Oracle® Communications Diameter Signaling Router

DSR/SDS NOAM Failover Guide

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DSR/SDS NOAM Failover Guide User's Guide

Oracle® Communications DSR/SDS NOAM Failover User's Guide.

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CAUTION: <u>Before performing a Failover on any system, please access My Oracle</u> <u>Support (MOS) and review any Technical Service Bulletins (TSBs) that may relate to this</u> <u>procedure.</u>

My Oracle Support (MOS) is your initial point of contact for all product support and training needs. A representative at Customer Access Support (CAS) can assist you with MOS registration.

Refer to APPENDIX A: Accessing My Oracle Support (MOS), for more information on contacting Oracle Customer Service.

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READ **SECTION 2** BEFORE ATTEMPTING ANY PROCEDURES IN THIS DOCUMENT!

1. Overview of Failover Procedures

1.1 Introduction

Although each Product maintains individual Disaster Recovery Procedures, the steps required to manually transfer functionality between a Primary and a Secondary NOAM NE is currently common to all Oracle COMCOL based products matching a 3-tier topology with an installed DR NOAM. Therefore, the intent of this document is to function as a single reference supporting both the DSR and SDS.

Currently, the DSR and SDS Disaster Recovery procedures assume that the Primary NOAM is network isolated as a perquisite to Failover. It is important to note here that the reason for network isolation is not relevant to these procedures (i.e. the loss of the NOAM NE's default router, a site power outage or the site being underwater due to flooding all look the same to the rest of the topology).

It should also be noted that this document goes a step further than just addressing Disaster Recovery procedures in that it also offers the methodology required to perform a "graceful" Failover where the Primary NOAM is not network isolated and no outage scenario exist.

1.2 References

- [1] 3-Tier NOAM Failover, MO008266
- [2] DSR Disaster Recovery User's Guide
- [3] SDS Disaster Recovery User's Guide

1.3 Acronyms

Acronym	Meaning
CLI	Command Line Interface
DR	Disaster Recovery
DSR	Diameter Signaling Router
GUI	Graphical User Interface
NE	Network Element
NOAM (or NOAMP)	Network Operations, Administration, Maintenance and Provisioning
SDS	Subscriber Database Server
VIP	Virtual IP
XMI	eXternal Management Interface

1.4 Required Materials

No physical materials are required for this procedure. However, the user must have access to an "Administrator" level account in the NOAM GUI and "root" access to both the Primary and Disaster Recovery servers CLI.

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1.5 How to use this Document

When executing this document, there are a few points which help to ensure that the user understands the author's intent. These points are as follows;

- 1) Before beginning a procedure, completely read the instructional text (it will appear immediately after the Section heading for each procedure) and all associated procedural WARNINGS or NOTES.
- 2) Before execution of a STEP within a procedure, completely read the left and right columns including any STEP specific WARNINGS or NOTES.

If a procedural STEP fails to execute successfully, **STOP** and **My Oracle Support (MOS)** for assistance before attempting to continue. Refer to **APPENDIX A:** Accessing My Oracle Support (MOS), for more information on contacting Oracle Customer Service.



2. DSR / SDS NOAM Failover Process Flow Chart:

This document supports NOAM Failover for DSR/SDS 8.5 releases only (i.e. COMCOL 7.5).

The flowchart on the following page (*Figure 1*) is intended to act as the core Procedure for DSR / SDS NOAM Failover.

- Executing to the flowchart, the user should execute all Procedures in this document as subroutines in a program (*i.e. always returning to the flowchart after executing a called out procedure*).
- After completing a "called out" Procedure, never continue on to the next Procedure unless directed to do so based on the logic trail followed from the flowchart in "*Figure 1*".
- The user should understand that any NOAM NE may function as the "Primary" or the "Secondary" (*Disaster Recovery mode*). Do not confuse site names or designations with the actual functional state of the NOAM NE. Just because "DRNO" may be part of a NOAM server's hostname does not mean that that server is currently running in Disaster Recovery mode (i.e. Secondary).
- Before starting this procedure, it is strongly suggested that the user print out *Figure 1* and write in the Primary (Site_1) and Disaster Recovery (Site_2) site names in the space provided (see detailed description in *Figure 1* Legend).





3. List of Procedures

Procedure	Title	Page No.
Procedure 1	Procedure 1: Export Alarms at the Active NOAM [Site_1]	9
Procedure 2	Disable Global Provisioning / PDB Relay Verification [Site_1]	14
Procedure 3	Database Backup [Site_1]	20
Procedure 4	Demoting the Active NOAM from Primary to Secondary [Site_1]	25
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4. Pre-Failover Procedures

4.1 Exporting Alarms

Procedure 1: Export Alarms at the Active NOAM [Site_1]

Step #	Procedure	Description			
This pro	This procedure provides instructions on exporting alarms at the Primary Active NOAM.				
Check o	ff (\checkmark) each step as it is c	ompleted. Boxes have been provided for this purpose under each step number.			
IF ANY S	STEP IN THIS PROCED	URE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.			
1.	Primary NOAM VIP: 1) Launch an HTML5 compliant	A provide the state of			
	connect to the XMI Virtual IP address (VIP) assigned to Primary Active	There is a problem with this website's security certificate. The security certificate presented by this website was issued for a different website's address.			
	2) If a Certificate Error is received,	The security certificate presented by this website was not issued by a trusted certificate authority. Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server.			
	click on the link which states	We recommend that you close this webpage and do not continue to this website.			
	"Continue to this website (not recommended)."	 Click here to close this webpage. <u>Continue to this website (not recommended).</u> More information 			
2.	Primary NOAM VIP: The user should be presented the login screen shown on the right. Login to the GUI using a User account with Administrator privileges.	Oracle System Login Wed Mar 118:53:06 2017 UTC Image: System Login Log In Enter your username and password to log in Username: guiadmin Password: Change password Image: Change password Change password Welcome to the Oracle System Login. This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details. Unauthorized access is prohibited.			



Step #	Procedure	Description			
6.	Primary NOAM VIP: Click the "Ok"	Main Menu: Alarms & Events -> View Active [Export]			
	button at the bottom of the screen.				
		Attribute	Value	Description	
		Export Frequency	 Once Fifteen Minutes Hourly Daily Weekly 	Select how often the data will be written to provisioning is enabled. [Default: Once.]	
		Task Name *	APDE Alarm Export	Periodic export task name. [Required. The must be an alpha character or a number.] [,	
		Description		Periodic export task description. [Optional. The last character must be an alpha chara	
		Filename Prefix		Export filename prefix. Characters to prepe	
		Minute	0	Select the minute of each hour when the defield displays the minute of the first transfer	
		Time of Day	12:00 AM	Select the time of day when the data will be with AM/PM.]	
		Day of Week	 Sunday Monday Tuesday Wednesday Thursday Friday Saturday 	Select the day of week when the data will t	
		Ok Cancel			
7.	Primary NOAM				
	The name of the	Main Menu: Alarn	ns & Events -> View Active		
	exported Alarms CSV file will appear		Graph. 🖌	×	
	in the banner under the " Tasks " heading at the top of the right panel.	freeport_S(ID I Seq#	Hostname Name Task State rlghnc-sds-NO-b APDE Alarm Export completed	Details Progress Alarms 20170308-184416- UTC 9169.csv.qz 100%	
	NOTE: Depending on the product version, the user may have to click on the "Tasks" heading in the banner in order to	4			
	dialogue box.				

Step #	Procedure	Description		
8.	Primary NOAM VIP:	Example: Alarms_ <yyyymmdd> - <hhmmss> - <timezone>_<task_id>.csv.gz</task_id></timezone></hhmmss></yyyymmdd>		
	Record the filename of Alarms CSV file generated in the space provided to the right.			
	NOTE: Depending on the product version, the file suffix may vary (e.g. csv, csv.gz, etc.).	csv.gz		
9.	Primary NOAM VIP:			
	Select the " Report " dialogue button from the bottom left corner of the screen.	Export Report Clear Selections Generate a report of the selected VIP to rlghnc-sds-NO-b (ACTIVE NETWORK OAM&P) Updates enabled		
10.	Primary NOAM VIP:			
	1) An "Alarms & Events" Report will	Main Menu: Alarms & Events -> View Active [Report]		
	right panel displaying all Active	Main Menu: Alarms & Events -> Vie Thu Mar 09 13:19:59 20		
	2) Select the "Save" dialogue button from the bottom/middle of the right panel.	TIMESTAMP: 2017-03-09 13:19:48.034 UTC NETWORK_ELEMENT: NO_RLGHNC SERVER: rlghnc-sds-NO-b SEQ_NUM: 5409 EVENT_NUMBER: 32500 SEVERITY: MINOR PRODUCT: TPD FROCESS: cmplatalarm		
		TYPE: PLAT INSTANCE: hrFSMountPoint=/var hrStorageDescr=/dev NAME: Server Disk Space Shortage Warning DESCR: Server Disk Space Shortage Warning ERR_INFO: GN_WARNING/WRN Platform detected an error condition [^^ Additional details captured in /var/TKLC/log/sysche ^^ [7798:cmplatalarm.cxx:200]		

Step #	Procedure	Description
11.	Primary NOAM VIP: Depending on the web browser, a "Save" file confirmation pop-up box may appear on the screen at this time (some examples are shown to the right). If so, select and click the "Save / Save File" dialogue button on the pop- up confirmation box. Primary NOAM VIP: Select a directory on the local disk drive to store the Active "Alarms & Events" Report file and click the "Save" dialogue button.	UTC.txt from 10.75.160.132? Open Save Cancel ×
		Opening ActiveAlarmsReport_2017Mar09_133310_UTC.txt You have chosen to open: ActiveAlarmsReport_2017Mar09_133310_UTC.txt which is: Text Document (561 bytes) from: https://10.75.160.132 What should Firefox do with this file? Open with Notepad (default) Save File Do this automatically for files like this from now on. OK Cancel
12.		Save As Save Charles Save Save Save Save Save Save Save Save
	<u> </u> T	his Procedure has been completed. Return to Figure 1.

4.2 Disable Global Provisioning / PDB Relay Verification

Procedure 2: Disable Global Provisioning / PDB Relay Verification [Site_1]

Step#	Procedure	Description			
This pro	This procedure provides instructions on "Disabling Global Provisioning" at the Primary NOAM GUI.				
Check o	ff (${f }$ each step as it is c	ompleted. Boxes have been provided for this purpose under each step number.			
IF ANY S	STEP IN THIS PROCED	DURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.			
1.	Primary NOAM VIP: 1) Launch an HTML5 compliant browser and	x			
	connect to the XMI Virtual IP address (VIP) assigned to Primary Active	There is a problem with this website's security certificate.			
	NOAM site.	The security certificate presented by this website was not issued by a trusted certificate authority.			
	2) If a Certificate Error is received, click on the link	Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server.			
	which states	We recommend that you close this webpage and do not continue to this website.			
	"Continue to this website (not	Click here to close this webpage.			
	recommended)."	 Continue to this website (not recommended). More information 			
2.	Primary NOAM VIP: The user should be presented the login screen shown on the right.	Oracle System Login Wed Mar 1 18:53:06 2017 UTC			
	Login to the GUI using a User account with Administrator privileges.	Log In Enter your username and password to log in Username: guiadmin Password: Change password Log In Change password Welcome to the Oracle System Login. This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details. Unauthorized access is prohibited.			

Step#	Procedure	Description			
3.	Primary NOAM VIP:	ORACLE: Communications Diameter Signal Router Full Address Resolution 8.0.0.0-80.22.1			
	The user should be presented the Product Main Menu as shown on the right.	Main Menu Administration Configuration Alarms & Events Security Log	n Menu: [Main] Wed Mar 01 19:03:11 2017 UTC		
	Verify that the message shown across the bottom of the panel indicates that the browser is using the "VIP" to connect to the "ACTIVE NETWORK OAM&P".		This is the user-defined welcome message. an be modified using the 'General Options' item under the 'Administration' menu. Login Name: guiadmin Last Login Time: 2017-03-01 17:03:04 Last Login IP: 10.75.9.8 Recent Failed Login Attempts: 0 and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other		
		Successfully connected using VIP to righnc-sds-No	names may be trademarks of their respective owners. Copyright © 2010, 2017, Oracle and/or its affiliates. All rights reserved. D-b (ACTIVE NETWORK OAM&P) Updates enabled Cr Ma Mi Tr righnc-sds-NO-b (ACTIVE NETWORK OAM&P) Updates enabled		

Step#	Procedure	Description			
4.	Primary NOAM VIP: Disable PDB Relay.	Go to Configurations -> Options			
	Main Menu → Configurations → Options as shown on the right	<u>n Menu</u> onfigurations <i>Options</i> s shown on the			
	right.	Measurements Communication Agent SDS Configuration DRMP Connections NAI Hosts Destinations Domain Identifiers Destination Map Routing Entities Blacklist Click Apply.	PDB Relay Enabled		
		Арріу			
		The following confirmation Main Menu: SDS	message is received: -> Configuration -> Op	tions	
		Info S Valu			
		Allow Connections	itted!		

Step#	Procedure	Description						
5.	Primary NOAM VIP: Select	Main Menu Administration						
	<u>Main Menu</u> → Status & Manage	Image: Security Log Image: Security Log Image: Status & Manage						
	→ Database as shown on the right.	Network Elements SDS_SO_Nassau nassau-dp-1 MP Network Elements SDS_SO_Freeport freeport-sds-so-a System OAM Database SDS_SO_Nassau nassau-sds-so-a System OAM NO_MRSVNC mrsvnc-sds-NO-b Network OAM&P Processes NO_RLGHNC righnc-sds-NO-a Network OAM&P SDS_SO_Turks turks-dp-1 MP SDS_SO_Freeport freeport-dp-1 MP						
6.	 Primary NOAM VIP: 1) Select the "Disable Provisioning" dialogue button located at the bottom of the right panel. 2) Click "OK" on the pop-up confirmation dialogue box. 	Disable Provisioning Report 1 1 VIP to righnc-sds-NO-b (ACTIVE NETWORK OAM&P) U 0K Cancel 2						
7.	Primary NOAM VIP: A Warning banner message should appear indicating that "Global Provisioning has been manually disabled". NOTE: Event(s) 10008 will appear at this time and can be safely ignored.	Main Menu: Status & Manage -> Database Filter* Warning Info* Tasks Warning Warning SDS_SO_T SDS_SO_Freeport (Warning Code 002] - Global provisioning has been manually disabled.						
C	 FOR DSR SYSTEMS, THIS PROCEDURE HAS BEEN COMPLETED. RETURN TO FIGURE 1 FOR NEXT STEPS. FOR SDS SYSTEMS ONLY, CONTINUE WITH STEP 8 OF THIS PROCEDURE. 							

F

Step#	Procedure	Description
8.	SDS Systems Only (Steps 8 - 15): Primary NOAM VIP: 1) Access the command prompt (CLI).	rlghnc-sds-NO-b login: admusr Password: <admusr_password></admusr_password>
	2) Log into the server as the "admusr" user. NOTE: The password will not appear on the screen as the characters are typed.	
9. VIP: Output similar to that shown on the right will appear as the server returns to a command prompt.		*** TRUNCATED OUTPUT *** RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/usr/TKLC/comagent- gui:/usr/TKLC/comagent-gui:/usr/TKLC/comagent:/usr/TKLC/sds PRODPATH=/opt/comcol/prod [admusr@rlghnc-sds-NO-b ~]\$
10.	Primary NOAM VIP: Confirm that you are connected to the Primary Active NOAM Server which will indicated by an entry showing "VIP Active".	[admusr@rlghnc-sds-NO-b ~]\$ hostname rlghnc-sds-NO-b [admusr@rlghnc-sds-NO-b ~]\$ ha.mystate -i grep VIP VIP Act/Act rlghnc-sds-NO-b 0 0302:235786.946 [admusr@rlghnc-sds-NO-b ~]\$
11.	Primary NOAM VIP: Verify the value for pdbRelayEnabled.	[admusr@rlghnc-sds-NO-b ~]\$ iqt -zhp -fvalue ProvOptions where "var='pdbRelayEnabled'" TRUE [admusr@rlghnc-sds-NO-b ~]\$
C	IF THE VAL RETURN T IF THE VAL	LUE = <mark>FALSE</mark> , THEN THIS PROCEDURE HAS BEEN COMPLETED. O FIGURE 1 FOR NEXT STEPS. LUE = <mark>TRUE</mark> , CONTINUE WITH <mark>STEP 12</mark> OF THIS PROCEDURE.
12.	Primary NOAM VIP: Retrieve the pdbRelay timestamp.	[admusr@rlghnc-sds-NO-b ~]\$ iqt -zhp -fvalue ProvOptions where "var='pdbRelayMsgLogTimeStamp'" 1524776142883 [admusr@rlghnc-sds-NO-b ~]\$
timestamp. 13. Primary NOAM VIP: Record the value for the pdbRelay timestamp retrieved in the previous step.		pdbRelayMsgLogTimeStamp:

Step#	Procedure	Description						
C	• WAIT 30 SECONDS BEFORE EXECUTING THE NEXT STEP.							
14.	Primary NOAM VIP: Retrieve the pdbRelay timestamp again.	[admusr@rlghnc-sds-NO-b ~]\$ iqt -zhp -fvalue ProvOptions where "var='pdbRelayMsgLogTimeStamp'" 1524776142883 [admusr@rlghnc-sds-NO-b ~]\$						
15.	Primary NOAM VIP: Record the value for the pdbRelay timestamp retrieved in the previous step.	pdbRelayMsgLogTimeStamp:						
 VERIFY THAT THE TIMESTAMPS RECORDED IN STEPS 13 AND 15 OF THIS PROCEDURE ARE AN EXACT MATCH. IF THE VALUES DO NOT MATCH, REPEAT STEPS 12 THRU 15. DO NOT RETURN TO FIGURE 1 UNTIL TWO MATCHING TIMESTAMPS ARE RECORDED. 								
	1	This Procedure has been completed. Return to Figure 1.						

4.3 Database Backup

Procedure 3: Database Backup [Site_1]

Step#	Procedure	Description							
This proc	cedure provides instructior	ns on performing database backup at the Primary Active NOAM.							
Check of	ff ($m{4}$) each step as it is con	npleted. Boxes have been provided for this purpose under each step number.							
IF ANY S	STEP IN THIS PROCEDU	RE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.							
1.	Primary NOAM VIP:	The state of the same former at the state of							
	1) Launch an HIML5 compliant browser and								
	connect to the XMI	x							
	(VIP) assigned to	There is a problem with this website's security cortificate							
	Primary Active NOAM site.	There is a problem with this website's security certificate.							
	2) If a Certificate Error	The security certificate presented by this website was issued for a different website's address. The security certificate presented by this website was not issued by a trusted certificate authority.							
	the link which states	Security certificate problems may indicate an attempt to fool you or intercept any data you send to the							
	"Continue to this	server.							
	website (not recommended) "	We recommend that you close this webpage and do not continue to this website.							
	recommended).	Click here to close this webpage.							
		Continue to this website (not recommended).							
2.	Primary NOAM VIP:								
	presented the login	ORACLE							
	screen shown on the	Oracle Oracles Destant							
	ngni.	Wed Mar 1 18:53:06 2017 UTC							
	a User account with								
	Administrator privileges.	Log In Enter your username and password to log in							
		Username: guiadmin							
		Password:							
		Change password							
		Log In							
		Welcome to the Oracle System Login.							
		This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the <u>Oracle Software Web Browser Support Policy</u> for details.							
		Unauthorized access is prohibited.							

Step#	Procedure	Description						
2	Primary NOAM VIP:							
3.	The user should be	ORACLE [®] Communications Diameter Signal Router Full Address Resolution 8.0.0.0-80.22.1						
	Main Menu as shown on the right. Verify that the message shown across the bottom of the panel indicates that the browser is using the "VIP" to connect to the Active NOAM server (hostname) on the "ACTIVE NETWORK OAM&P" NE.	Main Menu Administration Configuration Wed Mar 01 19:03:11 2017	итс					
		 Alarms & Events Security Log Status & Manage Measurements Communication Agent SDS General Options' item under the 'Administration' menu. Login Name: guiadmin Last Login Time: 2017-03-01 17:03:04 Last Login Time: 2017-03-01 17:03:04 Last Login IP: 10.75.9.98 Recent Failed Login Attempts: 0 Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners. 						
		Copyright © 2010, 2017, Oracle and/or its affiliates. All rights reserved Successfully connected using VIP to righnc-sds-NO-b (ACTIVE NETWORK OAM&P) Updates enabled						
		Cr Ma Mi Tr						
		Successfully connected using VIP to righnc-sds-NO-b (ACTIVE NETWORK OAM&P) Updates enabled						
	Primary NOAM VIP							
4.	Select	Main Menu Administration	se					
	Main Menu	Configuration Filter* Warning Info* Tasks						
	→ Status & Manage	Alarms & Events						
	→ Database	Security Log Network Ele						
	as shown on the	Code 002] - Global provis Warning Code 002] - Global provis Warning Code 002] - Global provis	sioni					
	right.	SDS_SO_I						
		B HA						
		SDS_SO_Freeport freeport-sds-so-b System OAM						
		SDS_SO_Turks turks-sds-so-a System OAM						
		NO_MRSVNC mrsvnc-sds-NO-a Network OAM	1&P					
		Iasks NO_RLGHNC rlghnc-sds-NO-a Network OAM Tipes	I&P					
		SDS_SO_Nassau nassau-dp-2 MP						

Step#	Procedure	Description							
5	Primary NOAM VIP:								
5.	1) Using the cursor, select the row	Main Menu: Status & Manage -> Database							
	hostname of the Active NOAM server	Filter* ▼ Warning ▼ Info* ▼ Tasks ▼							
	(previously identified in Step 3 of this	Network Element 🔺 Server Role	OAM Max HA Role	Application Max HA Role					
	procedure).	NO_MRSVNC mrsvnc-sds-NO-a Network OAM&P	Standby	N/A					
	2) Then click the "Backup" dialogue	NO_MRSVNC mrsvnc-sds-NO-b Network OAM&P	Active	N/A					
	button in the bottom of	NO_RLGHNC Ighnc-sds-NO-b Network OAM&P	Active	N/A					
	the right panel.	NO_RLGHNC rlghnc-sds-NO-a 🗟 Network OAM&P	Standby	N/A					
		NO_RLGHNC rlghnc-sds-QS Query Server	Observer	N/A					
		SDS_SO_Freeport freeport-dp-1 MP	Active	N/A					
		SDS_SO_Freenortfreenort-srls-so-hSvstem OAM	Standhy	N/A					
		Enable Provisioning Report Inhibit/Allow Replication Back	up Compare	Restore.					
			5						
		<u>۲</u>							
6.	Primary NOAM VIP:								
	presented with the	Main Menu: Status & Manage -> Database [Backup]							
	Database [Backup]								
		Database Backup							
		Field Value							
		Server: righnc-sds-NO-b							
		Select data for backup							
		🔘 gzip							
		Compression *	 bzip2 none 						
		Archive Name * Backup.sds.rlghnc-sds-NO-b.ProvisioningAndCo	nfiguratic						
		Comment							
		Ok Cancel							

Step#	Procedure	Description
7.	EXECUTE THIS STEP FOR SDS SYSTEMS ONLY!!!	Main Menu: Status & Manage -> Database [Backup]
	Primary NOAM VIP:	Info*
	1) Uncheck the Configuration checkbox so that only	Database Backup
	the Provisioning checkbox is selected.	Field Value Server: rlghnc-sds-NO-b
	2) Enter a comment to reflect the reason for the manual backup in the comment field.	Select data for backup Provisioning
3) Click button.	 Click "Ok" dialogue button. 	Compression* gip bzip2 none
		Archive Name * Backup.sds.rlghnc-sds-NO-b.Provisioning.NETWORK_O
		Pre-Failover 2
		Ok Cancel
8.	EXECUTE THIS STEP FOR <mark>DSR SYSTEMS</mark> ONLY!!!	Main Menu: Status & Manage -> Database [Backup]
	Primary NOAM VIP:	Info*
	1) The Provisioning checkbox cannot be selected on DSR	Database Backup
	Verify that the	Field Value
	checkbox is selected.	Server: rlghnc-dsr-NO-b
	2) Enter a comment to reflect the reason for	Select data for backup Configuration
	the manual backup in the comment field.3) Click "Ok" dialogue button.	Compression* gzip bzip2 none
		Archive Name * Backup.dsr.rlghnc-dsr-NO-b.Provisioning.NETWORK_C
		Comment Pre-Failover 2
		Ok Cancel

Step#	Procedure	Description
9.	Primary NOAM VIP: Click on the Tasks tab to verify that a new "Database backup from GUI" task has been created.	nage -> Database Tasks X Jasks X Jasks X Jasks X Jasks Progress 9392 righnc-sds-NO-b Database backup from Completed Provisioning 5% Jasksau-dp-2 MP Active N/A
10.	Primary NOAM VIP: Use the Tasks tab to monitor the status in the "Progress" column until it shows "100%". NOTE: Depending on the release version, the User may have to periodically click the [Status & Manage -> Database] menu option in order for the information on the Tasks tab to refresh and show real-time status.	nage -> Database Tasks Tasks Progress 10 Hostname Name Task State Details Progress 9392 righnc-sds-NO-b Database backup from GUI completed Provisioning 100% 10 MP Active N/A

5. Failover Procedures

5.1 Demoting the Active NOAM from Primary to Secondary

Procedure 4: Demoting the Active NOAM from Primary to Secondary [Site_1]

Step#	Procedure	Description					
This proc	edure provides instruct	ions on Stopping the Application Software on the Primary and DR NOAM.					
Check off	$(\sqrt{)}$ each step as it is c	ompleted. Boxes have been provided for this purpose under each step number.					
IF ANY S	TEP IN THIS PROCED	DURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.					
1.	Primary NOAM VIP:	🔀 late 2 Marage Sevar x 📓 Anna 2 Lann Mara - x					
	1) Launch an	Certificate Error: Navigation ×					
	HTML5 compliant browser and	X					
	connect to the XMI Virtual IP address	There is a problem with this website's security certificate.					
	(VIP) assigned to Primary Active						
	NOAM site.	The security certificate presented by this website was issued for a different website's address. The security certificate presented by this website was not issued by a trusted certificate authority.					
2) If a Certificate Error is received, click on the link							
	which states	We recommend that you close this webpage and do not continue to this website.					
	"Continue to this website (not	Click here to close this webpage.					
	recommended)."						
		More information					
	Primary NOAM						
Z .	VIP:	ORACLE					
	be presented the						
	shown on the right.	Oracle System Login Wed Mar 1 18:53:06 2017 UTC					
	Login to the GUI	Log In					
	account with	Enter your username and password to log in					
	Administrator privileges.	Username: guiadmin					
		Password:					
		Change password					
		Welcome to the Oracle System Login.					
		This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the <u>Oracle Software Web Browser Support Policy</u> for details.					
		Unauthorized access is prohibited.					

Step#	Procedure	Description								
3.	Primary NOAM VIP: The user should	ORACLE Communications Diameter Signal Router Full Address Resolution 8.0.0.0-80.22.1								
	be presented the Product Main Menu as shown on	Main Menu Administration Configuration Alarms & Events		Main Menu: [Main] Wed Mar 01 19:03:11 2017 UTC						
	the right. Verify that the message shown across the bottom of the panel indicates that the browser is using the "VIP" to connect to the "ACTIVE NETWORK OAM&P".			This is the user-defined welcome message. It can be modified using the 'General Options' item under the 'Administration' menu. Login Name: guiadmin Last Login Time: 2017-03-01 17:03:04 Last Login IP: 10.75.9.98 Recent Failed Login Attempts: 0 Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners. ————————————————————————————————————						
	Primary NOAM									
4.	VIP:	Main Menu		1	Main Menu: St	atus & N	lanage ->	HA		
	Delect	💽 🧰 Configuration		Filter*						
	Main Menu	💽 🚞 Alarms & Ever	nts	L						
	→ Status & Manage → <i>H</i> Δ	 Security Log Status & Mana 	age		Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role		
	7.00	- 🕅 Network El	leme	nts	rlghnc-sds-NO-a	OOS	N/A	Active		
	as shown on the right.	── 🕅 Server			rlghnc-sds-NO-b	Active	N/A	Active		
		🔤 🔂 🖓 abase			mrsvnc-sds-NO-a	OOS	N/A	Active		
		KPIs mr		mrsync-sds-NO-h	005	N/A	Active			

Step#	Procedure	Description							
5.	Primary NOAM VIP: Using the information shown in the browser window	Successfully connected using VIP to righnc-sds-NO-b (ACTIVE NETWORK OAM&P) Updates enabled							
	1) Use the Server hostname shown in the bottom banner for the "ACTIVE	NOTE: The server hostname of the "ACTIVE NETWORK OAM&P" identifies the current "Primary" NOAM site (e.g. rlghnc). Main Menu: Status & Manage -> HA							
	NETWORK	Filter*						\frown	
	OAM&P" to identify the current	Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role	
	"Primary" NOAM	rlghnc-sds-NO-a	Standby	N/A	Active	rlghnc-sds-NO-b	NO_RLGHNC	Network OAM&P	
	51(0).	rlghnc-sds-NO-b	Active	N/A	Active	rlghnc-sds-NO-a	NO_RLGHNC	Network OAM&P	
	Now that we know which NOAM site	mrsvnc-sds-NO-a	Standby	N/A	Active	mrsvnc-sds-NO-b	NO_MRSVNC	Network OAM&P	
	is Primary	mrsvnc-sds-NO-b	Active	N/A	Active	mrsvnc-sds-NO-a	NO_MRSVNC	Network OAM&P	
	 Identify the Primary Active, 	righte_sds-QS	Observer	2 N/A	Observer	rlghnc-sds-NO-a rlghnc-sds-NO-b	NO_RLGHNC	Query Server	
	Secondary Active (DR) and Secondary Standby NOAM Servers.								
	!!! WARNING!! "Active/Standbeach server beach serv	DO NOT SKIP by" states for each stopped in the	P THE FO ach NOAI e exact or	LLOWING M server n der specif	STEP! nust be re ied in Ste	corded as it is ps 8 - 12 of this	Critical that s procedure.	the SW on	
6.	Primary NOAM VIP:	Site_1 = Prima	ary_NOAN	1 (Active)	=				
	Record the hostnames of the Active / Standby NOAM servers at	Site_1 = Prima	ary_NOAN	1 (Standby) =				
	the "Primary" and "Secondary" (DR) NOAM sites in the space provided.	Site_2 = DR_{-} Site_2 = DR_{-}	_NOAM _NOAM	(Active) (Standby	=				
				. ,					

Step#	Procedure	Description							
7.	Primary NOAM VIP:	🖃 💻 Main Menu		Main Menu	ı: Statı	us & Ma	nage ->	> Server	
	Select	💽 🧰 Administratio	on						
	Main Menu	Configuratio	n vents	Filter* -					
	→ Status &	Alarinis & Ev	1						
	Manage	🖃 🔄 Status & Ma	nage	Server Hostna	me No	etwork Eler	ment /	Appl State	
	- Server	- 💽 Network	Elements	freeport-dp-1	SI	DS_SO_Fre	eport I	Enabled	
	as shown on the	- Server		freeport-dp-2	SI	DS_SO_Fre	eport	Enabled	
	ngni.	→ N HA	a	freeport-sds-so	-a Si	DS_SO_Fre	eport	Enabled	
		KPIs	5	freeport-sds-so	-b SI	DS_SO_Fre	eport I	Enabled	
		IPA							
8.	Primary NOAM								
	Based on the	Main Menu: St	atus & Manag	e -> Server					
	information recorded in Step	Filter* -							
	6 of this	,							
	procedure	Server Hostname	Network Element	Appl State	Alm	DB	Reporti Status	ng Proc	
	Perform the below	nassau-sds-so-b	SDS_SO_Nassau	Enabled	Norm	Norm	Norm	Norm	
	Primary NOAM "Standby" Server.	rlghnc-sds-NO-a	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm	
		rlghnc-sds-NO-b	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm	
		rlghnc-sds-QS	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm	
	1) Select the server in the right	turks-dp-1	SDS_SO_Turks	Enabled	Norm	Norm	Norm	Norm	
	panel (highlight will	Stop Bestart	Debast NTD Syna	Depart					
	occur).		Rebool NTP Sync	Report					
	2) Click the "Stop"								
	the bottom of the								
	right panel.	Message from webpage							
	3) Click "OK" in								
	the pop-up	Are you sure yo on the followin	ou wish to stop application a server(s)?	software					
	dialogue box.	rlghnc-sds-NO-a							
			ОК	Cancel					
	NOTE: Alarms will		\}						
	begin to generate								
	including but not								
	limited to Event								
	10075 & 31201.								

Step#	Procedure	Description					
9.	Primary NOAM VIP:	Main Menu: Status & Manage -> Server					
	After the screen refreshes, verify	Filter*					
	that the server now shows an Appl State value	Server Hostname Network Element Appl State Alm DB Reporting Status Proc					
	of "Disabled"	nassau-sds-so-b SDS_SO_Nassau Enabled Norm Norm Norm					
	and a Proc value	rlghnc-sds-NO-a NO_RLGHNC Disabled Warn Norm Man					
	of " Man".	rlghnc-sds-NO-b NO_RLGHNC Enabled Warn Warn Norm Norm					
		rlghnc-sds-QS NO_RLGHNC Enabled Norm Norm Norm Norm					
	NOTE: Although	turks-dp-1 SDS_SO_Turks Enabled Norm Norm Norm Norm					
	refresh it immediately if desired by reselecting the left menu option for the [Main Menu: Status & Manage → Server].						
10.	VIP: "Stop" the SW on the Primary NOAM "Active" Server.	Repeat Steps 8 - 9 of this Procedure for the Primary NOAM "Active" Server.					
11.	Primary NOAM VIP: "Stop" the SW on the DR NOAM "Standby" Server.	Repeat Steps 8 - 9 of this Procedure for the DR NOAM "Standby" Server.					
12.	Primary NOAM VIP: "Stop" the SW on the DR NOAM "Active" Server.	Repeat Steps 8 - 9 of this Procedure for the DR NOAM "Active" Server.					

Step#	Procedure	Description
13.	Primary NOAM VIP: 1) Access the command prompt (CLI). 2) Log into the server as the "admusr" user. NOTE: The	rlghnc-sds-NO-b login: admusr Password: <admusr_password></admusr_password>
	password will not appear on the screen as the characters are typed.	
14.	Primary NOAM VIP: Output similar to that shown on the right will appear as the server returns to a command prompt.	*** TRUNCATED OUTPUT *** PRODPATH= RELEASE=8.5.0 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/usr/TKLC/comagent- gui:/usr/TKLC/comagent-gui:/usr/TKLC/comagent:/usr/TKLC/sds PRODPATH=/opt/comcol/prod [admusr@rlghnc-sds-NO-b ~]\$
15.	Primary NOAM VIP: Confirm that you are connected to the Primary Active NOAM Server by verifying that the server hostname matches the entry showing "VIP Act/Act".	[admusr@rlghnc-sds-NO-b ~]\$ hostname rlghnc-sds-NO-b [admusr@rlghnc-sds-NO-b ~]\$ ha.mystate -i grep VIP VIP Act/Act rlghnc-sds-NO-b 0 0302:235786.946 [admusr@rlghnc-sds-NO-b ~]\$
16.	Primary NOAM VIP: Verify that the current value for "myClusterRole" is "Primary".	[admusr@rlghnc-sds-NO-b ~]\$ top.myrole myNodeld=A0907.121 myParentClusters=() myClusterRole= Primary myRecognizedPrimary=A0907 myRecognizedSecondary=A1103 [admusr@rlghnc-sds-NO-b ~]\$
17.	Primary NOAM VIP: Set the value for "myClusterRole" to "Secondary".	[admusr@rlghnc-sds-NO-b ~]\$ top.setSecondary - Using my cluster: A0907 - New Secondary Timestamp: 03/03/17 00:19:07.181 - Updating To A0907.060: rlghnc-sds-NO-a - Updating To A0907.113: rlghnc-sds-QS - Updating To A0907.121: rlghnc-sds-NO-b - Updating To A1103.165: mrsvnc-sds-NO-b - Updating To A1103.223: mrsvnc-sds-NO-a [admusr@rlghnc-sds-NO-b ~]\$
18.	Primary NOAM VIP: Verify that the value for "myClusterRole" is now "Secondary".	[admusr@rlghnc-sds-NO-b ~]\$ top.myrole myNodeId=A0907.121 myParentClusters=() myClusterRole= Secondary myRecognizedPrimary=A0907 myRecognizedSecondary=Unknown [admusr@rlghnc-sds-NO-b ~]\$

Step#	Procedure	Description		
19.	Primary NOAM VIP: Verify the current PID for the "apwSoapServer" process.	[admusr@rlghnc-sds-NO-b ~]\$ pl grep Server A 946215 apwSoapServer Up 03/02 23:52:31 3 !CMNOSIGCHK=1 apwSoapServer [admusr@rlghnc-sds-NO-b ~]\$		
20.	Primary NOAM VIP: Restart the "apwSoapServer" process.	[admusr@rlghnc-sds-NO-b ~]\$ sudo pm.kill apwSoapServer [admusr@rlghnc-sds-NO-b ~]\$		
21.	Primary NOAM VIP: Verify that the PID for the "apwSoapServer" process has changed from the previous value shown in Step 19 of this procedure.	[admusr@rlghnc-sds-NO-b ~]\$ pl grep Server A951908 pwSoapServer Up 03/02 23:52:31 3 !CMNOSIGCHK=1 apwSoapServer [admusr@rlghnc-sds-NO-b ~]\$		
This Procedure has been completed. Return to Figure 1.				

5.2 Promoting the DR NOAM from Secondary to Primary

5.2.1 Promoting the DR NOAM from Secondary to Primary (Graceful)

Procedure 5: Promoting the DR NOAM from Secondary to Primary (Graceful) [Site_2]

Step #	Procedure	Description			
This p	This procedure provides instructions on promoting the DR NOAM from Secondary to Primary.				
Check	Check off ($$) each step as it is completed. Boxes have been provided for this purpose under each step number.				
IF AN	Y STEP IN THIS PROCEDU	JRE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.			
1.	DR NOAM: 1) Access the command prompt (CLI).	Establish an SSH session to the SDS/DSR DR NOAM XMI IP address and login as admusr. msvnc-sds-NO-b login: admusr Password: <admusr_password></admusr_password>			
	 Log into the server as the "admusr" user. 				
2.	DR NOAM: Check NOAM Status	Execute this command to find the state of the server: \$ ha.mystate [admusr@msync.sds-NO-b ~]\$ ba mystate			
		resourceId role node DC subResources lastUpdate			
		DbReplication Act/Act A3374.144 * 0 180712:064445.775 VIP Act/Act A3374.144 * 0 180712:064445.875 CondPresenter Act/Act A3374.144 * 0 180712:064445.875			
		Cacdfrocesskes Act/Act A33/4.144 * 0 180/12:064445.8/3 PDBA_Process Act/Act A3374.144 * 0 180712:064445.8/3			
		PDBAUDIT_Process Act/Act A3374.144 * 0 180712:064445.875			
		XDS_Process Act/Act A3374.144 * 0 180712:064445.878			
		IMPORT_Process Act/Act A3374.144 * 0 180712:064445.876			
		DPSERVER_Process Act/OOS A3374.144 * 0 180711:062936.051			
		Execute the following commands on the Active NOAM.			
3.	DR NOAM: Verify that the current value for "myClusterRole" is "Secondary".	[admusr@mrsvnc-sds-NO-b ~]\$ top.myrole myNodeld=A1103.165 myParentClusters=() myClusterRole= Secondary myRecognizedPrimary=A1103 myRecognizedSecondary=Unknown [admusr@mrsvnc-sds-NO-b ~]\$			
4.	DR NOAM: Set the value for "myClusterRole" to "Primary".	[admusr@mrsvnc-sds-NO-b ~]\$ top.setPrimary - Using my cluster: A1103 - New Primary Timestamp: 03/03/17 00:50:40.986 - Updating To A0907.060: rlghnc-sds-NO-a - Updating To A0907.113: rlghnc-sds-QS - Updating To A0907.121: rlghnc-sds-NO-b - Updating To A1103.165: mrsvnc-sds-NO-b - Updating To A1103.223: mrsvnc-sds-NO-a [admusr@mrsvnc-sds-NO-b ~]\$			
5.	DR NOAM: Verify that the value for "myClusterRole" is now "Primary".	[admusr@mrsvnc-sds-NO-b ~]\$ top.myrole myNodeld=A1103.165 myParentClusters=() myClusterRole= Primary myRecognizedPrimary=A1103 myRecognizedSecondary=A0907 [admusr@mrsvnc-sds-NO-b ~]\$			

Step #	Procedure	Description			
6.	New Primary NOAM VIP (former DR): 1) Launch an HTML5 compliant browser and connect to the XMI Virtual IP address (VIP) assigned to Primary Active NOAM site.	Image: Second state in the second s			
	 2) If a Certificate Error is received, click on the link which states "Continue to this website (not recommended)." 	 The security certificate presented by this website was issued for a different website's address. The security certificate presented by this website was not issued by a trusted certificate authority. Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server. We recommend that you close this webpage and do not continue to this website. © Click here to close this webpage. © Continue to this website (not recommended). ⊙ More information 			
7.	New Primary NOAM VIP (former DR): The user should be presented the login screen shown on the right. Login to the GUI using a User account with Administrator privileges.	Oracle System Login Wed Mar 118:53:06 2017 UTC Image: System Login Log In Enter your username and password to log in Username: guiadmin Password: Change password Image: Change password Change password Image: Change password Image: Change password Image: Change p			
8.	New Primary NOAM VIP (former DR): Select	Main Menu Administration Main Menu: Status & Manage -> HA			
	Main Menu	Configuration Filter*			
	→ Status & Manage → HA	Address & Events Address & Events Security Log Hostname OAM HA Role Application HA Role Max Allowed HA Role			
	as shown on the right.	rlghnc-sds-NO-a OOS N/A Active			
	-	righnc-sds-NO-b Active N/A Active			
		mrsvnc-sds-NO-a OOS N/A Active			
		MR/IS mrsvnc.sds.NO.b 005 N/A Active			

Step #	Procedure	Description		
9.	New Primary NOAM VIP (former DR): Using the information shown in the browser window	Successfully connected using VIP to mrsvno	:-sds-NO-b (ACTIVE DR NE	Copyright © 2010, 2017, Oracle
	1) Use the Server hostname shown in the bottom banner for the "ACTIVE NETWORK OAM&P" to identify the current "Primary" NOAM site.	NOTE: The server hostna identifies the current "Prim Main Menu: Status & Manage -> HA	me of the "ACTIVE ary" NOAM site (e.c	NETWORK OAM&P" g. mrsvnc).
	Now that we know which	Hestname OAM HA Application Role HA Role	Max Allowed HA Role Mate Hostname	List Network Element Server Role
	NOAM Site is Primary	rlghnc-sds-NO-a Standby N/A	Active rlghnc-sds-NO-b	NO_RLGHNC Network OAM&P
	2) Identify the Primary	rlghnc-sds-NO-b Active N/A .	Active rlghnc-sds-NO-a	NO_RLGHNC Network OAM&P
	Standby, Secondary	mrsvnc-sds-NO-a Standby N/A	Active mrsvnc-sds-NO-b	NO_MRSVNC Network OAM&P
	Active (DR) and Secondary Standby	mrsvnc-sds-NO-b Active N/A .	Active mrsvnc-sds-NO-a	a NO_MRSVNC Network OAM&P
	NOAM Servers.	righte-sds-QS Observer 2N/A	Observer rlghnc-sds-NO-a rlghnc-sds-NO-b	NO_RLGHNC Query Server
10.	"Active/Standby each server be r New Primary NOAM VIP (former DR): Based on the information identified in the previous step, record the hostnames of the Primary Active, Primary Standby, Secondary Active (DR) and Secondary Standby NOAM Servers.	states for each NOAM server musestarted in the exact order specifie Site_1 = Primary_NOAM (Ac Site_1 = Primary_NOAM (Sta Site_2 = DR_NOAM (Ac Site_2 = DR_NOAM (Sta	st be recorded as in in Steps 12 - 16 d tive) = andby) = tive) = andby) = andby) =	t is Critical that the SW on of this procedure.
11.	New Primary NOAM VIP (former DR):	🔲 💷 Main Menu		
	Select	Administration	Main Menu: St	atus & Manage -> Server
	Main Menu		Filter*	
	→ Status & Manage	Alarms & Events Security Log		
	→ Server	🖃 🤤 Status & Manage	Server Hostname	Network Element Appl State
	as shown on the right.	Network Elements	freeport-dp-1	SDS_SO_Freeport Enabled
		Server	freeport_dp_2	
		Пан 🗃	incepont-up-z	SDS_SO_Freeport Enabled
		⊢ R HA Database	freeport-sds-so-a	SDS_SO_Freeport Enabled SDS_SO_Freeport Enabled

Step #	Procedure	Description						
12.	New Primary NOAM VIP (former DR):	Main Menu: Status & Manage -> Server						
	Based on the information recorded in	Fri Mar 03 03:40:11 2017 UTC						
	Step 10 of this procedure	Server Hostname Network Element Appl State Alm DB Reporting Status	Proc					
	Perform the below sub-	freeport-sds-so-b SDS_SO_Freeport Enabled Norm Norm Norm	Norm					
	steps on the newly		Man					
	NOAM "Active"	misvinc-sds-NO-b NO_MRSVNC Disabled Err Warn Norm	Man					
	Server (Site 2)	righnc-sds-NO-a NO_RLGHNC Disabled Warn Norm Norm	Man					
		rlghnc-sds-NO-b NO_RLGHNC Disabled Warn Norm Norm	Man					
		rlghnc-sds-QS NO_RLGHNC Enabled Norm Norm Norm	Norm 🖕					
	1) Select the Server in the right panel (highlight will occur).	Stop Restart Reboot NTP Sync Report						
		Restart selected server(s). Copyright © 2010, 2017, Oracle and/or its affiliates. A	Il rights reserved.					
	2) Click the "Restart" dialogue button in the bottom of the right	Message from webpage						
	panel.							
	3) Click "OK" in the pop-up confirmation dialogue box.	Are you sure you wish to restart application software on the following server(s)? mrsvnc-sds-NO-b						
		OK Cancel						
13.	New Primary NOAM VIP (former DR):	Main Menu: Status & Manage -> Server						
	After the screen refresh, verify that the server	Filter* Info*						
	now shows an Appl State value of	Server Hostname Network Element Appl State Alm DB Reportin	ng Proc					
	"Enabled" and a Proc	mrsvnc-sds-NO-a NO MRSVNC Disabled Warn Norm Norm	Man					
		mrsvne sde NO h NO MPSVNC Enabled Warn Norm	Norm					
		dahne-sde-NO-a NO PLGUNC Disabled Warn Norm Norm	Man					
		debre ede NO h	Man					
		Highne-sus-NO-D NO_REGRINE Disabled Warn Norm Norm	Watt					
		Ignnc-sds-QS NO_REGRINC Enabled Norm Norm Norm	Norm					
14.	New Primary NOAM VIP (former DR):							
	"Restart" the SW on the Primary NOAM "Standby" Server.	Repeat Steps 12 - 13 of this Procedure for the Primary NOAM "Stands	y" Server.					
15.	New Primary NOAM VIP (former DR):							
	"Restart" the SW on the DR NOAM "Standby" Server.	Repeat Steps 12 - 13 of this Procedure for the DR NOAM "Standby" S	erver.					

Step #	Procedure	Description
16.	New Primary NOAM VIP (former DR): "Restart" the SW on the DR NOAM "Active" Server.	Repeat Steps 12 - 13 of this Procedure for the DR NOAM "Active" Server.
	FOR SDS	SYSTEMS. THIS PROCEDURE HAS BEEN COMPLETED. RETURN TO FIGURE 1
	FOR NEXT	STEPS.
	• FOR DSR	SYSTEMS ONLY, CONTINUE WITH <mark>STEP 17</mark> OF THIS PROCEDURE.
17.	DSR Systems Only (Steps 17 - 22): New Primary NOAM VIP (former DR): Identify the clusterId values for the myRecognizedPrimary and the myRecognizedSecondar y (e.g. Axxxx).	[admusr@dominica-dr-noam-b ~]\$ top.myrole myNodeld=A0568.058 myParentClusters=() myClusterRole=Primary myRecognizedPrimary=A0568 myRecognizedSecondary=A1667 [admusr@dominica-dr-noam-b ~]\$
18.	New Primary NOAM VIP (former DR): Record the clusterId values for the myRecognizedPrimary and the myRecognizedSecondar y in the space provided.	myRecognizedPrimary (clusterId) = myRecognizedSecondary (clusterId) =
19.	New Primary NOAM VIP (former DR): Identify which A-Level clusterId (e.g. Axxxx) is located in the "HaClusterResourceCfg" table.	[admusr@dominica-dr-noam-b ~]\$ iqt -p HaClusterResourceCfg cluster resource optional A0568 DSROAM_Proc Yes C0804 DSROAM_Proc Yes C1223 DSROAM_Proc Yes C2346 DSROAM_Proc Yes C3147 DSROAM_Proc Yes C316 DSROAM_Proc Yes [admusr@dominica-dr-noam-b ~]\$
20.	New Primary NOAM VIP (former DR): If the A-Level clusterId located in the "HaClusterResourceCfg" table is the <i>myRecognizedPrimary</i> value recorded in Step 18 of this procedure, delete the entry as shown to the right. Otherwise, continue to the next step.	Syntax Example: \$ irem HaClusterResourceCfg where "cluster=' <myrecognizedprimary_clusterid>'" [admusr@dominica-dr-noam-b ~]\$ irem HaClusterResourceCfg where "cluster='A0568'" === deleted 1 records === [admusr@dominica-dr-noam-b ~]\$</myrecognizedprimary_clusterid>

Step #	Procedure	Description			
21.	New Primary NOAM VIP (former DR): Add an entry to the "HaClusterResourceCfg" table for the <i>myRecognizedSecondar</i> <i>y</i> value recorded in Step 18 of this procedure.	Syntax Example: \$ echo " <myrecognizedsecondary_clusterid> DSROAM_Proc Yes" iload -ha -xun -fcluster - fresource -foptional HaClusterResourceCfg [admusr@dominica-dr-noam-b ~]\$ echo "A1667 DSROAM_Proc Yes" iload -ha -xun - fcluster -fresource -foptional HaClusterResourceCfg [admusr@dominica-dr-noam-b ~]\$</myrecognizedsecondary_clusterid>			
22.	New Primary NOAM VIP (former DR): Verify that the "HaClusterResourceCfg" table now displays an entry for the <i>myRecognizedSecondar</i> <i>y</i> value recorded in Step 18 of this procedure.	[admusr@dominica-dr-noam-b ~]\$ iqt -p HaClusterResourceCfg cluster resource optional A1667 DSROAM_Proc Yes C0804 DSROAM_Proc Yes C1223 DSROAM_Proc Yes C2346 DSROAM_Proc Yes C3147 DSROAM_Proc Yes C3316 DSROAM_Proc Yes [admusr@dominica-dr-noam-b ~]\$			
	This Procedure has been completed. Return to Figure 1.				

5.2.2 Promoting the DR NOAM from Secondary to Primary (Outage)

Procedure 6: Promoting the DR NOAM from Secondary to Primary (Outage) [Site_2]

Step#	Procedure	Description					
This proc	This procedure provides instructions on promoting the DR NOAM from Secondary to Primary.						
Check of	Check off ($$) each step as it is completed. Boxes have been provided for this purpose under each step number.				umber.		
IF ANY S	STEP IN THIS PROCEDI	JRE FAILS, CONTACT	MY ORACI	_E SUPPOR	T (MC	DS) FOR ASSISTA	NCE.
1.	 DR NOAM: 1) Access the command prompt (CLI). 2) Log into the server as the "admusr" user 	Establish an SSH sess msvnc-sds-NO-b login Password: <admusr_i< td=""><td>sion to the s : admusr password</td><td>SDS/DSR DF</td><td>R NO</td><td>AM XMI IP address</td><td>and login as admusr.</td></admusr_i<>	sion to the s : admusr password	SDS/DSR DF	R NO	AM XMI IP address	and login as admusr.
2.	DR NOAM: Check NOAM Status	Execute this comma \$ ha.mystate [admusr@msvnc-sds- resourceId	nd to find NO-b ~]\$ h	the state of a.mystate	the s	Server:	lastUpdate
		DbReplication	Act/Act	A3374.144			180712:064445.775
		VIP	Act/Act	A3374.144		0	180712:064445.875
		CacdProcessRes	Act/Act	A3374.144		0	180712:064445.873
		PDBA_Process	Act/Act	A3374.144	*	0	180712:064445.876
		PDBAUDIT_Process	Act/Act	A3374.144	*	0	180712:064445.875
		PDBRELAY_Process	Act/Act	A33/4.144	-	0	180/12:064445.8/6
		TMPORT Process	Act/Act	A3374.144	*	0	180712:064445 876
		EXPORT Process	Act/Act	A3374.144		0	180712:064445.877
		DPSERVER Process	Act/00S	A3374.144		0	180711:062936.051
		Execute the following	oommanda	on the Activ		<u> </u>	
		Execute the following	commands	on the Active	- NOA	-\IVI.	

Step#	Procedure	Description
3.	DR NOAM: Verify that the current value for "myClusterRole" is "Secondary".	[admusr@mrsvnc-sds-NO-b ~]\$ top.myrole myNodeld=A1103.165 myParentClusters=(A0907) myClusterRole=Secondary myRecognizedPrimary=A0907 myRecognizedSecondary=A1103 [admusr@mrsvnc-sds-NO-b ~]\$
4.	DR NOAM: Using the clusterId of the myRecognizedPrim ary from the previous step, set the clusterId to Secondary. NOTE: The connection timeouts to the Primary NOAM NE (shown in the output to the right) are expected when that NE is network isolated. Under these circumstances, the user should allow several minutes (≈ 7) for this command to	[admusr@mrsvnc-sds-NO-b ~]\$ top.setSecondary A0907 - New Secondary Timestamp: 03/03/17 18:28:48.318 - Updating To A0907.060: rlghnc-sds-NO-a setSecondaryTo(A0907) returned proxy error=28 SOAP 1.2 fault SOAP-ENV:Receiver [no subcode] "Connection timed out" Detail: connect failed in tcp_connect() - Updating To A0907.113: rlghnc-sds-QS setSecondaryTo(A0907) returned proxy error=28 SOAP 1.2 fault SOAP-ENV:Receiver [no subcode] "Connection timed out" Detail: connect failed in tcp_connect() - Updating To A0907.121: rlghnc-sds-NO-b setSecondaryTo(A0907) returned proxy error=28 SOAP 1.2 fault SOAP-ENV:Receiver [no subcode] "Connection timed out" Detail: connect failed in tcp_connect() - Updating To A0907.121: rlghnc-sds-NO-b setSecondaryTo(A0907) returned proxy error=28 SOAP 1.2 fault SOAP-ENV:Receiver [no subcode] "Connection timed out" Detail: connect failed in tcp_connect() - Updating To A1103.165: mrsvnc-sds-NO-b - Updating To A1103.223: mrsvnc-sds-NO-a [admusr@mrsvnc-sds-NO-b ~]\$
5.	DR NOAM: Set the value for "myClusterRole" to "Primary". NOTE: The connection timeouts to the Primary NOAM NE (shown in the output to the right) are expected when that NE is network isolated. Under these circumstances, the user should allow several minutes (≈ 7) for this command to complete.	[admusr@mrsvnc-sds-NO-b ~]\$ top.setPrimary - Using my cluster: A1103 - New Primary Timestamp: 03/03/17 18:35:26.279 - Updating To A0907.060: rlghnc-sds-NO-a setPrimaryTo(A1103) returned proxy error=28 SOAP 1.2 fault SOAP-ENV:Receiver [no subcode] "Connection timed out" Detail: connect failed in tcp_connect() - Updating To A0907.113: rlghnc-sds-QS setPrimaryTo(A1103) returned proxy error=28 SOAP 1.2 fault SOAP-ENV:Receiver [no subcode] "Connection timed out" Detail: connect failed in tcp_connect() - Updating To A0907.121: rlghnc-sds-NO-b setPrimaryTo(A1103) returned proxy error=28 SOAP 1.2 fault SOAP-ENV:Receiver [no subcode] "Connection timed out" Detail: connect failed in tcp_connect() - Updating To A0907.121: rlghnc-sds-NO-b setPrimaryTo(A1103) returned proxy error=28 SOAP 1.2 fault SOAP-ENV:Receiver [no subcode] "Connection timed out" Detail: connect failed in tcp_connect() - Updating To A1103.165: mrsvnc-sds-NO-b "Updating To A1103.165: mrsvnc-sds-NO-b - Updating To A1103.223: mrsvnc-sds-NO-a [admusr@mrsvnc-sds-NO-b ~]\$

Step#	Procedure	Description			
6.	DR NOAM: Verify that the value for " myClusterRole " is now set to "Primary".	[admusr@mrsvnc-sds-NO-b ~]\$ top.myrole myNodeld=A1103.165 myParentClusters=() myClusterRole= Primary myRecognizedPrimary=A1103 myRecognizedSecondary=A0907 [admusr@mrsvnc-sds-NO-b ~]\$			
7.	New Primary NOAM VIP (former DR): 1) Launch an HTML5 compliant browser and connect to the XMI Virtual IP address (VIP) assigned to Primary Active NOAM site. 2) If a Certificate Error is received, click on the link which states "Continue to this website (not recommended)."	 intersection intersection inter			
8.	New Primary NOAM VIP (former DR): The user should be presented the login screen shown on the right. Login to the GUI using a User account with Administrator privileges.	Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed Mar 1 18:53:06 2017 UTC Image: Carcle System Login Wed			

Step#	Procedure	Description					
9.	New Primary NOAM VIP (former DR):		tions Diameter	Signal Router Full Address R	esolution 8.0.0.	0.0-80.22.1	
	The user should be presented the Product Main Menu as shown on the right. Verify that the message shown across the bottom of the panel indicates that the browser is using the "VIP" to connect to the "ACTIVE NETWORK OAM&P".	Main Menu Administration Configuration	Main Men	u: [Main]		——Fri Mar 03 01:34:57 2017 UTC	:
		Alarms & Events Status & Manage Measurements Communication Agent SDS Help Legal Notices Logout Oracle and Java are registered trademarks of Oracle strademarks of Oracle strademark		ned welcome message. tions' item under the 'Adn ne: guiadmin 2017-03-02 20:15:17 10.154.189 Login Attempts: 0 of Oracle Corporation an- is of their respective own , Oracle and/or its affiliate ng disabled Updates e	ninistration' menu. d/or its affiliates. Other ers. :s. All rights reserved. nabled 0 0 5 0 <u>Cr Mta Mi Tr</u>]	
		Successfully connected using VIP to	mrsvnc-sds-NO-	Copy	right © 2010, 2017, C	Dracle and/or its affiliates. All	righ ⁄d
10.	New Primary NOAM VIP (former DR):	🖃 🚊 Main Menu 🖻 😋 Administration		Main Menu: Admi	nistration ->	General Option	s
	Select	General Options		Warning 🔻			
	<u>Main Menu</u> → Administration	Accessontrol Software Manager	ment	General options s	ettings		
	→ General Options	Configuration Call Alarms & Events		Variable	Valu	le	
	as shown on the right.	🗈 🧰 Security Log					
11.	New Primary NOAM VIP (former DR):	Main Menu: Administra	tion -> Ger	neral Options			
	 Verify the value for "Durability Administrative State". If executing this procedure in response to a network isolated Primary NOAM (outage), modify the "Durability Administrative State" value to 1 (<i>if</i> necessary) and click the "OK" dialogue button. 	General options settings Durability Administrative State * Disabled Account Ok Cancel Rds-NO-b (ACTIVE NETWORK OAM&P)	This acco	unt has been disabled.		Durability Administrative State (1 = NO disk, 2 = NO pair, 3 = NO DRNO). [Default = 1; Range = 1-3] [A value is required.] Message displayed when attempting to login to a disabled account	*

12. New Primary NOAM VIP (former DR): 1) Select Main Menu → Status & Manage → Server Administration as shown on the right. Alarms & Events 2) Identify the hostname of the Primary Active NOAM server from the banner message across the bottom of the browser window. Network Elements Image: Notices Image: Notices	erver ppl State nabled nabled nabled nabled nabled nabled
1) Select Main Menu → Status & Manage → Server as shown on the right. 2) Identify the hostname of the Primary Active NOAM server from the banner message across the bottom of the browser window. Administration Image: Server	ppl State nabled nabled nabled nabled nabled
→ Status & Manage → Server as shown on the right. 2) Identify the hostname of the Primary Active NOAM server from the banner message across the bottom of the Drowser window. Model and the browser window.	rabled nabled nabled nabled nabled nabled nabled
• Server • Status & Manage as shown on the right. • Network Elements • Network Elements • Server • HA • Database • Database • Files across the bottom of the browser window. • Files • Iso SDS • Neasurements • Iso SDS • No_MRSVNC • Iso SDS • Neasurements • Iso SDS • Help • Iso Restart Reboot • Iso Restart Reboot	nabled nabled nabled nabled nabled
 as shown on the right. between right. communication Agent 	nabled nabled nabled nabled nabled
2) Identify the hostname of the Primary Active NOAM server from the banner message across the bottom of the browser window.	nabled nabled nabled nabled
2) Identify the hostname of the Primary Active NOAM server from the banner message across the bottom of the browser window.	nabled nabled nabled
hostname of the Primary Active NOAM server from the banner message across the bottom of the browser window.	nabled nabled rt
NOAM server from Image: Tasks Image: Tasks Image: Tasks <	nabled rt
the banner message across the bottom of the browser window.	rt
the browser window.	rt
SDS	rt
Help Stop Restart Reboot NTP Sync Repo	rt
Legal Notices	
2 Logout	
Successfully connected using VIP or mrsvnc-sds-NO-DIACTIVE NETWORK OAM&P) Updates enabled	1
13. New Primary NOAM VIP (former DR): Based on the information recorded in Step 12 of this procedure Berform the below sub-steps on the newly promoted Primary NOAM "Active" Server (Site_2). Perform the below sub-steps on the newly promoted Primary NOAM "Active" Server (Site_2). Inassau-dp-2 1) Select the Server in the right panel (highlight will occur). Stop Restart Rebot NTP Sync Report 2) Click the "Restart" dialogue box. Stop was you wish to restart application software on the following server(s)? 3) Click "OK" in the pop-up confirmation dialogue box. Message from webpage (msvnc:sds-NO-b 3) (K) (Cancel) Wessage from webpage Imsvnc:sds-NO-b 3) (K) (Cancel)	Proc Norm Norm Norm Norm Norm

Step#	Step# Procedure		Description
FOR SDS FOR NEX		SDS NEX	SYSTEMS, THIS PROCEDURE HAS BEEN COMPLETED. RETURN TO FIGURE 1 T STEPS. SYSTEMS ONLY, CONTINUE WITH STEP 14 OF THIS PROCEDURE.
14.	DSR Systems Or (Steps 14 - 19): New Primary NO. VIP (former DR): Identify the cluster values for the myRecognizedPri y and the myRecognizedSe dary (e.g. Axxxx).	<mark>זוץ</mark> AM ≽rld ™ar	[admusr@dominica-dr-noam-b ~]\$ top.myrole myNodeId=A0568.058 myParentClusters=() myClusterRole=Primary myRecognizedPrimary=A0568 myRecognizedSecondary=A1667 [admusr@dominica-dr-noam-b ~]\$
15.	New Primary NO. VIP (former DR): Record the cluster values for the myRecognizedPri y and the myRecognizedSer dary in the space provided.	AM Fild mar con	myRecognizedPrimary (clusterId) = myRecognizedSecondary (clusterId) =
16.	New Primary NO. VIP (former DR): Identify which A-L clusterId (e.g. Ax is located in the "HaClusterResour Cfg" table.	AM evel xxx) rce	[admusr@dominica-dr-noam-b ~]\$ iqt -p HaClusterResourceCfg cluster resource optional A0568 DSROAM_Proc Yes C0804 DSROAM_Proc Yes C1223 DSROAM_Proc Yes C2346 DSROAM_Proc Yes C3147 DSROAM_Proc Yes C3316 DSROAM_Proc Yes [admusr@dominica-dr-noam-b ~]\$
17.New Primary NOAM VIP (former DR):If the A-Level clusterId located in the "HaClusterResource Cfg" table is the myRecognizedPrimar y value recorded in Step 18 of this procedure, delete the entry as shown to the right.Otherwise, continue to the next step.		AM in rce mar n the the ue	Syntax Example: \$ irem HaClusterResourceCfg where "cluster=' <myrecognizedprimary_clusterid>'" [admusr@dominica-dr-noam-b ~]\$ irem HaClusterResourceCfg where "cluster='A0568'" === deleted 1 records === [admusr@dominica-dr-noam-b ~]\$</myrecognizedprimary_clusterid>
18.	New Primary NO. VIP (former DR): Add an entry to th "HaClusterResour Cfg" table for the myRecognizedSe dary value recorded in Step 18 of this procedure.	AM e ce con ed	Syntax Example: \$ echo " <myrecognizedsecondary_clusterid> DSROAM_Proc Yes" iload -ha -xun -fcluster - fresource -foptional HaClusterResourceCfg [admusr@dominica-dr-noam-b ~]\$ echo "A1667 DSROAM_Proc Yes" iload -ha -xun - fcluster -fresource -foptional HaClusterResourceCfg [admusr@dominica-dr-noam-b ~]\$</myrecognizedsecondary_clusterid>

Step#	Procedure	Description
19.	New Primary NOAM VIP (former DR): Verify that the "HaClusterResource Cfg" table now displays an entry for the <i>myRecognizedSecon</i> <i>dary</i> value recorded in Step 18 of this procedure.	[admusr@dominica-dr-noam-b ~]\$ iqt -p HaClusterResourceCfg cluster resource optional A1667 DSROAM_Proc Yes C0804 DSROAM_Proc Yes C1223 DSROAM_Proc Yes C2346 DSROAM_Proc Yes C3147 DSROAM_Proc Yes C3316 DSROAM_Proc Yes [admusr@dominica-dr-noam-b ~]\$
This Procedure has been completed. Return to Figure 1.		

5.3 Enable Global Provisioning

Procedure 7: Enable Global Provisioning [Site_2]

Step#	Procedure	Description		
This pro	This procedure provides instructions on "Enable Global Provisioning" at the "newly promoted" Primary NOAM GUI.			
Check o	Check off ($$) each step as it is completed. Boxes have been provided for this purpose under each step number.			
IF ANY S	STEP IN THIS PROCED	URE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.		
1.	New Primary NOAM VIP (former DR): 1) Launch an HTML5 compliant browser and connect to the XMI Virtual IP address (VIP) assigned to Primary Active NOAM site. 2) If a Certificate Error is received, click on the link which states "Continue to this website (not recommended)."	 A methy of the security certificate presented by this website was issued for a different website's address. The security certificate presented by this website was not issued by a trusted certificate authority. Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server. We recommend that you close this webpage and do not continue to this website. Click here to close this webpage. Continue to this website (not recommended). More information 		
2.	New Primary NOAM VIP (former DR): The user should be presented the login screen shown on the right. Login to the GUI using a User account with Administrator privileges.	Oracle System Login Wed Mar 1 18:53:06 2017 UTC Image: Content of the provided		



Step#	Procedure	Description	
6. 7.	Primary NOAM VIP: Verify that the dialogue button located at the bottom of the right panel changes text to "Disable Provisioning". Primary NOAM	NOAM Disable Provisioning Report It the button t the f the right anges text le ning". Disable Provisioning Report VIP to righnc-sds-NO-b (ACTIVE NETWORK OAM&P) U	
	Relay.	Check the PDB Relay Enabled option box.	
	Main Menu → Configurations	Main Menu Administration Configuration	nfiguration -> Options
	Alarms & Events Alarms	 Alarms & Events Security Log Status & Manage Measurements Communication Agent SDS Configuration 	V
		Options DRMP Connections NAI Hosts Destinations Domain Identifiers Destination Map Routing Entities Subscribers Blacklist	
		Click Apply.	
		The following confirmation message is received:	
		Main Menu: SDS -> Configuration	-> Options
		Info 🔻	
		Info 🛛 🛞	Value
		Data committed! Allow Connections	
		This Procedure has been completed. Return to F	<mark>igure 1</mark> .

6. Verifying Alarm Status (after failover)

Procedure 8: Verify Alarm Status (system wide) at the Active Primary NOAM

Step#	Procedure	Description	
This pro	cedure provides instruct	ions on verifying alarms at the Primary Active NOAM.	
Check o	Check off ($$) each step as it is completed. Boxes have been provided for this purpose under each step number.		
IF ANY S	STEP IN THIS PROCED	URE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.	
1.	New Primary NOAM VIP (former DR): 1) Launch an HTML5 compliant browser and connect to the XMI Virtual IP address (VIP) assigned to Primary Active NOAM site. 2) If a Certificate Error is received, click on the link which states "Continue to this website (not recommended)."	 https://10.75.160.132/ Intere is a problem with this website's security certificate. There is a problem with this website's security certificate. The security certificate presented by this website was issued for a different website's address. The security certificate presented by this website was not issued by a trusted certificate authority. Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server. We recommend that you close this webpage and do not continue to this website. Click here to close this webpage. Continue to this website (not recommended). More information 	
2.	New Primary NOAM VIP (former DR): The user should be presented the login screen shown on the right. Login to the GUI using a User account with Administrator privileges.	Oracle System Login Wed Mar 1 18:53:06 2017 UTC Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control of the System Login Image: Control	



Step#	Procedure	Description	
6.	Primary NOAM VIP: Monitor the current list of "Active" alarms until all alarms associated with the Failover have cleared.	Main Menu: Alarms & Events -> View Active Filter* Tasks freeport_SO_grp nassau_SO_grp rlghnc_NO_grp turks_SO	O_grp
		Event ID Timestamp S	everity
	NOTE: The User should allow at least	Alarm Text A	dditional
resulting alarms to clear before attempting any troubleshooting activities.			
7.	Primary NOAM VIP:	 Contact My Oracle Support (MOS) for assistance with any realarms which fail to clear within a 15 minute timeframe. 	eoccurring alarms or
	Contact Oracle's Tekelec Customer	Refer to APPENDIX A: Accessing My Oracle Support (MOS), for on contacting Oracle Customer Service.	or more information
	Care Center if needed.	NOTE: If alarms fail to clear that are related to features that use SSH ke transfer and the user wishes to re-enable them prior to performing a Fai original Primary/Secondary states, then the feature may be reconfigured feature's initial configuration procedures.	ey exchange based file ilover back to the I using the product
		Partial list of features that use SSH key exchange based file tra	ansfer:
		 SDS: provimport, provexport, APDE HLRR: PDE, APDE DSR: APDE 	
	, T	This Procedure has been completed. Return to Figure 1.	

7. Backout Procedures

Step#	Procedure	Description		
This proc	This procedure provides instructions on reversing Primary/DR NOAM Failover.			
Check off ($$) each step as it is completed. Boxes have been provided for this purpose under each step number.				
IF ANY S	STEP IN THIS PROCED	DURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.		
1.	Repeat Procedures in Figure 1.	The User should recognize that the Primary/Secondary NOAM states are now reversed from what they were prior to the previous execution of this procedure!!!		
		Insert the Site_1 and Site_2 names in the bottom of Figure 1 according to the real- time state (Primary/Secondary) for each NOAM site and follow the Flowchart.		
This Procedure has been completed.				

Procedure 9: Reversing Primary/Secondary NOAM Failover (Backout)

APPENDIX A: Accessing My Oracle Support (MOS)

My Oracle Support

My Oracle Support (MOS) (<u>https://support.oracle.com</u>) is your initial point of contact for all product support and training needs. A representative at Customer Access Support (CAS) can assist you with MOS registration.

Call the CAS main number at **1-800-223-1711** (toll-free in the US), or call the Oracle Support hotline for your local country from the list at <u>http://www.oracle.com/us/support/contact/index.html</u>. When calling, there are multiple layers of menus selections. Make the selections in the sequence shown below on the Support telephone menu:

- 1. For the first set of menu options, select 2, "New Service Request". You will hear another set of menu options.
- 2. In this set of menu options, select 3, "Hardware, Networking and Solaris Operating System Support". A third set of menu options begins.
- In the third set of options, select 2, "Non-technical issue". Then you will be connected to a live agent who can
 assist you with MOS registration and provide Support Identifiers. Simply mention you are a Tekelec Customer
 new to MOS.

MOS is available 24 hours a day, 7 days a week, and 365 days a year.

Emergency Response

In the event of a critical service situation, emergency response is offered by the CAS main number at **1-800-223-1711** (toll-free in the US), or by calling the Oracle Support hotline for your local country from the list at <u>http://www.oracle.com/us/support/contact/index.html</u>. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:

- A total system failure that results in loss of all transaction processing capability
- Significant reduction in system capacity or traffic handling capability
- · Loss of the system's ability to perform automatic system reconfiguration
- Inability to restart a processor or the system
- · Corruption of system databases that requires service affecting corrective actions
- · Loss of access for maintenance or recovery operations
- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Oracle.

Locate Product Documentation on the Oracle Help Center Site

Oracle customer documentation is available on the web at the Oracle Help Center (OHC) site, <u>http://docs.oracle.com</u>. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at <u>http://www.adobe.com</u>.

- 1. Access the OHC site at <u>http://docs.oracle.com</u>.
- 2. Click Industries.
- Under the Oracle Communications subheading, click the Oracle Communications documentation link. The Communications Documentation page appears. Most products covered by these documentation sets will appear under the headings "Network Session Delivery and Control Infrastructure" or "Platforms."
- 4. Click the Product and then the Release Number. A list of the entire documentation set for the selected product and release appears.

To download a file to your location, right-click the PDF link, select **Save target as** (or similar command based on your browser), and save to a local folder.