

### **3.4.3 COTS Software Problem Scenario**

#### **3.4.3.1 Scenario Description**

This scenario describes the steps that are involved when a problem occurs with a COTS package. The scenario covers the process from the discovery of the problem, through the site CCB, through the ESDIS CCB, and finally through closure. In this example, there are a variety of different ECS personnel involved. The definitions and roles of the participating staff members are taken from the Maintenance and Operations Manual for the ECS Project (607-CD-001-001) and/or The Maintenance and Operations Configuration Management Plan for the ECS Project. The personnel involved are, the Computer Operator, Operations Supervisor, Site Sustaining Engineer, Sustaining Engineer Organization Staff Member, Site Configuration Management Administrator, SMC Configuration Management Administrator, Systems Administrator, and Resource Manager. At the start of the scenario the Computer Operator notices that each time a series of identical commands are executed using HP OpenView an error code is created. The Computer Operator submits a Trouble Ticket documenting the problem. Sustaining Engineer verifies that he can repeat the problem and contacts the HP OpenView Hotline in regards to the problem. The HP OpenView technician notifies the Sustaining Engineer that he is aware of the problem and that a fix is available on the Internet. The Sustaining Engineer then submits the trouble ticket to the Trouble Ticket Review Board outlining the problem and resolution. The Trouble Ticket agrees with the problem and generates the CCR. The CCR goes through all of the proper channels and is approved. The Sustaining Engineer then downloads the patch from the HP OpenView Home Page. The Sustaining Engineer then loads the patch and repeats the series of commands to verify that the problem has been fixed. Sustaining Engineer then executes XRPII to determine each site that the software will need upgraded. Sustaining Engineer then attaches a copy of the CCR to an E-mail message and forwards it to all of the effected sites. The CCR is then evaluated by the site CCB for approval. Each of the DAACs approve the CCR and the CCR is forwarded to the ESDIS CCB for approval. The ESDIS CCB approves the CCR and the SMC Configuration Management Administrator executes XRPII to create a resource profile for the COTS software upgrade. The Sustaining Engineering Organization sends a copy of the upgrade to each of the affected DAACs. The backup MSS server is initialized and a backup copy of HP OpenView is initialized. Resource Manager then initialize the shut down procedures. The Resource Manager views the change in HP OpenView and notifies the sustaining Engineer that the host is available for the upgrade. The Site Sustaining Engineer then installs the patch and verifies that the problem has been corrected. Sustaining Engineer notifies all of the proper figures and XRPII is used to create a resource profile for the upgrade. System Administrator reports to the Site CM Administrator that the upgrade has been fixed and the Trouble Ticket has been closed.

#### **3.4.3.2 Frequency**

This problem is expected to occur infrequently with COTS problems. Configuration of COTS (a less severe problem) will occur more frequently. The actual frequency will be updated as more data becomes available.

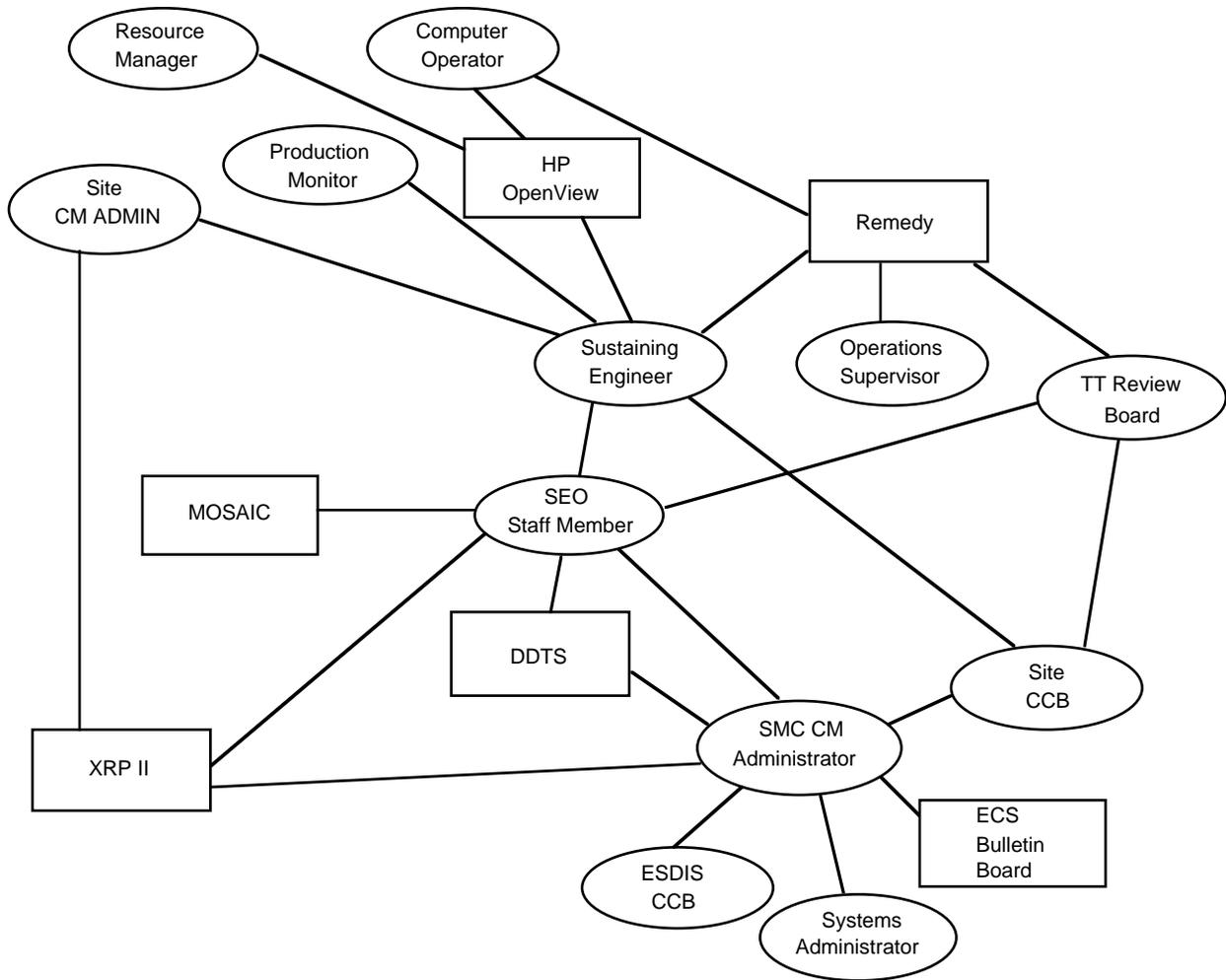
### **3.4.3.3 Assumptions**

The assumptions underlying this scenario are as follows:

1. All references to E-mail are referring to the Z-Mail package that will be available to all of the operators for Release A.
2. The Production Monitor has sent out notifications to the affected personnel 30, 15, and one minute(s) prior to the host going off-line. For further details please reference Scenario 3.2.3 Installation of Software Upgrade Scenario.
3. The details of the Trouble Ticketing Process have been defined. For further details please reference Scenario 3.2.1 Trouble Ticket and Problem Tracking Scenario.
4. The Operations Supervisor is at his/her desk when the Trouble Ticket from the Computer Operator arrives.
5. The Sustaining Engineer is unable to begin work on the Trouble Ticket until after lunch.
6. Trouble Ticket Review Board meets every day at 1000.
7. Site CCB meets every Monday at 1100.
8. ESDIS CCB meets as needed.
9. DDTS will be set up to provide E-mail notification to the CCR submitter and other affected personnel whenever the CCR is modified.
10. In emergency situations the process will be expedited.

### **3.4.3.4 Components**

Figure 3.4.3.4-1 indicates the interaction between the DAAC personnel and the ECS subsystems.



**Figure 3.4.3.4-1. COTS Software Problem Components**

### 3.4.3.5 Preconditions

The following preconditions are assumed for this scenario:

1. The COTS provider was already aware of the problem and a patch had already been generated.
2. The COTS provider will work with us to solve the problem if a solution has not previously been outlined.
3. The Scenario begins on a Monday at 0800.

### 3.4.3.6 Detailed Steps of Process

Table 3.4.3.6-1 represents the details of this scenario. The times and duration given are approximate.

**Table 3.4.3.6-1. COTS Software Problem Process (1 of 7)**

Step	Duration	User	Operator Action	System	Figure
1	10 Time = Day 1 0800		Computer Operator notices that HP OpenView creates an error code each time a series of commands is executed.	System generates error code.	
2	5 Time = Day 1 0810		Computer Operator submits a Trouble Ticket through Remedy documenting the problem. Fills out the "Submitter Impact" field with "High".	Remedy enters trouble ticket into the system.	3.4.3.6-1
3	15 Time = Day 1 0815		Operations Supervisor receives the Trouble Ticket, reviews it, assigns the "Assigned Priority" field to "Medium" and assigns it to the Sustaining Engineer.  (Please see Scenario 3.2.1 Trouble Ticket and Problem Tracking Scenario)	Remedy sends pop-up notification to Operations Supervisor.	3.4.3.6-2
4	2 Time = Day 1 0830		Sustaining Engineer receives the Trouble Ticket.	System delivers email to Sustaining Engineer and Computer Operator.	
5	10 Time = Day 1 1305		Sustaining Engineer verifies the problem by repeating the series of commands outlined in the Trouble Ticket.	System generates error code.	
6	5 Time = Day 1 1315		Sustaining Engineer reports the problem (via phone) to the HP OpenView support Hotline.		
7	5 Time = Day 1 1320		The HP OpenView Hotline says that they have been notified of the problem in the past and that there is a patch available on the Internet.		
8	1 Time = Day 1 1325		Sustaining Engineer changes Trouble Ticket state from assigned to solution proposed.	Remedy forwards the Trouble Ticket to the members of the Trouble Ticketing Review Board.	3.4.3.6-1
9	30 Time = Day 2 1000		Trouble Ticket Review Board using the Distributed Defect Tracking System (DDTS) generates a CCR indicating the problem and noting that there is a patch available on the Internet. The status of the CCR is set to "open".	DDTS is initializes and CCR template is displayed. CCR is forwarded to the Sustaining Engineer.	3.4.3.6-4

Step	Duration	User	Operator Action	System	Figure
10	3 Time = Day 2 1105		Sustaining Engineer sets status to "Pending" forwards the CCR to the Configuration Control Board (CCB) for review.	System (via DDTs) forwards the CCR to the CCB members. E-mail message is sent to all affected personnel.	3.4.3.6-3
11	30 Time = Day 8 1100		Site CCB reviews the CCR and agrees with the resolution and sends Email to the SMC Configuration Management Administrator to notify him/her of the new CCR..	System sends email.	3.4.3.6-5
12	<1 Time = Day 8 1425		SMC Configuration Management Administrator access DDTs.	DDTS is initializes.	
13	15 Time = Day 8 1426		SMC Configuration Management Administrator retrieves and reviews the CCR in DDTs.	CCR is Displayed from the DDTs main display.	3.4.3.6-5
14	2 Time = Day 8 1441		SMC Configuration Management Administrator assigns the CCR to the Sustaining Engineering Organization and changes the state to "assigned". Sets the status field to "Assigned".	Proper fields in DDTs are modified.	3.4.3.6-4
15	<1 Time = Day 8 1443		Sustaining Engineering Organization Staff Member receives the email notification.	System send email.	
16	15 Time = Day 9 0800		Sustaining Engineering Organization Staff Member accesses DDTs and reviews the CCR. Sets the status to in_progress.	DDTS is initialized and the CCR is displayed.	3.4.3.6-5
17	<1 Time = Day 9 0815		Sustaining Engineering Organization Staff Member changes the state of the CCR to "open".	Proper fields in DDTs are modified.	3.4.3.6-4
18	20 Time = Day 9 0835		Sustaining Engineering Organization Staff Member retrieves the patch from the HP OpenView Home Page.	HTTP Web Browser is initialized and patch is downloaded from the HP OpenView home page.	
19	35 Time = Day 9 0910		Sustaining Engineering Organization Staff Member tests the upgrade.	Steps are repeated from step 1, but this time no error is recorded.	
20	3 Time = Day 9 0945		Sustaining Engineering Organization Staff Member drafts a recommendation.	DDTS initializes its text editor.	

<b>Step</b>	<b>Duration</b>	<b>User</b>	<b>Operator Action</b>	<b>System</b>	<b>Figure</b>
21	5 Time = Day 9 0948		Sustaining Engineering Organization Staff Member accesses the DDTS and enters the results of the testing and the draft recommendations into the CCR.	DDTS saves the information as an enclosure.	3.4.3.6-4
22	5 Time = Day 9 0953		Sustaining Engineering Organization Staff Member executes XRP II to determine where the COTS application is being used.	XRP II searches its database and displays the site locations where the software is being used.	
23	<1 Time = Day 9 0958		Sustaining Engineering Organization Staff Member prints a copy of the CCR to a file.	DDTS prints a copy of the CCR to a designated file.	3.4.3.6-4
24	<1 Time = Day 9 0959		Sustaining Engineering Organization Staff Member attaches the file to an email message to be mailed to the Sustaining Engineer at each site for impact assessment..	E-mail facility mails request for assessment with attached CCR file to each site.	
25	15 Time = Day 9 1300		Site Sustaining Engineer receives and assesses the CCR.	Sustaining Engineer receives E-mail with CCR file attached.	3.4.3.6-5
26	<1 Time = Day 10 1000		Site Sustaining Engineer forwards the assessment to the Site CCB.	System forwards CCR to the Site CCB.	
27	15 Time = Day 15 1100		Site CCB reviews the CCR and agrees with the resolution		3.4.3.6-5
28	<1 Time = Day 15 1500		Site Sustaining Engineer emails the site assessment to the Sustaining Engineer Organization.	E-mail facility sends e-mail.	
29	15 Time = Day 16 0800		Sustaining Engineer Organization staff member receives assessment via email and reviews the assessment		
30	75 Time = Day 16 0915		Sustaining Engineer Organization staff member develops a summary of the assessments and finalizes the recommendation.		

31	5 Time = Day 16 0920		Sustaining Engineer Organization staff member access DDTS and updates the attached enclosure to include the assessments.	DDTS displays the CCR and the enclosures are shown at the bottom of the screen.	3.4.3.6-4
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<b>Step</b>	<b>Duration</b>	<b>User</b>	<b>Operator Action</b>	<b>System</b>	<b>Figure</b>
32	3 Time = Day 16 0925		Sustaining Engineer Organization staff member includes each of the DAACs assessments as an attachment.	DDTS saves the information under the selected enclosure title.	
33	<1 Time = Day 16 0928		Sustaining Engineer Organization staff member then notifies the Sustaining Engineer Organization that the CCR is ready for ESDIS CCB review.		
34	<1 Time = Day 16 0929		The SMC Configuration Management Administrator then prints out a copy of the CCR.	DDTS print options are displayed and CCR is printed.	3.4.3.6-5
35	<1 Time = Day 16 0930		The SMC Configuration Management Administrator then sends a hard copy of the CCR to the ESDIS CCB for review and approval.		
36	45 Time = Day 17 0800		The ESDIS CCB reviews and approves the CCR and issues implementation instructions		3.4.3.6-5
37	5 Time = Day 17 0845		SMC Configuration Management Administrator accesses DDTS to record ESDIS CCB's approval of the CCR.	DDTS displays main page.	3.4.3.6-4
38	15 Time = Day 17 0850		SMC Configuration Management Administrator enters the disposition, implementing instructions and priority and "Commits" it.	DDTS stores the information in its database and notifies (via e-mail) the Sustaining Engineering Organization and the CCR originator of the update.	3.4.3.6-4
39	5 Time = Day 17 0905		SMC Configuration Management Administrator executes XRP II to create a resource profile for the COTS software upgrade.	XRP II creates new resource and baseline profile records and stores them in the SMC's Baseline Management database.	

40	2 Time = Day 17 0910		Sustaining Engineer Organization staff member sends copies of the software upgrade to the sites Sustaining Engineer.	E-mail is sent.	
41	10 Time = Day 17 0915		Site Sustaining Engineers receive copies from Sustaining Engineer Organization.		

Step	Duration	User	Operator Action	System	Figure
42	5 Time = Day 17 1400		Site Sustaining Engineers schedules upgrade with Production Monitor. (Please See Scenario 3.81. Data Processing Host Routine Maintenance Scenario)		
43	<1 Time = Day 18 0000		Computer Operator initializes the backup MSS Server and HP OpenView is initialized on the backup.	Backup is up and running.	
44	10 Time = Day 18 0010		Computer Operator notifies the Resource Manager (via phone) that the backup is now up and running.		
45	<1 Time = Day18 0011		Resource Manager now takes control and shuts down any processes still running on the impacted host(s)		
46	<1 Time = Day 18 0012		Resource Manager begins shut down procedures to take the host off-line.	The host receives the command and goes off-line.	
47	10 Time = Day 18 0013			HP OpenView detects the change and changes the state to off-line.	3.4.3.6-6
48	<1 Time = Day 18 0023			HP OpenView sends a status message to all of the affected operators indicating that the host has gone down and changes the corresponding icon to the down state.	3.4.3.6-6

49	<1 Time = Day 18 0024		Sustaining Engineer receives a message from HP OpenView indicating that the desired host has gone off-line. Resource Manager receives a message from HP OpenView indicating that the desired host has gone off-line. All operators monitoring the host receive a message from HP OpenView indicating that the desired host has gone off-line.		
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<b>Step</b>	<b>Duration</b>	<b>User</b>	<b>Operator Action</b>	<b>System</b>	<b>Figure</b>
50	3 Time = Day 18 0025		Resource Manager views the change in HP OpenView and notifies the sustaining Engineer that the host is now available for upgrade.	HP OpenView is updated and e-mail is sent.	3.4.3.6-6
51	15 Time = Day 18 0028		Site Sustaining Engineer installs the HP OpenView patch.	System is upgraded.	
52	15 Time = Day 18 0043		The Site Sustaining Engineer tests out the fix.	Procedure from step 1 are repeated this time without error.	
53	<1 Time = Day 18 0058		Sustaining Engineer reports the installation to the site Configuration Management Administrator and the Sustaining Engineering Organization.	E-mail utility is utilized.	
54	10 Time = Day 18 0059		Site Configuration Management Administrator executes XRP II to create a resource profile for the COTS software upgrade	XRP II creates new resource and baseline profile records and stores them in the site's Baseline Management database.	
55	<1 Time = Day 18 0109		Sustaining Engineering Organization Staff Member informs the SMC Configuration Management Administrator that all the sites have installed the upgrade. State of the CCR is then set to "Fixed".		
56	2 Time = Day 18 0800		SMC Configuration Management Administrator executes DDTS to close the CCR.	DDTS stores the information in its database and notifies (via e-mail) the Sustaining Engineering Organization and the CCR originator of the update.	3.4.3.6-4
57	2 Time = Day 18 0802		SMC Configuration Management Administrator posts the status of the CCR on the ECS bulletin board.	CCR status posted on Bulletin board utility. Site Sustaining Engineer receives status message from DDTS.	

<b>Step</b>	<b>Duration</b>	<b>User</b>	<b>Operator Action</b>	<b>System</b>	<b>Figure</b>
58	<1 Time = Day 18 1015		Site Sustaining Engineer updates the status of both the CCR and the Trouble Ticket to "Closed".	Remedy is initialized and the Trouble Ticket is updated and closed.	3.4.3.6-1
59	2 Time = Day 18 1016		Systems Administrator reports to the Configuration Management Administrator that the upgrade has occurred and the Trouble Ticket has been closed.	E-mail application is utilized.	

### **3.4.3.7 Postconditions**

The CCR and Trouble Ticket have both been closed. HP OpenView has been upgraded and the error no longer occurs.

### **3.4.4 Custom Software Problem Scenario**

#### **3.4.4.1 Scenario Description**

This scenario describes a problem with custom software developed by the ECS Science and Communications Development Organization (SCDO) and maintained by the Sustaining Engineer Organization (SEO). It begins with a User contacting User Services with a problem with one of the ECS toolkits. User Services submits a Trouble Ticket (TT) through Remedy. The Ops Supervisor reviews it and assigns it to the Sustaining Engineer (SE). The SE then runs tests and verifies that there is a problem with the toolkit's interface with another ECS application. The SE then narrows the problem to the particular code that is causing the problem. The SE generates a CCR recommending SEO perform the work. The site CCB reviews the CCR and agrees that the work be forwarded to the SEO. The SMC is notified of the CCR via DDTS and informs SEO who confirms the problem, and sends the CCR to all DAACs for review. DAACs review the CCR then submit their comments back to ESDIS. The ESDIS reviews comments and proceeds to revise the code. Once the code has been revised it is then distributed to the DAACs to merge with their existing code. After tests confirm the fix, TTs are closed, Baseline Manager is updated, Change Request Manager is updated and SMC closes the CCR. The actors in this scenario are User, Ops Supervisor, SE, SEO, site CCB, ESDIDS CCB, SMC, SEO Staff Member (SEO SM), Site CM Admin, SEO CM Admin, and the TT Review board.

#### **3.4.4.2 Frequency**

This scenario will run whenever there is a custom software problem which could be once a year.

#### **3.4.4.3 Assumptions**

1. The User Services Desk is continuously manned.
2. SE periodically checks for E-mail for notifications of assigned Trouble Tickets.
3. In this scenario, SE and the Ops Supervisor can assign any status or priority to a Trouble Ticket. This will be configurable at each DAAC.
4. If an ECS Operator notices the problem, he/she can report the problem by opening a TT through Remedy.
5. DDTS will be set up to provide E-mail notification to the CCR submitter and other personnel whenever the CCR is modified.
6. SEO SM, SE, SMC and site CM Administrators will have access to the Baseline Manager application.

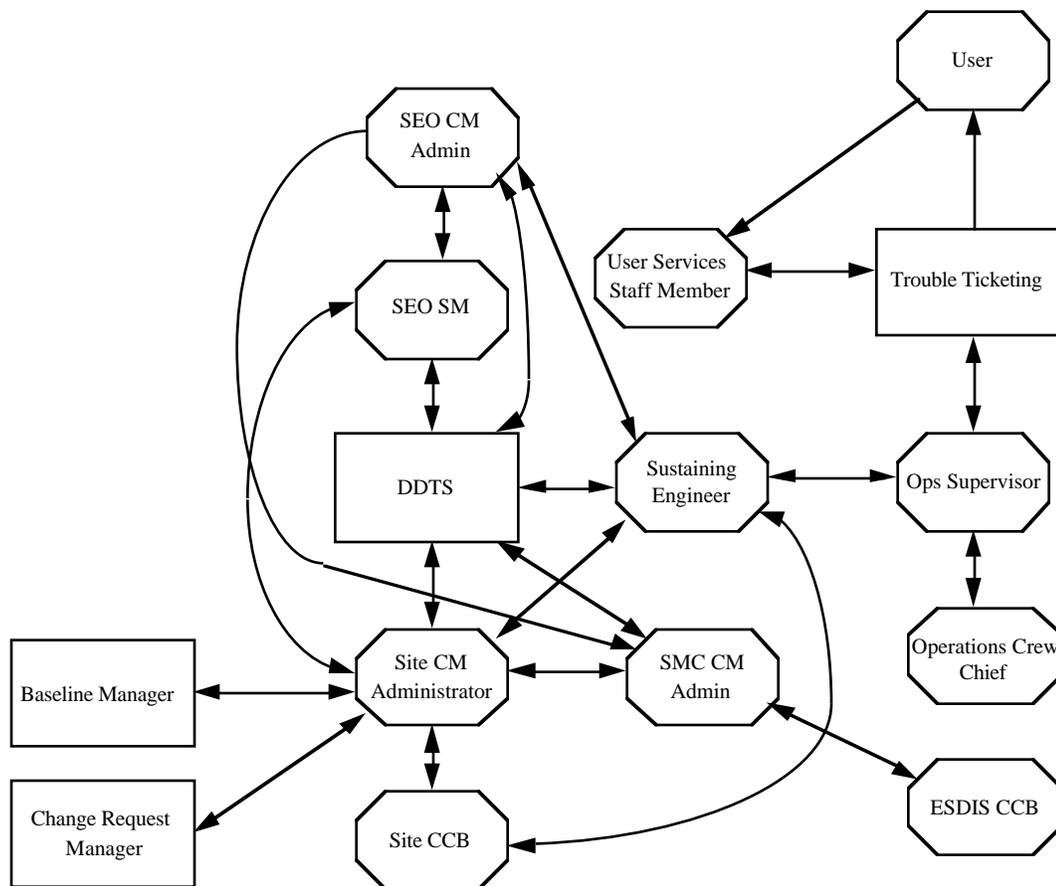
Responsibilities of key players (Ref: Property Management Plan (DID 602), Maintenance and Operations Configuration Management Plan for the ECS Project (Preliminary, DID 102)):

- SEO—assesses feasibility, cost, schedule, and performance impacts of proposed system-wide changes; and presents assessment to the ESDIS CCB.

- SMC CM Administrator—facilitates the configuration change request process. Monitor and report status of proposed and approved CM actions.
  - Site Sustaining Engineer—assesses impact of proposed system-wide changes on the DAAC. Implements changes as directed by local CCB and/or SEO.
  - Site CCB—reviews and approves requested site's impact assessment and the forwarding of the assessment to the SEO.
  - Site CM Administrator—facilitates the site's configuration change request process. Updates site baseline records when required
7. The pictures of the screens shown are samples of the software used. The information in them may not represent actual information in real screens.
  8. Fields required for TT submission (Short Description and Submitter ID) are provided.

#### 3.4.4.4 Components

Figure 3.4.4.4-1 indicates the interaction between the DAAC personnel and the ECS subsystems.



**3.4.4.4-1. Custom Software Problem Components**

#### **3.4.4.5 Preconditions**

Preconditions for this scenario are a Trouble Ticket must be submitted, an Ops Supervisor must be monitoring for incoming Trouble Tickets, Remedy should be running normally.

#### **3.4.4.6 Detailed Steps of Process**

Table 3.4.4.6-1 represents the details of this scenario. The times and duration given are approximate.

**Table 3.4.4.6-1. Custom Software Problem Process (1 of 9)**

Step	Time for Step to Complete (mins)	User	Operator (Ops Supervisor, SA and ME)	ECS System	Figure
1	<1	Upon realization that a problem exists with one of the ECS Toolkits, a Science User reports to User Services.			
2	<5		User Services records the information and submits a TT in Remedy.		3.4.4.6-1
3	<1			System creates a new entry in Remedy, fills in user info (submitter name, phone number, e-mail address, home DAAC) notifies Ops Supervisor, displays successful submission message with TT number at bottom of Submit window, and notifies User via e-mail.	
4	<1	Receives e-mail verifying that the TT was submitted.	Ops Supervisor receives notification that a new Trouble Ticket has entered the system.		
5	120		On examining the detailed information of the TT, the Ops Supervisor assigns the TT to SE.	System sends e-mail.	3.4.4.6-2
6	<1		The SE receives e-mail notifying him/her of the assignment.		
7	<10		On viewing the TT and running some tests, the SE verifies the Toolkit problem.		

8	24 hrs.		SE identifies source statements causing error.		
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Step	Time for Step to Complete (mins)	User	Operator (Ops Supervisor, SA and ME)	ECS System	Figure
9	<1		SE changes TT status from Assigned to Solution Proposed.		
10	2 days		Site TT Board reviews TT, generates CCR in DDTS recommending SEO performs work, and records the CCR number in the related CCR field in the TT.	System creates new DDTS entry.	3.4.4.6-3
11	30		The site CM admin creates a CCB package from the new CCR in DDTS.		
12	24 hrs.		The CCB package (containing this CCR ) is distributed to the site CCB members 2 days prior to scheduled CCB.		
13	2 days + 1 hr		Site CCB reviews CCR and agrees that it should be forwarded to the SEO.		
14	5		Site CM Admin e-mails SMC Admin with assignment information.	System sends e-mail.	
15	5		SMC CM Admin. receives e-mail notification, accesses DDTS and reviews the CCR.		
16	<1		SMC CM Admin. changes its state to "assigned" (assigned to SEO for action).		

Step	Time for Step to Complete (mins)	User	Operator (Ops Supervisor, SA and ME)	ECS System	Figure
17	<1		SMC CM Admin. clicks the "Commit" button to process the change.	System makes changes in DDTS and notifies SEO staff member via e-mail.	3.4.4.6-4
18	20		SEO staff member (SM) receives e-mail notification, accesses DDTS, reviews the CCR, and changes its state to "open" (SEO begins work on the CCR).	System makes changes in DDTS	
19	30		SEO SM confirms the problem.		
20	30		SEO SM confirms the site's SE's initial analysis was correct.		
21	30		The SEO SM determines what resources will be needed to fix the problem.		
22	30		SEO SM accesses DDTS, selects the appropriate CCR in the index and then enters a summary of the impact assessments.	System makes changes in DDTS	
23	5		The SEO SM sends out the ESDIS CCB package to each DAAC for review.		
24	2 days		Each DAAC reviews the CCR.		
25	1 day		Each DAAC submits comments to ESDIS CCB.		

26	60		ESDIS CCB reviews comments and assigns fix to be conducted by SEO.		
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Step	Time for Step to Complete (mins)	User	Operator (Ops Supervisor, SA and ME)	ECS System	Figure
27	2		SEO SM creates a branch in ClearCase and checks out the source code file to be fixed.		
28	60		SEO SM revises code to the decided on condition.		
29	120		SEO SM performs unit tests which confirm problem fix.		
30	1		SEO SM checks the code back in to ClearCase.		
31	4 hrs		SEO SM gets a copy of the fix from the SEO CM Admin for assessment purposes, tests the upgrade, and drafts a recommendation.		
32	5		SEO CM ADMIN accesses DDTS to enter the results of the testing and the draft recommendation into the CCR.		3.4.4.6-5
33	<1		SEO CM ADMIN selects the appropriate CCR in the index and then clicks the "Add Enclosure" button.		
34	5		SEO CM ADMIN enters his test results and draft recommendation, executes the editor's File Menu's save option.	System makes changes in DDTS	

Step	Time for Step to Complete (mins)	User	Operator (Ops Supervisor, SA and ME)	ECS System	Figure
35	5		SEO CM ADMIN uses e-mail facility to mail a copy of the CCR to the SE of each site for impact assessment.	System sends e-mail.	
36	20		Site SE receives and assesses the e-mailed copy of the CCR, forwards assessment to site CCB for review and approval.		
37	1 day		Site CCB reviews and approves assessment. Site SE e-mails site assessment to the SEO.	System sends e-mail.	
38	60		SEO SM receives sites assessments via e-mail, reviews assessments, develops a summary of the assessments and finalizes the recommendation.		
39	<1		SEO SM accesses DDTS, selects the appropriate CCR in the index and then clicks the enclosure icon.		
40	10		SEO SM clicks the "Edit Enclosure" button and then enters a summary of the impact assessments and the final recommendation, executes the editor's File Menu's save option and enters an enclosure title.		

Step	Time for Step to Complete (mins)	User	Operator (Ops Supervisor, SA and ME)	ECS System	Figure
41	10		SEO SM uses the "Add Enclosure" feature to insert each of the sites' assessment file into an enclosure and names each site's assessment enclosure appropriately. SEO informs SMC CM Admin. that CCR is ready for ESDIS CCB review.	System makes changes in DDTS	
42	10		SMC CM Admin. sends a hard copy of CCR to the ESDIS CCB for review and approval.		
43	1 day		ESDIS CCB reviews and approves CCR and issues implementation instructions.		
44	<1		SMC CM Admin. accesses DDTS to record ESDIS CCB's approval of the CCR.		
45	<1		SMC CM Admin. selects appropriate CCR and then clicks "Modify" menu. SMC CM Admin. selects 'Modify Record' option.		
46	2		SMC CM Admin. enters disposition (approved), implementing instructions, and priority. Then clicks the "Commit" button.	System makes changes in DDTS	

Step	Time for Step to Complete (mins)	User	Operator (Ops Supervisor, SA and ME)	ECS System	Figure
47	5		SMC CM Admin. sends copies of the software upgrade to the sites CM Admin.		
48	60		Site CM Admin. provides the upgrade to the site SE for installation.		
49	6 hrs		After coordinating with appropriate site officials and gaining site approvals SE requests the system be taken down.		
50	30		Production Monitor informs the Resource Manager that production jobs are complete.		
51	5		Resource Manager now takes control and shuts down any processes still running on the impacted host(s).		
52	5		Resource Manager begins shut down procedures to take the host off-line.	The host receives the command and goes off-line.	
53	<1			HP OpenView detects the change and changes the state to off-line.	6. HPOV
54	<1			HP OpenView sends a status message to all of the affected operators indicating that the host has gone down and changes the corresponding icon to the down state.	

Step	Time for Step to Complete (mins)	User	Operator (Ops Supervisor, SA and ME)	ECS System	Figure
55	<1		Sustaining Engineer receives a message from HP OpenView indicating that the desired host has gone off-line.		
56	<1		Resource Manager receives a message from HP OpenView indicating that the desired host has gone off-line. All operators monitoring the host receive a message from HP OpenView indicating that the desired host has gone off-line.		
57	2		Resource Manager views the change in HP OpenView and notifies the sustaining Engineer that the host is now available for upgrade.		
58	30		SE uses ClearCase to merge revised code into existing code.		
59	20		SE requests system to be brought back up.		
60	2 hrs		The DAACs' SE tests to confirm.		
61	1 day	User receives e-mail notification when its Home DAAC Closes TT.	DAACs with an open TT related to this CCR have TT review board close them once the fix is installed.	System changes TT in Remedy.	
62	10		The sites' SE reports installation of the new version to the site's CM administrator.		

Step	Time for Step to Complete (mins)	User	Operator (Ops Supervisor, SA and ME)	ECS System	Figure
63	20		The site's CM admin updates the Baseline Manager.		
64	20		The site's CM admin records completion of the installation in the Change Request Manager.		
65	2 days		Once all sites report installation of the fix, the ECS SA closes the CCR and reports closure in the next status report to the ESDIS CCB.		

### 3.4.4.7 Postconditions

Toolkit is executing normally and Trouble Ticket and CCR remains in database for future reference.

The screenshot shows a software interface titled "Modify Schema -- RelA-Trouble Tickets". The window has a menu bar with "Edit", "Attributes", and "Views". Below the menu bar, there are two fields: "View Name" set to "Default Admin View" and "Schema Name" set to "RelA-Trouble Tickets".

The main area contains several input fields and controls:

- Ticket-Id:** A text field containing "TT".
- Ticket Status:** A dropdown menu showing "New".
- Assigned-Priority:** A dropdown menu showing "Low".
- Forward:** A button.
- Short Description:** A text field.
- Submitter Impact:** A dropdown menu showing "Low".
- Forward-to:** A text field.
- Long-Description:** A large text area.
- Resolution Log:** A large text area.
- Forwarded-from:** A text field.
- Forwarded-by:** A text field.
- Forward-date:** A text field.
- Submitter ID:** A text field.
- Assigned-To:** A text field.
- Closing Code:** A text field.
- Unique-Identifier:** A text field.
- Submitter Name:** A text field.
- Last-modified-by:** A text field.
- Closed-by:** A text field.
- Forwarded-to-1:** A text field.
- Submitter Phone:** A text field.
- Create-date:** A text field.
- Close-date:** A text field.
- Forwarded-to-2:** A text field.
- Submitter eMail:** A text field.
- Last-Modified-date:** A text field.
- Software Resource:** A text field.
- Forwarded-to-3:** A text field.
- Submitter Home DRAC:** A text field.
- Related CCR:** A text field.
- Hardware Resource:** A text field.
- Forwarded-to-4:** A text field.
- History:** A text field.
- Key Words:** A text field.
- Dr-To-Forward:** A text field.
- Forward-to-5:** A text field.
- Time New High:** A text field.
- Time Assigned High:** A text field.
- Time New Med:** A text field.
- Time Assigned Med:** A text field.
- Time New Low:** A text field.
- Time Assigned Low:** A text field.

At the bottom of the window, there are buttons for "Apply", "Set Help...", "Change History...", and "Dismiss".

Figure 3.4.4.6-1. Remedy Trouble Ticket



**Defect Selection Criteria**

**Which Class**

Class Name

**Which Projects & States**

Projects		States
EP4_Dev	EP4 Testing	S Submit
EP6_Dev	EP6 Testing	N New
SDPS_Drivers	Doug O'Neill's problems specifically with the drivers	A Assign-Eval
ddts_probs	Problems/enhancements for DDTs	O Assign-Fix
pgs_toolkit	PGS Toolkits	R Fix
release	Software metrics for the release project	T Assign-Verify
<input type="button" value="Clear"/>		<input type="button" value="Clear"/>
<input type="button" value="Select All"/>		<input type="button" value="Select All"/>
		<input type="button" value="Select Unresolved"/>

**Which Users**

Engineer

Submitter

My Bugs

Users' Bugs

Users' Names :

**Figure 3.4.4.6-4. DDTs Edit**

Defect				
<u>M</u> odify	<u>C</u> hange_State	<u>L</u> inks	<u>C</u> fg_Mgt	<u>H</u> elp
Bug	ECSed01284	EP6_Dev	Submitted	951027
Project ID;	EP6_Dev-00142	EP6, version 102095	Assigned	951027
	FIXED defect report	2 enclosures	Opened	951030
		Page 1/2		
	"Submitter impact selection is not display in Detailed TT"			
DETECTION INFORMATION				
Detection method[*];	system test	LABORATORY INFORMATION		
Detected in phase[*];	system I&T	Evaluate engineer;	dmiller	
Test program name;		Phone number/E-mail;	925-1133	
Test system;		Date eval is due;		
Version of OS;		Assigned To;	mscher	
Problem severity (1 = Showstopper)[*];	3	Phone/E-mail;	1123	
Affects segment;	Trouble Ticket	Affects segment;	Trouble Ticket	
Affects subsystem;	MSS	Subsystem[*];	Management Logistics	
Need fix by;		Problem type[*];	source code	
Related CCR #;		Recommended change[*];	source code	
Found in release;		Phase problem caused[*];	integration	
SUBMITTER INFORMATION				
Submitter;	Perry Miranda	Analysis time (hrs);	0	
Organization;	H AIS	Est. fix time (hrs);	1	
Phone number;	925-1106	Fix due date;	951030	
Address;	pmiranda@triton			

**Figure 3.4.4.6-5. DDTS Detailed Description**