

ENCLOSURE D

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EED to EED-2 Transition Support Plan

Technical Paper

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Abstract

This paper describes the technical approach, assumptions, and schedule to transition ECS Science System maintenance and ECHO, Coherent Web, User Registration and S-NPP operations and maintenance from the EED contract to the future EED-2 contract.

Keywords: EED, EED-2, ECS, ECHO, Coherent Web, Earthdata, URS, S-NPP transition, facilities, property management, PVC, EDF, training

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1. Introduction

1.1 Purpose

This paper describes the technical approach, assumptions, and schedule to transition ECS Science System maintenance and ECHO (ESDIS ClearingHouse), Coherent Web, User Registration and S-NPP (Suomi NPOESS Preparatory Project) operations and maintenance from the EED (EOSDIS Evolution and Development) contract to the future EED-2 contract.

1.2 Organization

This paper is organized as follows:

Section 1 contains the purpose, organization, overview and summary of the Technical Paper. Section 2 describes the assumptions for each of the tasks described in the transition plan. Section 3 contains a description of the scope and technical approach for the transition from the EED contractor to the EED-2 contractor. Section 4 contains the master schedule for the transition.

1.3 Overview

This document defines the transition activities, schedule, roles, and responsibilities for the EED contractor, EED-2 contractor, and the Government.

The transition of the EED contract to the EED-2 contractor will consist of the transition of five systems or projects.

- EOSDIS Core System (ECS)
- ESDIS ClearingHouse (ECHO)
- Coherent Web system, hereafter referred to as Earthdata
- User Registration System (URS)
- Suomi NPOESS Preparatory Project (S-NPP)

ECS Computing Environments: The EED contractor has two ECS computing environments, both of which are maintained at the Raytheon contractor facility in Riverdale MD. The ECS Development Facility (EDF) is the development environment that supports custom code development, COTS testing, and integration activities. The Performance Verification Center (PVC) is a larger DAAC-like environment that is used for performance testing. As an adjunct to the PVC, the EED contractor maintains a Verification and Test Center (VATC) environment intended to mimic external user interfaces. The VATC has a small set of hardware and its own firewall. Hereafter, the VATC will be subsumed in all requirements and processes which apply to the PVC.

ECHO, Earthdata, and URS Computing Environments: The EED contractor has three computing environments to support these systems: an operations environment, a development environment

and an internal testing environment. All computing resources for each of the three environments are located and maintained in Bldg 32 at the NASA GSFC in Greenbelt MD. The EED contractor also maintains the computing resources for the URS soft-failover system in Bldg 13 at GSFC.

GFE laptop computers and desktop environments are located at the Raytheon contractor facility to remotely perform systems administration tasks, operations support tasks and development and test activities.

In addition to relocation of computing facilities, this plan addresses training of EED-2 contractor staff, maintenance of the EED baselines during the transition period, and consulting support to be provided to the EED-2 contractor after the cutover.

1.4 Transition Plan Summary

The EED contractor will be responsible for relocating the PVC/EDF equipment and ECHO, Earthdata, URS and S-NPP GFE laptop computers and desktop environments to the EED-2 contractor's facility, installing the equipment and software, and verifying that the systems function correctly. The EED-2 contractor is responsible for providing a suitable data center environment, providing required power and cooling, establishing the required network connectivity with GSFC, and providing any desktop systems and supporting infrastructure required to connect to the PVC/EDF and ECHO, Earthdata, URS and S-NPP systems.

Upon contract award, the government and the EED contractor will conduct a site survey of the EED-2 contractor's data center. The EED-2 contractor will identify any facility special access requirements or constraints. The EED and EED-2 contractors will reach agreement on where the equipment will be located in the data center, the best way to establish the cabling (Ethernet, fiber channel) infrastructure and finalize power and cooling requirements. In addition, they and the government will establish a target date for equipment relocation. An EED-2 maintenance cutover date will occur immediately following equipment relocation and the successful completion of a PVC/EDF regression test which will be conducted by the EED contractor in the EED-2 contractor's facility. On the EED-2 maintenance cutover date, the EED-2 contractor will assume full responsibility for all systems, to include ECS development and ECHO, Earthdata, URS and S-NPP development and operations. All property, COTS licenses and maintenance agreements will be transferred to the EED-2 contractor on the EED-2 maintenance cutover date.

Upon contract award, the EED-2 contractor and NASA will initiate tasks for establishing connectivity to GSFC.

With the exception of non-critical GFE, there are no ECHO, Earthdata, URS and S-NPP machines that require relocation to the EED-2 contractor's facility. Machines located at GSFC Bldg 32 for ECHO, Earthdata, URS and S-NPP, and in Bldg 13 for URS are assumed to remain where they are.

The EED contractor will provide updated documentation on all material and assets that will transition to the EED-2 contractor. The lists of documents are described in Section 3 of this document.

In parallel, the EED-2 contractor will send staff to collocate with the engineers at Raytheon in Riverdale MD for training in maintenance, systems administration and operations.

Upon completion of tasks necessary to prepare the EED-2 contractor's data center and establish connectivity between GSFC and the EED-2 contractor's facility, the EED contractor will move all EED computing environments from Raytheon in Riverdale, MD to the EED-2 contractor facility, and then will verify the functionality of the relocated systems by performing a series of regression tests. The EED-2 contractor must be prepared to allow the EED contractor 24x7 access to their facility during a four day window when the equipment will be relocated.

The EED-2 contractor also will verify that the connectivity to GSFC Bldg 32 is sufficient to support remote operations, development, and internal testing of the ECHO, Earthdata, URS and S-NPP systems.

Following relocation of the ECS systems and completion of regression testing, the maintenance cutover to the EED-2 contractor will occur, in which the EED-2 contractor assumes full responsibility for ECS and ECHO, Earthdata, URS and S-NPP maintenance, systems administration and operations while the EED contractor provides support through the end of the transition during a final overlap period.

If necessary, the EED-2 contractor will provide office space and user accounts for EED staff during this final overlap period.

The master schedule for the EED-2 transition can be found in Section 4 of this document.

2. Assumptions

The following assumptions were made in the formulation of this plan and the accompanying schedule.

2.1 GFE Facilities

- 2.1.1 Upon contract award, the government, the EED-2 contractor, and the EED contractor will negotiate an EED-2 maintenance cutover date on which the EED-2 contractor assumes full responsibility for the ECS and ECHO, Earthdata, URS and S-NPP systems, and all property, COTS licenses and maintenance agreements will be transferred to the EED-2 contractor.
- 2.1.2 The government shall provide EMSnet/Internet connectivity at the EED-2 contractor site. Existing EMSnet connectivity will need to remain in place in the EED facilities in Riverdale for ECS maintenance support and in Greenbelt for ECHO, Earthdata, URS and S-NPP operations and maintenance support until the EED hardware has been relocated to the EED-2 contractor site.
- 2.1.3 The government shall continue to host the ECHO, Earthdata, URS and S-NPP computing resources for its development, internal testing, and operations environments at GSFC Bldg 32, and the URS soft-failover system in Bldg 13. This transition plan assumes that these resources remain where they are and while they will be transferred to the EED-2 contract, they are not to be relocated to the EED-2 contractor's facility.
- 2.1.4 The government shall procure the cabling infrastructure and DMZ firewall necessary to interconnect the PVC/EDF in the EED-2 contractor's facility. The EED contractor shall install these components in the EED-2 contractor's facility.

2.2 Property Management

- 2.2.1 DD-250 property transfer documentation will be accomplished coincident with the relocation of equipment to the EED-2 contractor's facility and prior to the EED-2 maintenance cutover date.
- 2.2.2 DD-250 property transfer for the GFE laptop computers and desktop environments, and the NSIDC, LaRC, EDC DAACs, and the ECHO, Earthdata, URS and S-NPP operational systems will be accomplished by the EED-2 maintenance cutover date.
- 2.2.3 DD-250 property transfer of ECS material stored in room W-30, Building 32, GSFC will be accomplished by the EED-2 maintenance cutover date.
- 2.2.4 The contents of the ECS property room at the EED contractor facility in Riverdale, MD will be returned to the Government by the EED-2 maintenance cutover date, and will not be moved to the EED-2 contractor's facility.

2.3 COTS Maintenance and Licensing

- 2.3.1 The maintenance of all ECS and ECHO, Earthdata, URS and S-NPP COTS components will be the responsibility of the EED-2 contractor as of the EED-2 maintenance cutover date.
- 2.3.2 The EED contractor will transfer all required ECS and ECHO, Earthdata, URS and S-NPP COTS licenses to the government by the EED-2 maintenance cutover date.
- 2.3.3 No custom code changes or COTS upgrades will be deployed to the DAACs or into the ECHO, Earthdata, URS and S-NPP environments in the one month prior to the EED-2 maintenance cutover date; exceptions for urgent, high severity fixes will be made with the consent of the government.

2.4 EED-2 Contractor Facilities

- 2.4.1 During the first four weeks after EED-2 contract award, the EED-2 contractor will host a series of site survey visits for the EED contractor and the vendors that will relocate the equipment.
- 2.4.2 The EED-2 contractor will provide EED-2 facility floor plans, rack and hardware footprint diagrams, power cable and receptacle layouts, and network cable layouts to the EED contractor four weeks after EED-2 contract award.
- 2.4.3 The EED-2 contractor will provide adequate power and cooling to support the transitioned EDF, Supporting Databases/Tools, PVC and network components as specified in Section 3.2 of the this document. The EED contractor will provide updated specifications for the environments to the EED-2 Contractor two weeks following the EED-2 contract award.
- 2.4.4 As part of the EED-2 contractor systems infrastructure, sufficient disk space will be provided to accommodate the storage of user home directory data.
- 2.4.5 The EED-2 contractor will make available adequate work space for the EED staff during the final overlap period.

2.5 Training Participation

- 2.5.1 The EED contractor will provide general training sessions to the EED-2 contractor during the first week.
- 2.5.2 The EED contractor will provide expert consultation in an EED facility subsequent to the initial training, to be attended by no more than 2 - 3 participants for each area of consultation.
- 2.5.3 Training on EED COTS products is EED program specific, that is, it does not include training that is commercially available (e.g., PostgreSQL development, Linux systems

administration). It is assumed that EED-2 contractor personnel are knowledgeable about the relevant COTS products.

2.5.4 The general training is to be held in a GFE facility with GFE desktops providing access to ECS and ECHO, Earthdata, URS and S-NPP software and systems.

2.5.5 The training facilities provide access to the Internet and the students are thereby able to access ECS and ECHO, Earthdata, URS and S-NPP on-line documentation.

3. Transition Tasks

3.1 Electronic List of COTS Products

3.1.1 Scope

The EED contractor will provide electronic lists of ECS and ECHO COTS products to the EED-2 contractor. The lists will include COTS hardware, COTS software and license information.

3.1.2 Approach

- 3.1.2.1 The EED contractor will provide COTS hardware listings for each ECS DAAC and major hardware segments to be transferred from the ECS and ECHO, Earthdata, URS and S-NPP computing environments to the EED-2 contractor.
- 3.1.2.2 The EED contractor will provide hardware diagrams for the baselined components of the ECS and ECHO, Earthdata, URS and S-NPP systems.
- 3.1.2.3 The EED contractor will provide COTS software lists that list each COTS software product and the number of licenses for each software product.
- 3.1.2.4 The COTS hardware lists, hardware diagrams and COTS software lists are current as of (TBD date). The EED contractor will provide replacement lists and diagrams to the EED-2 contractor two weeks after contract award, so the EED-2 contractor will be able to do engineering and facility planning with information current as of contract award.

3.1.3 Deliverables for ECS Systems

The EED contractor shall for ECS systems provide the following COTS lists:

- a. COTS hardware lists for the DAACs: LaRC, NSIDC and EDC
- b. COTS hardware list for the EDF and PVC
- c. COTS hardware list of EED material for Supporting Databases/Tools
- d. COTS hardware list for all hardware not required to configure any of the specified transition environments
- e. COTS software list for each software product, by vendor with number of licenses
- f. Hardware diagrams for the DAACs: LaRC, NSIDC, EDC
- g. Hardware diagrams for the EDF and PVC
- h. List of non-GFE material that has been used to support the EDF and PVC at the EED contractor's facility but is not included in the transition to the EED-2 contractor.

3.1.4 Deliverables for ECHO, Earthdata, URS and S-NPP Systems

The EED contractor shall for the ECHO, Earthdata, URS and S-NPP systems provide the following COTS lists:

- a. COTS hardware lists for the ECHO operations, development and internal testing environments
- b. COTS hardware list of ECHO material for Supporting Databases/Tools
- c. COTS hardware list for all hardware not required to configure any of the specified transition environments.
- d. COTS software list for each software product, by vendor with number of licenses
- e. Hardware diagrams for the ECHO operations, development and internal testing environments
- f. List of non-GFE material that has been used to support ECHO at the EED contractor's facility but is not included in the transition to the EED-2 contractor.

3.2 Power and Facility Requirements

3.2.1 Scope

The EED contractor will provide power and facility documentation to the EED-2 contractor for all COTS hardware to be configured in the relocation environments specified in this plan and applies only to the computing resources located at the EED contractor's facilities.

Information for the listings will be taken from the EED contractor's property database and COTS hardware floor plans. A listing will also be provided for ECS COTS hardware to be transferred to the EED-2 contractor, but which are not part of a specified and installed environment.

The ECHO, Earthdata, URS and S-NPP computing environments will continue to be hosted at GSFC Bldg 32; hence they are not included in the environments to be relocated to the EED-2 contractor's facilities.

3.2.2 Approach

3.2.2.1 The EED contractor will provide physical requirement listings for COTS hardware containing the following information:

- a. property management information
- b. ECS hostname
- c. item description
- d. type of electrical receptacle required
- e. BTUs/hr

- f. depth in inches
- g. width in inches
- h. height in inches
- i. weight in pounds
- j. manufacturer's KVA ratings
- k. AC voltage requirement
- l. circuit breaker rating
- m. phase requirements
- n. The number and types of cables will also be provided for all baselined EED environments.

3.2.3 Deliverables for ECS Systems

The EED contractor shall for ECS systems provide the following:

- a. Document containing COTS hardware and environmental and physical installation characteristics for the EDF.
- b. Document containing COTS hardware and environmental and physical installation characteristics for the PVC.
- c. Document containing COTS hardware and environmental and physical installation characteristics for the Supporting Databases/Tools servers.
- d. Document containing COTS hardware and environmental installation for all ECS hardware that is not required to create any of the specified transition environments.
- e. Cabling information for each baselined hardware environment.

3.2.4 Deliverables for ECHO, Earthdata, URS and S-NPP Systems

The ECHO, Earthdata, URS and S-NPP computing environments will continue to be hosted at GSFC Bldg 32; hence they are not included in the environments to be relocated to the EED-2 contractor's facilities.

3.3 Collocate EED-2 Contractor in the EED Contractor Facilities

3.3.1 Scope

Upon contract award, the EED-2 contractor shall deploy staff into the EED contractor's development facilities for training, during the period in which the EED-2 contractor is preparing their EED-2 facilities and the Government is establishing network connectivity with the EED-2 facility. The EED-2 contractor will also have the opportunity to participate in the hands-on

performance of maintenance and operation tasks under the guidance of the EED contractor during this period.

During this collocation period, the EED contractor will conduct an instructor-led classroom training program to provide key personnel of the EED-2 contractor with instruction to enable successful transition of maintenance of ECS and maintenance and operation of ECHO, Earthdata, URS and S-NPP.

For ECS training of deployed EED-2 contractor engineers, EED contractor will provide 8 cubicles at its ECS facility in Riverdale MD.

For ECHO, Earthdata, URS and S-NPP training of deployed EED-2 contractor engineers, the EED contractor will accommodate 8 EED-2 contractor engineers in Riverdale MD.

During this collocation period, the EED contractor shall provide EED-2 engineers access to computing environments in Riverdale and GSFC Bldg 32 to support their participation in the maintenance and operations tasks under the guidance of the EED contractor.

During this collocation period in which the EED-2 contractor is deployed to the EED contractor facilities, the EED contractor will continue to maintain the ECS systems and maintain and operate the ECHO, Earthdata, URS and S-NPP systems.

During this collocation period, the EED contractor will also provide the EED-2 contractor with access to the ECHO, Earthdata, URS and S-NPP operational system at GSFC Bldg 32 for the purposes of assisting with systems monitoring, analysis and trouble shooting.

3.3.2 Approach

3.3.2.1 The EED-2 contractor will have the following responsibilities during the collocation period:

- a. The EED-2 contractor will provide the necessary account information to create user accounts in the ECS and ECHO, Earthdata, URS and S-NPP computing environments and the ECHO, Earthdata, URS and S-NPP operational environments, including information needed to establish NASA account in order to access the ECHO, Earthdata, URS and S-NPP computing environments located at GSFC Bldg 32.
- b. The EED-2 contractor will participate in maintenance and operations tasks under the guidance of the EED contractor.

3.3.2.2 The EED contractor will have the following responsibilities during the collocation period:

- a. The EED contractor shall provide office space and desktop environments for EED-2 engineers to be collocated with the ECS and ECHO teams in Riverdale MD.
- b. The EED contractor will conduct testing to ensure that the necessary accounts can be used to access the ECS computing resources located in Riverdale.

- c. The EED contractor will conduct testing to ensure that the accounts can be used to access the ECHO, Earthdata, URS and S-NPP operations computing resources located at GSFC Bldg 32.
- d. The EED contractor will provide a detailed schedule of instructor led classroom training for ECS and ECHO, Earthdata, URS and S-NPP topics, to be conducted at the Riverdale MD facilities.

3.3.3 Deliverables for ECS Systems

The EED contractor shall under this task provide accounts and passwords with the ECS development environment, training for the EED-2 contractor, and office space for their collocation in the Riverdale MD facility.

3.3.4 Deliverables for ECHO, Earthdata, URS and S-NPP Systems

The EED contractor shall under this task provide accounts and passwords with the ECHO development and operational environments, training for the EED-2 contractor, and office space for their collocation in the Riverdale MD facility.

3.4 Provide ECS Training to EED-2 Contractor

The transition support includes a training program to provide key staff of the EED-2 contractor with instruction to enable successful maintenance and support of ECS. The training is structured to permit EED-2 management and staff to select among the offered training opportunities those elements that meet the needs of their jobs.

3.4.1 Scope

The training offers classroom instruction and labs to address:

- ECS architecture and hardware/software configuration.
- ECS custom code, by subsystem, including design, interfaces, and known limitations and problem areas.
- ECS COTS products, including customization, ECS glue-code, non-standard utilization.
- ECS Configuration Management systems and tools, including system build and delivery scripts/processes, and hardware and software tracking tools and databases.
- ECS Test Systems configuration and operation.
- Test tools and scripts for integration, regression, and performance testing.
- Earth Science Data Type (ESDT) development and maintenance.
- Use and operation of Non-Conformance Report (NCR) and Trouble Ticket systems.

Subsequently, the transition support effort makes ECS experts in selected areas available for one-on-one or small-group consultations to enable in-depth transfer of knowledge and skills for ECS

maintenance and support. The duration of these consultations varies depending on the specific requirements for each particular area of support.

3.4.2 Approach

3.4.2.1 The EED contractor shall provide ECS training to the EED-2 contractor.

The EED contractor Transition Training plan is based on tailoring training to the needs of the people who will carry out the work. For this reason, we propose an approach that provides five separate tracks:

- Systems Engineering: ECS architecture and hardware.
- Software Development and Customization: ECS subsystems, custom software, and COTS.
- Science Data Engineering: Earth Science Data Types.
- Testing: Testing tools.
- Deployment and Maintenance: Deployment and maintenance tools.

COTS products will be integrated into the appropriate subsystem and covered throughout the various training topics. Those COTS packages requiring additional details will be separately covered.

It is expected that attendees will want to attend sessions outside of their particular track. Because the Systems Engineering track has the broadest perspective, it should be of interest for most attendees and serve as a basis for the remaining sessions.

Separate small group consultations with ECS development/system engineering personnel will be scheduled after the formal EED-2 training sessions on an as needed basis to provide additional information on any of the topics previously presented in the training sessions.

3.4.3 Deliverables

Deliverables for the training portion of transition support include two copies on CD-ROM of instructor and student materials, and audio/visual materials used in the training.

3.5 Provide ECHO, Earthdata, URS and S-NPP Training to EED-2 Contractor

The EED contractor will provide training to the EED-2 contractor in the maintenance and operations of ECHO, Earthdata, URS and S-NPP, similar to that provided by the EED contractor for the ECS system. S-NPP training will be limited to the SD3E systems only; the SDS software maintenance portion of the S-NPP system is not within the scope of the EED contract and therefore is not included in the transition training.

3.5.1 Scope

The training is similar in structure to that offered for the ECS system, with the addition of training in ECHO, Earthdata, URS and S-NPP operations. The EED contractor will make available ECHO, Earthdata, URS and S-NPP SD3E experts in selected areas for one-on-one or small-group consultations to enable in-depth transfer of knowledge and skills. The duration of these consultations varies depending on the specific requirements for each particular area of support.

3.5.2 Approach

3.5.2.1 The EED contractor shall provide ECHO, Earthdata, URS and S-NPP SD3E training to the EED-2 contractor.

The EED contractor will offer the following topics for the EED-2 contractor in the maintenance and operations of ECHO, Earthdata, URS and S-NPP SD3E:

- ECHO, Earthdata, URS and S-NPP SD3E Systems Architecture: Functionality, subsystems, data model, hardware architecture, and external interfaces.
- ECHO, Earthdata, URS and S-NPP SD3E Software Architecture and Design
- ECHO, Earthdata, URS and S-NPP SD3E COTS products
- ECHO, Earthdata, URS and S-NPP SDS Configuration Management systems and tools, including system build and delivery scripts/processes, and hardware and software tracking tools and databases.
- ECHO, Earthdata, URS and S-NPP SDS Test Systems configuration and operation.
- ECHO, Earthdata, URS and S-NPP SDS Operations
- Topics specific to ECHO, Earthdata, URS and S-NPP SD3E

COTS products will be integrated into the appropriate training topics. Those COTS packages requiring additional details will be separately covered.

Separate small group consultations with ECHO development/system engineering personnel will be scheduled after the formal EED-2 training sessions on an as needed basis to provide additional information on any of the topics previously presented in the training sessions.

3.5.3 Deliverables

Deliverables for the training portion of transition support include two copies on CD-ROM of instructor and student materials, and audio/visual materials used in the training.

3.6 Maintain Operational Baseline

3.6.1 Scope

During the collocation period and until the EED-2 maintenance cutover date, the EED contractor will continue to maintain the ECS operational baseline deployed to the ECS DAACs and the ECHO, Earthdata, URS and S-NPP operational system at GSFC Bldg 32.

During the collocation period, the EED contractor will continue to execute its ECS and ECHO, Earthdata, URS and S-NPP training program for the EED-2 contractor personnel.

During this collocation period, the EED contractor will develop transition test procedures that will be delivered to the EED-2 contractor for the verification of the successful relocation of EED computing environments to the EED-2 facility and cutover of maintenance and operations responsibility to the EED-2 contractor. The EED contractor will provide hands-on training to the EED-2 contractor in the execution of the transition verification test procedures.

The EED-2 contractor will be responsible for executing the transition verification test procedures at their facility.

3.6.2 Approach

3.6.2.1 The EED contractor shall have the following responsibilities while maintaining the operational baseline during the collocation period:

- a. The EED contractor will maintain adequate staff and environments until the PVC/EDF are relocated to the EED-2 contractor's facility.
- b. The EED contractor will define the set of regression tests and results expected from the execution of the regression tests used to verify the operational baseline functionality of the PVC/EDF as installed in the EED-2 contractor facility.

3.6.3 Deliverables

The EED contractor deliverables during this period are the same as during the initial collocation period, with the addition of the verification tests to be executed by the EED-2 contractor at the facility subsequent to the relocation of ECS computing systems.

3.7 Relocation of ECS PVC and EDF to EED-2 Contractor's Facility

3.7.1 Scope

The Performance Verification Center (PVC) and ECS Development Facility (EDF) will be relocated from the EED contractor's facility and established at the EED-2 contractor's facility. The PVC/EDF will include all existing servers, peripherals and network hardware, as well as all Operating System and COTS software products running on that hardware. The EDF also supports a development build environment.

The PVC environment supports ECS system performance verification testing and day-in-the-life representative ECS DAAC throughput testing, or workload runs.

The EDF enables EED-2 engineers to test custom code fixes prior to their delivery. Custom code fixes are introduced into the code baseline via merges made from the development build environment. The development build environment consists of development build platforms and the baseline configuration and control product, ClearCase. The ClearCase environment will contain the current snapshot of the VOBs (versioned object base), all scripts to maintain the ClearCase environment and support to maintain views. A set of ClearCase build platforms for baseline builds are included in the EDF.

The EED-2 contractor's facility will be required to support two firewalls: one between the computing environments and the EMSnet router, and the other between the computing environments and the facility's internet connection.

3.7.2 Approach

3.7.2.1 The EED-2 contractor shall have the following responsibilities for the ECS relocation task:

- a. The EED-2 contractor will coordinate with the ESDIS/IPNOC to verify proper configuration of the EMSnet router in the EED-2 contractor site.
- b. The EED-2 contractor will ensure the necessary power and cooling are available in the EED-2 contractor facility..
- c. The EED-2 contractor will establish the workspace environment required by the EED contractor staff in the course of supporting the installation and operational baseline testing of the PVC/EDF at the EED-2 contractor facility.
- d. The EED-2 contractor shall provide sufficient disk space to accommodate the storage and network file sharing of user home directory data.

3.7.2.2 The EED contractor shall have the following responsibilities for the ECS relocation task:

- a. The EED contractor will define all physical security and facility access required by the EED contractor staff in course of supporting the delivery and installation of the PVC/EDF at the EED-2 contractor facility.
- b. The EED contractor will prepare for the delivery and installation of the PVC/EDF servers, desktop and peripheral hardware to the EED-2 contractor facility by verifying that all components to be moved to the EED-2 contractor facility have been identified.
- c. The EED contractor will perform a site survey of the EED-2 contractor facility in order to confirm that the power, cooling and space infrastructure preparation required to support the PVC/EDF has been completed.

- d. The EED contractor will prepare for shipment, pack, ship, and deliver the PVC/EDF components to the EED-2 contractor site.
- e. The EED contractor will install the PVC/EDF server, desktop, and peripheral hardware.
- f. The EED contractor will install the PVC/EDF internal and external network hardware, firewall hardware, and any associated network security infrastructure.
- g. The EED contractor will perform an inventory of the PVC/EDF server, desktop, and peripheral hardware delivered from the EED contractor facility and installed in the EED-2 contractor facility.
- h. The EED contractor will verify that the PVC/EDF internal and external network hardware, firewall hardware, and any associated network security infrastructure are nominally operational.
- i. The EED contractor will verify that the PVC/EDF server, desktop, and peripheral hardware delivered from the current EED facility and installed in the EED-2 contractor facility is nominally operational.
- j. The EED contractor will verify that the PVC/EDF COTS and ECS custom software infrastructure, including mount points, links and user accounts are nominally operational.
- k. The EED contractor will execute PVC/EDF operational baseline regression tests in order to confirm that the delivered PVC/EDF baseline is nominally operational.
- l. The EED contractor will execute the ECS workload tests to ensure that they show comparable results to those executed in the ECS facility.
- m. The EED contractor will perform verification testing on the development build platforms to ensure accessibility and the successful execution of custom code builds.

3.7.3 Deliverables

The EED contractor shall deliver the following items as part of this task:

- a. PVC/EDF physical access requirements
- b. PVC/EDF server hardware
- c. PVC/EDF peripheral hardware
- d. PVC/EDF desktop environment hardware
- e. PVC/EDF network hardware and cabling infrastructure
- f. PVC/EDF security firewall hardware
- g. PVC/EDF operating systems and COTS software

- h. PVC/EDF operational baseline regression test plans

3.8 Relocation of ECHO, Earthdata, URS and S-NPP Environments to EED-2 Contractor's Facility

3.8.1 Scope

There are no operationally critical ECHO, Earthdata, URS and S-NPP machines that require relocation to the EED-2 contractor's facility. Machines located at GSFC Bldg 32 for ECHO, Earthdata, URS and S-NPP operations, development and internal testing are assumed to remain where they are. Laptop computers and desktop environments in use by the EED contractor are GFE and will transfer to the EED-2 contract and relocate to the EED-2 contractor's facility.

As part of the EED-2 maintenance cutover activity, the EED-2 contractor will demonstrate the ability to remotely support ECHO, Earthdata, URS and S-NPP development, maintenance and operations from their facility to the machines located in GSFC Bldg 32.

3.8.2 Approach

- 3.8.2.1 The EED-2 contractor shall verify the connectivity between the EED-2 contractor's facility and GSFC Bldg 32 is sufficient to perform development, maintenance, and operations in support of ECHO, Earthdata, URS and S-NPP.

3.9 Relocation of ECS Supporting Databases/Tools

3.9.1 Scope

The EED contractor will deliver to the EED-2 contractor the databases and tools needed to support ECS maintenance and support to operations. This delivery will include COTS and custom applications and databases and the servers on which they run. The application which supports ECS requirements management will remain hosted on a machine resident at GSFC Bldg 32, and therefore will not be relocated to the EED-2 contractor's facility.

The tools support the following functions:

- operational NCR and trouble ticket management
- hardware and software property tracking

3.9.2 Approach

These items will be delivered as part of the EDF/PVC relocation discussed in Section 3.7. The EED contractor will verify the correct operation of these databases and tools following installation in the EED-2 contractor's facility.

3.9.2.1 The EED contractor shall deliver to the EED-2 contractor tools for operational NCR and trouble ticket management and hardware/software property tracking.

3.9.3 Deliverables

The EED contractor shall deliver the following tools and their servers as part of this task:

- operational NCR and trouble ticket management
- hardware and software property tracking

3.10 Relocation of ECHO, Earthdata, URS and S-NPP Supporting Databases/Tools

3.10.1 Scope

The delivery of Supporting Databases/Tools for ECS (Section 3.9) will satisfy the delivery of Supporting Databases/Tools needed to support the following functions for ECHO, Earthdata, URS and S-NPP maintenance and operations:

- ECHO operational NCR and trouble ticket management
- hardware and software property tracking for ECHO, Earthdata, URS and S-NPP

The remaining suite of tools needed to support ECHO, Earthdata, URS and S-NPP development and operations will not be relocated to the EED-2 contractor's facility but will remain resident on the hosts located in GSFC Bldg. 32. License transfer will be accomplished during the execution of property transfer tasks.

3.10.2 Approach

3.10.2.1 The EED contractor shall deliver to the EED-2 contractor tools for ECHO operational NCR and trouble ticket management, and hardware/software property tracking for ECHO, Earthdata, URS and S-NPP.

3.10.3 Deliverables

The EED contractor shall deliver the following tools and their servers as part of this task:

- operational NCR and trouble ticket management
- hardware and software property tracking

3.11 Deliver Remainder of Development Environment to EED-2 Contractor

3.11.1 Scope

The EED contractor will deliver the remainder of the ECS and ECHO, Earthdata, URS and S-NPP government furnished equipment (GFE) to the EED-2 contractor facility. The remaining network equipment and peripherals will be provided to complete the development environment at the EED-2 contractor facility. The remaining hardware, including workstations, desktop environments, laptop computers, servers, and disk storage will be delivered to the EED-2 contractor facility. Since this remaining hardware has been used and configured in various ways to support the EED program, and is not required to configure the environments specified in this document, the EED contractor will not specify its configuration. This will enable the EED-2 contractor to evaluate the remaining hardware and determine how it may best be used to support the requirements of the EED-2 contract. Lastly, the EED contractor will deliver the software media library.

3.11.2 Approach

These items will be delivered as part of the EDF/PVC relocation discussed in Section 3.7.

3.11.2.1 The EED contractor shall deliver to the EED-2 contractor all ECS hardware that has been used to provide auxiliary support to the ECS environments in Riverdale MD but which have not been formally configured into the PVC, EDF or VATC baselines.

3.11.2.2 The EED contractor shall deliver to the EED-2 contractor the EED software media library.

3.11.3 Deliverables

The EED contractor shall deliver the following items with this task:

- Remaining ECS hardware
- Software media library

3.12 Deploy EED Contractor into EED-2 Contractor Facilities

3.12.1 Scope

Upon cutover of maintenance to the EED-2 contractor, the EED contractor shall deploy staff into the EED-2 contractor's ECS and ECHO, Earthdata, URS and S-NPP facilities for the purposes of providing engineering support. The support will include expertise on all ECS and ECHO subsystems and COTS products, problem isolation and resolution support, assistance in the creation of a new development baseline, and operations and troubleshooting of the ECHO, Earthdata, URS and S-NPP systems.

3.12.2 Approach

3.12.2.1 The EED contractor will maintain adequate staff to provide engineering support to the EED-2 contractor after the cutover of maintenance and operations through the end of the EED contract.

3.12.3 Deliverables

There are no deliverables for this task other than labor hours provided.

4. Schedule

Figure 4-1 depicts the master schedule for each of the tasks described in Section 3 of this document.

The planned duration shown for the relocation activity to be performed by the EED contractor is a representative duration.

The planned duration shown for establishing the connectivity between the EED-2 contractor’s facilities and GSFC is a representative duration based on optimistic estimates for similar activities in which the EED contractor was involved.

Table 4-1 contains a mapping of the transition requirements contained in this document to the activities in the master schedule, in Figure 4-1.

ID	Resource Names	Duration	Task Name	Predecessors	M1	M2	M3	M4
1	Govt	0 days	EED-2 Award of Contract (AOC)			2/2		
2	Govt,EED,EED-2	1 day	Establish Relocation Date and EED-2 Maintenance Cutover Date	1				
3	EED-2,Govt	28 days	Establish connectivity between EED-2 Facility and GSFC Bldg 32					
4	EED-2	28 days	Prepare EED-2 Facility for ECS computing systems relocation	2				
5	Govt	20 days	Procure cable infrastructure and firewall	1FS+15 days				
6	EED	14 days	Provide updated documentation material and assets to be transitioned	1				
7	EED	28 days	Transfer ECS,ECHO,Earthdata,URS & S-NPP property to EED-2 contract	1				
8	EED,EED-2	25 days	Collocate EED-2 with EED personnel	1				
9	EED	25 days	Provide training to EED-2 personnel	1				
10	EED	4 days	Relocate ECS computing systems to EED-2 Facility	3,4,7,8,9				
11	EED	5 days	Verify ECS functionality from EED-2 facility	10				
12	EED	5 days	Verify ECHO,Earthdata,URS & S-NPP operations and development from E	10				
13	EED,EED-2	0 days	EED-2 Maintenance Cutover Date	12,11				3/25
14	EED-2,EED	4 days	Collocate EED personnel at EED-2 facility	13				
15	EED	0 days	EED End Of Contract	14				3/31

Figure 4-1. Transition Master Schedule

Table 4-1. Transition Requirements Mapped to Master Schedule Activities (1 of 10)

Section	Requirement	ID	Activity Name
2.1	Government Deliverables		
2.1.1	Upon contract award, the government, the EED-2 contractor, and the EED contractor will negotiate an EED-2 maintenance cutover date on which the EED-2 contractor assumes full responsibility for the ECS and ECHO, Earthdata, URS and S-NPP systems, and all property, COTS licenses and maintenance agreements will be transferred to the EED-2 contractor.	2	Establish Relocation Date and EED-2 Maintenance Cutover Date
2.1.2	The government shall provide EMSnet/Internet connectivity at the EED-2 contractor site. Existing EMSnet connectivity will need to remain in place in the EED facilities in Riverdale for ECS maintenance support and in Greenbelt for ECHO operations and maintenance support until the EED hardware has been relocated to the EED-2 Contractor site.	3	Establish connectivity between EED-2 Facility and GSFC Bldg 32
2.1.3	The government shall continue to host the ECHO, Earthdata, URS and S-NPP computing resources for its development, internal testing, and operations environments at GSFC Bldg 32, and the URS soft-failover system in Bldg 13. This transition plan assumes that these resources remain where they are and while they will be transferred to the EED-2 contract, they are not to be relocated to the EED-2 contractor's facility.	1 thru 14	All activities
2.1.4	The government shall procure the cabling infrastructure and DMZ firewall necessary to interconnect the PVC/EDF in the EED-2 contractor's facility. The EED contractor shall install these components in the EED-2 contractor's facility.	5	Procure cable infrastructure and firewall
2.2	Property Management		
2.2.1	DD-250 property transfer documentation will be accomplished coincident with the relocation of equipment to the EED-2 contractor's facility and prior to the EED-2 maintenance cutover date.	7	Transfer ECS, ECHO, Earthdata, URS & S-NPP property to EED-2 contract
2.2.2	DD-250 property transfer for the GFE laptop computers and desktop environments, and the NSIDC, LaRC, EDC DAACs, and the ECHO, Earthdata, URS and S-NPP operational systems will be accomplished by the EED-2 maintenance cutover date.	7	Transfer ECS, ECHO, Earthdata, URS & S-NPP property to EED-2 contract
2.2.3	DD-250 property transfer of ECS material stored in room W-30, Building 32, GSFC will be accomplished by the EED-2 maintenance cutover date.	7	Transfer ECS, ECHO, Earthdata, URS & S-NPP property to EED-2 contract
2.2.4	The contents of the ECS property room at the EED contractor facility will be returned to the Government by the EED-2 maintenance cutover date, and will not be moved to the EED-2 contractor's facility.	7	Transfer ECS, ECHO, Earthdata, URS & S-NPP property to EED-2 contract

Table 4-1. Transition Requirements Mapped to Master Schedule Activities (2 of 10)

Section	Requirement	ID	Activity Name
2.3	COTS Maintenance and Licensing		
2.3.1	The maintenance of all ECS and ECHO, Earthdata, URS and S-NPP COTS components will be the responsibility of the EED-2 contractor as of the EED-2 maintenance cutover date.	13	EED-2 Maintenance Cutover Date
2.3.2	The EED contractor will transfer all required ECS and ECHO, Earthdata, URS and S-NPP COTS licenses to the government by the EED-2 maintenance cutover date.	7	Transfer ECS, ECHO, Earthdata, URS & S-NPP property to EED-2 contract
2.3.3	No custom code changes or COTS upgrades will be deployed to the DAACs or into the ECHO, Earthdata, URS and S-NPP environments in the one month prior to the EED-2 maintenance cutover date; exceptions for urgent, high severity fixes will be made with the consent of the government.	13	EED-2 Maintenance Cutover Date
2.4	EED-2 Contractor Facilities		
2.4.1	During the first four weeks after EED-2 contract award, the EED-2 contractor will host a series of site survey visits for the EED contractor and the vendors that will relocate the equipment.	4	Prepare EED-2 Facility for ECS computing systems relocation
2.4.2	The EED-2 contractor will provide EED-2 facility floor plans, rack and hardware footprint diagrams, power cable and receptacle layouts, and network cable layouts to the EED contractor four weeks prior to the scheduled date of the site surveys of the EED-2 contractor facility.	4	Prepare EED-2 Facility for ECS computing systems relocation
2.4.3	The EED-2 contractor will provide adequate power and cooling to support the transitioned EDF, Supporting Databases/Tools, PVC and network components as specified in Section 3.2 of the this document. The EED contractor will provide updated specifications for the environments to the EED-2 Contractor two weeks following the EED-2 contract award	4	Prepare EED-2 Facility for ECS computing systems relocation
2.4.4	As part of the EED-2 contractor systems infrastructure, sufficient disk space will be provided to accommodate the storage of user home directory data.	4	Prepare EED-2 Facility for ECS computing systems relocation
2.4.5	The EED-2 contractor will make available adequate work space for the EED staff during the final overlap period.	14	Collocate EED personnel at EED-2 facility

Table 4-1. Transition Requirements Mapped to Master Schedule Activities (3 of 10)

Section	Requirement	ID	Activity Name
2.5	Training Participation		
2.5.1	The EED contractor will provide general training sessions to the EED-2 contractor during the first week.	9	Provide training to EED-2 personnel
2.5.2	The EED contractor will provide expert consultation in an EED facility subsequent to the initial training, to be attended by no more than 2 - 3 participants for each area of consultation.	9	Provide training to EED-2 personnel
2.5.3	Training on EED COTS products is EED program specific, that is, it does not include training that is commercially available (e.g., PostgreSQL development, Linux systems administration). It is assumed that EED-2 contractor personnel are knowledgeable about the relevant COTS products.	9	Provide training to EED-2 personnel
2.5.4	The general training is to be held in a GFE facility with desktops providing access to ECS and ECHO, Earthdata, URS and S-NPP software and systems.	9	Provide training to EED-2 personnel
2.5.5	The training facilities provide access to the Internet and the students are thereby able to access ECS and ECHO, Earthdata, URS and S-NPP on-line documentation.	9	Provide training to EED-2 personnel
3.1	Electronic List of COTS Products		
3.1.2	Approach		
3.1.2.1	The EED contractor will provide COTS hardware listings for each ECS DAAC and major hardware segments to be transferred from the ECS and ECHO, Earthdata, URS and S-NPP computing environments to the EED-2 contractor.	6	Provide updated documentation material and assets to be transitioned
3.1.2.2	The EED contractor will provide hardware diagrams for the baselined components of the ECS and ECHO, Earthdata, URS and S-NPP systems.	6	Provide updated documentation material and assets to be transitioned
3.1.2.3	The EED contractor will provide COTS software lists that list each COTS software product and the number of licenses for each software product.	6	Provide updated documentation material and assets to be transitioned
3.1.2.4	The COTS hardware lists, hardware diagrams and COTS software lists are current as of (TBD date). The EED contractor will provide replacement lists and diagrams to the EED-2 contractor two weeks after contract award, so the EED-2 contractor will be able to do engineering and facility planning with information current as of contract award.	6	Provide updated documentation material and assets to be transitioned

Table 4-1. Transition Requirements Mapped to Master Schedule Activities (4 of 10)

Section	Requirement	ID	Activity Name
3.2	Power and Facility Requirements		
3.2.2	Approach		
3.2.2.1	The EED contractor will provide physical requirement listings for COTS hardware containing the following information:	6	Provide updated documentation material and assets to be transitioned
	a. property management information	6	Provide updated documentation material and assets to be transitioned
	b. ECS hostname	6	Provide updated documentation material and assets to be transitioned
	c. item description	6	Provide updated documentation material and assets to be transitioned
	d. type of electrical receptacle required	6	Provide updated documentation material and assets to be transitioned
	e. BTUs/hr	6	Provide updated documentation material and assets to be transitioned
	f. depth in inches	6	Provide updated documentation material and assets to be transitioned
	g. width in inches	6	Provide updated documentation material and assets to be transitioned
	h. height in inches	6	Provide updated documentation material and assets to be transitioned
	i. weight in pounds	6	Provide updated documentation material and assets to be transitioned
	j. manufacturer's KVA ratings	6	Provide updated documentation material and assets to be transitioned
	k. AC voltage requirement	6	Provide updated documentation material and assets to be transitioned
	l. circuit breaker rating	6	Provide updated documentation material and assets to be transitioned
	m. phase requirements	6	Provide updated documentation material and assets to be transitioned
	n. The number and types of cables will also be provided for all baselined EED environments.	6	Provide updated documentation material and assets to be transitioned

Table 4-1. Transition Requirements Mapped to Master Schedule Activities (5 of 10)

Section	Requirement	ID	Activity Name
3.3	Collocate EED-2 Contractor in the EED Contractor Facilities		
3.3.2	Approach		
3.3.2.1	The EED-2 contractor will have the following responsibilities during the collocation period:	8	Collocate EED-2 with EED personnel
	a. The EED-2 contractor will provide the necessary account information to create user accounts in the ECS and ECHO, Earthdata, URS and S-NPP computing environments and the ECHO, Earthdata, URS and S-NPP operational environments, including information needed to establish NASA account in order to access the ECHO, Earthdata, URS and S-NPP computing environments located at GSFC Bldg 32.	8	Collocate EED-2 with EED personnel
	b. The EED-2 contractor will participate in maintenance and operations tasks under the guidance of the EED contractor.	8	Collocate EED-2 with EED personnel
3.3.2.2	The EED contractor will have the following responsibilities during the collocation period:	8	Collocate EED-2 with EED personnel
	a. The EED contractor shall provide office space and desktop environments for EED-2 engineers to be collocated with the ECS and ECHO teams in Riverdale MD	8	Collocate EED-2 with EED personnel
	b. The EED contractor will conduct testing to ensure that the necessary accounts can be used to access the ECS computing resources located in Riverdale.	8	Collocate EED-2 with EED personnel
	c. The EED contractor will conduct testing to ensure that the accounts can be used to access the ECHO, Earthdata, URS and S-NPP operations computing resources located at GSFC Bldg 32.	8	Collocate EED-2 with EED personnel
	d. The EED contractor will provide a detailed schedule of instructor led classroom training for ECS and ECHO, Earthdata, URS and S-NPP topics, to be conducted at the Riverdale MD facilities.	8	Collocate EED-2 with EED personnel
3.4	Provide ECS Training to EED-2 Contractor		
3.4.2	Approach		
3.4.2.1	The EED contractor shall provide ECHO, Earthdata, URS and S-NPP SD3E training to the EED-2 contractor	9	Provide training to EED-2 personnel

Table 4-1. Transition Requirements Mapped to Master Schedule Activities (6 of 10)

Section	Requirement	ID	Activity Name
3.5	Provide ECHO Training to EED-2 Contractor		
3.5.2	Approach		
3.5.2.1	The EED contractor shall provide ECHO training to the EED-2 contractor.	9	Provide training to EED-2 personnel
3.6	Maintain Operational Baseline		
3.6.2	Approach		
3.6.2.1	The EED contractor shall have the following responsibilities while maintaining the operational baseline during the collocation period:	8	Collocate EED-2 with EED personnel
	a. The EED contractor will maintain adequate staff and environments until the PVC/EDF are relocated to the EED-2 contractor's facility.	8	Collocate EED-2 with EED personnel
	b. The EED contractor will define the set of regression tests and results expected from the execution of the regression tests used to verify the operational baseline functionality of the PVC/EDF as installed in the EED-2 contractor facility.	8	Collocate EED-2 with EED personnel
3.7	Relocation of ECS PVC and EDF to EED-2 Contractor's Facility		
3.7.2	Approach		
3.7.2.1	The EED-2 contractor shall have the following responsibilities for the ECS relocation task:	10	Relocate ECS computing systems to EED-2 Facility
	a. The EED-2 contractor will coordinate with the ESDIS/IPNOC to verify proper configuration of the EMSnet router in the EED-2 contractor site.	10	Relocate ECS computing systems to EED-2 Facility
	b. The EED-2 contractor will ensure the necessary power and cooling are available in the EED-2 contractor facility.	10	Relocate ECS computing systems to EED-2 Facility
	c. The EED-2 contractor will establish the workspace environment required by the EED contractor staff in the course of supporting the installation and operational baseline testing of the PVC/EDF at the EED-2 contractor facility.	10	Relocate ECS computing systems to EED-2 Facility
	d. The EED-2 contractor shall provide sufficient disk space to accommodate the storage and network file sharing of user home directory data.	10	Relocate ECS computing systems to EED-2 Facility

Table 4-1. Transition Requirements Mapped to Master Schedule Activities (7 of 10)

Section	Requirement	ID	Activity Name
3.7.2.2	The EED contractor shall have the following responsibilities for the ECS relocation task:	10	Relocate ECS computing systems to EED-2 Facility
	a. The EED contractor will define all physical security and facility access required by the EED contractor staff in course of supporting the delivery and installation of the PVC/EDF at the EED-2 contractor facility.	10	Relocate ECS computing systems to EED-2 Facility
	b. The EED contractor will prepare for the delivery and installation of the PVC/EDF servers, desktop and peripheral hardware to the EED-2 contractor facility by verifying that all components to be moved to the EED-2 contractor facility have been identified.	10	Relocate ECS computing systems to EED-2 Facility
	c. The EED contractor will perform a site survey of the EED-2 contractor facility in order to confirm that the power, cooling and space infrastructure preparation required to support the PVC/EDF has been completed.	10	Relocate ECS computing systems to EED-2 Facility
	d. The EED contractor will prepare for shipment, pack, ship, and deliver the PVC/EDF components to the EED-2 contractor site.	10	Relocate ECS computing systems to EED-2 Facility
	e. The EED contractor will install the PVC/EDF server, desktop, and peripheral hardware.	10	Relocate ECS computing systems to EED-2 Facility
	f. The EED contractor will install the PVC/EDF internal and external network hardware, firewall hardware, and any associated network security infrastructure.	10	Relocate ECS computing systems to EED-2 Facility
	g. The EED contractor will perform an inventory of the PVC/EDF server, desktop, and peripheral hardware delivered from the EED contractor facility and installed in the EED-2 contractor facility.	11	Relocate ECS computing systems to EED-2 Facility
	h. The EED contractor will verify that the PVC/EDF internal and external network hardware, firewall hardware, and any associated network security infrastructure are nominally operational.	11	Relocate ECS computing systems to EED-2 Facility
	i. The EED contractor will verify that the PVC/EDF server, desktop, and peripheral hardware delivered from the current EED facility and installed in the EED-2 contractor facility is nominally operational.	11	Relocate ECS computing systems to EED-2 Facility
	j. The EED contractor will verify that the PVC/EDF COTS and ECS custom software infrastructure, including mount points, links and user accounts are nominally operational.	11	Relocate ECS computing systems to EED-2 Facility

Table 4-1. Transition Requirements Mapped to Master Schedule Activities (8 of 10)

Section	Requirement	ID	Activity Name
	k. The EED contractor will execute PVC/EDF operational baseline regression tests in order to confirm that the delivered PVC/EDF baseline is nominally operational.	11	Relocate ECS computing systems to EED-2 Facility
	l. The EED contractor will execute the ECS workload tests to ensure that they show comparable results to those executed in the ECS facility.	11	Relocate ECS computing systems to EED-2 Facility
	m. The EED contractor will perform verification testing on the development build platforms to ensure accessibility and the successful execution of custom code builds.	11	Relocate ECS computing systems to EED-2 Facility

Table 4-1. Transition Requirements Mapped to Master Schedule Activities (9 of 10)

Section	Requirement	ID	Activity Name
3.8	Relocation of ECHO Environments to EED-2 Contractor's Facility		
3.8.2	Approach		
3.8.2.1	The EED-2 contractor shall verify the connectivity between the EED-2 contractor's facility and GSFC Bldg 32 is sufficient to perform development, maintenance, and operations in support of ECHO, Earthdata, URS and S-NPP	12	Verify ECHO, Earthdata, URS & S-NPP operations and development from EED-2 facility
3.9.2	Approach		
3.9.2.1	The EED contractor shall deliver to the EED-2 contractor tools for operational NCR and trouble ticket management and hardware/software property tracking.	10	Relocate ECS computing systems to EED-2 Facility

Table 4-1. Transition Requirements Mapped to Master Schedule Activities (10 of 10)

Section	Requirement	ID	Activity Name
3.1	Relocation of ECHO Supporting Databases/Tools		
3.10.2	Approach		
3.10.2.1	The EED contractor shall deliver to the EED-2 contractor tools for ECHO operational NCR and trouble ticket management, and hardware/software property tracking for ECHO, Earthdata, URS and S-NPP.	10	Relocate ECS computing systems to EED-2 Facility
3.11	Deliver Remainder of Development Environment to EED Contractor		
3.11.2	Approach		
3.11.2.1	The EED contractor shall deliver to the EED-2 contractor all ECS hardware that has been used to provide auxiliary support to the ECS environments in Riverdale MD but which have not been formally configured into the PVC, EDF or VATC baselines.	10	Relocate ECS computing systems to EED-2 Facility
3.11.2.2	The EED contractor shall deliver to the EED-2 contractor the EED software media library.	10	Relocate ECS computing systems to EED-2 Facility
3.12	Deploy EED Contractor into EED-2 Contractor Facilities		
3.12.2	Approach		
3.12.2.1	The EED contractor will maintain adequate staff to provide engineering support to the EED-2 contractor after the cutover of maintenance and operations through the end of the EED contract. .	14	Collocate EED personnel at EED-2 facility

5. Risks

Table 5-1 illustrates the risks and mitigation approach associated with the EED-2 transition plan.

Table 5-1. Transition Risks

Risk	Probability	Mitigation Approach
<p>Setting up connectivity between EED-2 contractor's facility and GSFC Bldg 32 is in the critical path for a 60-day transition. If GSFC NetOps does not make this a priority, then it could delay the EED-2 transition past the EED contract end date of 3/31/2015.</p>	<p>Medium</p>	<p>Set-up regular status meetings between GSFC NetOps, the EED-2 contractor and the EED transition team. Involve all parties in the detailed planning process to obtain buy-in on the activities and deadlines. Engage NASA and the EED-2 contractor in the event of issues or obstacles. Manage risks throughout the execution of the transition to EED-2 and include this in weekly status reports.</p>
<p>If the final overlap period between EED and EED-2 is shortened due to the delay of predecessor activities, then the readiness of the EED-2 contractor will be negatively impacted.</p>	<p>Medium</p>	<p>Collocate EED-2 trainees with EED staff and initiate training as early as possible in the transition schedule. Engage NASA and the EED-2 contractor in the event of issues or obstacles. Manage risks throughout the execution of the transition to EED-2 and include this in weekly status reports.</p>