays NOLAN network data.

L3 Requirements:

NI-0460#B, LAND-0130#B

L4 Requirements:

C-MSS- 66560, C-MSS-66585

4.2.1.10.11 Test Case 11: Security Management Service for ASTER GDS (T252-50.02.11)

This test verifies the MSS Security Management Application Service have the capability to send ECS System Management information to the ASTER GDS and receive ASTER GDS System Management information from the ASTER GDS.

Test Configuration:

- Hardware: Workstations, X-terminal
- Software Release B, a receiver simulator (RS), and a sender simulator (SS)
- Data:
- Tools: XRunner

Test Input:

For "send" capability, the MSS Security Management Application opens the RS. Enter the "send status" command to send system management information to the ASTER GDS.

For the "receive" capability, the SS opens the MSS Security Management Application. Enter the "send status" command to receive system management information from the ASTER GDS.

Test Output:

For "send" capability, the RS shows CPU status data .

For "receive" capability, the MSS Security Management Application shows CPU status data.

Success Criteria:

For "send" capability, the RS receives CPU status inf. and displays it.

For "receive" capability, the MSS Security Management Application receives CPU status inf. and displays it.

L3 Requirements:

ASTER-1000#B, ASTER-1010#B

L4 Requirements:

C-MSS- 70470, C-MSS-70472

4.2.1.10.12 Test Case 12: Security Management Service for MMO (T252-50.02.12)

This test verifies the Security Management Service have the capability to send and receive System Management status to and from the MMO.

Test Configuration:

- Hardware: Workstations, X-terminal
- Software: Release B, a receiver simulator (RS), and a sender simulator (SS)
- Data:
- Tools: XRunner

Test Input:

For "send" capability, the MSS Security Management Application opens the RS. Enter the "send status" command to send system management information to the MMO.

For the "receive" capability, the SS opens the MSS Security Management Application. Enter the "send status" command to receive system management information from the MMO.

Test Output:

For "send" capability, the RS shows CPU status data .

For "receive" capability, the MSS Security Management Application shows CPU status data.

Success Criteria:

For "send" capability, the RS receives CPU status inf. and displays it.

For "receive" capability, the MSS Security Management Application receives CPU status inf. and displays it.

L3 Requirements:

LAND-0120#B, LAND-0130#B

L4 Requirements:

C-MSS- 70474, C-MSS-70476

4.2.1.10.13 Test Case 13: Security Management Service for NSI (T252-50.02.13)

This test verifies the Security Management Service have the capability to send to NSI, notification of security breaches at ECS facilities that could affect NSI and other EOSDIS sites. It also has the capability to receive from NSI, notification of security breaches at NSI sites or within the NSI network that could potentially affect ECS sites.

Test Configuration:

- Hardware: Workstations, X-terminal
- Software: Release B, a receiver simulator (RS), and a sender simulator (SS)
- Data:
- Tools: XRunner

Test Input:

For "send" capability, the Security Management Service opens the RS. Enter the "send notice" command to send to NSI, notification of security breaches at ECS facilities.

For "receive" capability, the SS opens the Security Management Service. Enter the "send notice" command.

Test Output:

For "send" capability, the RS displays the notification.

For "receive" capability, the Security Management Service displays the notification.

Success Criteria:

For "send" capability, the Security Management Service detects the ECS security breaches and sends notification to RS.For "receive" capability, the Security Management Service accepts and displays the NSI security breaches.

L3 Requirements:

NSI-0070#B, NSI-0080#B

L4 Requirements:

C-MSS- 70478, C-MSS-70480

4.2.1.10.14 Test Case 14: Security Management Service for NOLAN (T252-50.02.14)

This test verifies the Security Management Service have the capability to send to NOLAN, notifications of security breaches at ECS facilities that could affect NOLAN and other EOSDIS sites. It also has the capability to receive from NOLAN, notifications of security breaches at NOLAN network that could potentially affect ECS sites.

Test Configuration:

- Hardware: Workstations, X-terminal
- Software: Release B, a receiver simulator (RS), and a sender simulator (SS)

- Data:
- Tools: XRunner

Test Input:

For "send" capability, the Security Management Service opens the RS. Enter the "send notice" command to send to NOLAN, notification of security breaches at ECS facilities.

For "receive" capability, the SS opens the Security Management Service. Enter the "send notice" command.

Test Output:

For "send" capability, the RS displays the notification.

For "receive" capability, the Security Management Service displays the notification.

Success Criteria:

For "send" capability, the Security Management Service detects the ECS security breaches and sends notification to RS.

For "receive" capability, the Security Management Service accepts and displays the NOLAN security breaches.

L3 Requirements:

NI-0470#B, NI-0480#B

L4 Requirements:

C-MSS- 70482, C-MSS-70484

4.2.1.11 Mode Management Thread (T252-60.02)

This thread testing is performed to verify the test/training environment can be executed simultaneously with the operational system environment. Testing is also performed to verify the mode management service is capable of interfacing with performance management, fault management, management data access.

4.2.1.11.1 Test Case 1: Performance Management of Concurrent Application Execution (T252-60.02.01)

This test verifies that the capability of the performance management during the concurrent execution of a test mode and production mode.

Test Configuration:

- Hardware: DCE cell, Workstation, X terminal
- Software: mode management application

- Data: mode management script
- Tools: XRunner, HPOpenView

Test Input:

1. Log onto the system and start-up the Application in production mode.
2. Initialize a test mode environment with a given mode ID and home directory, and monitor/control the test mode environment.
3. Initialize another production mode, then initialize another test mode with a simulated time value.
4. Invoke the Performance Management application to monitor the performance statistics.

Test Output:

HP OpenView shows the successful initialization of various test mode of application, performance management statistics is displayed.

Successful Criteria:

Test mode and not more than one production mode can be executed concurrently.

Error message is displayed when the second production mode is initialized.

Correct performance statistics are displayed.

L3 Requirements:

EOSD-0510#B, EOSD-0630#B, EOSD-0720#B, EOSD-0780#B, EOSD-1040#B, FOS-0025#B, EOC-9510#B, SMC-3300#B, SMC-3305#B

L4 Requirements:

C-MSS-56010, C-MSS-56020, C-MSS-56040, C-MSS-56060, C-MSS-56070, C-MSS-56082, C-MSS-56084, C-MSS-56086, C-MSS-56088, C-MSS-56092, C-MSS-56094, C-MSS-56096, C-MSS-56098, C-MSS-56100, C-MSS-56102, C-MSS-66002, C-MSS-66004, C-MSS-66006.

4.2.1.11.2 Test Case 2: Fault Management of Concurrent Execution (T252-60.02.02)

This test verifies that the capability of the Fault Management during concurrent execution of a training mode and production mode, and invalid process is started to display the error detection.

Test Configuration:

- Hardware: DCE cell, Workstation, X terminal
- Software: mode management application

- Data: mode management script
- Tools: XRunner, HPOpenView

Test Input:

1. Log onto the system and start-up the Application in production mode.
2. Initialize a training mode environment with a given mode ID and home directory, and monitor/control the test mode environment.
3. Initialize another production mode, then initialize another training mode with a simulated time value.
4. Invoke the Fault Management application to monitor the fault statistics.
5. Initialize a training mode with a invalid mode ID, and monitor fault detection and statistics in the Fault Management application.

Test Output:

HP OpenView shows the successful initialization of various training mode of application, but display errors when more than one production is started. Fault Management application display statistics and error detection message.

Successful Criteria:

Training modes and not more than one production mode can be executed concurrently.

Error message is displayed when the second production mode is initialized, and when an invalid training mode ID is executed. Correct statistics and error detection are displayed.

L3 Requirements:

EOSD-0510#B, EOSD-0630#B, EOSD-0780#B, FOS-0020#B, FOS-0025#B, EOC-9510#B, SMC-3300#B, SMC-3305#B

L4 Requirements:

C-MSS-56010, C-MSS-56030, C-MSS-56050, C-MSS-56060, C-MSS-56070, C-MSS-56082, C-MSS-56084, C-MSS-56086, C-MSS-56088, C-MSS-56090, C-MSS-56092, C-MSS-56094, C-MSS-56096, C-MSS-56098, C-MSS-56100, C-MSS-60012, C-MSS-60014, C-MSS-60016

4.2.1.11.3 Test Case 3: Management Agent and Mode Management (T252-60.02.03)

This test verifies that the capability of the Management Agent CI is capable of obtaining mode ID of application, incorporating to metrics and be able to distinguish the application based on mode.

Test Configuration:

- Hardware: DCE cell, Workstation, X terminal
- Software: mode management application
- Data: mode management script
- Tools: XRunner, HPOpenView

Test Input:

1. After initializing test mode and the production mode of application, invoking the Management Agent to check mode IDs of both modes.
2. Select one mode ID, the Agent displays the application process name and its processing metrics. Select the test mode, the Agent brings up the test application.

Test Output:

HP OpenView bring up the Agent window. After selecting a mode ID, the application of the selected mode is displayed along with the metrics of the application.

Success Criteria:

The HP OpenView shows the correct application of a given mode.

L3 Requirements:

EOSD-0510#B, EOSD-0630#B

L4 Requirements:

C-MSS-36012, C-MSS-36014, C-MSS-36016.

4.2.1.11.4 Test Case 4: Support Services of Mode Management (T252-60.02.04)

This test verifies that the Management Framework service, Cost Accounting service, and Report Generation service are provided to the application of a given mode.

Test Configuration:

- Hardware: DCE cell, Workstation, X terminal
- Software: mode management application
- Data: mode management script
- Tools: XRunner, HPOpenView

Test Input:

1. Bring up the Management Framework main menu and select the application and supply its mode ID and home directory, the information and status of this application is shown.

2. Bring up the Cost Accounting service menu and select the application and supply its mode ID, it shows the resource unit cost.
3. Bring up Report Generation service, select the application of a given mode and print out the accounting report.

Test Output:

The status, accounting data of the application of a selected mode are available and can be printed out.

Success Criteria:

The requested information is available when the supporting services are invoked.

L3 Requirements:

EOSD0510#B, EOSD-0630#B, SMC-6380#B, SMC-8300#B

L4 Requirements:

C-MSS-56102, C-MSS-79915, C-MSS-92015.

4.2.1.11.5 Test Case 5: Management Data Access and Mode Management (T252-60.02.05)

This test verifies that the capability of the Management Data Access (MDA) service to support a separate MSS log file and management database for each mode, and can transfer MSS log file records to the database of the mode.

Test Configuration:

- Hardware: DCE cell, Workstation, X terminal
- Software: mode management application
- Data: mode management script
- Tools: XRunner, HPOpenView

Test Input:

1. After initializing the test mode and production mode of the application, bringing up the MDA.
2. Select one mode of the application in the MDA, the log file names and the database name associated with this mode of application appears.
3. Add or FTP all MSS log files (mode or non-mode specific) to the database of this application of a given mode.
4. Bring up the database and review the log data in the database.

Test Output:

The MSS log file records are transferred to the application's database of the selected mode.

Success Criteria:

The application's database of the selected mode shows the MSS log file records.

L3 Requirements:

EOSD-0510#B, EOSD-0630#B, EOSD-2440#B

L4 Requirements:

C-MSS-18042, C-MSS-18044, C-MSS-18046, C-MSS-18048.

4.2.1.12 Hardware Configuration Item Thread (T250-10.02)

This build will focus on DAAC's hardware configuration functions, it provides the DAACs with the basic infrastructure for the capability of operations and inter-connectivity, and the capability for application to send and receive data from and to the instruments and community users.

Testing is performed to verify the three services of the inter-networking system: transport, network, datalink/physical. Testing will verify LAN/WAN connections between DAAC LAN and EBnet via transport service. Transport services are provided between DAACs, SMC and EOC internally and externally. Testing is performed to verify the functional, performance, RMA, security and evolvability requirements of the subsystems.

Verification of the DAAC's hardware configuration will focus on servers, and workstations' capabilities in processing speed, storage capacity, and capacity and performance characteristics. In addition to these capabilities the hardware configurations will also be inspected for data storage/archival and upgradeable/replaceable capabilities. The number and type/characteristics of peripherals and components will be verified along with comparing appropriate servers to verify identical functionality and physical configuration and interactions.

The Servers will be inspected to establish that they have been configured according to local DAAC policies and preserve other DAAC autonomy of operations.

4.2.1.12.1 Test Case 1: CSS-DCHW CI Enterprise Communications (T250-10.02.01)

This test case verifies that the processors and the peripheral equipment provided by the Enterprise Communications Server meet the requirements established by the CSS system design. This is a regression test which is associated with test case BC010.012, BC010.013, and BC010.014 of Release A.

Test Configuration:

- Hardware: Enterprise Communications Server configuration and configuration associated with the SMC function of Gathering and Disseminating System Management Information

- Software: Enterprise Communications Server configuration and configuration associated with the SMC function of Gathering and Disseminating System Management Information
- Data: Checklist
- Tools: TBD

Test Input:

Test inputs include inspection and analysis of processes and procedures, peripherals, POSIX compliant vendor operating systems, inspection of data storage, upgrades to the disk drives, data, various tapes, and a CD. Actions will be performed to complete the following:

1. Inspect the Enterprise Monitoring Server and the Enterprise Communications Server and verify that they are physically and functionally identical.
2. Verify that the Enterprise Communications Server shares data with the Local Communications Server.
3. Analyze the functionality of the Enterprise Communications Server and verify that it does not interfere with operational processes, during normal operations, in the DAAC.
4. Inspect the Enterprise Communications Server and verify that the CSS software configuration items are maintained by the server. Verify that the Management Workstations and Enterprise Monitoring Server communicate along with the Enterprise Communications server to create a local system management and coordination center for each ECS DAAC.
5. Verify that a dedicated terminal to be used as a local systems operations console is included in the Enterprise Communications Server processor and that the processor terminal is compatible with the Management Workstation display device.
6. Verify that the processor is expandable with additional quantities and types of peripherals and upgradeable/replaceable within the same product family without major software modifications or replacement of any attached component or peripheral.
7. Verify that the operating system is POSIX compliant IEEE 1003.1 and that the Enterprise Communications Server data storage is compatible with several vendor's POSIX compliant operating systems.
8. Verify that the Enterprise Communications Server data storage is compatible with the Local Communications Server's short term data storage.
9. Verify that the Enterprise Communications Server data storage supports RAID level 5: striping with interleaved parity. Also, verify that it contains the following hot replaceable components: Disks, Power Supplies, Fans, and Disk-array controllers.
10. Verify that the Enterprise Communications Server data storage and the Enterprise Monitoring Server data storage are cross-strapped.

11. Inspect the Enterprise Communications Server and verify that the data can be archived to the ECS Data Server archive for long term storage.

12. Verify that the data storage and retrieval meet ECS Data Server archival requirements.

13. Verify that data can be retrieved by the Enterprise Communications Server peripheral disk drives from both the Enterprise Communications Server data storage and data archive.

14. Verify that one tape drive and one CD-ROM drive are supported by the Enterprise Communications Server peripherals.

15. Verify that the Enterprise Communications Server peripheral tape drive supports 4mm Digital Audio Tape format, accepts industry standard magnetic 4mm DAT (i.e. DDS-90), provides data transfer rate of 200KB/sec, and is upgradeable/replaceable within the same product family.

16. Verify that the Enterprise Communications Server peripheral CD-ROM drive accepts 600MB compact disks and is upgradeable/replaceable within the same product family.

17. Verify that the Enterprise Communications Server maintains one backup of all software and key data items in a separate physical location, meets the prescribed capacity and performance characteristics, and is capable of 100 percent growth in both processing speed and storage capacity without modifications or upgrades to software.

18. Verify that the hardware selection criteria of the Enterprise Communications Server meets the overall ECS security policies and system requirements.

19. Analyze the Enterprise Communications Server and verify that it is configured to provide autonomous DAAC security perimeter, FOS isolation, and an ISO CELL ECS security perimeter.

20. Verify that the Enterprise Communications Server at the SMC shall be configured to support the SMC function of Gathering and Disseminating System Management Information's Availability requirement of 0.998 and a Mean Down Time of 20 minutes during times of staffed operation.

Test Output:

A checklist showing success or failure for each requirement.

Success Criteria:

This test is successful when all the above requirements are met.

L3 Requirements:

EOSD-0030#B, EOSD-1703#B, EOSD-2200#B, EOSD-3200#B, EOSD-4030#B, EOSD-4035#B, EOSD-5020#B, SMC-0300#B, SMC-0310#B, SMC-2320#B, SMC-2510#B, NI-1000#B, ASTER-2000#B, ASTER-2080#B

L4 Requirements:

C-CSS-02000, C-CSS-02010, C-CSS-02020, C-CSS-02030, C-CSS-02100, C-CSS-02110, C-CSS-02120, C-CSS-02130, C-CSS-02140, C-CSS-02200, C-CSS-02210, C-CSS-02220, C-CSS-02230, C-CSS-02240, C-CSS-02250, C-CSS-02260, C-CSS-02300, C-CSS-02400, C-CSS-02410, C-CSS-02420, C-CSS-02430, C-CSS-02500, C-CSS-02510, C-CSS-02520, C-CSS-03700, C-CSS-03710, C-CSS-03740, C-CSS-03800, C-CSS-03820, C-CSS-03900, C-CSS-03940.

4.2.1.12.2 Test Case 2: CSS-DCHW CI Local Communications Server (T250-10.02.02)

This test case verifies that the processors and the peripheral equipment provided by the Local Communications Server meet the requirements established by the CSS system design. This is a regression test which is associated with test case BC010.013 of Release A.

Test Configuration:

- Hardware: Local Communications Server configuration
- Software: Local Communications Server configuration
- Data: Checklist
- Tools: TBD

Test Input:

Test inputs include inspection and analysis of processes and procedures, peripherals, POSIX compliant vendor operating systems, inspection of data storage, upgrades to the disk drives, data, various tapes, and a CD. Actions will be performed to complete the following:

1. Inspect the Local Management Server and the Local Communications Server and verify that they are physically and functionally identical.
2. Verify that the Enterprise Communications Server shares data with the Local Communications Server.
3. Analyze the functionality of the Local Communications Server and verify that it is configurable according to local DAAC user authentication/authorization policy and does not interfere with operational processes, during normal operations, in the DAAC.
4. Inspect the Local Communications Server and verify that the CSS software configuration items are maintained by the server. Verify that the Management Workstations and Local Management Server communicate along with the Local Communications server to create a local system management and coordination center for each ECS DAAC.
5. Verify that a dedicated terminal to be used as a local systems operations console is included in the Local Communications Server processor and that the processor terminal is compatible with the Management Workstation display device.

6. Verify that the processor is expandable with additional quantities and types of peripherals and upgradeable/replaceable within the same product family without major software modifications or replacement of any attached component or peripheral.

7. Verify that the operating system is POSIX compliant IEEE 1003.1 and that the Local Communications Server data storage is compatible several vendor's POSIX compliant operating systems.

8. Verify that the Local Communications Server short-term data storage is compatible with the Enterprise Communications Server's intermediate-term data storage.

9. Verify that the Local Communications Server data storage supports RAID level 5: striping with interleaved parity. Also, verify that it contains the following hot replaceable components: Disks, Power Supplies, Fans, and Disk-array controllers.

10. Verify that the Local Communications Server data storage and the Local Communications Server data storage are cross-strapped.

11. Inspect the Local Communications Server and verify that the data can be archived to the ECS Data Server archive for long term storage.

12. Verify that the data storage and retrieval meet ECS Data Server archival requirements.

13. Verify that data can be retrieved by the Local Communications Server peripheral disk drives from both the Local Communications Server data storage and data archive.

14. Verify that one tape drive and one CD-ROM drive are supported by the Local Communications Server peripherals.

15. Verify that the Local Communications Server peripheral tape drive supports 4mm Digital Audio Tape format, accepts industry standard magnetic 4mm DAT (i.e. DDS-90), provides data transfer rate of 200KB/sec, and is upgradeable/replaceable within the same product family.

16. Verify that the Local Communications Server peripheral CD-ROM drive accepts 600MB compact disks and is upgradeable/replaceable within the same product family.

17. Verify that the Local Communications Server maintains one backup of all software and key data items in a separate physical location, meets the prescribed capacity and performance characteristics, and is capable of 100 percent growth in both processing speed and storage capacity without modifications or upgrades to software.

18. Verify that the hardware selection criteria of the Local Communications Server meets the overall ECS security policies and system requirements.

19. Analyze the Local Communications Server and verify that it is configured to provide autonomous DAAC security perimeter, FOS isolation, and an ISO CELL ECS security perimeter.

Test Output:

A checklist showing success or failure for each requirement.

Success Criteria:

This test is successful when all the above requirements are met.

L3 Requirements:

EOSD-0030#B, EOSD-1703#B, EOSD-2200#B, EOSD-3200#B, EOSD-4030#B, EOSD-4035#B, EOSD-5020#B, SMC-0300#B, SMC-0310#B, SMC-2320#B, SMC-2510#B

L4 Requirements:

C-CSS-02600, C-CSS-02610, C-CSS-02620, C-CSS-02630, C-CSS-02700, C-CSS-02710, C-CSS-02720, C-CSS-02730, C-CSS-02740, C-CSS-02800, C-CSS-02810, C-CSS-02820, C-CSS-02830, C-CSS-02840, C-CSS-02850, C-CSS-02860, C-CSS-02900, C-CSS-03000, C-CSS-03010, C-CSS-03020, C-CSS-03030, C-CSS-03100, C-CSS-03110, C-CSS-03120, C-CSS-03720, C-CSS-03730, C-CSS-03750, C-CSS-03800, C-CSS-03820, C-CSS-03910

4.2.1.12.3 Test Case 3: CSS-DCHW CI Bulletin Board Server (T250-10.02.03)

This test case verifies that the processors and the peripheral equipment provided by the Bulletin Board Server meet the requirements established by the CSS system design. This is a regression test which is associated with test case BC010.014 of Release A.

Test Configuration:

- Hardware: Bulletin Board Server configuration
- Software: Bulletin Board Server configuration
- Data: Checklist
- Tools: TBD

Test Input:

Test inputs include inspection and analysis of processes and procedures, and hardware associated with the Bulletin Board Server, POSIX compliant vendor operating systems, inspection of data storage, data, various tapes, and a CD. Actions will be performed to complete the following:

1. Verify that the Bulletin Board Server shares data with the Enterprise Communications Server.
2. Analyze the functionality of the Bulletin Board Server and verify that it is configurable according to local DAAC user authentication/authorization policy, it does not interfere with operational processes (during normal operations) in the DAAC, and provides an integrated view of ECS for user registration, account administration, and authentication/authorization to ECS services.

3. Inspect the Bulletin Board Server and verify that the CSS software configuration items are maintained by the server to create a single, secure unified access to all ECS services. Also, verify that ECS client software and toolkits are located in the server for ECS-external distribution.

4. Verify that a dedicated terminal to be used as a local systems operations console is included in the Bulletin Board Server processor and that the processor terminal is compatible with the Management Workstation display device.

5. Verify that the processor is expandable with additional quantities and types of peripherals and upgradeable/replaceable within the same product family without the need for any perturbation of any software modifications or replacement of any attached component or peripheral.

6. Verify that the operating system is POSIX compliant IEEE 1003.1 and that the Bulletin Board Server data storage is compatible several vendor's POSIX compliant operating systems.

7. Inspect the Bulletin Board Server and verify that the data can be archived to the ECS Data Server archive for long term storage and software/toolkit safe store.

8. Verify that the data storage and retrieval meet ECS Data Server archival requirements.

9. Verify that one tape drive and one CD-ROM drive are supported by the Bulletin Board Server peripherals.

10. Verify that the Bulletin Board Server peripheral tape drive supports 4mm Digital Audio Tape format, accepts industry standard magnetic 4mm DAT (i.e. DDS-90), provides data transfer rate of 200KB/sec, and is upgradeable/replaceable within the same product family.

11. Verify that the Bulletin Board Server peripheral CD-ROM drive accepts 600MB compact disks and is upgradeable/replaceable within the same product family.

12. Verify that the Bulletin Board Server meets the prescribed capacity and performance characteristics.

13. Verify that the hardware selection criteria of the Bulletin Board Server meets the overall ECS security policies and system requirements and provides a security perimeter for ECS.

Test Output:

A checklist showing success or failure for each requirement.

Success Criteria:

This test is successful when all the above requirements are met.

L3 Requirements:

EOSD-0030#B, EOSD-1703#B, EOSD-2200#B, EOSD-4030#B, EOSD-4035#B, EOSD-5020#B, SMC-2320#B, SMC-2510#B, SMC-2620#B, ESN-1360#B

L4 Requirements:

C-CSS-0320, C-CSS-03210, C-CSS-03220, C-CSS-03230, C-CSS-03300, C-CSS-03310, C-CSS-03320, C-CSS-03330, C-CSS-03340, C-CSS-03400, C-CSS-03410, C-CSS-03420, C-CSS-03500, C-CSS-03510, C-CSS-03520, C-CSS-03530, C-CSS-03600, C-CSS-03610, C-CSS-03620, C-CSS-03760, C-CSS-03800, C-CSS-03810

4.2.1.12.4 Test Case 4: ISS Functional Requirements (T250-10.02.04)

This test verifies the functional requirements of Release B LANs. The purpose of this test is to ensure that the ISS service is capable of providing the connectivity between the LANs, and with WAN or EBnet. Please refer to the Release A's testcase TCxxx.xxx.

Test Configuration:

- Hardware: DAAC LAN, WAN
- Software: ISS Interface
- Data: Configuration file, Checklist
- Tools: LoadRunner

Test Input:

Input to this testcase includes operator actions of the followings:

1. Verify that all physical devices and MAC protocols follow the standards: IEEE 802.2, IEEE 802.3, IEEE 802.6, ANSI X3T9.5.
2. Verify that the components and services can be monitored via SNMP agent.
3. Verify that the LAN Analyzer provides line monitor and protocol analysis of LAN and WAN interconnection.
4. Verify that DAAC LANs provide transparent portability across all LAN sites, and can enable expansion to Gbnet networks.
5. Verify that ISS can interface with NSI at all DAACs for science user access.
6. Verify that ISS provides connectivity between ECS and V0 network nodes at DAACs, between EOC and EBnet, between EOC and NSI, between EBnet and all DAACs.
7. Verify that ISS provides LAN connectivity and OSI Layer 1 to 4 at all DAACs.
8. Verify that ISS LANs has expandable by adding nodes and LAN segments.
9. Verify that ISS can send and receive diagnostic test requests to and from the MSS.

Test Output:

A Configuration file, Checklist showing the connectivity pass or failure for each requirement.

Success Criteria:

Successful connection between Release B sites and components for data transferring.

L3 Requirements:

EOSD-0010#B, EOSD-0015#B, EOSD-0020#B, EOSD-1695#B, EOSD-5100#B, EOSD-5070#b, NI-0010#B, NI-0020#B, NI-0030#B, NI-0110#B, NI-0210#B, NI-0220#B, NI-0230#B, NI-0310-a#B, NI-0310-b#B, AM1-1060#B, V0-0055#B, ESN-0010#B, ESN-0003#B, ESN-0006#B, ESN-0010#B, ESN-0070#B, ESN-0240#B, ESN-0620#B, ESN-0640#B, ESN-0650#B, ESN-1010#B, ESN-1207#B, ESN-1350#B, ESN-1365#B, ESN-1367#B

L4 Requirements:

C-ISS-02100, C-ISS-02110, C-ISS-02200, C-ISS-02210, C-ISS-02230, C-ISS-02250, C-ISS-02600, C-ISS-02610, C-ISS-11020, C-ISS-11090, C-ISS-11170, C-ISS-11180, C-ISS-11195, C-ISS-11220, C-ISS-11230, C-ISS-11240, C-ISS-11250, C-ISS-11260, C-ISS-20000, (C-ISS-20100), C-ISS-20110, C-ISS-20180, C-ISS-20120, C-ISS-20130, C-ISS-20140, C-ISS-20150, C-ISS-20160, C-ISS-20170, C-ISS-21010, C-ISS-20200.

4.2.1.12.5 Test Case 5: ISS Performance Requirements (T250-10.02.05)

This test verifies the performance requirements of Release B LANs. The purpose of this test is to ensure that the ISS service is capable of meeting the required speed and data volume between the LANs, and with WAN or EBnet. Please also refer to the Release A's testcase TCxxx.xxx.

Test Configuration:

- Hardware: DAAC LAN, WAN
- Software: ISS Interface
- Data: Configuration file, Checklist
- Tools: LoadRunner

Test Input:

Input to this test includes operator actions of the followings:

1. Verify that all the line monitor -store and display up to 10,000 bytes of data sent and received at rate of 10Mbits/sec to 100Mbits/sec.
2. Verify that EOC LAN loop delay is less than 500 msec. of the total ECS delay of 2.5 seconds for real-time commands, the backbone supports reak rate 24 Mbps.

3. Verify that ISS support sufficient WAN and LAN network bandwidth at each DAAC, and supports twice the R-A network traffic load.
4. Verify that EOC Operational LAN supports 230 network devices and peak data rates up to 48 Mbps.
5. Verify that ISS CI contributes to the response time and performance requirements in the current requirement specification.
6. Verify that the portion of DAAC LAN supporting Data Acquisition Request submittal contributes to the availability of .993at the downtime of two hours or less during staffed operation.

Test Output:

A Configuration file, Checklist showing whether the standard is met or not for each requirement.

Success Criteria:

Sufficient network-bandwidth, data transfer rate, and meet the performance requirements.

L3 Requirements:

EOSD-1000#B, EOSD-1010#B, EOSD-1040#B, EOSD-4036#B, AM1-0140#B, AM1-0170#B, AM1-0200#B, AM1-1050#B, AM1-1060#B, AM1-1070#B, AM1-1080#B, AM1-1080-a#B, AM1-1090#B, AM1-1100#B, AM1-1110#B, AM1-1120#B, AM1-1150#B, ESN-0005#B, ESN-0010#B, ESN-0070#B, ESN-0240#B, ESN-1206#B, ESN-1207#, EDOS-A.2.1#B, EDOS-B.2.1#B, EDOS-C.2.1#B, EDOS-H.2.1#B

L4 Requirements:

C-ISS-02220, C-ISS-02300, C-ISS-02310, C-ISS-02320, C-ISS-02330, C-ISS-02340, C-ISS-02350, C-ISS-02360, C-ISS-02370, C-ISS-02380, C-ISS-02400, C-ISS-02410, C-ISS-04102, C-ISS-20050, C-ISS-20060, C-ISS-20070, C-ISS-20080, C-ISS-20090, C-ISS-20190.

4.2.1.12.6 Test Case 6: ISS Evolve Requirements (T250-10.02.06)

This test verifies the evolvable requirements of Release B LANs. The purpose of this test is to ensure that the ISS service is capable of accommodating future network expansion. Please also refer to the Release A's testcase TCxxx.xxx.

Test Configuration:

- Hardware: DAAC LAN, WAN
- Software: ISS Interface, mini-DAAC configuration
- Data: Configuration file, Checklist
- Tools: LoadRunner

Test Input:

1. Verify that the ISS HWCI and LAN is designed to allow the addition of nodes and LAN segments without redesign.
2. Verify that ISS supports the use of network and transport layer filtering to control access from internal and external interfaces.

Test Output:

The ISS LAN configuration has sufficient physical devices and ports to support more inter-network connections. There are configuration parameters i.e. network access ID and address, available for the network administration and management function.

Success Criteria:

The ISS LAN design has taken into consideration of future expansion and provide physical and logical capacity.

L3 Requirements:

ESN-0240#B, ESN-1206#B, ESN-1207#B, EOSD-2100#B

L4 Requirements:

C-ISS-02390,C-ISS-02500,C-ISS-20100.

4.2.1.12.7 Test Case 7: MSS-MHW CI Enterprise Monitoring Server (T250-10.02.07)

This test case verifies that the processors and the peripheral equipment provided by the Enterprise Monitoring Server meet the requirements established by the CSMS system design. This is a regression test which is associated with test case BC010.015 of Release A.

Test Configuration:

- Hardware: Enterprise Monitoring Server configuration
- Software: Enterprise Monitoring Server configuration
- Data: Checklist
- Tools: TBD

Test Input:

Test inputs include inspection and analysis of processes and procedures, peripherals, POSIX compliant vendor operating systems, inspection of data storage, upgrades to the disk drives, data, various tapes, and a CD. Actions will be performed to complete the following:

1. Inspect the Enterprise Monitoring Server and the Enterprise Communications Server and verify that they are physically and functionally identical.

2. Verify that the Enterprise Monitoring Server shares data with the Local System Management Server.

3. Analyze the functionality of the Enterprise Monitoring Server and verify that it does not interfere with operational processes, during normal operations, in the DAAC.

4. Inspect the Enterprise Monitoring Server and verify that the MSS software configuration items are maintained by the server. Verify that the Management Workstations and Enterprise Communications Server communicate along with the Enterprise Monitoring server to create a local system management and coordination center for each ECS DAAC.

5. Verify that a dedicated terminal to be used as a local systems operations console is included in the Enterprise Monitoring Server processor and that the processor terminal is compatible with the Management Workstation display device.

6. Verify that the processor is expandable with additional quantities and types of peripherals and upgradeable/replaceable within the same product family without major software modifications or replacement of any attached component or peripheral.

7. Verify that the operating system is POSIX compliant IEEE 1003.1 and that the Enterprise Monitoring Server data storage is compatible with several vendor's POSIX compliant operating systems.

8. Verify that the Enterprise Monitoring Server data storage is compatible with the Local System Management Server's short term data storage.

9. Verify that the Enterprise Monitoring Server data storage supports RAID level 5: striping with interleaved parity. Also, verify that it contains the following hot replaceable components: Disks, Power Supplies, Fans, and Disk-array controllers.

10. Verify that the Enterprise Monitoring Server data storage and the Enterprise Communications Server data storage are cross-strapped.

11. Inspect the Enterprise Monitoring Server and verify that the data can be archived to the ECS Data Server archive for long term storage.

12. Verify that the data storage and retrieval meet ECS Data Server archival requirements.

13. Verify that data can be retrieved by the Enterprise Monitoring Server peripheral disk drives from both the Enterprise Monitoring Server data storage and data archive.

14. Verify that one tape drive and one CD-ROM drive are supported by the Enterprise Monitoring Server peripherals.

15. Verify that the Enterprise Monitoring Server peripheral tape drive supports 4mm Digital Audio Tape format, accepts industry standard magnetic 4mm DAT (i.e. DDS-90), provides data transfer rate of 200KB/sec, and is upgradeable/replaceable within the same product family.

16. Verify that the Enterprise monitoring Server peripheral CD-ROM drive accepts 600MB compact disks and is upgradeable/replaceable within the same product family.

17. Verify that the Enterprise Monitoring Server maintains one backup of all software and key data items in a separate physical location, meets the prescribed capacity and performance characteristics, and is capable of 100 percent growth in both processing speed and storage capacity without modifications or upgrades to software.

18. Verify that the hardware selection criteria of the Enterprise Monitoring Server meets the overall ECS security policies and system requirements.

Test Output:

A checklist showing success or failure for each requirement.

Success Criteria:

This test is successful when all the above requirements are met.

L3 Requirements:

EOSD-1703#B, EOSD-2200#B, EOSD-3200#B, EOSD-4030#B,EOSD-4035#B, EOSD-4036#B, EOSD-5020#B, SMC-2320#B, SMC-2510#B

L4 Requirements:

C-MSS-02000, C-MSS-02010, C-MSS-02020, C-MSS-02030, C-MSS-02100, C-MSS-02110, C-MSS-02120, C-MSS-02130, C-MSS-02140, C-MSS-02200, C-MSS-02210, C-MSS-02220, C-MSS-02230, C-MSS-02240, C-MSS-02250, C-MSS-02260, C-MSS-02300, C-MSS-02400, C-MSS-02410, C-MSS-02420, C-MSS-02430, C-MSS-02500, C-MSS-02510, C-MSS-02520, C-MSS-03800. C-MSS-03810, C-MSS-03840,C-MSS-03900, C-MSS-04000

4.2.1.12.8 Test Case 8: MSS-MHW CI Local Management Server (T250-10.02.08)

This test case verifies that the processors and the peripheral equipment provided by the Local Management Server meet the requirements established by the CSMS system design. This is a regression test which is associated with test case BC010.016 of Release A.

Test Configuration:

- Hardware: Local Management Server configuration
- Software: Local Management Server configuration
- Data: Checklist
- Tools: TBD

Test Input:

Test inputs include inspection and analysis of processes and procedures, peripherals, POSIX compliant vendor operating systems, inspection of data storage, upgrades to the disk drives, data, various tapes, and a CD. Actions will be performed to complete the following:

1. Inspect the Local Management Server and the Local Communications Server and verify that they are physically and functionally identical.
2. Verify that the Enterprise Monitoring Server shares data with the Local Management Server.
3. Analyze the functionality of the Local Management Server and verify that it does not interfere with operational processes, during normal operations, in the DAAC.
4. Inspect the Local Management Server and verify that the MSS software configuration items are maintained by the server. Verify that the Management Workstations and Local Communications Server communicate along with the Local Management server to create a local system management and coordination center for each ECS DAAC.
5. Verify that a dedicated terminal to be used as a local systems operations console is included in the Local Management Server processor and that the processor terminal is compatible with the Management Workstation display device.
6. Verify that the processor is expandable with additional quantities and types of peripherals and upgradeable/replaceable within the same product family without major software modifications or replacement of any attached component or peripheral.
7. Verify that the operating system is POSIX compliant IEEE 1003.1 and that the Local Management Server data storage is compatible several vendor's POSIX compliant operating systems.
8. Verify that the Local Management Server data storage is compatible with the Enterprise Monitoring Server's intermediate-term data storage.
9. Verify that the Local Management Server data storage supports RAID level 5: striping with interleaved parity. Also, verify that it contains the following hot replaceable components: Disks, Power Supplies, Fans, and Disk-array controllers.
10. Verify that the Local Management Server data storage and the Local Communications Server data storage are cross-strapped.
11. Inspect the Local Management Server and verify that the data can be archived to the ECS Data Server archive for long term storage.
12. Verify that the data storage and retrieval meet ECS Data Server archival requirements.
13. Verify that data can be retrieved by the Local Management Server peripheral disk drives from both the Local Management Server data storage and data archive.
14. Verify that one tape drive and one CD-ROM drive are supported by the Local Management Server peripherals.
15. Verify that the Local Management Server peripheral tape drive supports 4mm Digital Audio Tape format, accepts industry standard magnetic 4mm DAT (i.e. DDS-90), provides data transfer rate of 200KB/sec, and is upgradeable/replaceable within the same product family.

16. Verify that the Local Management Server peripheral CD-ROM drive accepts 600MB compact disks and is upgradeable/replaceable within the same product family.
17. Verify that the Local Management Server maintains one backup of all software and key data items in a separate physical location, meets the prescribed capacity and performance characteristics, and is capable of 100 percent growth in both processing speed and storage capacity without modifications or upgrades to software.
18. Verify that the hardware selection criteria of the Local Management Server meets the overall ECS security policies and system requirements.

Test Output:

A checklist showing success or failure for each requirement.

Success Criteria:

This test is successful when all the above requirements are met.

L3 Requirements:

EOSD-0030#B, EOSD-1703#B, EOSD-2200#B,EOSD-3200#B,EOSD-4030#B, EOSD-4035, EOSD-5020#B, SMC-2320#B, SMC-8305#B

L4 Requirements:

C-MSS-02600, C-MSS-02610, C-MSS-02620, C-MSS-02630, C-MSS-02700, C-MSS-02710, C-MSS-02720, C-MSS-02730, C-MSS-02740, C-MSS-02800, C-MSS-02810, C-MSS-02820, C-MSS-02830, C-MSS-02840, C-MSS-02850, C-MSS-02860, C-MSS-02900, C-MSS-03000, C-MSS-03010, C-MSS-03020, C-MSS-03030, C-MSS-03100, C-MSS-03110, C-MSS-03120, C-MSS-03820. C-MSS-03830, C-MSS-03850,C-MSS-03900, C-MSS-04010

4.2.1.12.9 Test Case 9: MSS-MHW CI Management Workstation Server (T250-10.02.09)

This test case verifies that the processors and the peripheral equipment provided by the Management Workstation Server meet the requirements established by the CSMS system design. This is a regression test which is associated with test case BC010.009 of Release A.

Test Configuration:

- Hardware: Management Workstation Server configuration
- Software: Management Workstation Server configuration
- Data: Checklist
- Tools: TBD

Test Input:

Test inputs include inspection and analysis of processes and procedures, and hardware associated with workstations, in addition to startup and shutdown of various workstations and servers. Actions will be performed to complete the following:

1. Turn on several Management Workstations and processors and verify that they operate simultaneously without interfering with each other (when some workstations or management/communications servers go down) the operations at the other Management Workstations and processors are not affected.
2. Verify that the operating system is POSIX compliant IEEE 1003.1.
3. Verify that one QWERTY keyboard, which is detachable and cabled for movement on a desk-top style workstation area, with a minimum of 12 programmable function keys is provided by each Management Workstation.
4. Verify that one color text and graphics display device with the following features is provided by each Management Workstation: Display of complete ASCII character set; minimum of 16 colors and 4 screen display pages; display of 24 lines by 80 characters wide pages (which are readable from any location along the width of the workstation and up to a distance of up to 6 feet from the screen); 19 inch diagonal non-glare screen; RGB video output for hard copy; brightness, contrast, and power controls within easy reach; an integral swivel/tilt base, and physically re-locatable within the operations center.
5. Verify that each Management Workstation is upgradeable/replaceable within the same product family and each workstation provides one cursor pointing device (mouse).
6. Verify that the Management Workstation data storage is capable of retrieving data from the data storage function of both the Enterprise Monitoring Server and the Local Management Server.
7. Verify that all the disk drives serving a specific function (e.g., local management, enterprise monitoring) are identical with equal capacity.
8. Inspect all printers to verify that they are physically and functionally identical.
9. Verify that the Management Workstation Server meets the prescribed capacity and performance characteristics.
10. Verify that the hardware selection criteria of the Management Workstation Server meets the overall ECS security policies and system requirements.

Test Output:

A checklist showing success or failure for each requirement.

Success Criteria:

This test is successful when all the above requirements are met.

L3 Requirements:

EOSD-1703#B, EOSD-2200#B, EOSD-4030#B, EOSD-4035#B, EOSD-4036#B

L4 Requirements:

C-MSS-03200, C-MSS-03300, C-MSS-03310, C-MSS-03320, C-MSS-03340, C-MSS-03350, C-MSS-03360, C-MSS-03370, C-MSS-03380, C-MSS-03390, C-MSS-03400, C-MSS-03410, C-MSS-03410, C-MSS-03420, C-MSS-03430, C-MSS-03450, C-MSS-03460, C-MSS-03470, C-MSS-03500, C-MSS-03600, C-MSS-03700, C-MSS-03860, C-MSS-03900

4.2.1.12.10 Test Case 10: MSS-MHW CI Functional String (T250-10.02.10)

This test case verifies the operational availability (Ao) of the functional string between servers meet the requirements established by the CSMS system design. This is a regression test which is associated with test cases BC010.015 and BC010.016 of Release A.

Test Configuration:

- Hardware: Server configuration for Enterprise Monitoring and Local Management
- Software: Server configuration for Enterprise Monitoring and Local Management
- Data: Checklist
- Tools: TBD

Test Input:

Actions will be performed to complete the following:

1. Inspect the Enterprise Monitoring Server and the Local Management Server and verify that the MSS-MHW CI functional string between the two servers provides a function Ao of 0.998 and an MDT of 20 minutes.
2. Verify that the MSS-MHW CI functional string between the Local Management Server and ECS managed objects provides a function Ao of 0.998 and an MDT of 20 minutes.

Test Output:

A checklist showing success or failure for each requirement.

Success Criteria:

This test is successful when all the above requirements are met.

L3 Requirements:

EOSD-4030#B

L4 Requirements:

C-MSS-04020, C-MSS-04030

4.2.1.12.11 Test Case 11: GSFC LSM MSS-MHW CI (T250-10.02.11)

This test case verifies that the processors and peripheral equipment provided for GSFC LSM meet all the hardware requirements established by the CSMS system design.

Test Configuration:

- Hardware: workstation, peripherals, working Storage
- Software: N/A
- Data: N/A
- Tools: N/A

Test Input:

Test Inputs include: Analysis, inspection and verification of data storage, upgrade to the disk drives, printers, bulletin board server, various tapes and CD-ROM drive. The following steps will be performed to complete this test:

1. Inspect and verify that GSFC LSM has provided MSS-MHW CI Local Management Server.
2. Verify that GSFC LSM MSS-MHW Local Management Server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
3. Verify that a Local communications server has been provide by GSFC.
4. Verify that the Local communications server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
5. Verify that the GSFC LSM MSS-MHW CI Local Communication Server provides storage that is cross-strapped with the Local Management Server.
6. Verify that the GSFC LSM provides one MSS-MHW CI Data storage unit supporting RAID level 5 cross strapped between the Local Management and Local communication server.
7. Verify that GSFC LSM provides two MSS-MHW CI Management Workstations, which can perform any GSFC LSM function.
8. Verify that GSFC LSM provides a MSS-MHW CI system printer.
9. Verify that GSFC LSM provides a MSS-MHW CI dot-matrix printer.
10. Verify GSFC infrastructure provides a GSFC MSS-MHW CI LAN.
11. Inspect the GSFC EMC and verify that the data can be archived to the ECS Data Server, MSS-MHW Enterprise Monitoring Server for long-term data storage capability.
12. Verify that a MSS-MHW CI dot-matrix printer has been provided.

13. Verify that the hardware selection criteria of the Local System Management meets the overall ECS security policies and system requirements.

Test Output:

A check list showing success or failure for each hardware requirement.

Success Criteria:

This test is deemed successful when all the test steps for this test requirement are met.

L3 Requirements:

EOSD4036#B

L4 Requirements:

C-MSS-05200, C-MSS-05210, C-MSS-05220, C-MSS-05230, C-MSS-05240, C-MSS-05250, C-MSS-05260, C-MSS-05270, C-MSS-05280, C-MSS-05290, C-MSS-05310, C-MSS-05320

4.2.1.12.12 Test Case 12: EOC LSM MSS-MHW CI (T250-10.02.12)

This test case verifies that the processors and peripheral equipment provided for EOC LSM meet all the hardware requirements established by the CSMS system design.

Test Configuration:

- Hardware: workstation, peripherals, working Storage
- Software: N/A
- Data: N/A
- Tools: N/A

Test Input:

Test Inputs include: Analysis, inspection and verification of data storage, upgrade to the disk drives, printers, bulletin board server, various tapes and CD-ROM drive. The following steps will be performed to complete this test

1. Inspect and verify that EOC LSM provides a Local Management Server.
2. Verify that EOC LSM MSS-MHW Local Management Server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
3. Verify that EOC LSM MSS-MHW CI Local Management Server Local provides storage that is cross-strapped with the local communications server.
4. Verify that a EOC LSM provides a MSS-MHW CI Local Communications Server.
5. Verify that the EOC LSM MSS-MHW CI Local communications server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.

6. Verify that the EOC LSM MSS-MHW CI Local Communication Server provides storage that is cross-strapped with the Local Management Server.
7. Verify that the EOC LSM provides one MSS-MHW CI Data storage unit supporting RAID level 5 cross strapped between the Local Management and Local communication server.
8. Verify that EOC LSM provides two (2) MSS-MHW CI Management Workstations, That can perform any EOC LSM function.
9. Verify that EOC LSM provides a MSS-MHW CI system printer.
10. Verify that EOC LSM provides a MSS-MHW CI dot-matrix printer.
11. Verify EOC infrastructure provides a EOC MSS-MHW CI LAN.

Test Output:

A check list showing success or failure for each hardware requirement.

Success Criteria:

This test is deemed successful when all the test steps for this test requirement are met.

L3 Requirements:

EOSD4036#B

L4 Requirements:

C-MSS-05400, C-MSS-05410, C-MSS-05420, C-MSS-05430, C-MSS-05440, C-MSS-05450, C-MSS-05460, C-MSS-05470, C-MSS-05480, C-MSS-05490, C-MSS-05500

4.2.1.12.13 Test Case 13: LaRC MSS-MHW CI (T250-10.02.13)

This test case verifies that the processors and peripheral equipment provided for LaRC LSM meet all the hardware requirements established by the CSMS system design.

Test Configuration:

- Hardware: workstation, peripherals, working Storage
- Software: N/A
- Data: N/A
- Tools: N/A

Test Input:

Test Inputs include: Analysis, inspection and verification of data storage, upgrade to the disk drives, printers, bulletin board server, various tapes and CD-ROM drive. The following steps will be performed to complete this test

1. Inspect and verify that LaRC LSM provides a MSS-MHW CI Local Management Server.
2. Verify that LaRC LSM MSS-MHW Local Management Server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
3. Inspect and verify that LaRC LSM provides a MSS-MHW CI Local Communications Server.
4. Verify that the LaRC LSM MSS-MHW CI Local communications server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
5. Verify that the LaRC LSM MSS-MHW CI Local Communication Server provides storage that is cross-strapped with the Local Management Server.
6. Verify that the LaRC LSM provides one MSS-MHW CI Data storage unit supporting RAID level 5 cross strapped between the Local Management and Local communication server.
7. Verify that LaRC LSM provides two (2) MSS-MHW CI Management Workstations, which can perform any LaRC LSM function.
8. Verify that LaRC LSM provides a MSS-MHW CI system printer.
9. Verify that LaRC LSM provides a MSS-MHW CI dot-matrix printer.
10. Verify LaRC infrastructure provides a LaRC MSS-MHW CI LAN.

Test Output:

A check list showing success or failure for each hardware requirement.

Success Criteria:

This test is deemed successful when all the test steps for this test requirement are met.

L3 Requirements:

EOSD4036#B

L4 Requirements:

C-MSS-05800, C-MSS-05810, C-MSS-05820, C-MSS-05830, C-MSS-05840, C-MSS-05850, C-MSS-05860, C-MSS-05870, C-MSS-05880, C-MSS-05890

4.2.1.12.14 Test Case 14: EDC MSS-MHW CI (T250-10.02.14)

This test case verifies that the processors and peripheral equipment provided for EDC LSM meet all the hardware requirements established by the CSMS system design.

Test Configuration:

- Hardware: workstation, peripherals, working Storage
- Software: N/A

- Data: N/A
- Tools: N/A

Test Input:

Test Inputs include: Analysis, inspection and verification of data storage, upgrade to the disk drives, printers, bulletin board server, various tapes and CD-ROM drive. The following steps will be performed to complete this test

1. Inspect and verify that EDC LSM provides a Local Management Server.
2. Verify that EDC LSM MSS-MHW Local Management Server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
3. Inspect and verify that EDC LSM provides a MSS-MHW CI Local Communications Server.
4. Verify that the EDC LSM MSS-MHW CI Local Communications server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
5. Verify that the EDC LSM MSS-MHW CI Local Communication Server provides storage that is cross-strapped with the Local Management Server.
6. Verify that the EDC LSM provides one MSS-MHW CI Data storage unit supporting RAID level 5 cross strapped between the Local Management and Local communication server.
7. Verify that EDC LSM provides two (2) MSS-MHW CI Management Workstations, which can perform any EDC LSM function.
8. Verify that EDC LSM provides a MSS-MHW CI system printer.
9. Verify that EDC LSM provides a MSS-MHW CI dot-matrix printer.
10. Verify EDC infrastructure provides a EDC MSS-MHW CI LAN.

Test Output:

A check list showing success or failure for each hardware requirement.

Success Criteria:

This test is deemed successful when all the test steps for this test requirement are met.

L3 Requirements:

EOSD4036#B

L4 Requirements:

C-MSS-06000, C-MSS-06010, C-MSS-06020, C-MSS-06030, C-MSS-06040, C-MSS-06050, C-MSS-06060, C-MSS-06070, C-MSS-06080, C-MSS-06090

4.2.1.12.15 Test Case 15: JPL MSS-MHW CI (T250-10.02.15)

This test case verifies that the processors and peripheral equipment provided for JPL LSM meet all the hardware requirements established by the CSMS system design.

Test Configuration:

- Hardware: workstation, peripherals, working Storage
- Software: N/A
- Data: N/A
- Tools: N/A

Test Input:

Test Inputs include: Analysis, inspection and verification of data storage, upgrade to the disk drives, printers, bulletin board server, various tapes and CD-ROM drive. The following steps will be performed to complete this test

1. Inspect and verify that JPL LSM provides a MSS-MHW CI Local Management Server.
2. Verify that JPL LSM MSS-MHW CI Local Management Server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
3. Inspect and verify that JPL LSM provides a MSS-MHW CI Local Communications Server.
4. Verify that the JPL LSM MSS-MHW CI Local Communications Server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
5. Verify that the JPL LSM MSS-MHW CI Local Communication Server provides storage that is cross-strapped with the Local Management Server.
6. Verify that the JPL LSM provides one MSS-MHW CI Data storage unit supporting RAID level 5 cross strapped between the Local Management and Local Communication server.
7. Verify that JPL LSM provides two (2) MSS-MHW CI Management Workstations, which can perform any JPL LSM function.
8. Verify that JPL LSM provides a MSS-MHW CI system printer.
9. Verify that JPL LSM provides a MSS-MHW CI dot-matrix printer.
10. Verify JPL infrastructure provides a JPL MSS-MHW CI LAN.

Test Output:

A check list showing success or failure for each hardware requirement.

Success Criteria:

This test is deemed successful when all the test steps for this test requirement are met.

L3 Requirements:

EOSD4036#B

L4 Requirements:

C-MSS-06200, C-MSS-06210, C-MSS-06220, C-MSS-06230, C-MSS-06240, C-MSS-06250, C-MSS-06260, C-MSS-06270, C-MSS-06280, C-MSS-06290

4.2.1.12.16 Test Case 16: SMC MSS-MHW CI (T250-10.02.16)

This test case verifies that the processors and peripheral equipment provided for SMC LSM meet all the hardware requirements established by the CSMS system design.

Test Configuration:

- Hardware: workstation, peripherals, working Storage
- Software: N/A
- Data: N/A
- Tools: N/A

Test Input:

Test Inputs include: Analysis, inspection and verification of data storage, upgrade to the disk drives, printers, bulletin board server, various tapes and CD-ROM drive. The following steps will be performed to complete this test

1. Inspect and verify that SMC LSM provides a MSS-MHW CI Local Management Server.
2. Verify SMC LSM MSS-MHW CI Local Communications Server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
3. Verify that a Local communications server has been provide by SMC.
4. Verify that the Local communications server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
5. Verify that the SMC LSM MSS-MHW CI Local Communication Server provides storage that is cross-strapped with the Local Management Server.
6. Verify that the SMC LSM provides one MSS-MHW CI Data storage unit supporting RAID level 5 cross strapped between the Local Management and Local communication server.
7. Verify that SMC LSM provides two MSS-MHW CI Management Workstations, which can perform any SMC LSM function.

8. Verify that SMC LSM provides a MSS-MHW CI system printer.
9. Verify that SMC LSM provides a MSS-MHW CI dot-matrix printer.
10. Verify SMC infrastructure provides a SMC MSS-MHW CI LAN.
11. Inspect the SMC EMC and verify that the data can be archived to the ECS Data Server, MSS-MHW Enterprise Monitoring Server for long-term data storage capability.
12. Verify that a MSS-MHW CI dot-matrix printer has been provided.
13. Verify that the hardware selection criteria of the Local System Management meets the overall ECS security policies and system requirements.

Test Output:

A check list showing success or failure for each hardware requirement.

Success Criteria:

This test is deemed successful when all the test steps for this test requirement are met.

L3 Requirements:

EOSD4036#B

L4 Requirements:

C-MSS-06400, C-MSS-06410, C-MSS-06420, C-MSS-06430, C-MSS-06440, C-MSS-06450, C-MSS-06460, C-MSS-06470, C-MSS-06480, C-MSS-06490, C-MSS-06500, C-MSS-06510

4.2.1.12.17 Test Case 17: NSIDC MSS-MHW CI (T250-10.02.17)

This test case verifies that the processors and peripheral equipment provided for NSIDC LSM meet all the hardware requirements established by the CSMS system design.

Test Configuration:

- Hardware: workstation, peripherals, working Storage
- Software: N/A
- Data: N/A
- Tools: N/A

Test Input:

Test Inputs include: inspection and verification of data storage, upgrade to the disk drives, printers, bulletin board server, various tapes and CD-ROM drive.

Test Inputs include: Analysis, inspection and verification of data storage, upgrade to the disk drives, printers, bulletin board server, various tapes and CD-ROM drive. The following steps will be performed to complete this test

1. Inspect the NSIDC LSM and the Local Management Server and verify that they are physically and functionally identical.
2. Verify that the Local communications server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
3. Verify that a Local communications server has been provide by NSIDC.
4. Verify that the Local communications server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
5. Verify that the NSIDC LSM MSS-MHW CI Local Communication Server provides storage that is cross-strapped with the Local Management Server.
6. Verify that the NSIDC LSM provides one MSS-MHW CI Data storage unit supporting RAID level 5 cross strapped between the Local Management and Local communication server.
7. Verify that NSIDC LSM provides two MSS-MHW CI Management Workstations, which can perform any GSFC LSM function.
8. Verify that NSIDC LSM provides a MSS-MHW CI system printer.
9. Verify that NSIDC LSM provides a MSS-MHW CI dot-matrix printer.
10. Verify NSIDC infrastructure provides a NSIDC MSS-MHW CI LAN.
11. Inspect the NSIDC EMC and verify that the data can be archived to the ECS Data Server, MSS-MHW Enterprise Monitoring Server for long-term data storage capability.
12. Verify that a NSIDC MSS-MHW CI dot-matrix printer has been provided.
13. Verify that the hardware selection criteria of the Local System Management meets the overall ECS security policies and system requirements.

Test Output:

A check list showing success or failure for each hardware requirement.

Success Criteria:

This test is deemed successful when all the test steps for this test requirement are met.

L3 Requirements:

EOSD4036#B

L4 Requirements:

C-MSS-06600, C-MSS-06610, C-MSS-06620, C-MSS-06630, C-MSS-06640, C-MSS-06650, C-MSS-06660, C-MSS-06670, C-MSS-06680, C-MSS-06690

4.2.1.12.18 Test Case 18: UAF MSS-MHW CI (T250-10.02.18)

This test case verifies that the processors and peripheral equipment provided for UAF LSM meet all the hardware requirements established by the CSMS system design.

Test Configuration:

- Hardware: workstation, peripherals, working Storage
- Software: N/A
- Data: N/A
- Tools: N/A

Test Input:

Test Inputs include: Analysis, inspection and verification of data storage, upgrade to the disk drives, printers, bulletin board server, various tapes and CD-ROM drive. The following steps will be performed to complete this test

1. Inspect the UAF LSM and the Local Management Server and verify that they are physically and functionally identical.
2. Verify that the Local communications server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
3. Verify that a Local communications server has been provide by UAF.
4. Verify that the Local communications server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
5. Verify that the UAF LSM MSS-MHW CI Local Communication Server provides storage that is cross-strapped with the Local Management Server.
6. Verify that the UAF LSM provides one MSS-MHW CI Data storage unit supporting RAID level 5 cross strapped between the Local Management and Local communication server.
7. Verify that UAF LSM provides two MSS-MHW CI Management Workstations, which can perform any UAF LSM function.
8. Verify that UAF LSM provides a MSS-MHW CI system printer.
9. Verify that UAF LSM provides a MSS-MHW CI dot-matrix printer.
10. Verify UAF infrastructure provides a UAF MSS-MHW CI LAN.
11. Inspect the UAF EMC and verify that the data can be archived to the ECS Data Server, MSS-MHW Enterprise Monitoring Server for long-term data storage capability.
12. Verify that a MSS-MHW CI dot-matrix printer has been provided.

Test Output:

A check list showing success or failure for each hardware requirement.

Success Criteria:

This test is deemed successful when all the test steps for this test requirement are met.

L3 Requirements:

EOSD4036#B

L4 Requirements:

C-MSS-06800, C-MSS-06810, C-MSS-06820, C-MSS-06830, C-MSS-06840, C-MSS-06850, C-MSS-06860, C-MSS-06870, C-MSS-06880, C-MSS-06890

4.2.1.12.19 Test Case 19: ORNL MSS-MHW CI (T250-10.02.19)

This test case verifies that the processors and peripheral equipment provided for ORNL LSM meet all the hardware requirements established by the CSMS system design.

Test Configuration:

- Hardware: workstation, peripherals, working Storage
- Software: N/A
- Data: N/A
- Tools: N/A

Test Input:

Test Inputs include: Analysis, inspection and verification of data storage, upgrade to the disk drives, printers, bulletin board server, various tapes and CD-ROM drive. The following steps will be performed to complete this test

1. Inspect the ORNL LSM and the Local Management Server and verify that they are physically and functionally identical.
2. Verify that the Local communications server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
3. Verify that a Local communications server has been provide by ORNL.
4. Verify that the Local communications server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
5. Verify that the ORNL LSM MSS-MHW CI Local Communication Server provides storage that is cross-strapped with the Local Management Server.

6. Verify that the ORNL LSM provides one MSS-MHW CI Data storage unit supporting RAID level 5 cross strapped between the Local Management and Local communication server.
7. Verify that ORNL LSM provides two MSS-MHW CI Management Workstations, which can perform any ORNL LSM function.
8. Verify that ORNL LSM provides a MSS-MHW CI system printer.
9. Verify that ORNL LSM provides a MSS-MHW CI dot-matrix printer.
10. Verify ORNL infrastructure provides a ORNL MSS-MHW CI LAN.
11. Inspect the ORNL EMC and verify that the data can be archived to the ECS Data Server, MSS-MHW Enterprise Monitoring Server for long-term data storage capability.
12. Verify that a MSS-MHW CI dot-matrix printer has been provided.
13. Verify that the hardware selection criteria of the Local System Management meets the overall ECS security policies and system requirements.

Test Output:

A check list showing success or failure for each hardware requirement.

Success Criteria:

This test is deemed successful when all the test steps for this test requirement are met.

L3 Requirements:

EOSD4036#B

L4 Requirements:

C-MSS-07000, C-MSS-07010, C-MSS-07020, C-MSS-07030, C-MSS-07040, C-MSS-07050, C-MSS-07060, C-MSS-07070, C-MSS-07080, C-MSS-07090

4.2.1.12.20 Test Case 20: Data Management Hardware Test (T250-10.02.20)

The following tests verifies that the local storage is provided as defined in appendix (Section E.8, Table E-9) of the current version of 304-CD-005.

Test Configuration:

- Hardware: Workstation, SDSRV, Data Dictionary DBMS Server, LIMGR Server, Sybase Replication Server, Sybase SQL Server, DIM Server, LIM Server, V0 Gateway, HTTP Server, Advertising Server.
- Software: Client Library, Request processing, Mapping Layer, AdvDBMSApplServer, AdvDBMSServer, AdvWAISServer, LIMGR CI, Advertising Client Tool, Data Server Interface, WKBCH CI, DESKT CI.

- Data: Schema information, package information request, search request, search results, Data Dictionary Service Database
- Tool: Data Dictionary Maintenance Tool, XRunner, LoadRunner

Test Input:

View local storage to verify that it corresponds with is appendix (Section E.8, Table E-9) of the current version of 304-CD-005.

Test Output:

A check list showing success or failure for each hardware requirement.

Success Criteria:

This test is deemed successful when all the test steps for this test requirement are met.

L3 Requirements:

IMS-1790#B

L4 Requirements:

S-DMS-60200.

4.2.1.12.21 Test Case 21 Advertising Hardware function (T250-10.02.21)

The following tests verifies the capability for advertising to accept and process life-cycle commands from the MSS.

Test Configuration:

- Hardware: Workstation, SDSRV, Data Dictionary DBMS Server, LIMGR Server, Sybase Replication Server, Sybase SQL Server, DIM Server, LIM Server, V0 Gateway, HTTP Server, Advertising Server.
- Software: Client Library, Request processing, Mapping Layer, AdvDBMSApplServer, AdvDBMSServer, AdvWAISServer, LIMGR CI, Advertising Client Tool, Data Server Interface, WKBCH CI, DESKT CI.
- Data: Schema information, package information request, search request, search results, Data Dictionary Service Database
- Tool: Data Dictionary Maintenance Tool, XRunner, LoadRunner

Test Input:

Perform life-cycle command such as management mode functions from MSS.

Test Output:

Life-cycle commands are accepted and processed.

Success Criteria:

This test is deemed successful when life-cycle commands are accepted and processed.

L3 Requirements:

IMS-1620#B.

L4 Requirements:

S-IOS-60360.

4.2.1.12.22 Test Case 22: Data Processing Time (T250-10.02.22)

By inspecting the hardware specifications, it will be shown that the science processing hardware processing time shall not exceed the overall end-to-end turnaround time of 24 hours minus the processing time of other subsystems involved in instrument product processing.

Test Configuration:

- Hardware:
- Software:
- Data: Hardware specifications.
- Tools:

Test Input:

Hardware specifications.

Test Output:

Results of the verification.

Success Criteria:

The science processing hardware processing time shall not exceed the overall end-to-end turnaround time of 24 hours minus the processing time of other subsystems involved in instrument product processing.

L3 Requirements:

EOSD-1050#B, EOSD-1060#B, EOSD-1070#B, LAND-0210#B

L4 Requirements:

S-DPS-60241

4.2.1.12.23 Test Case 23: Data Processing Sizing and Storage Space (T250-10.02.23)

This test case verifies the science processing hardware and storage capacity shall be sized in accordance with requirements derived from Appendix E (Section E.2 Table E-2, and Section E.1 Table E-1) of the current 304-CD-005 Document.

Test Configuration:

- Hardware:
- Software:
- Data: Hardware specifications, latest version of the 304-CD-005 document.
- Tools:

Test Input:

Compare the hardware specifications with the latest version of the 304-CD-005 document.

Test Output:

Results of the verification.

Success Criteria:

This test is considered successful if it is demonstrated that the science processing hardware meets both processing capability and storage space requirements as specified in the current version of the 304-CD-005 Document.

L3 Requirements:

EOSD-1010#B, PGS-1300#B, PGS-1301#B, PGS-1310#B

L4 Requirements:

S-DPS-60242, S-DPS-60251, S-DPS-60260, S-DPS-60270

4.2.1.12.24 Test Case 24: Generation of Products (T250-10.02.24)

This test case verifies the science processing hardware shall contribute to the generation of Level 1, Level 2, and Level 3 standard products. The science processing hardware shall contribute to the generation of each level standard product within 24 hours after processing is initiated. This will be verified by inspecting the hardware specifications.

Test Configuration:

- Hardware:
- Software:

- Data: Hardware specifications.
- Tools:

Test Input:

Hardware specifications.

Test Output:

Results of the verification.

Success Criteria:

This test is considered successful if it is demonstrated that the science processing hardware contributes to the generation of each level of standard product within 24 hours after processing is initiated.

L3 Requirements:

EOSD-1050#B, EOSD-1060#B, EOSD-1070#B, LAND-0210#B

L4 Requirements:

S-DPS-60351, S-DPS-60361, S-DPS-60371

4.2.1.12.25 Test Case 25: Continuous Data Processing Operation (T250-10.02.25)

This test case verifies the science processing hardware shall be capable of operating in a 24 hour per day, 7 days a week mode. This will be verified by inspecting the hardware specifications.

Test Configuration:

- Hardware:
- Software:
- Data: Hardware specifications.
- Tools:

Test Input:

Hardware specifications.

Test Output:

Results of the verification.

Success Criteria:

This test is considered successful if it is demonstrated that the science processing hardware shall be capable of operating in a 24 hour per day, 7 days a week mode.

L3 Requirements:

SDPS-0120#B

L4 Requirements:

S-DPS-60410

4.2.1.12.26 Test Case 26: Installed Data Processing Utilities (T250-10.02.26)

This test case verifies the science processing hardware POSIX.2 compliant platform shall have the following utilities installed: perl, emacs, gzip, tar, imake, prof, gprof, nm, gtar, and gmake.

Test Configuration:

- Hardware: Workstation.
- Software: Specified utilities.
- Data: Hardware specifications.
- Tools:

Test Input:

Configuration tables from HTSC. Check the utility list to verify that all utilities are installed on the system.

Test Output:

Comparison of utility list against the utilities installed on the system.

Success Criteria:

This test is considered successful if it is demonstrated that the science processing hardware has the following utilities installed: perl, emacs, gzip, tar, imake, prof, gprof, nm, gtar, and gmake. The directory structure and UNIX paths must contain the correct information to allow access to all the specified utilities.

L3 Requirements:

PGS-0920#B

L4 Requirements:

S-DPS-61125

4.2.1.12.27 Test Case 27: MSFC MSS-MHW CI (T250-10.02.27)

This test case verifies that the processors and peripheral equipment provided for MSFC LSM meet all the hardware requirements established by the CSMS system design.

Test Configuration:

- Hardware: workstation, peripherals, working Storage
- Software: N/A
- Data: N/A
- Tools: N/A

Test Input:

Test Inputs include: Analysis, inspection and verification of data storage, upgrade to the disk drives, printers, bulletin board server, various tapes and CD-ROM drive. The following steps will be performed to complete test TC005-20.14

1. Inspect and verify that MSFC LSM provides a MSS-MHW CI Local Management Server.
2. Verify that MSFC LSM MSS-MHW Local Management Server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
3. Inspect and verify that MSFC LSM provides a MSS-MHW CI Local Communications Server.
4. Verify that the MSFC LSM MSS-MHW CI Local communications server is configured with fixed disk, one tape drive, CD-ROM drive storage devices.
5. Verify that the MSFC LSM MSS-MHW CI Local Communication Server
6. provides storage that is cross-strapped with the Local Management Server.
7. Verify that the MSFC LSM provides one MSS-MHW CI Data storage unit supporting RAID level 5 cross strapped between the Local Management and Local communication server.
8. Verify that MSFC LSM provides two (2) MSS-MHW CI Management Workstations, which can perform any MSFC LSM function.
9. Verify that MSFC LSM provides a MSS-MHW CI system printer.
10. Verify that MSFC LSM provides a MSS-MHW CI dot-matrix printer.
11. Verify MSFC infrastructure provides a MSFC MSS-MHW CI LAN.

Test Output:

A check list showing success or failure for each hardware requirement.

Success Criteria:

This test is deemed successful when all the test steps for this test requirement are met.

L3 Requirements:

EOSD4036#B

L4 Requirements:

C-MSS-05600, 05610, 05620, 05630, 05640, 05650, 05660, 05670, 05680, 05690

4.2.1.13 Real-Time Management Build (B252.02)

Automated network performance measurement and management of network and communication services to understand the performance characteristics will be demonstrated during testing. This automated performance analysis is used for scheduling and load-balancing in order to optimize network resources.

The testing will demonstrate verification of the collection of system performance and monitoring data with subsequent analysis to support load balancing, tuning/optimization and trend analysis/capacity planning activities. Reporting of system performance data supports statistical analysis, ad-hoc database queries and performance modeling within a site or across all sites. This Build tests the ability to verify Landsat 7 performance criteria for operational availability and real time functions.

Testing will demonstrate verification that system failures are automatically detected through analysis of system event logs, and faults are resolved based on vendor diagnostics, procedures, reports and timing in accordance with fault policies.

4.2.1.13.1 Test Case 1: Fault Detection & Notification of EBnet (B252.02.01)

This test verifies the MSS System Management Framework tool have the capability to detect hardware/software fault and MSS Fault Management Application Service have the capability to receive and request the fault notification over the EBnet

Test Configuration:

- Hardware: Workstations
- Software: Release B, MSS System Management Framework tool, MSS Fault Management Application Service.
- Data:
- Tools:

Test Input:

Hardware or software fault are generated from remote system (over EBnet).

Test Output:

The hardware or software fault is detected and an appropriated notification is sent to MSS and logged in the file.

Success Criteria:

The hardware or software fault is detected and notification is received.

L3 Requirements:

SMC-3390#B, SMC-4310#B, SMC-4311#B, NSI-0030#B, NSI-0040#B, ESN-0800#B, EOSD-1710#B, IMS-1760#B, PGS-0330#B

L4 Requirements:

C-MSS-36215, C-MSS-36320, C-MSS-36365, C-MSS- 60161, C-MSS-60171, C-MSS- 60371.

4.2.1.13.2 Test Case 2: Fault Detection & Notification of ASTER (B252.02.02)

This test verifies the MSS System Management Framework tool have the capability to detect hardware/software fault and MSS Fault Management Application Service have the capability to receive and request the fault notification over the ASTER.

Test Configuration:

- Hardware: Workstations
- Software: Release B, MSS System Management Framework tool, MSS Fault Management Application Service.
- Data:
- Tools:

Test Input:

Hardware or software fault are generated from remote system (over ASTER).

Test Output:

The hardware or software fault is detected and an appropriated notification is send to MSS and logged in the file.

Success Criteria:

The hardware or software fault is detected and notification is received by MSS.

L3 Requirements:

SMC-3390#B, SMC-4310#B, SMC-4311#B, NSI-0030#B, NSI-0040#B, ESN-0800#B, EOSD-1710#B, ASTER-1000#B, ASTER-1010#B

L4 Requirements:

C-MSS-36415, C-MSS-36515, C-MSS-36565, C-MSS- 60161, C-MSS-60171, C-MSS-60240, C-MSS-60242, C-MSS-60371.

4.2.1.13.3 Test Case 3: Performance Management & Notification of EBnet (B252.02.03)

This test verifies the MSS Performance Management Application Service have the capability to collect the performance data and MSS System Management Framework tool have the capability to receive and request the performance data over the EBnet

Test Configuration:

- Hardware: Workstations
- Software: Release B, MSS System Management Framework tool, MSS Performance Management Application Service
- Data:
- Tools:

Test Input:

Performance data (system utilization, disk utilization, CPU etc.) generated from remote system (over EBnet).

Test Output:

The performance data is collected and sent to MSS and logged in file, an appropriated notification is sent to M&O staff.

Success Criteria:

The performance data is collected and notification is received.

L3 Requirements:

EOSD-1710#B,NSI-0060#B, SMC-4311#B, IMS-1760#B, PGS-0330#B

L4 Requirements:

C-MSS-36215, C-MSS-36320, C-MSS-36365, C-MSS- 66141, C-MSS-66151

4.2.1.13.4 Test Case 4: Performance Management & Notification of ASTER (B252.02.04)

This test verifies the MSS Performance Management have the capability to collect performance data and MSS System Management Framework tool have the capability to receive and request the performance data over the ASTER

Test Configuration:

- Hardware: Workstations
- Software: Release B, MSS System Management Framework, MSS Performance Management Application Service.

- Data:
- Tools:

Test Input:

Performance data (system utilization, disk utilization, CPU etc.) generated from remote system (over EBnet).

Test Output:

The performance data is collected and sent to MSS and logged in file, an appropriated notification is sent to M&O staff.

Success Criteria:

The performance data is collected and notification is received.

L3 Requirements:

SMC-4311#B, NSI-0060#B , EOSD-1710#B

L4 Requirements:

C-MSS-36415, C-MSS-36515, C-MSS-36565, C-MSS- 66141, C-MSS-66151

4.2.1.13.5 Test Case 5: Remote File Transfer Termination Test (B252.02.05)

This test verifies the MSS System Management Framework tool have the capability to detect a remote file transfer termination. Testing includes monitoring the system management framework tool while the file transfer process is located and terminated.

Test Configuration:

- Hardware: Workstations
- Software: Release B, MSS System Management Framework, MSS Fault Management Application Service.
- Data:
- Tools:

Test Input:

Deliver a Science Software Package. Root Map of System Management Framework tool displayed on tester's machine. Fault occurred and the file transfer terminated abruptly.

Test Output:

The file transfer terminated. Internet symbol of root map on the System Management Framework change the color.

Success Criteria:

Software delivery terminated. Traversing through the system management framework maps the tester should be directed to the transfer fault. Log file should record all system activities.

L3 Requirements:

IMS-1760#B, PGS-0330#B, LAND-0120#B

L4 Requirements:

C-MSS-36360 C-MSS-36410, C-MSS-36460, C-MSS-36510, C-MSS-36560, C-MSS-36710, C-MSS-60260

4.2.1.14 Management Service Build (B251.02)

Testing verifies the ability to perform accounting of ground segment resources by ECS and external users, end-to-end cost accounting, accounts receivable and resource utilization. Testing will verify that accounts receivable handles payments for user account refunds, external suppliers and shipping providers, and handles receiving amounts due from users for products, media, consumable and shipping, and credits from external providers. Credit tracking provides distributed, mostly automated deduction or posting of charges or credits from or to user account balances, excluding non-ECS data services (ADC, ODC). Price estimation provides representative pricing information (based on a standardized pricing table up datable by the SMC accountant) for ECS and non-ECS providers to give the user a feel for the price prior to ordering a product. Invoicing and billing provides periodic formal reporting of account status to users and notification of payment requirements (if necessary). Reports can be generated to assist in trending/planning, policy reviews and financial audits.

This Build tests the ability to generate reports showing maintenance schedules for system hardware, software, and scientific software for routine, non-routine and upgrade maintenance activities. Testing will demonstrate the ability to generate reports on the standard analysis of system event logs and ad-hoc reports utilizing a fourth generation language.

4.2.1.14.1 Test Case 1: ECS Users Account Creation and Authorization Report Generation (B251.02.01)

This test verifies the MSS BAAS is capable of creating a new account, accommodating prior period and future period transaction entries, information exported to Report Generation Service then generate account authorization report.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management, Report Generation Services

- Data: Account activity data from the ECS Management Database. User accounts have set up for different condition - rate, payment status etc.
- Tools:

Test Input:

The BAAS GL function create a new user account, verify transaction entries are successfully executed without error and information export to Report Generation Service.

Test Output:

The user account authorization report is generated and printed.

Success Criteria:

The new account is established, the transaction entries are successfully executed without errors and account authorization report is generated and printed.

L3 Requirements:

SMC-7300#B, SMC-8880#B, SMC-8920#B

L4 Requirements:

C-MSS-75001, C-MSS-75015, C-MSS-75100, C-MSS-75110, C-MSS-79980, C-MSS-92550, C-MSS-92700, C-MSS-92710.

4.2.1.14.2 Test Case 2: ECS Users Account Processing(B251.02.02)

This test verifies the MSS BAAS has the capability to process account transactions and access the ECS management database to collect Account activity data then generate proper format statement.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management
- Data: Account activity data from the ECS Management Database. User accounts have set up for different condition - rate, payment status etc.
- Tools:

Test Input:

BAAS Account Receivable and Billing/Invoicing functions are initiated. User account transaction is processed then via manipulation of the system data and billing cycle parameters for the system simulates the billing process. ECS Management Database will be invoked and

Account activity data will be distributed to the BAAS Billing and Invoicing function. Further more, user activity information will be collected which can be used to generate proper statement report.

Test Output:

Account activity data will be collected from the ECS Management Database, for use in the billing of accounts, billing statements and invoices are generated and user activity information is collected, logged and printed.

Success Criteria:

Data for all user activities within the billing cycle will be collected from the ECS Management Database, for use in the billing of accounts, all the account activity data are collected, logged and printed.

L3 Requirements:

SMC-6370#B, SMC-6380#B, SMC-6410#B, SMC-8880#B, SMC-8920#B

L4 Requirements:

C-MSS-78220, C-MSS-79860, C-MSS-79980, C-MSS-92550, C-MSS-92700, C-MSS-92710.

4.2.1.14.3 Test Case 3: Users Account Information Transfer and Analysis Report Generation (B251.02.03)

This test verifies the MSS BAAS function allows the transfer of information to Report Generation application which is outside of the Billing/Accounting Application Services.

Test Configuration:

- Hardware: Workstations
- Software: BAAS Management, Report Generation
- Data: Account activity data from the ECS Management Database. User accounts have set up for different condition - rate, payment status etc.
- Tools:

Test Input:

The Account information has been collected and transfer (export) to Report Generation Service and to output report and query results to user console and file, it can be imported to analysis tools i.e. spreadsheets.

Test Output:

The transferred information export successfully and reports of the query results are generated to the console and printer. A spreadsheet report is generated and printed.

Success Criteria:

The generate reports are printed and can be imported to other analysis tools.

L3 Requirements:

SMC-6370#B, SMC-6380#B, SMC-8790#B, SMC-8920#B

L4 Requirements:

C-MSS-79860, C-MSS-79980, C-MSS-92070

4.2.1.14.4 Test Case 4: System Report Generation (B251.02.04)

This test verifies the Report Generation Service has the capability to generate some of system reports, such as: Resource Performance Report, Ground Resource Availability Audit Report, User Activity Audit Report, Storage Management Activity Report etc.

Test Configuration:

- Hardware: Workstations
- Software: Report Generation
- Data: .
- Tools:

Test Input:

Bring up the Report Generation Service to generate some of system reports.

Test Output:

The detail or summary reports are produced and printed

Success Criteria:

The required contents are included in the produced reports.

L3 Requirements:

SMC-6370#B, SMC-6380#B, SMC-8880#B,SMC-8840#B, SMC-8860#B, SMC-8920#B

L4 Requirements:

C-MSS-79850, C-MSS-79980, C-MSS-92160, C-MSS-92260, C-MSS-92310.

4.2.2 CSS

4.2.2.1 Security Services Thread II (T221-30.02)

The objective of the Security thread are as follows:

- Provide the ability to regulate access to networked resources based on names and group membership privilege for authorization.
- Provide the ability to prove authenticity in a client/ server environment before access is granted for the resource.
- Provide the ability to perform security risk processing and compromise.
- Provide statistical data collection via monitoring for valid and invalid system access attempts.

Testing is performed to verify that user authentication request for DAAC privileges are processed and that product generation requests are generated for authorized users. The Security of sending and receiving the data is made possible by the unique key that is agreed upon by the sender and receiver.

The policies and procedures set forth by the administrator will allow receiving and transferring of data from various media and electronic data sources. To ensure that the security criteria adheres to the C2 (Controlled Access Protection) as documented by the Department of Defense, security directive, parameters, and thresholds for the generation of alerts are established in the policies and procedures application services.

4.2.2.1.1 Test Case 1: Security Policy (T221-30.02.01)

This test verifies that the EMC security management application service maintains security policies and procedures to include physical security, password management, operational security, data security, privileges, network security and compromise mitigation.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service
- Data:
- Tools: XRunner

Test Input:

Use authentication, authorization on the ECS system

Test Output:

Authentication should always be used in every conversation between a client and a server, the mechanisms for authorization, data integrity and privacy are based on security policies of the system(s).

Success Criteria:

Policies exists to use the mechanisms for authentication, authorization, tamper-proofing (for data integrity) and encryption (for data privacy).

L3 Requirements:

SMC-5300#B

L4 Requirements:

C-MSS-70600

4.2.2.1.2 Test Case 2: Security Management Service (T221-30.02.02)

This test verifies the capability of the MSS security management application service to manage encrypted information including keys.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service
- Data:
- Tools: XRunner

Test Input:

Protected level selected Packet_privacy

Test Output:

Packet_privacy will ensure the privacy of data through the use of secret-key encryption..

Success Criteria:

Packet_privacy will ensure the privacy of data.

L3 Requirements:

SMC-5360#B

L4 Requirements:

C-MSS-70515

4.2.2.1.3 Test Case 3: Security Delegation (T221-30.02.03)

This test verifies that the security service provides security delegation service for distributed file service and client/server.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service
- Data:
- Tools: XRunner

Test Input:

Opening an intermediate server and initiate a client to access the target server,

Test Output:

Client/Server session is being established (find and bind from the directory service, authentication and authorization from the security service). ECS distributed computing consists of several clients and server applications running on different platforms. Clients send data to servers, which process the data and return the result to the client.

Success Criteria:

Client and server will interface to native protocol. All data returned from the servers

L3 Requirements:

ESN-0010#B, ESN-1365#B

L4 Requirements:

C-CSS-01230, C-CSS-01270, C-CSS-21220

4.2.2.1.4 Test Case 4: Access Control List (T221-30.02.04)

This test verifies that the security service provides a security service ACL manager library.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service
- Data:
- Tools: XRunner

Test Input:

ACL manager implements 3 permission bits:

R = read (for reading characteristics and counters)

W= write (for setting characteristics and counter)

C= control (to control the ACL itself)

Test Output:

The ACL guards the RPC entry in the CDS namespace by the cds_admin and cds_server security groups the ACL protects the DOF object itself is controlled by the DOF-admin security group.

Success Criteria:

ACL manager has three securities control, read and write.

L3 Requirements:

EOSD-0500#B

L4 Requirements:

C-CSS-01280

4.2.2.2 Infrastructure Services Thread II (T221-40.02)

The ECS contains several infrastructure features which facilitate the implementation of client-server applications. The primary objective of the Process Framework is to ensure design and implementation consistency for all ECS Client and Server applications. This thread verifies that DCE Configuration Items are valid, ability to set DCE Directory/Naming Service are avbailable and the Infrastructure Services of Subscription are available.

4.2.2.2.1 Test Case 1: Subscription Requests Actions (T221-40.02.01)

This test verifies the ability of the subscription service shall validate the subscription requests actions.

Test configuration:

- Hardware: Workstations
- Software: CSMS CSS, DCE
- Data: DCE Configuration
- Tools: XRunner

Test Input:

The tester will attempt to validate the subscription requests that specify an action to be taken and an event to initiate the action, receipt of data type events, change in core metadata events, time interval daily, weekly and monthly events.

Test Output:

Message indicating that the subscription services validated the subscription requests, changed in core metadata events, time interval events, sent notification, distribution actions and data request actions.

Success Criteria:

The subscription services requested by the tester is validated, changed in core metadata, time interval events and sent notification, collection of data for later distribution and data request actions.

L3 Requirements:

DADS-0498#B

L4 Requirement:

C-CSS-40040

4.2.2.2.2 Test Case 2: Subscription Handler and Event (T221-40.02.02)

This test verifies the ability of the subscription service shall process the subscription request.

Test Configuration:

- Hardware: Workstations
- Software: CSMS CSS, DCE
- Data: DCE Configuration
- Too1s: XRunner

Test Input:

1. The tester will attempt to validate that subscription update requests specify a valid subscription identifier and valid replacement subscription.
2. The tester will attempt to periodically report on new events for timer based Subscriptions and will not repeat notification of old events.

Test Output:

Message indicating that the subscription services validated updated requests identifier on the first come first serve basis, periodically reported on new events for timer based subscription and will not repeat notification of old events.

Success Criteria:

The subscription services updated, reported new events for timer based subscription and will not repeat notification of old events.

L3 Requirements:

IMS-0740#B, IMS-0920#B, IMS-1080#B

L4 Requirement:

C-CSS-40230, C-CSS-40260

4.2.2.2.3 Test Case 3: Subscription Notifies Users (T221-40.02.03)

This test verifies the ability of the subscription service shall process the subscription request.

Test Configuration:

- Hardware: Workstations
- Software: CSMS CSS, DCE
- Data: DCE Configuration
- Tools: XRunner

Test Input:

Verify that the subscription services provide the capability to bundle notification of discrete events into a single notice to the subscriber.

Test Output:

Message indicating that the subscription services provided the capability to notify users when data is available via email, bundle notification of discrete events into a single notice to the subscriber, request notification of data arrival, subscriber of QA changes and notify a subscriber on individual data granule basis.

Success Criteria:

The subscription services notified users when data is available, requested data is arrival, discrete events into single basis, QA changed and notified a subscriber on individual data granule basis via email services.

L3 Requirements:

IMS-0740#B, IMS-0920#B, IMS-1080#B

L4 Requirement:

C-CSS-40150

4.2.2.2.4 Test Case 4: Subscription CI (T221-40.02.04)

This test verifies the ability of the subscription service shall provide the capability to notify a user and update the data.

Test Configuration:

- Hardware: Workstations
- Software: CSMS CSS, DCE
- Data: DCE Configuration
- Tools: XRunner

Test Input:

1. Verify that the subscription service shall provide the capability to notify a user that a new version of the data has been archived.
2. Verify that the subscription service shall accept subscription update requests to update stored subscriptions by changing the event or the action.
3. Verify that the subscription service shall provide the capability for operations staff to update the stored subscriptions by changing the event and /or action.
4. Verify that the subscription service shall provide the capability for a user client to update their stored subscriptions by changing the action and or event.

Test Output:

The subscription services accepted and provided capability to notify a user that a new version of the data has been archived, accepted data availability schedules from the PLANG CI, changed the event and action and updated request, operations staff, a user client to update the stored subscriptions.

Success Criteria:

The subscription services accepted and provided updated request, operations staff to update the stored subscriptions and notify to user that a new version of the data has been archived and data availability scheduled from the PLANG CI,

L3 Requirement:

DADS-0412#B, DADS-0500#B, SDPS-0080#B

L4 Requirement:

C-CSS-40120, C-CSS-40170, C-CSS-40190, C-CSS-40200

4.2.2.3 Network Services Thread II (T221-50.02)

This thread tests the DFS and Dial-up services. Testing is performed to verify the capability of distributed file service (DFS). Testing is performed to verify the accessed file to be in its most recent version. Test also verifies the capability to change directory on the remote host. Testing verifies the capability of the ECS host to accept the dial-in sessions.

4.2.2.3.1 Test Case 1: File Access Enhancements (T221-50.02.01)

This test verifies that the capability of the file access enhancement for uninterrupted file access to most current version of file, and can change directory remotely.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DFS application
- Data: valid user name, password and existing files and directory
- Tools: XRunner

Test Input:

Bring down the DFS, and bring it up and open a file.

RLOGON to the host via a remote host and enter "cd <directory>.

Test Output:

The file can be opened without error after DFS failure. And directory can be changed without problems.

Success Criteria:

Opening a file and changing a directory is the same as usual in the local environment.

L3 Requirements:

ESN-0010#B

L4 Requirements:

C-CSS-60330, C-CSS-60340, C-CSS-60350

4.2.2.3.2 Test Case 2: Dial-up Access Enhancements (T221-50.02.02)

This test verifies that the capability of the CSS to accept the dial-in call to host to request the remote session. Use various modems and speeds for PC to dial-up to host.

Test Configuration:

- Hardware: DCE cell, Workstation, PC
- Software: PC Communication package, Internet browser.
- Data: valid user name and password
- Tools: XRunner

Test Input:

PC dial in to host dial-in port via PC modem and the host phone number.

Use logon name and password to logon to the host.

Test Output:

The host accept the call and display the welcome banner.

Success Criteria:

No error occurs when modem dial in to the host and the host accept the call without error message.

L3 Requirements:

ESN-0010#B

L4 Requirements:

C-CSS-64000

4.2.2.4 DCE Encapsulation Thread II (T221-60.02)

This thread has the function of Life Cycle services which can be broadly classified into two categories: Application and Object level. Life cycle services for applications involve Startup, shutdown, Suspend and Resume functionality on applications. This functionality lets the M&O manage server applications. MSS provides the application related life Cycle functionality. CSS provides the internal APIs that are needed for the MSS to control the applications. Life Cycle services for objects provide the application programmer with the functionality to create and delete server objects residing in different address spaces.

4.2.2.4.1 Test Case 1: Life Cycle Services (T221-60.02.01)

This test verifies the ability of the Life Cycle Service to provide a generic installation capability that creates a new object for a client, provides an API that accepts state initialization information, accepts resource preference information, returns an object invocation handle and ensures that a server is available to service a user request, and acts as an intermediary during the client server connection phase.

Test Configuration:

- Hardware: Workstations
- Software: CSMS CSS, DCE
- Data: EcTint, DCENsiObject*, rpc_auth_identity_handle_t, unsigned32
- Tools: XRunner

Test Input:

1. Partial information of how to reach the server object. (Creating objects needs to be registered in a directory).
2. Log on to ECS system, startup, shutdown, suspend and resume functionality. (This functionality lets the M&O manage server applications).
3. Log onto ECS system, change port number every time an application is brought up.
4. Application binding information is registered in the CDS. Shutdown removes that information from the CDS. Removing the information from the CDS prevents new clients from obtaining information about the server objects. Clients with existing binding information can no longer reach the server object.
5. In order for an object to service requests, it should be registered in several places together with the object-related information. Firstly, the object needs to be registered in a directory service which provides clients with partial information of how to reach the server object; the remaining of the information, that is, how to reach the server object, is kept into the end point mapper running on the host.
6. The server object needs to be registered with the endpoint map.

Test Outputs:

Messages indicating that the Life cycle service created an object and displayed, CSS provides the internal APIs that are needed for the MSS to control the applications. All information is kept in the endpoint mapper. Error status will be returned to the caller. Service is available for request user. Shutdown, start suspend, and resume controlled functions an provided to limit the ability of clients to reach server objects.

Success Criteria:

The server object information is kept into the end point mapper running on the host. CSS provides the internal APIs to help MSS application. Error message will be returned. After acquiring information, the client makes a call to that port on a particular host. Global server object receives the call and dispatches it to one of the objects residing in its address space. Shutdown, start suspend, and resume functions of the lifecycle services control limit the ability of clients to reach server objects.

L3 Requirements:

EOSD-3000#B

L4 Requirements:

C-CSS -24010, C-CSS -24020, C-CSS -24040, C-CSS -24060

4.2.2.5 System Security and Services II (B221.02)

The following threads verify the set of requirements related to System Security and Services II:

- Network Service Thread II
- Security Service Thread II
- Infrastucture Service Thread II
- DCE Encapsulation Thread II
- ILS Management Thread IIA
- ILS Management Thread IIB

The objective of the System Security & Service II are as follows:

- Provide the ability to perform DCE Object services.
- Provide the ability to perform management system functions for the DCE user and gateway user.
- Provide the ability to perform configuration management functions.

Testing is performed to verify network services are available via DCE environment.

Testing is performed to verify process framework services are provided to clients and servers. Testing is performed to verify message passing and life cycle services are provided to the MSS servers.

4.2.2.5.1 Test Case 1: DFS Interoperates with NFS (B221.02.01)

This test verifies the interoperability between DFS and NFS. It ensures that DFS/NFS Gateway Server (GS) allows NFS clients to securely access the DFS file space.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service
- Data:
- Tools: XRunner

Test Input:

Tester as a NFS client will attempt to access the DFS file service through the Gateway Server (GS is a DFS client).

Test Output:

The Gateway server will appear as a standard NFS file server to NFS clients.

Success Criteria:

The files that were exported from the DFS via NFS clients will appear.

L3 Requirements:

ESN-0010#B

L4 Requirements:

C-CSS-01270

4.2.2.5.2 Test Case 2: FTP Encrypted files (B221.02.02)

This test verifies the ability to transfer the files between local and remote machines via the file transfer protocol (FTP). It also tests the ability of valid and invalid ID to gain access to the files.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service
- Data:
- Tools: XRunner

Test Input:

Tester will attempt to encrypt the files by entering options from the Kerberos application menu. Then the file will be sent across the network. Once the file has been successfully transferred, attempts will be made to read it by both authorized and unauthorized users.

Test Output:

Output of the status logs will be verified from the encryption tool and the network monitoring tool.

Success Criteria:

The files that were transferred are moved to the local and remote machines and only the authorized user can access the files.

L3 Requirements:

ESN-0010#B

L4 Requirements:

C-CSS-01270

4.2.2.5.3 Test Case 3: Simple message passing (B221.02.03)

This test verifies the capability to do simple message passing from one application to the other application.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service
- Data:
- Tools: XRunner

Test Inputs:

Message passing from one application to the other application.

- No changes on server side
- Remote method invocation with multiple argument types
- No store and forward

Test Outputs:

Successful message passed by server.

Success Criteria:

Agent will notify the network node manager.

L3 Requirements:

ESN-0450#B

L4 Requirements:

C-CSS-22080

4.2.2.5.4 Test Case 4: Suspend an Application Process (B221.02.04)

This test verifies that the shutdown of an application process needs to suspend all the server objects.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service
- Data:
- Tools: XRunner

Test Inputs:

In the process of shutting down an application, shutdown needs to suspend all the server objects.

Test Outputs:

It will call the suspend , listen the loop and exit.

Success Criteria:

Internally it calls the suspend first and then comes out of the listen loop and exits the application.

L3 Requirements:

EOSD3000#B

L4 Requirements:

C-CSS-30160

4.2.2.5.5 Test Case 5: Lifecycle of the Maintenance Process (B221.02.05)

This test will verify that DCE lifecycle service is executed for the maintenance process.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE lifecycle service, MSS Maintenance process.
- Data: lifecycle commands
- Tools: Xrunner

Test Inputs:

Log onto DCE cell, startup MSS Maintenance process.

Shutdown the process, resume the process.

Suspend the process, stop the process..

Test Outputs:

The process can be terminated and re-started with causing any system failure.

Success Criteria:

The process can be manipulated according to the lifecycle

L3 Requirements:

ESN-0450#B, EOSD-3000#B, SMC-2200#B

L4 Requirements:

C-CSS-10810, C-CSS-24020, C-CSS-30160, C-CSS-30170, C-MSS-50000

4.2.2.5.6 Test Case 6: Authorized DCE User Retrieves Inventory Information (B221.02.06)

This test verifies that the DCE user can dial-up to the system and access the ILM processes and products.

Test Configuration:

- Hardware: DCE cell, Workstation, X-terminal
- Software: DCE security service, dial-up service
- Data: DCE username, inventory database
- Tools: Xrunner

Test Input:

Input login name and password to the DCE. Invoke user home page and request inventory data. Retrieve and display inventory data.

Test Output:

Messages indicating the success login attempts are displayed.

Training is displayed.

Success Criteria:

Users securely access the DCE client and all executions correspond to the access permissions.

L3 Requirements:

EOSD-0500#B, ESN-0370#B

L4 Requirements:

C-CSS-10500, C-CSS-10520, C-CSS-10540

4.2.2.5.7 Test Case 7: User /Operator services (B221.02.07)

This test verifies that the DCE functions of user and operator services: virtual terminal service, email service, remote file access service, bulletin board service.

Test Configuration:

- Hardware: Workstations
- Software: CSMS CSS, DCE
- DataType: EcTint
- Toos: XRunner

Test Input:

1. Verify that DCE accepts the requests of virtual terminal service, email service, remote file access service, and bulletin board service from the User.
2. Verify that DCE provides the virtual terminal service, email service, remote file access service, and bulletin board service to the User.
3. Verify that DCE accepts system admin. information request from the operator.
4. Verify that DCE provides the system admin. information to the operator.

Test Output:

DCE accepts the request and provide the service from and to the User for the functions of virtual terminal service, email service, remote file access service and bulletin board service.

DCE accepts the request and provides the service from and to the operator for the system administration information related functions.

Success Criteria:

The functions of virtual terminal service, email service, remote file access service and bulletin board service can be invoked by the User and the functions of system administration information can be invoked by the operator.

L3 Requirements:

ESN-0010#B, ESN-0370#B, SMC-2610#B, EOSD-0370#B, EOSD-0500#B, EOSD-3000#B

L4 Requirements:

CSS-10500, CSS-10510, CSS-10520, CSS-10530, CSS-10540, CSS-10550, CSS-10560, CSS-10570, CSS-10580, CSS-10590

4.2.2.5.8 Test Case 8: Internal Interaction Services (B221.02.08)

This test verifies that the DCE functions of CLS, IOS, DMS, DSS, INS, DPS, PLS, MSS service: accept and provide authentication request, facilities request, authentication, common facilities response service, common facilities request, life cycle commands request, mode request, capability to send processing status, capability to send current mode, capability to send detected hardware and software fault information event notification and resource utilization data to the MSS.

Test Configuration:

- Hardware: Workstations
- Software: CSMS CSS, DCE
- DataType: EcTint
- Tools: XRunner

Test Input:

1. Verify that DCE provides the response of user authentication and common facilities services to the CLS, IOS, DMS, DSS, INS, DPS and PLS.
2. Verify that DCE accepts the requests of user authentication and common facilities services from the CLS, IOS, DMS, DSS, INS, DPS and PLS.
3. Verify that DCE services accept the common facilities services request, life cycle command request and mode management request from the MSS.
4. Verify that DCE provides the common facilities to the MSS.
5. Verify that DCE capabilities to send processing status, current mode, detected hardware and software fault information, event notification and resource utilization data to the MSS are operational.

Test Output:

DCE accepts the request and provides the response services from and to the CLS, IOS, DMS, DSS, INS, DPS and PLS for the functions of authentication and common facilities services.

DCE accepts the request, provides the service and capabilities from and to the MSS for the functions of common facilities services request, life cycle command request, mode management request, processing status, current mode, detected hardware and software fault information, event notification and resource utilization data.

Success Criteria:

The functions of authentication and common facilities services can be invoked by the CLS, IOS, DMS, DSS, INS, DPS and PLS and the functions of common facilities services request, life

cycle command request, mode management request, processing status, current mode, detected hardware and software fault information, event notification and resource utilization data can be invoked by the MSS.

L3 Requirements:

ESN-0010#B, ESN-0070#B, ESN-0450#B, ESN-0760#B, ESN-0830#B, ESN-1400#B, SMC-1330#B

L4 Requirements:

CSS-10600, CSS-10610, CSS-10620, CSS-10630, CSS-10640, CSS-10650, CSS-10660, CSS-10670, CSS-10680, CSS-10690, CSS-10700, CSS-10710, CSS-10720, CSS-10730, CSS-10740, CSS-10750, CSS-10760, CSS-10770, CSS-10780, CSS-10790, CSS-10800, CSS-10810, CSS-10820, CSS-10830, CSS-10840, CSS-10850, CSS-10860, CSS-10870, CSS-10880

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5. CSMS Release B Detail Test Procedures

5.1 Phase I

5.1.1 MSS

5.1.1.1 Management Agent I (T211-10.01)

5.1.1.1.1 Mode Receive Test Procedures (T211-10.01.01)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to a DAAC MSS server workstation (HP) in the EDF using valid ID and password as an administrator	Successful logon		
2	Initialize HP OpenView by using the commands: **< cd /user/OV/bin >**	The directory is changed		
3	**< ovw & >**	The OpenView graphical interface is started and a map depiction the overall topology is displayed		
4	Double click on the "**EDF**" icon	A map depiction the EDF configuration is accurately displayed		
5	MIB for subsystem resource: IOS, DMS, PLS, DPS, INS, DSS and CSS are set for each mode			

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
6	Logon to the INS server with a valid ID and password.	Successful logon		
7	Modify the configuration file with desired mode			
8	Start up the INS application with the mode specified	Application INS start up with specified mode		
9	On the OpenView Double click on the INS server icon	Node submap opens with the applications symbol associated with the mode is displayed		
10	Repeat the step 6, 7, 8,9 for the following applications: IOS, DMS, PLS, DPS, DSS and CSS	Applications start up with specified mode		
11		On the HP OpenView visual verify that the application started with specified mode is displayed		
12	Click on the "**All Events**" box in the "Event Categories" window	The "All Event Browser" window appears		
13	Examine the event log to determine whether all appropriate events have been documented	The events of application start up are recorded		
14	Select "File" from the menu bar, followed by "close"			
15	Exit from OpenView			
16	Logoff and end test			

5.1.1.1.2 Mode Request Test Procedures (T210-10.01.02)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to a DAAC MSS server workstation (HP) in the EDF using valid ID and password as an administrator	Successful logon		
2	Initialize HP OpenView by using the commands: **< cd /user/OV/bin >**	The directory is changed		
3	**< ovw & >**	The OpenView graphical interface is started and a map depiction the overall topology is displayed		
4	Double click on the "**EDF**" icon	A map depiction the EDF configuration is accurately displayed		
5	MIB for subsystem resource: IOS, DMS, PLS, DPS, INS, DSS and CSS are set with a software mode			
6	Click on the "Mode" from the menu bar	A pull down menu displayed with a list of services		
7	Select on **"ActivateMode"**			
8	Fill in the parameter - "**Production"** mode			
9	Fill in the parameter - the application name (INS)			

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
10	Fill in the parameter - the sim time			
11	Select on "**StartupExec**"	The application should start up with production mode		
12	Double click on the INS workstation icon	The submap for INS workstation is displayed and mode is association with the application which just bring up		
13	Repeat the step 6, 7, 8,9,10, 11,12 for the following applications: IOS, DMS, PLS, DPS, DSS and CSS	Applications start up with a specified software mode		
14	Click on the "**All Events**" box in the "Event Categories" window	The "All Event Browser" window appears		
15	Examine the event log to determine whether all appropriate events have been documented	The events of application start up are recorded		
16	Select "File" from the menu bar, followed by "close"			
17	Exit from OpenView			
18	Logoff and end test			

5.1.1.2 Accounting Stand-Alone Thread I (T211-20.01)

5.1.1.2.1 Accounting Functions Test Procedures (T211-20.01.01)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to a DAAC MSS workstation which runs BAAS software at the EDF using a valid ID and password as an M&O staff	Successful logon		
2	Start up the BAAS COTS			
3	Review the BAAS COST document			
4	Review the JFMIP document	Make sure that the BAAS COST functional requirements conform to the functional requirements defined by the JFMIP		
5	View the BAAS COTS menu	Verify that the menu contains the following functions: request processing, billing & invoicing, accounts receivable, collections, general ledger, cost accounting and reporting.		
6	Exit the COTS tool			
7	Logoff the MSS workstation			

5.1.1.2.2 Billing & Invoicing Process Test Procedures (T210-20.01.02)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to a DAAC MSS workstation which runs BAAS software at the EDF using a valid ID and password as an M&O staff	Successful logon		
2	Start up the BAAS COTS			
3	Import Accountability data from User Profile			
4	Insert Sybase User Profile data into Order Management			
5	Create complete accounts			
6	Import Order Tracking Data form Accountability Request Tracking into Order Management			
7	Adjust account information based on “standardized pricing table”			
8	Adjust account information based on “pre-paid account”			
9	Adjust account information based on “apply credits”			

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
10	Adjust account information based on “apply past due”			
11	Adjust account information based on “apply special rate”			
12	Generate sample bills			
13	Print billing statement			
14	Exit the BAAS COTS			
15	Start up the BAAS COTS			
16	Print the billing statement			
17	Exit the BAAS COTS			
18	Logoff the MSS workstation			

5.1.1.2.3 Account Management Test Procedures (T211-20.01.03)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to a DAAC MSS workstation which runs BAAS software at the EDF using a valid ID and password as an M&O staff	Successful logon		
2	Start up the BAAS COTS			
3	Import Accountability data from User Profile			
4	Insert Sybase User Profile data into Order Management			
5	Create complete accounts			
6	Import Order Tracking Data form Accountability Request Tracking into Order Management			
7	Select “Query”			
8	Fill in the necessary user information and hit enter	Query started and the user account information is collected		
9	Exit the BAAS COTS			
10	Logoff the MSS workstation			

5.1.1.3 Accountability Thread I (T211-30.01)

5.1.1.3.1 User Profile Services Test Procedures (T211-30.01.01)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to a CLS workstation as a regular user	Successful logon		
2	Bring up the "Browser"			
3	Change directory to the ECS Rel. B web site page **http://relbhpcs.hitc.com:1600**	ECS Release B home page displayed		
4	Double click on the "**ECS User Registration"**	ECS user Registration page displayed		
5	Fill in Applicant's Information with : Name, Organization, E-Mail Address, Requested Access, Mailing Address			
6	Click on "**Submit**" to register	Request for registration is sent out		
7	Logon to a DAAC MSS workstation at the DAAC (EDF, for example) using a valid ID and password as an M&O staff			
8	Start up the MSS Accountability Management Service by typing: **MsAcRegUserUI &**	MSS Accountability Management Service User Registration GUI interface is up and running		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
9	Click on "**Process Account Request**"	The detail panel will come up and the User information which just submitted for registration is displayed		
10	Click on "**Approve**" to approve the registration request	The User registration is approved and the user information should send to sybase		
11	Click on "**Manage Existing Accounts**"	The detail panel will come up		
12	Click on "**Personnel information**"	Personnel information is bring up		
13	Modify some personnel information and save it	Personnel information is modified		
14	Click on "**Mailing Address**"	Mailing address is bring up		
15	Modify the mailing address	Mailing address is changed		
16	Click on "**Shipping information**"	Shipping information is bring up		
17	Modify the shipping address	Shipping information is modified		
18	Click on "**Billing Account Information**"	Billing account information is bring up		
19	Modify the Billing Account Information, such as password, expiration date etc.	Billing account information is modified		
20	Click on "**delete**" to delete the existing user	The select user profile is deleted from the database		
21	Close the GUI interface			
22	Logoff the MSS workstation			

5.1.1.3.2 System Profile Services Test Procedures (T211-30.01.02)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to a workstation	Successful logon		
2	Fill in System Profile Inventory information	System Profile Inventory record created		
3	Logon to a DAAC MSS workstation at the DAAC (EDF, for example) using a valid ID and password as an M&O staff			
4	Start up the MSS Accountability Management Service	MSS Accountability Management Service GUI interface is up and running		
5	Click on "**Process System Profile** "	The detail panel will come up and the		
6	Fill in the system name and hit enter	The system profile inventory record displayed		
7	Make some modification on the inventory record			
8	Click on "**Save**"	The System profile inventory record is updated		
9	Fill in the system name and hit enter	The updated system profile inventory record is displayed		
10	Click on "**Delete**"	The system Profile inventory record is deleted		
11	Close the GUI interface			
12	Logoff the MSS workstation			

5.1.1.3.3 CLS Accountability Services Test Procedures (T211-30.01.03)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to a CLS workstation as a regular user	Successful logon		
2	Bring up the "Browser"			
3	Change directory to the ECS Rel. B web site page **http://relbhpcs.hitc.com:1600**	ECS Release B home page displayed		
4	Double click on the "**ECS User Registration"**	ECS user Registration page displayed		
5	Fill in Applicant's Information with : Name, Organization, E-Mail Address, Requested Access, Mailing Address			
6	Click on "**Submit**" to register	Request for registration is sent out		
7	Double click on the "**ECS Survey"**	ECS Comment & Survey page displayed		
8	Fill in the comments and submit			
9	Logon to a DAAC MSS workstation at the DAAC (EDF, for example) using a valid ID and password as an M&O staff			
10	Start up the MSS Accountability Management Service by typing : **MsAcRegUserUI &**	MSS Accountability Management Service User Registration GUI interface is up and running		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
11	Click on "**Process Account Request**"	The detail panel will come up and the User information which just submitted for registration is displayed		
12	Click on "**Approve**" to approve the registration request	The User registration is approved and the user information should send to sybase		
13	Click on "**Manage Existing Accounts**"	The detail panel will come up		
14	Click on "**Personnel information**"	Personnel information is bring up		
15	Modify some personnel information and save it	Personnel information is modified		
16	Click on "**Mailing Address**"	Mailing address is bring up		
17	Modify the mailing address	Mailing address is changed		
18	Click on "**Shipping information**"	Shipping information is bring up		
19	Modify the shipping address	Shipping information is modified		
20	Click on "**Billing Account Information**"	Billing account information is bring up		
21	Modify the Billing Account Information, such as password, expiration date etc.	Billing account information is modified		
22	Click on "**delete**" to delete the existing user	The select user profile is deleted from the database		
23	Close the GUI interface			
24	Logoff the MSS workstation			

5.1.1.3.4 INS and DSS Accountability Services Test Procedures (T211-30.01.04)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to a DAAC INS workstation with a valid user ID and Password	Successful logon		
2	Place order for Ingest data			
3	Logon to DAAC DSS workstation with a valid user ID and password	Successful logon		
4	Place order for science Data			
5	Logon to a DAAC MSS workstation at the DAAC (EDF, for example) using a valid ID and password as an M&O staff	Successful logon		
6	Start up the MSS Accountability Management Service for Order Tracking by typing: **EcAcOrderUI &**	MSS Accountability Management Service Order Tracking GUI interface is up and running		
7	Fill in the user information	The order record for this user will display		
8	Repeat the step 7 for different user id			
9	Close the GUI interface			
10	Logoff the MSS server			

5.1.1.4 CM Enhancement Thread I (T211-40.01.01)

5.1.1.4.1 MSS Software Distribution Service (T211-40.01.01)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the MSS workstation.			
2	Type tivoli &.	The tivoli main menu should appear. (The environment and configuration variables should have already been set up with delivery.)		
3	Select Software Distribution.	Software Distribution is invoked and the Policy Region Window should be displayed.		
4	Select Create Profile Manager.	Profile Manager screen should be displayed.		
5	Type in software to be distributed. (The location of the software is also typed in at this time. In addition, enable the log file. This indicates that the log file will be updated for all conditions associated with the transfer of this software.)	Software name and location should be displayed.		
6	Type in subscribers. (Set one of the subscribers as the CSS Bulletin Board, set one of the subscribers that does not exists)	Subscriber names should be displayed .		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
7	Select a subscriber.	File Package Properties screen should be displayed.		
8	Set properties (such as stop distribution on error, select to send email, email address, and select to send to a log file with host name and path to log file). (also set one subscriber as automatic with a schedule)	Tester should be able to set properties.		
9	Repeat steps 7 and 8 for each subscriber.			
10	Step back to Policy Region Screen.	A distribution profile for a particular software package should have been created.		
11	Execute distribution profile. (At this step the electronic transfer by direct command is being performed. If any of the subscribers were set up with a schedule then the electronic transfer by automatic schedule has been set.)	Profile should have executed correctly, which will be determined by the next few steps.		
12	View the CSS Bulletin Board.	The CSS Bulletin Board should show an item for the software that was distributed in step 11. This item is the location where the software package can be found.		
13	Retrieve software package that was distributed for the CSS Bulletin Board.	The software package should have been retrieved.		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
14	Verify that each site (subscriber) received the software package.	Each site on the subscriber's list in the executed distribution package should have received the software package.		
15	Verify that the automatic scheduling worked.	The predetermined site (subscriber) should not have received the software package until after the predetermined time. Check before and after the predetermined time. (This was one of the properties set in step 8.)		
16	View the log file.	There should be an entry for each successful send an one failure for the subscriber that does not exist.		
17	Repeat steps 1 through 11. This time set up the profile for a pull scenario.			
18	Verify that the desired site did pull the software package from a central storage depot.	The desired site has the software package.		
19	Repeat steps 1 through 11. This time set select a software package from a version controlled repository. (Step 5)			
20	Verify that the desired software package was sent.	The desired sites received the selected software package.		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
21	Repeat steps 1 through 11. This time set select a software package from a repository from the Baseline Manager Service. (Step 5)			
22	Verify that the desired software package was sent.	The desired sites received the selected software package.		
23	Repeat steps 1 through 11. This time set select a software toolkit package. (Step 5)			
24	Verify that the desired software package was sent.	The desired sites received the selected software package.		

5.1.1.5 ILS Management Thread I (T211-50.01.01)

5.1.1.5 MSS License Management Service (T211-5.01.01)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the MSS workstation.			
2	Set up files for FLEX LM and IFOR/LS (COTS products that provide license management) with the products being used by development. (This test must be run against products that are being actively used.) This is the initialization of the files that contain the product identification, licensing provisions, and numbers and type of users. In addition, the log files that will contain license management events and metering events are initialized at this step.	These are ASCII files. View the files to confirm that they have been initialized.		
3	Start up FLEX LM and IFOR/LS. Continue the execution for at least 24 hours before continuing onto the step 5. These products run in the background and meter the use of software licenses.	Both COTS packages should begin execution and continue until terminated.		
4	During the 24 hour period create, install, modify, and reinstall software licenses on ECS servers.	Messages should be generated stating completion of each task.		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
5	View the FLEX LM log.	The log should contain license management events, license metering events, and information on product identification, licensing provisions, numbers and types of users. This includes entries on tasks performed in step 4 and notifications to the M&O staff of metering events.		
6	View the IFOR/LS log.	The log should contain license management events, license metering events, and information on product identification, licensing provisions, numbers and types of users. This includes entries on tasks performed in step 4 and notifications to the M&O staff of metering events.		
7	Execute data extraction program. (This data being extracted will be used to generate the desired report on license utilization statistics. This program will be on an automatic schedule.)	Data extraction program should execute.		
8	View the database containing the extracted data.	The database should contain the desired data in the appropriate grouping and format.		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
9	Execute report generation program. (This program compiles license utilization statistics and produces the report on license utilization statistics. This program will be on an automatic schedule.)	Report generation program should execute and produce a report.		
10	View report.	Report should contain the appropriate information in the desired format.		
11	Verify that license provisions (which include authorization key for each product) can be distributed system-wide. (This will be accomplished using the MSS Software Distribution Service. Steps 12 through xx.)	The selected sites should receive the license provisions.		
12	Logon to the MSS workstation.			
13	Type tivoli &.	The tivoli main menu should appear. (The environment and configuration variables should have already been set up with delivery.)		
14	Select Software Distribution.	Software Distribution is invoked and the Policy Region Window should be displayed.		
15	Select Create Profile Manager.	Profile Manager screen should be displayed.		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
16	Type in file name, which contains the license provision information, to be distributed. (The location of the file name is also typed in at this time. In addition, enable the log file. This indicates that the log file will be updated for all conditions associated with the transfer of this software.)	File name and location should be displayed.		
17	Type in subscribers.	Subscriber names should be displayed .		
18	Select a subscriber.	File Package Properties screen should be displayed.		
19	Set properties (such as stop distribution on error, select to send email, email address, and select to send to a log file with host name and path to log file).	Tester should be able to set properties.		
20	Repeat steps 18 and 19 for each subscriber.			
21	Step back to Policy Region Screen.	A distribution profile for a particular software package should have been created.		
22	Execute distribution profile.			
23	Verify that each site (subscriber) received the file.	Each site on the subscriber's list in the executed distribution package should have received the file.		

5.1.1.6 Mode Management Thread I (T210-10.01)

5.1.1.6.1 Concurrent Execution of Test and Production Modes Test Procedures (T210-10.01.01)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to a DAAC MSS server workstation (HP) in the EDF using valid ID and password as an administrator	Successful logon		
2	Initialize HP OpenView by using the commands: **< cd /user/OV/bin >**	The directory is changed		
3	**< ovw & >**	The OpenView graphical interface is started and a map depiction the overall topology is displayed		
4	Click on the "Mode" from the menu bar	A pull down menu displayed with a list of services		
5	Select on **"ActivateMode"**			
6	Fill in the parameter - "**Production"** mode			
7	Fill in the parameter - the application name			
8	Fill in the parameter - the sim time			
9	Select on "**StartupExec**"	The application should start up with production mode		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
10	Click on the “Mode” from the menu bar	A pull down menu displayed with a list of services		
11	Select on **“ActivateMode”**			
12	Fill in the parameter - “**Test”** mode			
13	Fill in the parameter - the application name			
14	Fill in the parameter - the sim time			
15	Select on “**StartupExec**”	The application should start up with production mode		
16	Double click on the **EDF** icon	A map depicting the EDF configuration is accurately displayed		
17	Double click on the workstation icon which the application was start up	The submap for that workstation is displayed and verify that the application which just started up is associated with the production mode		
18	Double click on the “**Services**” icon	A submap of type of mode is displayed		
19	Double click on **“Production Mode”**	A submap of list of services is displayed		
20	Double click on a **service**	A submap of list of application is displayed		
21	Double click on a **application**	A submap of list of program is displayed		
22	Double click on a **program**	Program instance is displayed		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
23	Repeat the steps 18 - 22 for **Test Mode**			
24	Click on the "**All Events**" box in the "Event Categories" window	The "All Event Browser" window appears		
25	Examine the event log to determine whether all appropriate events have been documented	The events of application start up are recorded		
26	On workstation, initialize another application with production mode			
27	Bring up the application with production mode	An error message should display		
28	Click on the "**All Events**" box in the "Event Categories" window	The "All Event Browser" window appears An error message in the Event log to indicate that there are second application tried to come up with production mode		
29	Select "File" from the menu bar, followed by "close"			
30	Exit from OpenView			
31	Logoff and end test			

5.1.1.6.2 Concurrent Execution of Training and Production Modes Test Procedures (T210-10.01.02)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to a DAAC MSS server workstation (HP) in the EDF using valid ID and password as an administrator	Successful logon		
2	Initialize HP OpenView by using the commands: **< cd /user/OV/bin >**	The directory is changed		
3	**< ovw & >**	The OpenView graphical interface is started and a map depiction the overall topology is displayed		
4	Click on the "Mode" from the menu bar	A pull down menu displayed with a list of services		
5	Select on **"ActivateMode"**			
6	Fill in the parameter - "**Production"** mode			
7	Fill in the parameter - the application name			
8	Fill in the parameter - the sim time			
9	Select on "**StartupExec**"	The application should start up with production mode		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
10	Click on the “Mode” from the menu bar	A pull down menu displayed with a list of services		
11	Select on **“ActivateMode”**			
12	Fill in the parameter - “**Training”** mode			
13	Fill in the parameter - the application name			
14	Fill in the parameter - the sim time			
15	Select on “**StartupExec**”	The application should start up with production mode		
16	Double click on the **EDF** icon	A map depicting the EDF configuration is accurately displayed		
17	Double click on the workstation icon which the application was start up	The submap for that workstation is displayed and verify that the application which just started up is associated with the production mode		
18	Double click on the “**Services**” icon	A submap of type of mode is displayed		
19	Double click on **“Production Mode”**	A submap of list of services is displayed		
20	Double click on a **service**	A submap of list of application is displayed		
21	Double click on a **application**	A submap of list of program is displayed		
22	Double click on a **program**	Program instance is displayed		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
23	Repeat the steps 18 - 22 for **Training Mode**			
24	Click on the "**All Events**" box in the "Event Categories" window	The "All Event Browser" window appears		
25	Examine the event log to determine whether all appropriate events have been documented	The events of application start up are recorded		
26	On workstation, initialize another application with production mode			
27	Bring up the application with production mode	An error message should display		
28	Click on the "**All Events**" box in the "Event Categories" window	The "All Event Browser" window appears An error message in the Event log to indicate that there are second application tried to come up with production mode		
29	Examine the event log to determine whether all appropriate events have been documented	The events of application start up with error are recorded		
29	Select "File" from the menu bar, followed by "close"			
30	Exit from OpenView			
31	Logoff and end test			

5.1.2 CSS

5.1.2.1 Network Service Thread I (T211-60.01)

5.1.2.1.1 E-mail Enhancement(T211-60.01.01)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the X workstation with a valid ID and password.	Successful logon		
2	Bring up the mail menu box. Example: z-mail or eudora make sure the mail tool is running over the POP			
3	Click "**message**" to create the message, Under message, select new message. Fill up the necessary information such as: Subject: Attach file: cc: etc.			
4	View the message			
5	Click "message" under message select "**Send**" to send the message			
6	Log on to the receipt workstation.			

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
7	Click "**Read**" button to read the message			
8	Verify the contents of the message is identical to the sending message.			
9	Click the "Reply" Icon under message from the menu bar. Fill up the necessary information. Such as: 1) Senders only 2) All addressees 3) Subject: 4) cc: 5) Text only etc.			
10	Click the help Icon	Help commands displayed.		
11	Select command under help. Such as: About cc: mail			
12	Click button to close help	Successfully close		
13	Exit from the mail	Successfully exit		

5.1.2.1.2 Bulletin Board Services Enhancement (T211-60.01.02)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the Bulletin Board server workstation with a valid ID and password.	Successful logon		
2	Bring up the Bulletin Board server by typing "**xvnews&**"			
3	"**View groups**" to select a group for subscription.			
4	Post a message to the BBS with the group you just subscribe.			
5	Go to the group to **read** the message			
6	Go to the group to **delete** the message			
7	View the group id message should be deleted.	Empty files displayed.	.	
8	Click on **"help"** to select the topic you are interested.	Help command displayed		
9	Click the **close button** to exit help.			
12	Exit the test. **Exit**			

5.1.2.2 Security Services Thread I (T211-70.01.01)

5.1.2.2.1 Test Case 1: Generic Security Services (T211-70.01.01)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the X workstation with a valid ID and password.	Successful logon		
2	Enter the command for DCE logon: **dce_login <username>**			
3	Enter the command for DCE logon: **password**			
4	Enter the command for test driver location: xxx	Location for test driver execution	user can use developers driver or Make own driver to test	
5	Enter the command to establish the server **server_(filename&)**	Server will start listening	use server software	
6	Enter the command to establish the client **client_(filename&)**		use client software	
7	When client/server is established			
8	Run credential to issue the ticket			

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
9	Transfer valid data from client to server (using ftp command)			
10	Wait until all file are transferred			
11	Transfer invalid data from client to server (using ftp command)	Warning message will appear		
12	Exit ftp by typing **quit**			
13	Enter: **Kill -9 xxxx**			

5.1.2.3 Infrastructure Service Thread I (T211-80.01.01)

5.1.2.3.1 PF Life Cycle Control (T211-80.01.01)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the CSS workstation with a valid ID and password.	Successful logon	The chosen machine should be a properly configured DCE client host.	
2	Create three sessions(i.e open three xterm windows) and log into DCE in both by typing **dce_login** (username paaword)			
3	Start the cdbrowser application in the background by typing: **cdbrowser &**	cdbrowser application is available only on HP platform. When executing this test case on other platform create a third session in step 2. In this window log into a HP machine in the same cell as the test machine, **set your DISPLAY** variable to point back to the test machine, and then execute step 3.		
4	Enter the command for log errors and events for client and server	Log errors are displayed		
5	Start the test server application by typing **pf2_srv_hp configfile** <config file name> **ecs_mode** <mode>	esc_mode is the desired mode to run the application in.		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
6	Using cdsbrowser, verify that an entry has been added to CDS for the server short name specified in configfile file.			
7	Create three sessions(i.e open three xterm windows) and log into DCE in both by typing **dce_login** (username paaword)			
8	Start interface to the server			
9	Verify a message indicating the server principal name is displayed in the server window	The server principal name must be a name located in the DCE registry.		
10	Select the command to interface with the FTP batch process.	Verify a message indicating the client has successfully completed an FTP batch process appears in the services client window.		
11	Select the command to test asynchronous message passing.			
12	In the second window start the suspend client application by typing **susp_cli_hp** <cds entry name>	The CDS entry name should correspond to the server was registered in the CDS in step 5.		
13	When the prompted, select the option to suspend the server.			

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
14	In the third window start the service client application by typing: **serv_cli_hp** < cds entry name>	The CDS entry name should correspond to the server was registered in the CDS in step 5.		
15	In the suspend window select the option to the resume the server.			
16	In the third window start the services client application by typing **serv_cli_hp** <cds entry name>	The CDS entry name should correspond to the server was registered in the CDS in step 5.		
17	Verify a message indicating the client connected to the server appears in the services client window.	This is verifies that the server has been resumed.		
18	In the suspend window select the option to the shutdown the server.			
19	In the third window start the services client application by typing **serv_cli_hp** <cds entry name>			
20	Verify a message indicating the client could not find the server and it is now exiting appears in the services client window.	This is verifies that the server has been shutdown.		
21	In the suspend window select the option to exit the test application.			
22	Kill the server process by ->**Ctrl-C**			

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
23	Remove the server object from the CDS name space by highlighting the server in the cdsbrowser and clicking on the **option->delete** entry botton in the toolbar.			
24	In each window logout of dce command by typing **kdestroy** **exit**			

5.1.2.4 DCE Encapsulation Thread 1A (T211-91.01)

5.1.2.4.1 DOF Daemon process service (T211-91.01.01)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the CSS workstation with valid ID.			
2	Enter command for DCE logon: **dce_login <username>** Note: Users need to have admin. Privilege		Users name should have Administration privilege before login.	
3	Enter command for DCE logon: **Password**			
4	Enter following command for DCE control program: **dcecp**	dcecp prompt will be appear on the screen: **dcecp>**	dcecp enables complete remote administration service.	
5	Enter the command for help: dcecp>**help**	All help command will be appear on the screen.		
6	Enter the command for dce process: dcecp>**dce.ps**	Verify dce processes is running on the screen		
7	Server needs to be created before the test is specify in the directory	Identify that the server is running within a cell on a different host.		
8	Start test for startup dcecp> **startup <server name>** **note: ->check syntax**		Verify that server is up and listening	

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
9	Enter command to test shutdown: dcecp> **shutdown <server name>**		Make sure server is down.	
10	Exit test by typing: **exit**			

5.1.2.4.2 Time Services (T211-91.01.02)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Enter login command on HP-UX or a SUN workstation by typing following command: **dce_login** <username password> **Note: user need admin. Privilege to test**.	Start the Get Current Time test on HP-UX or SUN Solaris Platform		
2	Enter the following command for DCE process: **dcecp**			
3	Enter the following command for DCE Distributed Time service (**DTS**): **dcecp>dts configure -notglobal**	The server will remove information from the cell-profile.		
4	Set the **Delta time** value and **simulated time** value returned. For example, the delta time can be any time period such as a year etc. and the simulated time is any future time			
5	Verify the configuration file is updated			
6	Enter the command for dce clock set: **dcecp> clock set**			

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
7	Set the time: **CCYY-MM-DD-hh:mm:ss.fff[+|-]hh:mm1sss.fff** For example: 1996-12-04-14:52:47.080-05:001000.003			
8	Enter the following command to show the time: **dcecp>clock show**	Clock will be display such as: 1996-03-06-18:45:36:866-05:00I----		
9	Verify clock is updated and displayed			
10	Enter the following command to modify attributes by typing: **dcscp>dts modify/.:/hosts/zappa/dts-entity-minservers 3**	Verify minservers has been modified		
11	Exit the test by typing: **exit**			
12	Type the following command to clean up: **kdestroy**			

5.1.2.5 DCE Encapsulation Thread 1B (T211-92.01)

5.1.2.5.1 DOF Cell Namespace Service(T211.92.01.01)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the CSS workstation with valid ID.	Successful logon		
2	Enter command for DCE logon: **dce_login <username>** Note: Users need to have admin. Privilege	Successful logon		
3	Enter command for DCE password: **Password**	Successful password		
4	Enter command for DCE process: **>dcecp**	dcecp prompt displayed	The cell aliasing enables cell names to be changed	
5	Find out about the cell by typing: dcecp>**getcell name**			
6	Enter command for DCE alias cell help: dcecp>**cellalias help**	Under help following command will be display: create help set operator	Enables cells to be organized to match the hierarchical structure of an organization.	

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
7	Enter the command to create new cell name by typing: dcecp>**cellalias create (cellname).**		If user does not have admin. Privilege then message will be displayed **"User is not authorized to update the record."**	
8	After creating cell alias use aliased name in the cds dir path to access object in the child directory.	Sucessfully accessed object in the child directory.		
9	Exit from the test. **Exit**			
10	Exit from the dce by typing: **kdestroy**			
11	Logon to the CSS workstation with valid ID.			
12	Enter command for DCE logon: **dce_login <username>** Note: Users need to have admin. Privilege			
13	Enter command for DCE password: **Password**			
14	Enter command for DCE process: **>dcecp**	.	The cell aliasing enables cell names to be changed	

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
15	Enter the command to create child cell by typing: dcecp>/**…/idgcell.hitc.com/(cellname).hitc.com/test name** **example.** **/…/idglcell.hitc.com/A/test** **note:-> check syntax**	Child cell is created	Enables cells to be organized to match the hierarchical structure.	
16	Enter the command to create directory by typing: **>directory create (name of the directory)** example: **/.:/A/test/**	Directory is created (If directory is available use that one, don't create another directory)	Make sure directory is created.	
17	Exit from the test by typing **exit**			
18	Exit from the dce by typing: **kdestroy**			

5.1.2.5.2 Name Services (T211-92.01.02)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the X workstation with a valid ID and password.	Successful logon		
2	Modify the configuration file with mode identifier and application name.			
3	Setup the test mode for application one.			
4	Setup the Production mode for application two.			
5	Setup the training mode for application three.			
6	Log on to the dce machine with valid id and password **dce_login(username)** **Password**			
7	Enter the following command to display directory. **Dcecp> directory show /.:/r_d**	Directory is displayed		
8	Permissions needed **write** permission to the directory	.		
9	Enter following command to modify directory: **dcecp> directory modify /.:/r_d -change {CDS_Convergence high}**			

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
10	Bring up the cdsbrowser by typing following command: **cdsbrowser&**			
11	View the directory list from the browser. Make sure application goes to the correct directory.			
12	Enter following command by typing: **dcecp>directory list /.:/r_d**	Users need read permission to read directory		
13	Enter following command to display the directories by typing: **dcecp>dir list/.: - -directories**	Directories list displayed		
14	Enter following command to display object by typing: **dcecp> dir list/.: -objects**	Objects list displayed		
15	Enter following command to display object by typing: **dcecp> dir list/.: -links**	Links list displayed		
16	Exit from the test by typing: **exit**			
17	Exit from the dce by typing: **kdestroy**	Don’t forget to type kdestroy.		

5.1.2.6 System Security & Service I (B211.01)

5.1.2.6.1 Authorized Read-Only Access (B211.01.01)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the EDF workstation with a valid ID and password.	Successful logon		
2	Make sure the test driver **"Socket client"** is loaded. Which will establish the socket connection between the client and server.			
3	Bring up the **client** and **server** session			
4	Use driver to "**send authentication request**"			
5	Enter DCE command by typing: **dce_login**<username>			
6	Enter valid <**password**>			
7	Use driver to verify the authentication request is granted(**valid**).			
8	Try to "**read"** the file	Successfully access to **read** the files.		
9	Try to "**modify"** the file.	Message displayed user **does not have write privilege.**		
10	**Exit** the test.			
11	Exit the DCE by typing: **kdestroy**			

5.1.2.6.2 Unauthorized users (B211.01.02)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the workstation with a valid ID and password.	Successful logon		
2	Make sure the test driver **"Socket client"** is loaded. Which will establish the socket connection between the client and server.			
3	Bring up the **client** and **server** session			
4	Use driver to "**send authentication request**"			
5	Enter DCE command by typing: **dce_login**<username>			
6	Enter **invalid** <password>	Error: Message displayed unknown user or password incorrect try again.		
7	Type **exit** to exit the test.			
8	Exit the DCE by typing: **kdestroy**			

5.1.2.6.3 Security Authorization Users (B211.01.03)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the EDF workstation with a valid ID and password.	Successful logon		
2	Make sure the test driver **"Socket client"** is loaded. Which will establish the socket connection between the client and server.			
3	Bring up the **client** and **server** session			
4	Use driver to "**send authentication request**"			
5	Enter DCE command by typing: **dce_login**<username>	Successful logon		
6	Enter **valid** <password>			
7	Use driver to verify the authentication request is granted(**valid**).			
8	Try to "**read"** the file.	Successfully access to **read** the files.		
9	Try to "**modify"** the file.	Successfully access to **modified** the files.		
10	Type **exit** to exit the test.			
11	Exit the DCE by typing: **kdestroy**			

5.1.2.6.4 Gateway User Requests Billing Data via E-mail (B211.01.04)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the X workstation with a valid ID and password.	Successful logon		
2	Login to the **DCE <username and password>**	Successful logon		
3	Bring up the **E_mail**	Requested email has been sent.		
4	**Send** request to the System Admin. to ask for the billing record.			
5	System admin.logon to MSS machine and check the mail.			
6	System admin. Will call BAAS to **generate** billing records as requested.	Billing records generated.		
7	System Admin. Will send a **E_mail** including the billing records to the requester.			
8	Requester received the billing records from the e_mail service.			
9	Exit the test by typing: **exit**			
10	Exit DCE by typing: **kdestroy**			

5.1.2.6.5 Authorized DCE User Retrieves Training Information (B211.01.05)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the X workstation with a valid ID and password.	Successful logon		
2	Log on to the CSS machine by typing valid ID and password: **dce <username> <password>**			
3	Access on the REL_B **web home page**			
4	Click the **training data** icon			
5	Fill up the necessary information			
6	Click the "**Submit**" button.			
7	Verify the **results** have been submitted.			
8	Review the **data**.			
9	Exit the test by typing: **exit**			
10	Exit the dce by typing: **kdestroy**			

5.1.2.6.6 Data Integrity and Data Privacy (B211.01.06)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the X workstation with a valid ID and password.	Successful logon		
2	Enter following command for the ftp protocol: **ftp<workstation name>.hitc.com** ex. Aqua.hitc.com			
3	Enter the following command to change the directory: >**cd**			
4	Enter the following command to see file lists in the directory: >**ls**			
5	Enter the following command for binary mode: >**bin**			
6	Enter the following command to send the file. >**get <file name>**			
7	Create an error condition on receiving side such as: unplug the cable			

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
8	On the sending workstation a message should be display such as: **retry** **cancel** etc.			
9	Connect the cable back on the receiving workstation.			
10	On the sending workstation hit **enter** or **retry** to continue the ftp.			
11	Enter the following command to exit the ftp. >**quit**			
12	Verify that the file is delivered on the receiving machine by typing: >**ls**			
13	Verify that the file is not corrupted on the both receiving and sending machine by typing the following command on both machine: >**sum <file name>**			
14	Verify that the accessed file is in the most recent version.			
15	Exit the test by typing: **exit**			

5.1.2.7 System Setup Test 1 (B210.01)

5.1.2.7.1 Gateway Client Requests DCE Security and Network Services Test Procedure (B210.01.01)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon Gateway Client workstation with a valid user id and password	Successful logon		
2	Make sure that the Gateway Client is up and running			
3	Make sure that Gateway Server is up and running	Socket connection between Client and Server is established		
4	Issue an authentication request from the client (fill with a valid dce_logon id and passwaor)	Valid authentication request and successful log onto the ECS		
5	Start the e-mail service by type: **mail**			
6	Issue a mail and send it out	A mail message is sent out		
7	Log on the e-mail receiver workstation	Successful logon		
8	Type: **mail** to read received mail	Verify the mail message received is identical with the one sent out		
9	On ECS client, click on the **bulletin board service** icon			
10	Select the news **group**			
11	Click on the '**read group**" button	A list of posting s are displayed		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
12	Click on any of the posting s to open them or click on the "**next art**" button to pull the next article			
13	Click on "**retrieve**" button to retrieve a message			
14	Exit the bulletin board			
15	Exit the ECS Cell			
16	Exit the workstation			

5.1.2.7.2 Administrator Interfaces to management Services Test Procedure (B210.01.02)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to a workstation as a regular user	Successful logon		
2	Start up the browser			
3	Change directory to the ECS Rel. B web site page **http://relbhpcs.hitc.com:xxxx**	ECS Release B home page displayed		
4	Double click on the "**ECS User Registration"**	ECS user Registration page displayed		
5	Fill in Applicant's Information with : Name, Organization, E-Mail Address, Requested Access, Mailing Address			
6	Click on "**Submit**" to register	Request for registration is sent out		
7	Repeat the step 4, 5 for more user registration			
8	Double click on the "**ECS Trouble Ticket**"	ECS Trouble Ticket page displayed		
9	Fill in all the necessary information			
10	Click on "**Submit**" to submit the trouble ticket			
11	Logon to a DAAC MSS workstation at the DAAC (EDF, for example) using a valid ID and password as an M&O staff			

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
12	Start up the MSS Accountability Management Service by typing: **MsAcRegUserUI &**	MSS Accountability Management Service User Registration GUI interface is up and running		
13	Click on "**Process Account Request**"	The detail panel will come up and the User information which just submitted for registration is displayed		
14	Click on "**Approve**" to approve the registration request	The User registration is approved and the user information should send to sybase		
15	Click on "**Manage Existing Accounts**"	The detail panel will come up		
16	Click on "**delete**" to delete the existing user	The select user profile is deleted from the database		
17	Click on "**Process Account Request**"	The detail panel will come up		
18	Fill in the user id which you just deleted and hit enter	A message displayed that indicate the specified user account is not exist		
19	Close the GUI interface			
20	Start up the ECS Web page with Administrator privilege			
21	Double click on the "**ECS Trouble Ticket**"			
22	Follow the step and change the trouble ticket's status to "**close**"			
23	Issue a e-mail to inform the status to the trouble ticket originator			
24	Logoff			

5.1.2.7.3 Initialization and Concurrent Execution of Server Test Procedure (B210.01.03)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to a workstation with a valid ID and password as an M&O staff	Successful logon		
2	Modify the configuration file : **vi <configuration file name>**			
3	Fill in different mode id (test and production mode) for application comment survey server			
4	Fill in different path for the two comment survey server			
5	Save the modification			
6	Logon to a DAAC MSS server workstation (HP) using valid ID and password as an administrator	Successful logon		
7	Initialize HP OpenView by using the commands: **< cd /user/OV/bin >**	The directory is changed		
8	**< ovw & >**	The OpenView graphical interface is started and a map depiction the overall topology is displayed		
9	Click on the “Mode” from the menu bar	A pull down menu displayed with a list of services		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
10	Select on **“ActivateMode”**			
11	Fill in the parameter - “**Production”** mode			
12	Fill in the parameter - Comment Survey			
13	Fill in the parameter - the sim time			
14	Select on “**StartupExec**”	The application should start up with production mode		
15	Click on the “Mode” from the menu bar	A pull down menu displayed with a list of services		
16	Select on **“ActivateMode”**			
17	Fill in the parameter - “**Test”** mode			
18	Fill in the parameter -Comment Survey			
19	Fill in the parameter - the sim time			
20	Select on “**StartupExec**”	The application should start up with production mode		
21	Double click on the **EDF** icon	A map depicting the EDF configuration is accurately displayed		
22	Double click on the workstation icon which the application was start up	The submap for that workstation is displayed and verify that the application which just started up is associated with the production mode		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
23	Double click on the "**Services**" icon	A submap of type of mode is displayed		
24	Double click on **"Production Mode"**	A submap of list of services is displayed		
25	Double click on a **service**	A submap of list of application is displayed		
26	Double click on a **application**	A submap of list of program is displayed, verify that comment survey is running under the application mode		
27	Double click on a **program**	Program instance is displayed		
28	Repeat the steps 18 - 22 for **Test Mode**	A submap of list of program is displayed, verify that comment survey is running under the test mode		
29	Double click on the **EDF** icon	A map depicting the EDF configuration is accurately displayed		
30	Double click on the workstation icon which the application comment survey are running	The submap for that workstation is displayed and verify that the application which just started up is associated with the test mode		
31	Back to the workstation which runs the **Comment Survey** and logon as a regular user with a valid user ID and password	Successful logon		
32	Change the Web page to **Comment Survey with Production mode**	The Comment survey home page displayed		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
33	Select one survey topic	The detail survey panel displayed		
34	Fill in the survey			
35	Click the **"Submit"**	A confirmation message is displayed		
36	Change the Web page to **Comment survey with Test mode**	The Comment survey home page displayed		
37	Select one survey topic	The detail survey panel displayed		
38	Fill in the survey			
39	Click the **"Submit**"	A message displayed to indicate that the comment survey is sent to the test server		
40	Close the Web page			
41	Logoff the workstation			
42	Exit the HP OpenView			
43	Logoff MSS server			

5.1.2.7.4 Software Transfer and Execution in the Test Mode Test Procedure (B210.01.04)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to the MSS workstation.			
2	Make sure that all the software applications are running under **production** mode at this workstation		Note: use OpenView to verify this	
3	Type tivoli &.	The tivoli main menu should appear. (The environment and configuration variables should have already been set up with delivery.)		
4	Select Software Distribution.	Software Distribution is invoked and the Policy Region Window should be displayed.		
5	Select Create Profile Manager.	Profile Manager screen should be displayed.		
6	Type in software to be distributed.	Software name should be displayed.		
7	Type in subscribers. (Set one of the subscribers as the CSS Bulletin Board, set one of the subscribers that does not exists)	Subscriber names should be displayed .		
8	Select a subscriber.	File Package Properties screen should be displayed.		
9	Set properties. (set one subscriber as automatic with a schedule)	Tester should be able to set properties.		
10	Step back to Policy Region Screen.	A distribution profile for a particular software package should have been created.		

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
11	Execute distribution profile.	Profile should have executed correctly, which will be determined by the next few steps.		
12	View the CSS Bulletin Board.	The CSS Bulletin Board should show an item for the software that was distributed in step 11.		
13	Retrieve software package that was distributed.	The software package should have been retrieved.		
14	Verify that subscriber received the software package.	Each site on the subscriber's list in the executed distribution package should have received the software package.		
16	View the log file.	There should be an entry for each successful send an one failure for the subscriber that does not exist.		
17	Exit the tivoli			
18	On the subscriber workstation, modify the configuration file to set the software application with **test** mode			
19	Bring up the application with **test** mode	No error message display		
20	Bring the browser			
21	Change the directory to the ECS Rel. B home page			
22	Click on the service icon to execute the application which we just bring up with test mode	No error message appear		
23	Logoff the workstation			

5.1.2.7.5 Transfer Ingest Data to Remote Host Test Procedure (B210.01.05)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon a workstation with valid user id and password	Successful logon		
2	Issue a request for Ingest data			
3	M&O staff logon and verify the request			
4	M&O staff download Ingest data			
5	M&O staff type : **ftp <requester's network address>**			
6	Enter: **user id & password**			
7	Enter: **put <Ingest data file name>**			
8	Enter :**quit**			
9	On the requester's workstation, type: **ls**	Verify the Ingest data is received		
10	Exit the test			
11	Logoff			

5.1.2.7.6 Simple Data Retrieval and User Information Test Procedure (B210.01.06)

Step No.	Test Steps	Expected Results	Observations/Comments	Pass/Fail
1	Logon to a DAAC SDSRV workstation at the EDF using a valid ID and password as an M&O staff	Successful logon		
2	Start the browser			
3	Change the directory to the ECS Rel. B home page			
4	Click on the data search icon			
5	Fill in the necessary information			
6	Click on "**Submit**"			
7	Review the result			
8	Bring the BAAS COTS			
9	Select the option for "**User Account**"			
10	Fill in the user account information	The user account information displayed		
11	Select the option for "**Print**"	The user account information is printed		
12	Logoff			

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Appendix A: Level 3 and Level 4 Requirements Matrix

This appendix contains the requirements traceability matrix, mapping test cases to L3 and L4 requirements.

Table A-1. L3 and L4 Requirements Matrix

Paragraph	Test case	L4 Requirement	L3 Requirement
4.1.1.1	T211-10.01.01	C-MSS-36305	SMC-3300#B
			SMC-3305#B
		C-MSS-36355	SMC-3300#B
			SMC-3305#B
		C-MSS-36405	SMC-3300#B
			SMC-3305#B
		C-MSS-36455	SMC-3300#B
			SMC-3305#B
		C-MSS-36505	SMC-3300#B
			SMC-3305#B
		C-MSS-36555	SMC-3300#B
			SMC-3305#B
		C-MSS-36705	SMC-3300#B
			SMC-3305#B
	T211-10.01.02	C-MSS-36335	SMC-3300#B
		C-MSS-36380	SMC-3300#B
		C-MSS-36440	SMC-3300#B
		C-MSS-36485	SMC-3300#B
		C-MSS-36545	SMC-3300#B
		C-MSS-36605	SMC-3300#B
		C-MSS-36755	SMC-3300#B
4.1.1.2	T211-20.01.01	C-MSS-78010	SMC-6301#B
		C-MSS-78030	SMC-6301#B
	T211-20.01.02	C-MSS-78100	SMC-6400#B
		C-MSS-78110	SMC-6400#B
		C-MSS-78120	SMC-6400#B
		C-MSS-78130	SMC-6400#B
		C-MSS-78150	SMC-6400#B
		C-MSS-78160	SMC-6400#B
		C-MSS-78180	SMC-6410#B
		C-MSS-78190	SMC-6410#B

Paragraph	Test case	L4 Requirement	L3 Requirement
	T211-20.01.03	C-MSS-78200	SMC-6410#B
		C-MSS-78220	SMC-6410#B
		C-MSS-78240	SMC-6410#B
		C-MSS-78260	SMC-6410#B
4.1.1.3	T211-30.01.01	C-MSS-75001	SMC-7300#B
		C-MSS-75015	SMC-7300#B
		C-MSS-75100	
		C-MSS-75110	
	T211-30.01.02	C-MSS-75060	EOSD3220#B
			SMC-7320#B
		C-MSS-75070	EOSD3220#B
			SMC-7320#B
		C-MSS-75080	SMC-7320#B
		C-MSS-75090	SMC-7320#B
	T211-30.01.03	C-MSS-75102	IMS-1360#B
		C-MSS-75105	SMC-7300#B
		C-MSS-75112	IMS-1645#B
		C-MSS-75115	SMC-7300#B
		C-MSS-75120	SMC-5320#B
		C-MSS-75125	SMC-5320#B
		C-MSS-75130	IMS-0040#B
		C-MSS-75135	SMC-7300#B
		C-MSS-75140	IMS-0080#B
		C-MSS-75145	IMS-1360#B
		C-MSS-75150	SMC-3421#B
	T211-30.01.04	C-MSS-75155	SMC-3350#B
		C-MSS-75160	SMC-3350#B
		C-MSS-75165	IMS-1640#B
4.1.1.4	T211-40.01.01	C-MSS-42000	SMC-2120#B
			SMC-2535#B
		C-MSS-42010	SMC-2120#B
		C-MSS-42020	SMC-2110#B
			SMC-2120#B
			SMC-2535#B
			SMC-2620#B
		C-MSS-42030	SMC-2120#B
			SMC-2450#B
			SMC-2535#B
		C-MSS-42035	SMC-2120#B
			SMC-2535#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-42050	SMC-2120#B
		C-MSS-42070	SMC-2120#B
			SMC-2535#B
		C-MSS-42080	SMC-2120#B
			SMC-2535#B
		C-MSS-42090	SMC-2120#B
			SMC-2535#B
		C-MSS-42100	SMC-2120#B
			SMC-2535#B
		C-MSS-42110	SMC-2120#B
			SMC-2535#B
4.1.1.5	T211-50.01.01	C-MSS-42200	SMC-2130#B
		C-MSS-42230	SMC-2130#B
		C-MSS-42240	SMC-2130#B
		C-MSS-42250	SMC-2130#B
		C-MSS-42270	SMC-2130#B
		C-MSS-42280	SMC-2130#B
		C-MSS-42290	SMC-2130#B
		C-MSS-42300	SMC-2130#B
4.1.1.6	T210-10.01.01	C-MSS-56010	EOSD0510#B
		C-MSS-56020	EOSD0630#B
			EOSD0720#B
			FOS-0025#B
		C-MSS-56070	EOC-9510#B
			EOSD0630#B
			FOS-0025#B
		C-MSS-56082	EOSD0780#B
		C-MSS-56084	EOSD0510#B
			EOSD0630#B
		C-MSS-56086	EOSD0510#B
			EOSD0630#B
		C-MSS-56088	EOSD0510#B
			EOSD0630#B
		C-MSS-56090	SMC-3300#B
		C-MSS-56092	EOSD0510#B
			EOSD0630#B
		C-MSS-56094	EOSD0510#B
			EOSD0630#B
		C-MSS-56096	EOSD0510#B
			EOSD0630#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-56098	EOSD0510#B
			EOSD0630#B
		C-MSS-56100	EOSD0510#B
			EOSD0630#B
	T210-10.01.02	C-MSS-56010	EOSD0510#B
		C-MSS-56030	FOS-0020#B
		C-MSS-56070	EOSD-0630#B
			EOC-9510#B
			FOS-0025#B
		C-MSS-56082	EOSD0780#B
		C-MSS-56084	EOSD0510#B
			EOSD0630#B
		C-MSS-56086	EOSD0510#B
			EOSD0630#B
		C-MSS-56088	EOSD0510#B
			EOSD0630#B
		C-MSS-56090	SMC-3300#B
		C-MSS-56092	EOSD0510#B
			EOSD0630#B
		C-MSS-56094	EOSD0510#B
			EOSD0630#B
		C-MSS-56096	EOSD0510#B
			EOSD0630#B
		C-MSS-56098	EOSD0510#B
			EOSD0630#B
		C-MSS-56100	EOSD0510#B
			EOSD0630#B
4.1.2.1	T211-60.01.01	C-CSS-61070	ESN-0340#B
		C-CSS-61397	ESN-0010#B
	T211-60.01.02	C-CSS-62314	ESN-1181#B
		C-CSS-62317	ESN-0010#B
4.1.2.2	T211-70.01.01	C-CSS-21220	ESN-1365#B
4.1.2.3	T211-80.01.01	C-CSS-30130	ESN-0450#B
		C-CSS-30160	EOSD3000#B
		C-CSS-30170	EOSD3000#B
4.1.2.4	T211-91.01.01	C-CSS-01240	EOSD0500#B
	T211-91.01.02	C-CSS-25150	ESN-1000#B
		C-CSS-25160	ESN-1000#B
		C-CSS-25170	EOSD0510#B
4.1.2.5	T211-92.01.01	C-CSS-01250	ESN-0010#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-CSS-01260	EOSD0500#B
	T211-92.01.02	C-CSS-20140	EOSD0510#B
	T211-92.01.03	C-CSS-22080	ESN-0450#B
	T211-92.01.04	C-CSS-22180	ESN-0450#B
		C-CSS-22190	ESN-0450#B
		C-CSS-22200	ESN-0450#B
		C-CSS-22210	ESN-0450#B
4.1.2.6	B211.01.01	C-CSS-21220	ESN-1365#B
	B211.01.02	C-CSS-21220	ESN-1365#B
	B211.01.03	C-CSS-21220	ESN-1365#B
	B211.01.04	C-CSS-10510	ESN-0010#B
		C-CSS-10550	ESN-0010#B
		C-CSS-10830	ESN-0010#B
		C-CSS-21220	ESN-1365#B
		C-CSS-61070	ESN-0340#B
		C-MSS-78100	SMC-6400#B
		C-MSS-78190	SMC-6410#B
	B211.01.05	C-CSS-10500	EOSD0500#B
		C-CSS-10520	EOSD0500#B
		C-CSS-10540	ESN-0370#B
		C-MSS-51010	SMC-2400#B
			SMC-8300#B
		C-MSS-51060	SMC-2410#B
			SMC-8300#B
		C-MSS-51070	SMC-2410#B
			SMC-2415#B
			SMC-8300#B
			SMC-8705#B
	B211.01.06	C-CSS-60330	ESN-0010#B
		C-CSS-60340	ESN-0010#B
4.1.2.7	B210.01.01	C-CSS-01280	EOSD0500#B
		C-CSS-21220	ESN-1365#B
		C-CSS-61070	ESN-0340#B
		C-CSS-62314	ESN-1181#B
	B210.01.02	C-CSS-10580	EOSD3000#B
		C-CSS-10590	EOSD3000#B
		C-MSS-75001	SMC-7300#B
		C-MSS-75015	SMC-7300#B
	B210.01.03	C-MSS-56010	EOSD0510#B
		C-MSS-56020	EOSD0630#B

Paragraph	Test case	L4 Requirement	L3 Requirement
			EOSD0720#B
			FOS-0025#B
		C-MSS-56070	EOC-9510#B
			EOSD0630#B
			FOS-0025#B
		C-MSS-56082	EOSD0780#B
		C-MSS-56084	EOSD0510#B
			EOSD0630#B
		C-MSS-56086	EOSD0510#B
			EOSD0630#B
		C-MSS-56088	EOSD0510#B
			EOSD0630#B
		C-MSS-56092	EOSD0510#B
			EOSD0630#B
		C-MSS-56094	EOSD0510#B
			EOSD0630#B
	B210.01.04	C-MSS-18046	EOSD0510#B
			EOSD0630#B
			EOSD2440#B
		C-MSS-42010	SMC-2120#B
		C-MSS-42020	SMC-2110#B
			SMC-2120#B
			SMC-2535#B
			SMC-2620#B
		C-MSS-42070	SMC-2120#B
			SMC-2535#B
		C-MSS-42080	SMC-2120#B
			SMC-2535#B
		C-MSS-42090	SMC-2120#B
			SMC-2535#B
		C-MSS-56082	EOSD0780#B
		C-MSS-56086	EOSD0510#B
			EOSD0630#B
		C-MSS-56088	EOSD0510#B
			EOSD0630#B
	B210.01.05	C-CSS-10520	EOSD0500#B
		C-CSS-10560	EOSD0500#B
		S-INS-00785	DADS0170#B
			EOSD0030#B
			EOSD1607#B

Paragraph	Test case	L4 Requirement	L3 Requirement
			EOSD1608#B
			LAND-0110#B
	B210.01.06	C-MSS-78100	SMC-6400#B
		C-MSS-78190	SMC-6410#B
		C-MSS-78220	SMC-6410#B
		S-DSS-04038	ASTER-0130#B
			ASTER-0700#B
			DADS2330#B
			DADS2340#B
			DADS2345#B
			DADS2360#B
			DADS2370#B
			DADS2380#B
			DADS2390#B
		S-DSS-04332	DADS2330#B
			DADS2370#B
4.2.1.1	T221-21.02.01	C-MSS-45010	SMC-2500#B
		C-MSS-45020	SMC-2500#B
		C-MSS-45030	SMC-2500#B
		C-MSS-45040	SMC-2500#B
			SMC-8300#B
		C-MSS-45070	SMC-2500#B
			SMC-2505#B
		C-MSS-45080	SMC-2500#B
			SMC-2505#B
		C-MSS-45090	SMC-2500#B
			SMC-2505#B
			SMC-8300#B
			SMC-8705#B
		C-MSS-45210	SMC-2300#B
		C-MSS-45220	SMC-2300#B
			SMC-2505#B
			SMC-8300#B
			SMC-8705#B
		C-MSS-45280	SMC-2320#B
		C-MSS-45320	SMC-2330#B
	T221-21.02.02	C-MSS-45050	SMC-2500#B
			SMC-2505#B
		C-MSS-45060	SMC-2500#B
			SMC-2505#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-45070	SMC-2500#B
			SMC-2505#B
		C-MSS-45080	SMC-2500#B
			SMC-2505#B
		C-MSS-45090	SMC-2500#B
			SMC-2505#B
			SMC-8300#B
			SMC-8705#B
		C-MSS-45200	SMC-2300#B
		C-MSS-45230	SMC-2300#B
			SMC-2305#B
		C-MSS-45240	SMC-2300#B
			SMC-2305#B
		C-MSS-45245	SMC-2320#B
			SMC-2335#B
		C-MSS-45250	SMC-2310#B
			SMC-2315#B
			SMC-8300#B
			SMC-8705#B
		C-MSS-45260	SMC-2310#B
			SMC-2315#B
		C-MSS-45270	SMC-2310#B
			SMC-2315#B
		C-MSS-45290	SMC-2320#B
			SMC-2325#B
			SMC-8300#B
			SMC-8705#B
		C-MSS-45300	SMC-2320#B
			SMC-2325#B
		C-MSS-45310	SMC-2305#B
			SMC-2330#B
			SMC-8300#B
			SMC-8705#B
	T221-21.02.03	C-MSS-50000	SMC-2200#B
		C-MSS-50020	SMC-2200#B
			SMC-8705#B
			SMC-8730#B
		C-MSS-50040	SMC-2200#B
			SMC-2205#B
			SMC-8705#B

Paragraph	Test case	L4 Requirement	L3 Requirement
			SMC-8730#B
		C-MSS-50050	SMC-2200#B
			SMC-2205#B
			SMC-8705#B
			SMC-8730#B
		C-MSS-50070	SMC-2200#B
			SMC-2205#B
	T221-21.02.04	C-MSS-50010	SMC-2200#B
		C-MSS-50020	SMC-2200#B
			SMC-8705#B
			SMC-8730#B
		C-MSS-50060	SMC-2200#B
			SMC-2205#B
			SMC-8705#B
			SMC-8730#B
		C-MSS-50070	SMC-2200#B
			SMC-2205#B
	T221-21.02.05	C-MSS-50030	SMC-2200#B
		C-MSS-50090	SMC-2200#B
			SMC-2205#B
		C-MSS-50100	SMC-2200#B
			SMC-2205#B
		C-MSS-50110	SMC-2200#B
			SMC-2205#B
		C-MSS-50230	SMC-2220#B
		C-MSS-50235	SMC-1300#B
			SMC-1305#B
			SMC-1310#B
			SMC-1320#B
			SMC-1350#B
			SMC-2100#B
			SMC-2105#B
	T221-21.02.06	C-MSS-50120	SMC-2210#B
		C-MSS-50130	SMC-2210#B
		C-MSS-50140	SMC-2210#B
		C-MSS-50160	SMC-2210#B
			SMC-2215#B
		C-MSS-50170	SMC-2210#B
			SMC-2215#B
		C-MSS-50180	SMC-2210#B

Paragraph	Test case	L4 Requirement	L3 Requirement
			SMC-2215#B
		C-MSS-50190	SMC-2210#B
			SMC-2215#B
		C-MSS-50200	SMC-2210#B
			SMC-2215#B
		C-MSS-50210	SMC-2220#B
4.2.1.2	T221-22.02.01	C-MSS-52010	SMC-2600#B
		C-MSS-52020	SMC-2600#B
			SMC-2605#B
			SMC-8300#B
			SMC-8705#B
		C-MSS-52030	SMC-2600#B
			SMC-2605#B
			SMC-8300#B
			SMC-8705#B
4.2.1.3	T251-10.02.01	C-MSS-78300	SMC-6420#B
		C-MSS-78310	SMC-6420#B
		C-MSS-78330	SMC-6420#B
		C-MSS-78340	SMC-6420#B
		C-MSS-78350	SMC-6420#B
	T251-10.02.02	C-MSS-78320	SMC-6420#B
		C-MSS-78340	SMC-6420#B
		C-MSS-78600	SMC-8920#B
	T251-10.02.03	C-MSS-78140	IMS-0800#B
		C-MSS-78360	SMC-6420#B
		C-MSS-78370	SMC-6420#B
		C-MSS-78380	SMC-6420#B
		C-MSS-78390	SMC-6420#B
		C-MSS-78450	SMC-6420#B
		C-MSS-78580	SMC-8920#B
		C-MSS-78610	SMC-8920#B
	T251-10.02.04	C-MSS-78410	SMC-6420#B
		C-MSS-78420	SMC-6420#B
		C-MSS-78425	SMC-6420#B
		C-MSS-78430	SMC-6420#B
		C-MSS-78450	SMC-6420#B
		C-MSS-78530	SMC-6420#B
		C-MSS-78580	SMC-8920#B
		C-MSS-78610	SMC-8920#B
	T251-10.02.05	C-MSS-78440	SMC-6420#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-78450	SMC-6420#B
		C-MSS-78580	SMC-8920#B
		C-MSS-78610	SMC-8920#B
	T251-10.02.06	C-MSS-78460	SMC-6420#B
		C-MSS-78480	SMC-6320#B
		C-MSS-78490	SMC-6320#B
		C-MSS-78500	SMC-6320#B
	T251-10.02.07	C-MSS-78400	SMC-6420#B
		C-MSS-78510	SMC-6420#B
	T251-10.02.08	C-MSS-78520	SMC-6420#B
		C-MSS-78540	IMS-1370#B
		C-MSS-78550	SMC-8920#B
		C-MSS-78560	SMC-8920#B
		C-MSS-78570	SMC-8920#B
		C-MSS-78590	SMC-8920#B
	T251-10.02.09	C-MSS-78270	IMS-1340#B
			SMC-6370#B
	T251-10.02.10	C-MSS-79110	SMC-6420#B
		C-MSS-79120	SMC-6420#B
	T251-10.02.11	C-MSS-79100	SMC-6420#B
		C-MSS-79140	SMC-6420#B
		C-MSS-79150	SMC-6420#B
	T251-10.02.12	C-MSS-79180	SMC-6420#B
		C-MSS-79190	SMC-6420#B
	T251-10.02.13	C-MSS-79160	SMC-6420#B
		C-MSS-79170	SMC-6420#B
		C-MSS-79200	SMC-6320#B
	T251-10.02.14	C-MSS-79500	SMC-6420#B
		C-MSS-79510	SMC-6420#B
		C-MSS-79520	SMC-6420#B
		C-MSS-79530	SMC-6420#B
		C-MSS-79540	SMC-6420#B
	T251-10.02.15	C-MSS-79550	SMC-6420#B
		C-MSS-79560	SMC-6420#B
	T251-10.02.16	C-MSS-79570	SMC-6420#B
		C-MSS-79580	SMC-6420#B
		C-MSS-79590	SMC-6420#B
	T251-10.02.17	C-MSS-79600	SMC-6420#B
		C-MSS-79610	SMC-6420#B
		C-MSS-79620	SMC-6420#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-79630	SMC-6320#B
		C-MSS-79640	SMC-6320#B
		C-MSS-79650	SMC-6320#B
		C-MSS-79690	SMC-8920#B
	T251-10.02.18	C-MSS-79660	SMC-6320#B
		C-MSS-79670	SMC-6320#B
			SMC-8920#B
	T251-10.02.19	C-MSS-79700	LAND-0140#B
		C-MSS-79760	SMC-6380#B
		C-MSS-79780	SMC-6360#B
			SMC-6380#B
		C-MSS-79790	SMC-6360#B
			SMC-6380#B
		C-MSS-79800	SMC-6360#B
			SMC-6380#B
		C-MSS-79810	SMC-6390#B
		C-MSS-79820	SMC-6390#B
		C-MSS-79830	SMC-6390#B
		C-MSS-79880	SMC-8920#B
		C-MSS-79890	SMC-8920#B
	T251-10.02.20	C-MSS-79850	SMC-6380#B
		C-MSS-79860	SMC-6380#B
	T251-10.02.21	C-MSS-79900	SMC-8920#B
		C-MSS-79930	SMC-8920#B
		C-MSS-79940	SMC-8920#B
		C-MSS-79960	SMC-8920#B
		C-MSS-79970	SMC-8920#B
	T251-10.02.22	C-MSS-79980	SMC-6370#B
			SMC-8920#B
4.2.1.4	T251-21.02.01	C-MSS-92010	SMC-8300#B
		C-MSS-92020	SMC-8300#B
		C-MSS-92040	SMC-8300#B
		C-MSS-92050	SMC-8300#B
		C-MSS-92070	SMC-8790#B
4.2.1.5	T251-22.02.01	C-MSS-92030	SMC-8300#B
		C-MSS-92060	SMC-8300#B
	T251-22.02.02	C-MSS-92080	SMC-8800#B
		C-MSS-92090	SMC-8800#B
		C-MSS-92100	SMC-8800#B
		C-MSS-92110	SMC-8800#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-92120	SMC-8800#B
		C-MSS-92130	SMC-8800#B
		C-MSS-92160	SMC-8840#B
		C-MSS-92250	SMC-8841#B
		C-MSS-92260	SMC-8800#B
		C-MSS-92270	SMC-8890#B
		C-MSS-92460	SMC-8890#B
	T251-22.02.03	C-MSS-92140	SMC-8820#B
		C-MSS-92150	SMC-8820#B
	T251-22.02.04	C-MSS-92280	SMC-8890#B
		C-MSS-92290	SMC-8890#B
		C-MSS-92300	SMC-8800#B
	T251-22.02.05	C-MSS-92390	SMC-8890#B
		C-MSS-92400	SMC-8890#B
		C-MSS-92410	SMC-8890#B
		C-MSS-92420	SMC-8890#B
		C-MSS-92430	SMC-8890#B
		C-MSS-92440	SMC-8890#B
		C-MSS-92450	SMC-8890#B
	T251-22.02.06	C-MSS-92470	SMC-8890#B
		C-MSS-92480	SMC-8890#B
		C-MSS-92490	SMC-8890#B
		C-MSS-92500	SMC-8890#B
		C-MSS-92510	SMC-6335#B
			SMC-8820#B
		C-MSS-92520	SMC-8800#B
	T251-22.02.07	C-MSS-92310	SMC-8860#B
		C-MSS-92320	SMC-8860#B
	T251-22.02.08	C-MSS-92530	PGS-0420#B
			SMC-8800#B
		C-MSS-92540	SMC-3315#B
		C-MSS-92550	SMC-8920#B
		C-MSS-92600	SMC-8700#B
	T251-22.02.09	C-MSS-92560	SMC-8920#B
		C-MSS-92570	SMC-8920#B
	T251-22.02.10	C-MSS-92680	SMC-8750#B
	T251-22.02.11	C-MSS-92700	SMC-8880#B
		C-MSS-92710	SMC-8880#B
		C-MSS-92720	SMC-8880#B
4.2.1.6	T252-10.02.01	C-MSS-36300	SMC-3350#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-36350	SMC-3350#B
		C-MSS-36400	SMC-3350#B
		C-MSS-36450	SMC-3350#B
		C-MSS-36500	SMC-3350#B
		C-MSS-36550	SMC-3350#B
		C-MSS-36575	DADS0910#B
		C-MSS-36700	SMC-3350#B
	T252-10.02.02	C-MSS-36310	IMS-1760#B
			PGS-0330#B
		C-MSS-36360	IMS-1760#B
			PGS-0330#B
		C-MSS-36410	IMS-1760#B
			PGS-0330#B
		C-MSS-36460	IMS-1760#B
			PGS-0330#B
		C-MSS-36510	IMS-1760#B
			PGS-0330#B
		C-MSS-36560	IMS-1760#B
			PGS-0330#B
		C-MSS-36710	IMS-1760#B
			PGS-0330#B
	T252-10.02.03	C-MSS-18072	EOSD0500#B
			ESN-1000#B
		C-MSS-18074	EOSD0500#B
			ESN-1000#B
		C-MSS-18360	EOSD0500#B
			EOSD1710#B
			EOSD3492#B
			ESN-0010#B
			ESN-0070#B
			ESN-1070#B
			SDPS0010#B
		C-MSS-36215	IMS-1760#B
			PGS-0330#B
			SMC-4311#B
		C-MSS-36320	SMC-4311#B
		C-MSS-36365	SMC-4311#B
		C-MSS-36415	SMC-4311#B
		C-MSS-36465	SMC-6380#B
		C-MSS-36515	SMC-4311#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-36565	SMC-4311#B
		C-MSS-36715	SMC-4311#B
	T252-10.02.04	C-MSS-36325	SMC-3350#B
		C-MSS-36370	SMC-3350#B
		C-MSS-36420	SMC-3350#B
		C-MSS-36470	SMC-3350#B
		C-MSS-36490	
		C-MSS-36520	SMC-6380#B
			SMC-6385#B
		C-MSS-36570	SMC-3350#B
		C-MSS-36720	SMC-3350#B
		C-MSS-36800	EOSD0510#B
			EOSD1705#B
			EOSD5250#B
	T252-10.02.05	C-MSS-36330	SMC-3300#B
		C-MSS-36375	SMC-3300#B
		C-MSS-36435	SMC-3300#B
		C-MSS-36480	SMC-3300#B
		C-MSS-36540	SMC-3300#B
		C-MSS-36600	SMC-3300#B
		C-MSS-36750	SMC-3300#B
4.2.1.7	T252-20.02.01	C-MSS-66001	DADS1340#B
			ESN-0010#B
			ESN-0620#B
			PGS-0430#B
			SMC-3300#B
			SMC-3305#B
			SMC-3325#B
			SMC-3330#B
			SMC-3335#B
			SMC-3380#B
			SMC-3385#B
		C-MSS-66183	IMS-0240#B
			SMC-3300#B
			SMC-3380#B
			SMC-3390#B
	T252-20.02.02	C-MSS-66121	EOSD0780#B
			ESN-0790#B
			ESN-1060#B
			SMC-3300#B

Paragraph	Test case	L4 Requirement	L3 Requirement
			SMC-3305#B
	T252-20.02.03	C-MSS-66123	SMC-3397#B
			SMC-3400#B
	T252-20.02.04	C-MSS-66141	EOSD1710#B
	T252-20.02.05	C-MSS-66151	EOSD1710#B
			NSI-0060#B
	T252-20.02.06	C-MSS-66161	EOSD1710#B
	T252-20.02.07	C-MSS-66171	ESN-0750#B
			SMC-3340#B
			SMC-3345#B
	T252-20.02.08	C-MSS-92170	SMC-8840#B
	T252-20.02.09	C-MSS-92180	SMC-8840#B
		C-MSS-92190	SMC-8840#B
		C-MSS-92200	SMC-8840#B
	T252-20.02.10	C-MSS-92210	SMC-8840#B
	T252-20.02.11	C-MSS-92220	SMC-8840#B
	T252-20.02.12	C-MSS-92230	SMC-8840#B
	T252-20.02.13	C-MSS-92240	SMC-8840#B
	T252-20.02.14	C-MSS-92330	SMC-8860#B
		C-MSS-92340	SMC-8860#B
	T252-20.02.15	C-MSS-92350	SMC-8860#B
	T252-20.02.16	C-MSS-92360	SMC-8860#B
		C-MSS-92630	SMC-2510#B
	T252-20.02.17	C-MSS-92370	SMC-8860#B
	T252-20.02.18	C-MSS-92380	SMC-8860#B
	T252-20.02.19	C-MSS-92610	SMC-8710#B
	T252-20.02.20	C-MSS-92620	SMC-8710#B
	T252-20.02.21	C-MSS-92640	SMC-2510#B
	T252-20.02.22	C-MSS-92650	SMC-2510#B
	T252-20.02.23	C-MSS-92660	SMC-2510#B
	T252-20.02.24	C-MSS-92670	SMC-8730#B
	T252-20.02.25	C-MSS-92690	SMC-8770#B
4.2.1.8	T252-30.02.01	C-MSS-60161	EOSD1710#B
			ESN-0800#B
	T252-30.02.02	C-MSS-60171	EOSD1710#B
			ESN-0800#B
			SMC-3390#B
			SMC-4310#B
	T252-30.02.03	C-MSS-60181	EOSD1710#B
			NSI-0050#B

Paragraph	Test case	L4 Requirement	L3 Requirement
	T252-30.02.04	C-MSS-60301	EOSD0730#B
			ESN-0760#B
			ESN-0810#B
	T252-30.02.05	C-MSS-60303	SMC-3400#B
			SMC-4320#B
		C-MSS-60305	SMC-3400#B
			SMC-4320#B
	T252-30.02.06	C-MSS-60371	EOSD1710#B
			NSI-0030#B
			NSI-0040#B
			SMC-4310#B
			SMC-4311#B
4.2.1.9	T252-40.02.01	C-MSS-75102	IMS-1360#B
	T252-40.02.02	C-MSS-75120	SMC-5320#B
4.2.1.10	T252-50.02.01	C-MSS-00500	ASTER-0040#B
			EOSD1480#B
		C-MSS-00510	ASTER-0045#B
		C-MSS-00520	ASTER-0780#B
		C-MSS-00530	ASTER-0790#B
		C-MSS-00540	IMS-1380#B
	T252-50.02.02	C-MSS-60240	ASTER-1000#B
		C-MSS-60242	ASTER-1010#B
		C-MSS-60244	ASTER-1000#B
		C-MSS-60246	ASTER-1010#B
		C-MSS-60248	ASTER-1005#B
		C-MSS-60250	ASTER-1015#B
	T252-50.02.03	C-MSS-60252	NOAA0610#B
		C-MSS-60254	NOAA0600#B
	T252-50.02.04	C-MSS-60260	LAND-0120#B
		C-MSS-60262	LAND-0130#B
	T252-50.02.05	C-MSS-60264	LAND-0130#B
		C-MSS-60266	LAND-0130#B
		C-MSS-60268	LAND-0130#B
	T252-50.02.06	C-MSS-60278	NI-0430#B
		C-MSS-60280	NI-0440#B
		C-MSS-60282	NI-0450#B
	T252-50.02.07	C-MSS-66500	ASTER-1000#B
		C-MSS-66505	ASTER-1010#B
		C-MSS-66510	ASTER-1000#B
		C-MSS-66515	ASTER-1010#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-66520	ASTER-1005#B
		C-MSS-66525	ASTER-1015#B
	T252-50.02.08	C-MSS-66530	NOAA0610#B
		C-MSS-66535	NOAA0600#B
	T252-50.02.09	C-MSS-66550	LAND-0120#B
		C-MSS-66555	LAND-0130#B
	T252-50.02.10	C-MSS-66560	LAND-0130#B
		C-MSS-66585	NI-0460#B
	T252-50.02.11	C-MSS-70470	ASTER-1000#B
		C-MSS-70472	ASTER-1010#B
	T252-50.02.12	C-MSS-70474	LAND-0120#B
		C-MSS-70476	LAND-0130#B
	T252-50.02.13	C-MSS-70478	NSI-0080#B
		C-MSS-70480	NSI-0070#B
	T252-50.02.14	C-MSS-70482	NI-0480#B
		C-MSS-70484	NI-0470#B
4.2.1.11	T252-60.02.01	C-MSS-56010	EOSD0510#B
		C-MSS-56020	EOSD0630#B
			EOSD0720#B
			FOS-0025#B
		C-MSS-56040	EOSD0780#B
			EOSD1040#B
			SMC-3300#B
			SMC-3305#B
		C-MSS-56060	EOSD0780#B
		C-MSS-56070	EOC-9510#B
			EOSD0630#B
			FOS-0025#B
		C-MSS-56082	EOSD0780#B
		C-MSS-56084	EOSD0510#B
			EOSD0630#B
		C-MSS-56086	EOSD0510#B
			EOSD0630#B
		C-MSS-56088	EOSD0510#B
			EOSD0630#B
		C-MSS-56092	EOSD0510#B
			EOSD0630#B
		C-MSS-56094	EOSD0510#B
			EOSD0630#B
		C-MSS-56096	EOSD0510#B

Paragraph	Test case	L4 Requirement	L3 Requirement
			EOSD0630#B
		C-MSS-56098	EOSD0510#B
			EOSD0630#B
		C-MSS-56100	EOSD0510#B
			EOSD0630#B
		C-MSS-56102	EOSD0510#B
			EOSD0630#B
		C-MSS-66002	EOSD0780#B
			SMC-3300#B
			SMC-3305#B
		C-MSS-66004	EOSD0780#B
			SMC-3300#B
			SMC-3305#B
		C-MSS-66006	EOSD0780#B
			SMC-3300#B
			SMC-3305#B
	T252-60.02.02	C-MSS-56010	EOSD0510#B
		C-MSS-56030	FOS-0020#B
		C-MSS-56050	EOSD0780#B
			SMC-3300#B
			SMC-3305#B
		C-MSS-56060	EOSD0780#B
		C-MSS-56070	EOC-9510#B
			EOSD0630#B
			FOS-0025#B
		C-MSS-56082	EOSD0780#B
		C-MSS-56084	EOSD0510#B
			EOSD0630#B
		C-MSS-56086	EOSD0510#B
			EOSD0630#B
		C-MSS-56088	EOSD0510#B
			EOSD0630#B
		C-MSS-56090	SMC-3300#B
		C-MSS-56092	EOSD0510#B
			EOSD0630#B
		C-MSS-56094	EOSD0510#B
			EOSD0630#B
		C-MSS-56096	EOSD0510#B
			EOSD0630#B
		C-MSS-56098	EOSD0510#B

Paragraph	Test case	L4 Requirement	L3 Requirement
			EOSD0630#B
		C-MSS-56100	EOSD0510#B
			EOSD0630#B
		C-MSS-60012	EOSD0780#B
			SMC-3300#B
			SMC-3305#B
		C-MSS-60014	EOSD0780#B
			SMC-3300#B
			SMC-3305#B
		C-MSS-60016	EOSD0780#B
			SMC-3300#B
			SMC-3305#B
	T252-60.02.03	C-MSS-36012	EOSD0510#B
			EOSD0630#B
		C-MSS-36014	EOSD0510#B
			EOSD0630#B
		C-MSS-36016	EOSD0510#B
			EOSD0630#B
	T252-60.02.04	C-MSS-56102	EOSD0510#B
			EOSD0630#B
		C-MSS-79915	EOSD0510#B
			EOSD0630#B
			SMC-6380#B
		C-MSS-92015	EOSD0510#B
			EOSD0630#B
			SMC-8300#B
	T252-60.02.05	C-MSS-18042	EOSD0510#B
			EOSD0630#B
			EOSD2440#B
		C-MSS-18044	EOSD0510#B
			EOSD0630#B
			EOSD2440#B
		C-MSS-18046	EOSD0510#B
			EOSD0630#B
			EOSD2440#B
		C-MSS-18048	EOSD0510#B
			EOSD0630#B
			EOSD2440#B
4.2.1.12	T250-10.02.01	C-CSS-02000	EOSD4035#B
		C-CSS-02010	EOSD4035#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-CSS-02020	EOSD4035#B
		C-CSS-02030	EOSD5020#B
		C-CSS-02100	EOSD1703#B
		C-CSS-02110	SMC-2510#B
		C-CSS-02120	SMC-2510#B
		C-CSS-02130	EOSD5020#B
		C-CSS-02140	EOSD1703#B
		C-CSS-02200	EOSD5020#B
		C-CSS-02210	EOSD1703#B
		C-CSS-02220	EOSD4035#B
		C-CSS-02230	EOSD1703#B
		C-CSS-02240	EOSD4035#B
		C-CSS-02250	EOSD1703#B
		C-CSS-02260	EOSD1703#B
		C-CSS-02300	EOSD1703#B
		C-CSS-02400	EOSD1703#B
		C-CSS-02410	EOSD1703#B
		C-CSS-02420	EOSD1703#B
		C-CSS-02430	EOSD0030#B
		C-CSS-02500	SMC-2320#B
		C-CSS-02510	ESN-0070#B
			SMC-2320#B
		C-CSS-02520	SMC-2320#B
		C-CSS-03700	SMC-0300#B
		C-CSS-03710	SMC-0310#B
		C-CSS-03740	EOSD4030#B
		C-CSS-03800	EOSD2200#B
		C-CSS-03820	EOSD2200#B
		C-CSS-03900	EOSD3200#B
		C-CSS-03940	ASTER-2000#B
			ASTER-2080#B
			EOSD4030#B
			NI-1000#B
	T250-10.02.02	C-CSS-02600	EOSD4035#B
		C-CSS-02610	EOSD4035#B
		C-CSS-02620	EOSD4035#B
		C-CSS-02630	EOSD5020#B
		C-CSS-02700	EOSD1703#B
		C-CSS-02710	SMC-2510#B
		C-CSS-02720	SMC-2510#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-CSS-02730	EOSD5020#B
		C-CSS-02740	EOSD1703#B
		C-CSS-02800	EOSD5020#B
		C-CSS-02810	EOSD4035#B
		C-CSS-02820	EOSD4036#B
		C-CSS-02830	EOSD4035#B
		C-CSS-02840	EOSD4035#B
		C-CSS-02850	EOSD1703#B
		C-CSS-02860	EOSD1703#B
		C-CSS-02900	EOSD1703#B
		C-CSS-03000	EOSD1703#B
		C-CSS-03010	EOSD1703#B
		C-CSS-03020	EOSD1703#B
		C-CSS-03030	EOSD0030#B
		C-CSS-03100	SMC-2320#B
		C-CSS-03110	SMC-2320#B
		C-CSS-03120	SMC-2320#B
		C-CSS-03720	SMC-0300#B
		C-CSS-03730	SMC-0310#B
		C-CSS-03750	EOSD4030#B
		C-CSS-03800	EOSD2200#B
		C-CSS-03820	EOSD2200#B
		C-CSS-03910	EOSD3200#B
	T250-10.02.03	C-CSS-03200	EOSD4035#B
		C-CSS-03210	ESN-1360#B
		C-CSS-03220	SMC-2620#B
		C-CSS-03230	SMC-2620#B
		C-CSS-03300	EOSD1703#B
		C-CSS-03310	SMC-2510#B
		C-CSS-03320	SMC-2510#B
		C-CSS-03330	EOSD5020#B
		C-CSS-03340	EOSD1703#B
		C-CSS-03400	EOSD5020#B
		C-CSS-03410	EOSD4035#B
		C-CSS-03420	EOSD0030#B
		C-CSS-03500	EOSD0030#B
		C-CSS-03510	EOSD0030#B
		C-CSS-03520	EOSD0030#B
		C-CSS-03530	EOSD0030#B
		C-CSS-03600	SMC-2320#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-CSS-03610	SMC-2320#B
		C-CSS-03620	SMC-2320#B
		C-CSS-03760	EOSD4030#B
		C-CSS-03800	EOSD2200#B
		C-CSS-03810	EOSD2200#B
	T250-10.02.04	C-ISS-02100	ESN-1350#B
		C-ISS-02110	ESN-0740#B
		C-ISS-02200	ESN-1010#B
		C-ISS-02210	ESN-1010#B
		C-ISS-02230	ESN-1010#B
		C-ISS-02250	ESN-1010#B
		C-ISS-02600	EOSD5100#B
		C-ISS-02610	EOSD5070#B
		C-ISS-11020	ESN-0006#B
		C-ISS-11090	EOSD1695#B
			ESN-0010#B
			V0-0055#B
		C-ISS-11170	AM1-1060#B
			ESN-0010#B
			NI-0110#B
			NI-0210#B
			NI-0310-a#B
		C-ISS-11180	ESN-0010#B
			ESN-0070#B
			ESN-1367#B
		C-ISS-11195	EOSD0010#B
			EOSD0015#B
			EOSD0020#B
			NI-0010#B
			NI-0020#B
			NI-0030#B
			NI-0220#B
			NI-0230#B
			NI-0310-b#B
		C-ISS-11220	ESN-0010#B
			ESN-0070#B
		C-ISS-11230	ESN-0010#B
			ESN-0070#B
		C-ISS-11240	ESN-0010#B
			ESN-0070#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-ISS-11250	ESN-0010#B
			ESN-0070#B
		C-ISS-11260	ESN-0070#B
		C-ISS-20000	ESN-0010#B
			ESN-0070#B
		C-ISS-20100	ESN-0240#B
			ESN-1207#B
		C-ISS-20110	ESN-0010#B
			ESN-0070#B
		C-ISS-20120	ESN-0010#B
			NI-0110#B
			NI-0210#B
			NI-0310-a#B
		C-ISS-20130	ESN-0010#B
			ESN-0070#B
		C-ISS-20140	ESN-0010#B
			ESN-0070#B
		C-ISS-20150	ESN-0010#B
			ESN-0070#B
		C-ISS-20160	ESN-0010#B
			ESN-0070#B
		C-ISS-20170	ESN-0010#B
			ESN-0070#B
		C-ISS-20180	ESN-0620#B
			ESN-0640#B
		C-ISS-20200	ESN-0620#B
			ESN-0640#B
		C-ISS-21010	ESN-0003#B
			ESN-0010#B
			ESN-0650#B
			ESN-1365#B
	T250-10.02.05	C-ISS-02220	ESN-1010#B
		C-ISS-02300	AM1-1150#B
			EOSD1000#B
		C-ISS-02310	AM1-0140#B
			AM1-0170#B
			AM1-0200#B
			AM1-1050#B
			AM1-1060#B
			AM1-1070#B

Paragraph	Test case	L4 Requirement	L3 Requirement
			AM1-1080-#B
			AM1-1090#B
			AM1-1100#B
			AM1-1110#B
			AM1-1120#B
			EDOS-A.2.1#B
		C-ISS-02320	ESN-0005#B
		C-ISS-02330	EDOS-B.2.1#B
			EOSD1010#B
		C-ISS-02340	ESN-0070#B
		C-ISS-02350	EDOS-C.2.1#B
			EDOS-H.2.1#B
			EOSD1010#B
		C-ISS-02360	EOSD1010#B
		C-ISS-02370	ESN-0070#B
		C-ISS-02380	ESN-0240#B
		C-ISS-02400	ESN-1207#B
		C-ISS-02410	EOSD1040#B
		C-ISS-04102	EOSD4036#B
		C-ISS-20050	ESN-0010#B
			ESN-0070#B
		C-ISS-20060	ESN-0010#B
			ESN-0070#B
		C-ISS-20070	ESN-0010#B
			ESN-0070#B
		C-ISS-20080	ESN-0010#B
			ESN-0070#B
		C-ISS-20090	ESN-1207#B
		C-ISS-20190	ESN-1206#B
			ESN-1207#B
	T250-10.02.06	C-ISS-02390	ESN-1206#B
		C-ISS-02500	EOSD2100#B
		C-ISS-20100	ESN-0240#B
			ESN-1207#B
	T250-10.02.07	C-MSS-02000	EOSD4035#B
		C-MSS-02010	EOSD4035#B
		C-MSS-02020	EOSD4035#B
		C-MSS-02030	EOSD5020#B
		C-MSS-02100	EOSD1703#B
		C-MSS-02110	EOSD4035#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-02120	SMC-2510#B
		C-MSS-02130	EOSD5020#B
		C-MSS-02140	EOSD1703#B
		C-MSS-02200	EOSD5020#B
		C-MSS-02210	EOSD1703#B
		C-MSS-02220	EOSD4036#B
		C-MSS-02230	EOSD4035#B
		C-MSS-02240	EOSD4035#B
		C-MSS-02250	EOSD1703#B
		C-MSS-02260	EOSD1703#B
		C-MSS-02300	EOSD1703#B
		C-MSS-02400	EOSD1703#B
		C-MSS-02410	EOSD1703#B
		C-MSS-02420	EOSD1703#B
		C-MSS-02430	SMC-2510#B
		C-MSS-02500	SMC-2320#B
		C-MSS-02510	SMC-2320#B
		C-MSS-02520	SMC-2320#B
		C-MSS-03800	EOSD4030#B
		C-MSS-03810	EOSD4030#B
		C-MSS-03840	EOSD4030#B
		C-MSS-03900	EOSD2200#B
		C-MSS-04000	EOSD3200#B
	T250-10.02.08	C-MSS-02600	EOSD4035#B
		C-MSS-02610	EOSD4035#B
		C-MSS-02620	EOSD4035#B
		C-MSS-02630	EOSD5020#B
		C-MSS-02700	EOSD1703#B
		C-MSS-02710	EOSD4035#B
		C-MSS-02720	EOSD4035#B
		C-MSS-02730	EOSD5020#B
		C-MSS-02740	EOSD1703#B
		C-MSS-02800	EOSD5020#B
		C-MSS-02810	EOSD4035#B
		C-MSS-02820	EOSD4035#B
		C-MSS-02830	EOSD4035#B
		C-MSS-02840	EOSD4035#B
		C-MSS-02850	EOSD1703#B
		C-MSS-02860	EOSD1703#B
		C-MSS-02900	SMC-8305#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-03000	EOSD0030#B
		C-MSS-03010	EOSD1703#B
		C-MSS-03020	EOSD1703#B
		C-MSS-03030	EOSD0030#B
		C-MSS-03100	SMC-2320#B
		C-MSS-03110	SMC-2320#B
		C-MSS-03120	SMC-2320#B
		C-MSS-03820	EOSD4030#B
		C-MSS-03830	EOSD4030#B
		C-MSS-03850	EOSD4030#B
		C-MSS-03900	EOSD2200#B
		C-MSS-04010	EOSD3200#B
	T250-10.02.09	C-MSS-03200	EOSD4035#B
		C-MSS-03300	EOSD1703#B
		C-MSS-03310	EOSD1703#B
		C-MSS-03320	EOSD1703#B
		C-MSS-03330	EOSD1703#B
		C-MSS-03340	EOSD1703#B
		C-MSS-03350	EOSD1703#B
		C-MSS-03360	EOSD1703#B
		C-MSS-03370	EOSD1703#B
		C-MSS-03380	EOSD1703#B
		C-MSS-03390	EOSD1703#B
		C-MSS-03400	EOSD1703#B
		C-MSS-03410	EOSD1703#B
		C-MSS-03420	EOSD1703#B
		C-MSS-03430	EOSD1703#B
		C-MSS-03440	EOSD1703#B
		C-MSS-03450	EOSD1703#B
		C-MSS-03460	EOSD1703#B
		C-MSS-03470	EOSD1703#B
		C-MSS-03500	EOSD4035#B
		C-MSS-03600	EOSD4035#B
		C-MSS-03700	EOSD4036#B
		C-MSS-03860	EOSD4030#B
		C-MSS-03900	EOSD2200#B
	T250-10.02.10	C-MSS-04020	EOSD4030#B
		C-MSS-04030	EOSD4030#B
	T250-10.02.11	C-MSS-05200	EOSD4036#B
		C-MSS-05210	EOSD4036#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-05220	EOSD4036#B
		C-MSS-05230	EOSD4036#B
		C-MSS-05240	EOSD4036#B
		C-MSS-05250	EOSD4036#B
		C-MSS-05260	EOSD4036#B
		C-MSS-05270	EOSD4036#B
		C-MSS-05280	EOSD4036#B
		C-MSS-05290	EOSD4036#B
		C-MSS-05310	EOSD4036#B
		C-MSS-05320	EOSD4036#B
	T250-10.02.12	C-MSS-05400	EOSD4036#B
		C-MSS-05410	EOSD4036#B
		C-MSS-05420	EOSD4036#B
		C-MSS-05430	EOSD4036#B
		C-MSS-05440	EOSD4036#B
		C-MSS-05450	EOSD4036#B
		C-MSS-05460	EOSD4036#B
		C-MSS-05470	EOSD4036#B
		C-MSS-05480	EOSD4036#B
		C-MSS-05490	EOSD4036#B
		C-MSS-05500	EOSD4036#B
	T250-10.02.13	C-MSS-05800	EOSD4036#B
		C-MSS-05810	EOSD4036#B
		C-MSS-05820	EOSD4036#B
		C-MSS-05830	EOSD4036#B
		C-MSS-05840	EOSD4036#B
		C-MSS-05850	EOSD4036#B
		C-MSS-05860	EOSD4036#B
		C-MSS-05870	EOSD4036#B
		C-MSS-05880	EOSD4036#B
		C-MSS-05890	EOSD4036#B
	T250-10.02.14	C-MSS-06000	EOSD4036#B
		C-MSS-06010	EOSD4036#B
		C-MSS-06020	EOSD4036#B
		C-MSS-06030	EOSD4036#B
		C-MSS-06040	EOSD4036#B
		C-MSS-06050	EOSD4036#B
		C-MSS-06060	EOSD4036#B
		C-MSS-06070	EOSD4036#B
		C-MSS-06080	EOSD4036#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-06090	EOSD4036#B
	T250-10.02.15	C-MSS-06200	EOSD4036#B
		C-MSS-06210	EOSD4036#B
		C-MSS-06220	EOSD4036#B
		C-MSS-06230	EOSD4036#B
		C-MSS-06240	EOSD4036#B
		C-MSS-06250	EOSD4036#B
		C-MSS-06260	EOSD4036#B
		C-MSS-06270	EOSD4036#B
		C-MSS-06280	EOSD4036#B
		C-MSS-06290	EOSD4036#B
	T250-10.02.16	C-MSS-06400	EOSD4036#B
		C-MSS-06410	EOSD4036#B
		C-MSS-06420	EOSD4036#B
		C-MSS-06430	EOSD4036#B
		C-MSS-06440	EOSD4036#B
		C-MSS-06450	EOSD4036#B
		C-MSS-06460	EOSD4036#B
		C-MSS-06470	EOSD4036#B
		C-MSS-06480	EOSD4036#B
		C-MSS-06490	EOSD4036#B
		C-MSS-06500	EOSD4036#B
		C-MSS-06510	EOSD4036#B
	T250-10.02.17	C-MSS-06600	EOSD4036#B
		C-MSS-06610	EOSD4036#B
		C-MSS-06620	EOSD4036#B
		C-MSS-06630	EOSD4036#B
		C-MSS-06640	EOSD4036#B
		C-MSS-06650	EOSD4036#B
		C-MSS-06660	EOSD4036#B
		C-MSS-06670	EOSD4036#B
		C-MSS-06680	EOSD4036#B
		C-MSS-06690	EOSD4036#B
	T250-10.02.18	C-MSS-06800	EOSD4036#B
		C-MSS-06810	EOSD4036#B
		C-MSS-06820	EOSD4036#B
		C-MSS-06830	EOSD4036#B
		C-MSS-06840	EOSD4036#B
		C-MSS-06850	EOSD4036#B
		C-MSS-06860	EOSD4036#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-06870	EOSD4036#B
		C-MSS-06880	EOSD4036#B
		C-MSS-06890	EOSD4036#B
	T250-10.02.19	C-MSS-07000	EOSD4036#B
		C-MSS-07010	EOSD4036#B
		C-MSS-07020	EOSD4036#B
		C-MSS-07030	EOSD4036#B
		C-MSS-07040	EOSD4036#B
		C-MSS-07050	EOSD4036#B
		C-MSS-07060	EOSD4036#B
		C-MSS-07070	EOSD4036#B
		C-MSS-07080	EOSD4036#B
		C-MSS-07090	EOSD4036#B
	T250-10.02.20	S-DMS-60200	IMS-1790#B
	T250-10.02.21	S-IOS-60360	IMS-1620#B
	T250-10.02.22	S-DPS-60241	EOSD1050#B
			EOSD1060#B
			EOSD1070#B
			LAND-0210#B
	T250-10.02.23	S-DPS-60242	EOSD1010#B
			PGS-1300#B
			PGS-1301#B
			PGS-1310#B
		S-DPS-60251	EOSD1010#B
		S-DPS-60260	EOSD1010#B
		S-DPS-60270	EOSD1010#B
	T250-10.02.24	S-DPS-60351	EOSD1050#B
			LAND-0210#B
		S-DPS-60361	EOSD1060#B
		S-DPS-60371	EOSD1070#B
	T250-10.02.25	S-DPS-60410	SDPS0120#B
	T250-10.02.26	S-DPS-61125	PGS-0920#B
	T250-10.02.27	C-MSS-05600	EOSD4036#B
		C-MSS-05610	EOSD4036#B
		C-MSS-05620	EOSD4036#B
		C-MSS-05630	EOSD4036#B
		C-MSS-05640	EOSD4036#B
		C-MSS-05650	EOSD4036#B
		C-MSS-05660	EOSD4036#B
		C-MSS-05670	EOSD4036#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-05680	EOSD4036#B
		C-MSS-05690	EOSD4036#B
4.2.1.13	B252.02.01	C-MSS-36215	IMS-1760#B
			PGS-0330#B
			SMC-4311#B
		C-MSS-36320	SMC-4311#B
		C-MSS-36365	SMC-4311#B
		C-MSS-60161	EOSD1710#B
			ESN-0800#B
		C-MSS-60171	EOSD1710#B
			ESN-0800#B
			SMC-3390#B
			SMC-4310#B
		C-MSS-60371	EOSD1710#B
			NSI-0030#B
			NSI-0040#B
			SMC-4310#B
			SMC-4311#B
	B252.02.02	C-MSS-36415	SMC-4311#B
		C-MSS-36515	SMC-4311#B
		C-MSS-36565	SMC-4311#B
		C-MSS-60161	EOSD1710#B
			ESN-0800#B
		C-MSS-60240	ASTER-1000#B
		C-MSS-60242	ASTER-1010#B
		C-MSS-60371	EOSD1710#B
			NSI-0030#B
			NSI-0040#B
			SMC-4310#B
			SMC-4311#B
	B252.02.03	C-MSS-36215	IMS-1760#B
			PGS-0330#B
			SMC-4311#B
		C-MSS-36320	SMC-4311#B
		C-MSS-36365	SMC-4311#B
		C-MSS-66141	EOSD1710#B
		C-MSS-66151	EOSD1710#B
			NSI-0060#B
	B252.02.04	C-MSS-36415	SMC-4311#B
		C-MSS-36515	SMC-4311#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-MSS-36565	SMC-4311#B
		C-MSS-66141	EOSD1710#B
		C-MSS-66151	EOSD1710#B
			NSI-0060#B
	B252.02.05	C-MSS-36360	IMS-1760#B
			PGS-0330#B
		C-MSS-36410	IMS-1760#B
			PGS-0330#B
		C-MSS-36460	IMS-1760#B
			PGS-0330#B
		C-MSS-36510	IMS-1760#B
			PGS-0330#B
		C-MSS-36560	IMS-1760#B
			PGS-0330#B
		C-MSS-36710	IMS-1760#B
			PGS-0330#B
		C-MSS-60260	LAND-0120#B
4.2.1.14	B251.02.01	C-MSS-75001	SMC-7300#B
		C-MSS-75015	SMC-7300#B
		C-MSS-75100	
		C-MSS-75110	SMC-7300#B
		C-MSS-79980	SMC-6370#B
			SMC-8920#B
		C-MSS-92550	SMC-8920#B
		C-MSS-92700	SMC-8880#B
		C-MSS-92710	SMC-8880#B
	B251.02.02	C-MSS-78220	SMC-6410#B
		C-MSS-79860	SMC-6380#B
		C-MSS-79980	SMC-6370#B
			SMC-8920#B
		C-MSS-92550	SMC-8920#B
		C-MSS-92700	SMC-8880#B
		C-MSS-92710	SMC-8880#B
	B251.02.03	C-MSS-79860	SMC-6380#B
		C-MSS-79980	SMC-6370#B
			SMC-8920#B
		C-MSS-92070	SMC-8790#B
	B251.02.04	C-MSS-79850	SMC-6380#B
		C-MSS-79860	SMC-6380#B
		C-MSS-79980	SMC-6370#B

Paragraph	Test case	L4 Requirement	L3 Requirement
			SMC-8920#B
		C-MSS-92160	SMC-8840#B
		C-MSS-92260	SMC-8800#B
		C-MSS-92310	SMC-8860#B
4.2.2.1	T221-30.02.01	C-MSS-70600	SMC-5300#B
	T221-30.02.02	C-MSS-70515	SMC-5360#B
	T221-30.02.03	C-CSS-01230	ESN-0010#B
		C-CSS-01270	ESN-0010#B
		C-CSS-21220	ESN-1365#B
	T221-30.02.04	C-CSS-01280	EOSD-0500#B
4.2.2.2	T221-40.02.01	C-CSS-40040	DADS0498#B
	T221-40.02.02	C-CSS-40230	IMS-0740#B
			IMS-0920#B
			IMS-1080#B
		C-CSS-40260	IMS-0740#B
			IMS-0920#B
			IMS-1080#B
	T221-40.02.03	C-CSS-40150	IMS-0740#B
			IMS-0920#B
			IMS-1080#B
	T221-40.02.04	C-CSS-40120	DADS0412#B
			SDPS0080#B
		C-CSS-40170	DADS0500#B
		C-CSS-40190	DADS0500#B
		C-CSS-40200	DADS0500#B
4.2.2.3	T221-50.02.01	C-CSS-60330	ESN-0010#B
		C-CSS-60340	ESN-0010#B
		C-CSS-60350	ESN-0010#B
	T221-50.02.02	C-CSS-64000	ESN-0010#B
4.2.2.4	T221-60.02.01	C-CSS-24010	EOSD3000#B
		C-CSS-24020	EOSD3000#B
		C-CSS-24040	EOSD3000#B
		C-CSS-24060	EOSD3000#B
4.2.2.5	B221.02.01	C-CSS-01270	ESN-0010#B
	B221.02.02	C-CSS-01270	ESN-0010#B
	B221.02.03	C-CSS-22080	ESN-0450#B
	B221.02.04	C-CSS-30160	EOSD3000#B
	B221.02.05	C-CSS-10810	ESN-0450#B
		C-CSS-24020	EOSD3000#B
		C-CSS-30160	EOSD3000#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-CSS-30170	EOSD3000#B
		C-MSS-50000	SMC-2200#B
	B221.02.06	C-CSS-10500	EOSD0500#B
		C-CSS-10520	EOSD0500#B
		C-CSS-10540	ESN-0370#B
	B221.02.07	C-CSS-10500	EOSD0500#B
		C-CSS-10510	ESN-0010#B
		C-CSS-10520	EOSD0500#B
		C-CSS-10530	SMC-2610#B
		C-CSS-10540	ESN-0370#B
		C-CSS-10550	ESN-0010#B
		C-CSS-10560	EOSD0500#B
		C-CSS-10570	SMC-2610#B
		C-CSS-10580	EOSD3000#B
		C-CSS-10590	EOSD3000#B
	B221.02.08	C-CSS-10600	ESN-1400#B
		C-CSS-10610	ESN-0010#B
		C-CSS-10620	ESN-1400#B
		C-CSS-10630	ESN-0010#B
		C-CSS-10640	ESN-1400#B
		C-CSS-10650	ESN-0010#B
		C-CSS-10660	ESN-1400#B
		C-CSS-10670	ESN-0010#B
		C-CSS-10680	ESN-1400#B
		C-CSS-10690	ESN-0010#B
		C-CSS-10700	ESN-1400#B
		C-CSS-10710	ESN-0010#B
		C-CSS-10720	ESN-0010#B
		C-CSS-10730	ESN-0010#B
		C-CSS-10740	ESN-0010#B
		C-CSS-10750	ESN-0010#B
		C-CSS-10760	ESN-0010#B
		C-CSS-10770	ESN-0010#B
		C-CSS-10780	ESN-0010#B
		C-CSS-10790	ESN-0010#B
		C-CSS-10800	ESN-0010#B
		C-CSS-10810	ESN-0450#B
		C-CSS-10820	SMC-1330#B
		C-CSS-10830	ESN-0010#B
		C-CSS-10840	SMC-1330#B

Paragraph	Test case	L4 Requirement	L3 Requirement
		C-CSS-10850	SMC-1330#B
		C-CSS-10860	ESN-0760#B
		C-CSS-10870	ESN-0830#B
		C-CSS-10880	ESN-0070#B

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Appendix B. New Test Case to Old Test Case Matrix

Table B-1. New Test Case to Old Test Case Matrix

New Test Case Name	New Test Case ID	Old Test Case ID
Concurrent Execution of Text and Production Modes	T210-10.01.01	T206-1.01.01 T206-1.01.03 T206-2.01.01 B206.01.01 B206.01.02 B206.01.03
Concurrent Execution of Training and Production Modes	T210-10.01.02	T206-1.01.02 T206-1.01.03 T206-2.01.01 B206.01.01 B206.01.02 B206.01.03
Mode Receive Test	T211-10.01.01	T227-4.02.01 T227-4.03.01 T227-4.04.01 T227-4.05.01 T227-4.06.01 T227-4.07.01 T227-4.08.01 B227.05.03 B228.09.03
Mode Request Test	T211-10.01.02	T227-4.02.02 T227-4.03.02 T227-4.04.02 T227-4.05.02 T227-4.06.02 T227-4.07.02 T227-4.08.02 B227.05.04 B228.09.04
Accounting Functions	T211-20.01.01	T226-1.01.01 T226-1.01.02
Billing & Invoicing Process	T211-20.01.02	T226-1.02.01 T226-1.02.02 T226-1.02.03 T226-1.02.04 T226-1.02.06 T226-1.02.07 T226-1.02.08 T226-1.02.09

New Test Case Name	New Test Case ID	Old Test Case ID
Account Management	T211-20.01.03	T226-1.02.10 T226-1.02.11 T226-1.02.12 T226-1.02.13
User Profile Services	T211-30.01.01	T200-1.01.01 T200-1.02.03 T200-1.02.04
System Profile Services	T211-30.01.02	T200-1.02.01 T200-1.02.02 T200-1.02.03 T200-1.02.04
CLS Accountability Service	T211-30.01.03	T200-1.02.03 T200-1.02.04
INS and DSS Accountability Services	T211-30.01.04	T200-1.02.03
MSS Software Distribution Service	T211-40.01.01	T200-2.01.01 T200-2.01.02 T200-2.01.03 T200-2.01.04 T200-2.01.06 T200-2.01.07 T200-2.01.08 T200-2.01.09 T200-2.01.10
MSS License Management Service	T211-50.01.01	T200-2.02.01 T200-2.02.02 T200-2.02.03 T200-2.02.04 T200-2.02.05 T200-2.02.06 T200-2.02.07 T200-2.02.08
E-Mail Enhancements	T211-60.01.01	T207-3.01.01 T207-3.01.02
BBS Enhancements	T211-60.01.02	T207-4.01.01 T207-4.01.02
Generic Security Services	T211-70.01.01	T214-1.01.02
PF Life Cycle Control	T211-80.01.01	new
DOF Daemon Process Services	T211-91.01.01	T214-2.01.08
Time Services	T211-91.01.02	T214-3.02.01 T214-3.02.02
DOF Cell Namespace Services	T211-92.01.01	T214-4.01.01 T214-4.01.03
Name Services	T211-92.01.02	new
Message Services for Receiving Messages	T211-92.01.03	T214-3.05.01

New Test Case Name	New Test Case ID	Old Test Case ID
Message Service and Thread Process	T211-92.01.04	T214-3.05.02 T214-3.05.03 T214-3.05.04 T214-3.05.05
Authorized Read-only Access	B211.01.01	(system security & service 1 build) new
Unauthorized Users	B211.01.02	new
Security Authorization Users	B211.01.03	new
Gateway User Requests Billing Data Via E-Mail	B211.01.04	new
Authorized DCE User Retrieves Training Information	B211.01.05	new
Data Integrity and Data Privacy	B211.01.06	new
Gateway Client Requests DCE Security and Network Services	B210.01.01	(System Setup Test 1) new
Administrator Interfaces to Management Services	B210.01.02	new
Initialization and Concurrent Execution of Server	B210.01.03	new
Software Transfer and Execution in the Test Mode	B210.01.04	new
Transfer Ingest Data to Remote Host	B210.01.05	new
Simple Data Retrieval and User Information	B210.01.06	new
MSS Inventory/Logistics Management Service (Global)	T221-21.02.01	T226-2.10.03
MSS Inventory/Logistics Management Service (Local)	T221-21.02.02	T200-3.04.03 T226-2.10.03
Preventive Maintenance	T221-21.02.03	new
Corrective Maintenance	T221-21.02.04	new
General Maintenance	T221-21.02.05	new
Office Maintenance	T221-21.02.06	new
Polices and Procedure	T221-22.02.01	new
Security Policy	T221-30.02.01	T214-1.01.01
Security Management Service	T221-30.02.02	T214-1.01.16
Security Delegation	T221-30.02.03	T214-1.01.02 T214-3.01.06 T214-4.01.02
Access Control List	T221-30.02.04	new
Subscription requests actions	T221-40.02.01	new
Subscription handler and event	T221-40.02.02	new
Subscription Notifies Users	T221-40.02.03	new
Subscription CI	T221-40.02.04	new
File Access Enhancements	T221-50.02.01	T207-1.01.01 T207-1.01.02 T207-1.01.03
Dial-up Access Enhancements	T221-50.02.02	T207-2.01.01

New Test Case Name	New Test Case ID	Old Test Case ID
Life Cycle Services	T221-60.02.01	T214-3.03.01 T214-3.03.02 T214-3.03.03 T214-3.03.04 T214-3.03.05 T214-3.03.06
DFS Interoperates with NFS	B221.02.01	(system security & services II build) new
FTP Encrypted	B221.02.01	new
Simple Message Passing	B221.02.03	new
Suspend an Application Process	B221.02.04	new
Lifecycle of the Maintenance Process	B221.02.05	new
Authorized DCE user Retrieves Inventory Information	B221.02.06	new
User/Operator Services	B221.02.07	new
Internal Interaction Services	B221.02.08	new
CSS-DCHW CI Enterprise Communications Server	T250-10.02.01	new
CSS-DCHW CI Local Communications Server	T250-10.02.02	new
CSS-DCHW CI Bulletin Board Server	T250-10.02.03	new
ISS Functional Requirements	T250-10.02.04	new
ISS Performance Requirements	T250-10.02.05	new
ISS Evolve Requirements	T250-10.02.06	new
MSS-MHW CI Enterprise Monitoring Server	T250-10.02.07	new
MSS-MHW CI Local Management Server	T250-10.02.08	new
MSS-MHW CI Management Workstation Server	T250-10.02.09	new
MSS-MHW CI Functional String	T250-10.02.10	new
GSFC LSM MSS-MHW CI	T250-10.02.11	new
EOC LSM MSS-MHW CI	T250-10.02.12	new
LaRC MSS-MHW CI	T250-10.02.13	new
EDC MSS-MHW CI	T250-10.02.14	new
JPL MSS-MHW CI	T250-10.02.15	new
SMC MSS-MHW CI	T250-10.02.16	new
NSIDC MSS-MHW CI	T250-10.02.17	new
UAF MSS-MHW CI	T250-10.02.18	new
ORNL MSS-MHW CI	T250-10.02.19	new
Data Management Hardware Test	T250-10.02.20	new
Advertising Hardware Function	T250-10.02.21	new
Data Processing Time	T250-10.02.22	new
Data Processing Sizing and Storage Space	T250-10.02.23	new
Generation of Products	T250-10.02.24	new
Continuous Data Processing Operation	T250-10.02.25	new
Installed Data Processing Utilities	T250-10.02.26	new

New Test Case Name	New Test Case ID	Old Test Case ID
Account Receivable Functions	T251-10.02.01	T226-1.03.01 T226-1.03.02 T226-1.03.04 T226-1.03.06
Account Receivable Functions - Batch Processing	T251-10.02.02	T226-1.03.03 T226-1.03.05 T226-1.03.30
Account Receivable - Pre-Paid Processing	T251-10.02.03	T226-1.03.07 T226-1.03.08 T226-1.03.09 T226-1.03.10 T226-1.03.16 T226-1.03.28 T226-1.03.31
Account Receivable -Refunds Processing	T251-10.02.04	T226-1.03.12 T226-1.03.13 T226-1.03.14 T226-1.03.16 T226-1.03.23 T226-1.03.28 T226-1.03.31
Account Receivable - Re-Establish Processing	T251-10.02.05	T226-1.03.15 T226-1.03.16 T226-1.03.28 T226-1.03.31
Account Receivable - Account History	T251-10.02.06	T226-1.03.17 T226-1.03.18 T226-1.03-19 T226-1.03.20
Account Receivable - Order Processing	T251-10.02.07	T226-1.03.11 T226-1.03.21
Account Receivable - Balance Report	T251-10.02.08	T226-1.03.22 T226-1.03.24 T226-1.03.25 T226-1.03.26 T226-1.03.27 T226-1.03.29
Price Estimation	T251-10.02.09	T226-1.02.03
Account Collection - Rules Setup	T251-10.02.10	T226-1.05.02 T226-1.05.03
Account Collections - Delinquent Account	T251-10.02.11	T226-1.05.01 T226-1.05.04 T226-1.05.05
Account Collections - Write-off Processing	T251-10.02.12	T226-1.05.08 T226-1.05.09

New Test Case Name	New Test Case ID	Old Test Case ID
Account Collections - Record History	T251-10.02.13	T226-1.05.06 T226-1.05.07 T226-1.05.10
General Ledger Account Processing	T251-10.02.14	T226-1.06.01 T226-1.06.02 T226-1.06.03 T226-1.06.04 T226-1.06.05
General Ledger - Standardized Transactions	T251-10.02.15	T226-1.06.06 T226-1.06.07
General Ledger - Account Creation and Transaction Processing	T251-10.02.16	T226-1.06.08 T226-1.06.09 T226-1.06.10
General Ledger - Account Processing	T251-10.02.17	T226-1.06.11 T226-1.06.12 T226-1.06.13 T226-1.06.14 T226-1.06.15 T226-1.06.16 T226-1.06.21
General Ledger - Account Re-Open and Data Archive	T251-10.02.18	T226-1.06.17 T226-1.06.18
Cost Accounting - Processing	T251-10.02.19	T226-1.01.02 T226-1.07.02 T226-1.07.03 T226-1.07.04 T226-1.07.05 T226-1.07.06 T226-1.07.07 T226-1.07.08 T226-1.07.13
Cost Accounting - ECS Access	T251-10.02.20	T226-1.07.11
Reporting Processing	T251-10.02.21	T226-1.08.01 T226-1.08.02 T226-1.08.03 T226-1.08.04 T226-1.08.05
Reporting - Information Transfer	T251-10.02.22	T226-1.08.06
Standard and Enhancement Reports Generation	T251-21.02.01	T226-2.01.01 T226-2.01.02 T226-2.01.04 T226-2.01.05 T226-2.01.07
HTML Compatible Format Report Generation	T251-22.02.01	T226-2.01.03 T226-2.01.06

New Test Case Name	New Test Case ID	Old Test Case ID
Data Production Performance Reports Generation	T251-22.02.02	T226-2.02.01 T226-2.02.02 T226-2.02.03 T226-2.02.04 T226-2.02.05 T226-2.02.06 T226-2.02.09 T226-2.04.01 T226-2.04.02 T226-2.04.03 T226-2.04.09
Product Generation Status Reports Generation	T251-22.02.03	T226-2.02.07 T226-2.02.08
Product Tracking Reports Generation	T251-22.02.04	T226-2.04.04 T226-2.04.05 T226-2.04.06
Audit Reports Generation	T251-22.02.05	T226-2.06.01 T226-2.06.02 T226-2.06.03 T226-2.06.04 T226-2.06.05 T226-2.06.07 T226-2.06.08
Subsystem Production Reports Generation	T251-22.02.06	T226-2.07.01 T226-2.07.02 T226-2.07.03 T226-2.07.04 T226-2.07.05 T226-2.07.06
Fault and Trouble Reports Generation	T251-22.02.07	T226-2.05.01 T226-2.05.02
Management Reports Generation	T251-22.02.08	T226-2.07.07 T226-2.07.08 T226-2.07.09 T226-2.07.10
Cost Schedule Reports Generation	T251-22.02.09	T226-2.08.01 T226-2.08.02
Training Reports Generation	T251-22.02.10	T226-2.10.02
Security Reports Generation	T251-22.02.11	T226-2.11.01 T226-2.11.02
ECS Users Account Creation and Authorization report Generation	B251.02.01	(management service build) new
ECS Users Account Processing	B251.02.02	new
Users Account Information Transfer and Analysis Report Generation	B251.02.03	new
System Report Generation	B251.02.04	new

New Test Case Name	New Test Case ID	Old Test Case ID
Processing Status Test	T252-10.02.01	T227-4.02.01 T227-4.03.01 T227-4.04.01 T227-4.06.01 T227-4.07.01 T227-4.08.01
Fault Detection Test	T252-10.02.02	T227-4.02.01 T227-4.03.01 T227-4.04.01 T227-4.05.01 T227-4.06.01 T227-4.07.01 T227-4.08.01
Event Notification Test	T252-10.02.03	T200-1.01.01 T227-4.01.03 T227-4.02.01 T227-4.03.01 T227-4.04.01 T227-4.05.01 T227-4.06.01 T227-4.07.01 T227-4.08.01
Resource Utilization Test	T252-10.02.04	T227-4.02.01 T227-4.03.01 T227-4.04.01 T227-4.05.01 T227-4.06.01 T227-4.07.01 T227-4.08.01
Life Cycle Command Test	T252-10.02.05	T227-4.02.02 T227-4.03.02 T227-4.04.01 T227-4.05.01 T227-4.06.01 T227-4.07.01 T227-4.08.01
Monitoring the Performances of ECS components	T252-20.02.01	T227-2.01.01
Performances Operational State of all Network	T252-20.02.02	T227-2.01.01 T227-2.01.02 T227-2.01.03 T227-2.01.04 T227-2.01.05 T227-2.01.06
Requests Performances Testing	T252-20.02.03	T227-2.01.01
Request Performance Data	T252-20.02.04	T227-2.01.01
Receiving Performances Data	T252-20.02.05	T227-2.01.01
Receiving Summarized Performances Data	T252-20.02.06	T227-2.01.01
Log ECS Performance data to ECS Network	T252-20.02.07	T227-2.01.05

New Test Case Name	New Test Case ID	Old Test Case ID
CPU Load Graphical Report	T252-20.02.08	T226-2.02.10
Traffic Graphical Report	T252-20.02.09	T226-2.03.02 T226-2.03.03 T226-2.03.11
SNMP Operations Graphical Report	T252-20.02.10	T226-2.03.04
Site Host Resource Utilization Graphical Report	T252-20.02.11	T226-2.03.05
SMC Host Resource Utilization Graphical Report	T252-20.02.12	T226-2.03.06
Disk Space Report	T252-20.02.13	T226-2.03.07
Network Traffic Error Graphical Report	T252-20.02.14	T226-2.05.03 T226-2.05.04
SNMP Authentication Failure Report	T252-20.02.15	T226-2.05.05
SNMP Event Log/Event Notification Report	T252-20.02.16	T226-2.05.06 T226-2.09.03
Site Host Error Report	T252-20.02.17	T226-2.05.07
SMC Host Error Report	T252-20.02.18	T226-2.05.08
Configuration Status Report	T252-20.02.19	T226-2.09.01
System Information Report	T252-20.02.20	T226-2.09.02
Indentured Level of Assembly List Report	T252-20.02.21	T226-2.09.04
Document Configuration Status Report	T252-20.02.22	T226-2.09.05
System Configuration Tracking Report	T252-20.02.23	T226-2.09.06
Maintenance Schedule Report	T252-20.02.24	T226-2.10.01
Inventory Status Report	T252-20.02.25	T226-2.10.03
Receive Notification of Detected Faults and Degradation of Performance	T252-30.02.01	T227-3.01.01 T227-3.01.02 T227-3.02.01 T227-3.02.02
Request Notification of Detect Faults and Performance Degradation Data	T252-30.02.02	T227-3.01.03 T227-3.01.04 T227-3.02.03 T227-3.03.04
Receiving Summarized Faults and Performance Degradation Data	T252-30.02.03	T227-3.01.05 T227-3.01.06 T227-3.02.05 T227-3.02.06
Identify Routes Between Selected Pairs	T252-30.02.04	T227-3.01.01
ISS Diagnostic Test Results	T252-30.02.05	T227-3.02.03
Reported Faults for Levels of Subsystem	T252-30.02.06	T227-3.02.03
User Account Balance Request Tracking	T252-40.02.01	T200-3.09.01 T200-3.09.02 T200-3.09.04 T200-3.09.05 T200-3.09.06

New Test Case Name	New Test Case ID	Old Test Case ID
User Registration Request Tracking	T252-40.02.02	T200-3.09.02 T200-3.09.06 T200-3.10.01 T200-3.10.02
ASTER GDS Interface	T252-50.02.01	T227-3.01.02
Fault Management Service for ASTER GDS	T252-50.02.02	T227-3.02.01 T227-3.02.03 T227-5.01.08 T227-5.01.10 T227-5.01.12 T227-5.01.14 B227.01.02 B227.01.04 B228.05.02 B228.05.04
Fault Management Service for SAA	T252-50.02.03	T227-3.02.03 T227-5.01.19 T227-5.01.21
Fault Management Service for MMO	T252-50.02.04	T227-3.02.01 T227-3.02.03 T227-5.01.23 T227-5.01.26
Fault Management Service for NSI	T252-50.02.05	T227-3.02.01 T227-3.02.03 T227-5.01.33 T227-5.01.34 T227-5.01.35 B227.02.01 B227.02.02 B228.06.02 B229.10.01
Fault Management Service for NOLAN	T252-50.02.06	T227-3.02.01 T227-5.01.40 T227-5.01.41 T227-5.01.42
Performance Management Service for ASTER GDS	T252-50.02.07	T227-2.01.04 T227-2.01.05 T227-5.01.01 T227-5.01.07 T227-5.01.09 T227-5.01.11 T227-5.01.13 B227.01.01 B227.01.03 B228.05.01 B228.05.03

New Test Case Name	New Test Case ID	Old Test Case ID
Performance Management Service for SAA	T252-50.02.08	T227-2.01.05 T227-5.01.20 T227-5.01.22
Performance Management Service for MMO	T252-50.02.09	T227-2.01.05 T227-5.01.24 T227-5.01.27
Performance Management Service for NSI, NOLAN	T252-50.02.10	T227-2.01.05 T227-5.01.36 T227-5.01.43 B227.02.03 B228.06.03 B229.10.02
Security Management Service for ASTER GDS	T252-50.02.11	T214-1.01.16 T214-2.01.05 T214-5.01.03 T214-5.01.06
Security Management Service for MMO	T252-50.02.12	T227-2.01.05 T227-5.01.25 T227-5.01.28
Security Management Service for NSI	T252-50.02.13	T227-2.01.05 T227-5.01.32 T227-5.01.37 B227.02.04 B228.06.04 B229.10.03
Security Management Service for NOLAN	T252-50.02.14	T227-2.01.05 T227-5.01.38 T227-5.01.39
Performance Management of Concurrent Application Execution	T252-60.02.01	T206-1.01.01 T206-1.02.01 T206-2.01.01 T206-2.01.02 B206.01.01 B206.01.02 B206.01.03
Fault Management of concurrent Execution	T252-60.02.02	T206-1.01.02 T206-1.02.02 T206-1.02.03 T206-1.02.05 T206-2.01.01 T206-2.01.02 B206.01.03
Management Agent and Mode Management	T252-60.02.03	New
Support Services of Mode Management	T252-60.02.04	T226-2.11.02
Management Data Access and Mode Management	T252-60.02.05	New

New Test Case Name	New Test Case ID	Old Test Case ID
Fault Detection & Notification of EBnet	B252.02.01	(Real-time management build test) new
Fault Detection & Notification of ASTER	B252.02.02	new
Performance Management & Notification of EBnet	B252.02.03	new
Performance Management & Notification of ASTER	B252.02.04	new
Remote File Transfer Termination Test	B252.02.05	new
Performance Statistics of Concurrent Execution with Operational Mode and Test Mode over EBnet	B250.02.01	(System Service Test 5 Build Test) new
Fault Management & Notification of Concurrent Execution with Operational Mode and Training Mode Over ASTER	B250.02.02	new
Accountability Management	B250.02.03	new
Accounting Management	B250.02.04	new
Security Management	B250.02.05	new
Configuration Management	B250.02.06	new
Data Exchange between SMC and Data Server Test	B250.02.07	new
Performance Trending Save and Retrieve Data	B250.02.08	new
Performance Trend Analysis	B250.02.09	new
GSFC, LaRC, EDC Nominal Rate Ingest Test	B250.02.10	new
GSFC and LaRC Maximum Rate Ingest Test	B250.02.11	new
Guide Search Performance Test	B250.02.12	new
Directory Single Keyword Search Performance Test	B250.02.13	new
Directory Multiple Keyword Search Performance Test	B250.02.14	new
Document Data Server System CPU and Throughput Performance Test	B250.02.15	new
Monitoring the Performances of ECS Components	B250.02.16	new
Performances Operational State of all Network Components	B250.02.17	new
Requests Performances Testing	B250.02.18	new
(requirement deleted)		T214-1.01.03
(requirement deleted)		T214-1.01.04
(requirement deleted)		T214-1.01.05
(requirement deleted)		T214-1.01.06
(requirement deleted)		T214-1.01.07
(requirement deleted)		T214-1.01.08
(requirement deleted)		T214-1.01.09
(requirement deleted)		T214-1.01.11
(requirement deleted)		T214-1.01.12
(requirement deleted)		T214-1.01.13

New Test Case Name	New Test Case ID	Old Test Case ID
(requirement deleted)		T214-1.01.14
(requirement deleted)		T214-1.01.15
(requirement deleted)		T214-1.01.17
(requirement deleted)		T214-2.01.06
(requirement deleted)		T214-2.01.07
(requirement deleted)		T214-2.01.08
(requirement deleted)		T214-2.01.09
(requirement deleted)		T214-2.01.10
(requirement deleted)		T214-2.01.11
(requirement deleted)		T214-2.01.13
(requirement deleted)		T214-3.01.05
(requirement deleted)		T214-3.01.07
(requirement deleted)		T214-3.01.08
(requirement deleted)		T214-3.01.09
(requirement deleted)		T214-3.01.10
(requirement deleted)		T214-3.01.11
(requirement deleted)		T214-3.03.03
(requirement deleted)		T214-3.03.05
(requirement deleted)		T214-4.02.01
(requirement deleted)		T214-4.02.02

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Abbreviations and Acronyms

ACL	Access Control List
ACRIMSAT	Active Cavity Radiometer Irradiance Monitor Satellite
ADEOS	Advance Earth Observing
ADC	affiliated data center
AI&T	Algorithm Integration and Test
AIT	algorithm integration and test
AM-1	EOS AM Project spacecraft 1, morning spacecraft series -- ASTER, CERES, MISR, MODIS and MOPITT instruments
ANSI	American National Standards Institute
API	application program (or programming) interface
ASCII	American Standard Code for Information E change
ASF	Alaska SAR Facility (DAAC)
ASTER	Advanced Spaceborne Thermal Emission and Reflection
AT	acceptance test
ATT	acceptance test team
BONeS	block oriented network simulator
CASE	computer aided software engineering
CCR	configuration change request
CCSDS	Consultative Committee for Space Data Systems
CDR	Critical Design Review
CDRL	contract data requirements list
CERES	Clouds and Earth's Radiant Energy System
CI	configuration item
CIESIN	Consortium for International Earth Science Information Network
CM	configuration management
COTS	commercial off-the-shelf (hardware or software)

CPU	central processing unit
CSC	computer software component
CSCI	computer software configuration item
CSMS	Communications and Systems Management Segment (ECS)
CSR	consent to ship review
CSU	computer software unit
DAA	data availability acknowledgment
DAAC	Distributed Active Archive Center
DADS	Data Archive and Distribution System
DAN	data availability notice
DAR	data acquisition request
DAS	detailed activity schedule
DCN	document change notice
DDA	data delivery acknowledgment
DDICT	data dictionary
DDN	data delivery notice
DDTS	Distributed Defect Tracking System
DESKT	desktop (configuration item)
DID	data item description
DIM	distributed information manager
DIMGR	distributed information manager
DMO	data management organization
DNS	domain name services
DOTS	data ordering and tracking system (JPL)
DPR	Data Processing Request
DR	discrepancy report
e-mail	electronic mail
Early AM-1	EOS Morning Crossing (Descending) Mission
EAS	ECS Advertising Service

Ecom	EOS Communications (replaced by EBNet)
ECS	EOSDIS Core System
EDF	ECS Development Facility
EOC	EOS Operations Center
EOS	Earth Observing System
EOSDIS	Earth Observing System Data and Information System
ESDIS	Earth Science Data and Information System (GSFC)
ETM+	Enhanced Thematic Mapper Plus (Landsat 7)
ETR	Element Test Review
F&PRS	Functional and Performance Requirements Specification
FDDI	fiber distributed data interface
FOO	flight of opportunity
FOS	Flight Operations Segment (ECS)
ftp	file transfer protocol [12/15/94]
GSFC	Goddard Space Flight Center
GUI	graphic user interface
H/W	hardware
HIPPI	high performance parallel interface
HMI	human machine interface
HP	Hewlett Packard
HTML	HyperText Markup Language
HTTP	Hypertext Transport Protocol
HWCI	hardware configuration item
I&AT	Integration and Acceptance Test
I&T	integration and test
I&TT	Integration and Test Team
I/F	interface
IATO	Independent Acceptance Test Organization
ICD	interface control document

IDR	Incremental Design Review
INGST	ingest services
IR	interim release
IR-1	interim release-1
IRD	interface requirements document
IST	Instrument Support Terminal
IV&V	independent verification and validation
JPL	Jet Propulsion Laboratory (JPL)
L0-L4	Level 0 (zero) through Level 4
LAN	local area network
Landsat	Land Remote-Sensing Satellite
LaRC	Langley Research Center (DAAC)
LIS	Lightning Image Sensor
LOM	Logical Object Model
M&O	maintenance and operations
MISR	Multi-Angle Imaging SpectroRadiometer
MODIS	Moderate-Resolution Imaging Spectroradiometer
MOPITT	Measurements of Pollution in the Troposphere
MSFC	Marshall Space Flight Center
NASA	National Aeronautics and Space Administration
NCR	non-conformance report
NCRCA	Non-conformance Reporting and Corrective Action
NCSA	National Center for Supercomputer Applications
NSIDC	National Snow and Ice Data Center (DAAC)
NRCA	non-conformance reporting and corrective action
ORNL	Oak Ridge National Laboratory (DAAC)
PAIP	performance assurance implementation plan
PDR	Preliminary Design Review
PGE	product generation executable

PGS	Product Generation System
QA	quality assurance
R1	Release 1
RAID	redundant array of inexpensive disks
RIR	Release Initiation Review
RTE	Remote Terminal Emulator
RTM	requirements and traceability management
SAGE	Stratospheric Aerosols and Gas Equipment
SCDO	Science and Communications Development Office (ECS)
SCF	Science Computing Facility
SDPF	Sensor Data Processing Facility (GSFC)
SDPS	Science Data Processing Segment (ECS)
SDR	Software Design Review
SDR	System Design Review
SeaWiFS	Sea-Viewing Wide Field-of-View Sensor
SFDU	Standard Format Data Unit
SGI	Silicon Graphics International
SI&P	system integration and planning
SI&T	system integration and test
SITP	system integration test plan
SMF	status message tool
SRR	System Requirements Review
SUN	Sun MicroSystems
TBD	To Be Determined
TCP/IP	Transmission Control Protocol/Internet Protocol
TRMM	Tropical Rainfall Measuring Mission (joint US-Japan)
TRR	Test Readiness Review
TSDIS	TRMM Science Data and Information System
URL	universal reference location

V&V	verification and validation
WAIS	Wide Area Information Server
WWW	World-Wide Web
X.400	OSI standard for mail services
X.500	OSI standard for directory services

Note: For a complete listing of Acronyms for EOSDIS Core System (ECS) Project, see 152-TP-001-003.