Symmetricom®

TimePictra™
Software Resiliency Option
Version 3.0

System Administrator's Guide

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Chapter 1 Introduction and General Information

Chapter 2 Installation and Configuration

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Chapter 3 Operating Scenarios and Troubleshooting (cont'd)

Introduction and General Information

This chapter provides information necessary to install, manage, and maintain the TimePictra Software Resiliency Option.

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In This Guide

This guide provides information necessary to manage and maintain the TimePictra Resiliency Option. This documentation assumes you have a basic understanding of HP-UX, TimePictra, and supporting platform.

Naming Conventions Used in this Guide

This guide uses several names to refer to the same objects. The usage of multiple terms for the same object helps define the relationship between objects in different situations. To establish naming conventions, the objects and their corresponding names are listed as shown in Table A.

Table A. Naming Conventions

Object	Names used for the object
TimePictra software	TimePictra software for HP-UX, TimePictra software, TimePictra
Resiliency Option	Resiliency Option, Resiliency, Replication option
Production server	Production server, TimePictra server, MDS, Primary Master
Secondary Master Site	Secondary Master, secondary, standby system
Secondary Master database	secondary database
HP-UX Workstation	TimePictra workstation, TimePictra system, host system, element manager

Description of the TimePictra Resiliency Option

The TimePictra Resiliency Option provides the ability to continually replicate Oracle database data from one server to a secondary server. This functionality provides an up-to-date backup system (Secondary Master) that can assume the production role (Primary Master) whenever there is a need. If the Primary Master fails or needs maintenance, the Secondary Master can act as the Primary Master until the original server is ready to resume control.

The Resiliency Option will replicate all database tables that are necessary for proper operations. Information outside the database, such as Unix login users, is not replicated and must be accounted for by the System Administrator.

Features of TimePictra Resiliency Option

The following features are included in the Resiliency Option software:

- The ability to continually replicate database information on a real-time basis from Production System to Backup System.

- An up-to-date backup system that can immediately assume control of the synchronization network should the primary system fail or require maintenance.

- A full set of internal utilities to take care of backend administration.

- A menu-driven interface that provides complete access to resiliency features and utilities.

- A status utility to see the current status and condition of resiliency operations.

Responsibilities of the System Administrator

The system administrator is responsible for maintenance of the TimePictra system and the Resiliency Option. This requires the system administrator to understand both the workstation hardware and all of the software installed in both the Primary and Secondary Master workstations.

Main Responsibilities of the System Administrator

The main responsibilities of the system administrator are:

1. Installing the Resiliency Option software.

2. Preparing both the Primary and Secondary Master workstations for Replication by using the *osmfadmin* utility.

3. Monitoring the condition of the Primary and Secondary Master systems using the health-check command (Status *osmfadmin* menu command).

4. Moving the Primary designation from the Primary Master to the Secondary Master (using the *osmfadmin* utility) when the Primary Master goes offline.

5. Stopping replication processes on the Primary Master workstation (using the *osmfadmin* utility) when the Primary Master workstation will be out of service for an extended period.

6. Stopping replication processes on the Primary or Secondary Master workstation as required.

7. Troubleshooting Resiliency Option problems.

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8. Ensuring that Unix-level user information is kept in synchronization on the Primary and Secondary Master workstations.

Installation and Configuration

This chapter provides information on installing and configuring the TimePictra Software Resiliency Option workstations.

Overview

The procedures in this chapter explain how to install the files that comprise the Resiliency Option and how to prepare the Primary and Secondary Master workstations for database replication.

Note: TimePictra software version 3.0, with appropriate patches, is a prerequisite for the Resiliency Option. Before installing the Resiliency Option, ensure that TimePictra software version 3.0 with appropriate patches is installed on both workstations.

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Installing the Resiliency Option on Primary and Secondary Masters

In order to access the files necessary for replication, a user needs to install TimePictra Resiliency Option from the CD provided by Symmetricom, Inc. The procedure for installing the TimePictra Resiliency Option is done using the standard HP-UX software install utility, "swinstall". Once the TimePictra Resiliency Option has been installed, the TimePictra Administration utility is used to enable and start Replication processes. This is done as user "otroot".

Prerequisites for Installing the Replication Option

The following prerequisites are needed for a first-time installation of the Replication Option:

1. TimePictra Software version 3.0 installed with all required patches on two different systems. One of the systems will act as primary and the other will act as secondary.

Note: Check the README_FIRST document that comes on the Resiliency Option CD for the most current requirements. This file will indicate which patches are required for proper operation.

2. TimePictra Resiliency Option CD should be available.

3. Both servers should be connected on the LAN and be able to communicate with each other.

4. Determination of which server will act as Primary Master should be made at this time.

Note: For additional information on required hardware and software for installing TimePictra, refer to the TimePictra Software System Administrator's Guide.

The installation procedure is same for both the Primary and Secondary Masters. During this procedure, files required to enable Replication are placed on the server. These files are then used by the "osmfadmin" script for replication administration.

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Installing the Replication Option on the Primary Master

Follow Procedure A to install the Replication Option on the Primary Master.

Procedure A. Installing Replication Option on the Primary Master

Step	Procedure
1	Log on as user **root** from the Primary Master.
2	The TimePictra Replication Option CD uses PFS format and requires the following steps to mount: a. Type **/usr/sbin/pfs_mountd &** b. Type **/usr/sbin/pfsd &** c. Type **vi/etc/pfs_fstab** *Note:* If this file already exists, skip to step e to create a file to be used by the PFS process to mount the PFS format CD. Edit this file to contain the following entry: /dev/dsk/c1t2d0 /SD_CDROM pfs-rrip xlat=unix 0 0 where /dev/dsk/c1t2d0 is the special device for the CDROM drive. If it is different for the system, then make changes to the entry accordingly. d. Type **chmod 775 /etc/pfs_fstab** to give read/write permission to user "root". e. Type **/usr/sbin/pfs_mount /SD_CDROM** to mount pfs format CD.
3	Type **export DISPLAY='hostname':0.0**.
4	Type **swinstall** to run the HP-UX software installer.
5	Select **Local CD ROM** from the **Specify Source** menu option.
6	Enter **/<cd_mount_directory>/DEPOT** under the **Source Depot Path** and click **OK**.
7	Select **TimePictra** from the list that pops up.
8	Click **Action > Install analysis**.
9	If analysis goes through successfully, click on **done** to start **TimePictra Resiliency Option installation**.
10	Click **Yes >** to proceed with installation.
11	Click on **done** when procedure is completed. Exit swinstall function.
12	Log out and close the shell.

End of Procedure

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Installing the Replication Option on the Secondary Master

Follow Procedure A to install the Replication Option on the Secondary Master.

Note: The HP-UX command *swinstall* is used to install all the required files for Replication. Resiliency has not been configured and activated.

Configure Remote Shell Parameters of Primary and Secondary Masters

Once Replication is installed, all replication administration functions are performed using the osmfadmin (TimePictra Administration Utility) script as user "otroot". The osmfadmin script can be used either from the Primary or Secondary Master to administer and change the replication configuration. For the purposes of Replication administration and maintenance (using the Primary Master), a user should have remote login capability on the Secondary Master, and the server needed to access the Secondary Master, as user "otroot" and vice versa. Privileges need to be granted to allow user "otroot" to access the Primary Master from the Secondary Master and to access the Secondary Master from the Primary Master.

Configuring the Primary Master to Allow Remote Shell Operation from the Secondary Master

Follow Procedure B to configure the Primary Master to allow remote shell operation from the Secondary Master.

Procedure B. Configuring the Primary Master to Allow Remote Shell Operation from the Secondary Master

Step	Procedure
1	Log on as user **otroot** on Primary Master.
2	Enter the following command: **vi /home/otroot/.rhosts**
3	Enter the following line into this file: **<Secondary Master hostname> otroot** Where <Secondary Master hostname> is the actual hostname of the Unix workstation.
4	Save the file.

Step	Procedure
5	Log into the machine acting as the Secondary Master as the otroot user, and give the following command: **remsh <Primary Master hostname>** A shell prompt should be displayed. Using the hostname command, verify that there has been a successful login to the machine acting as the Primary Master. If an error is displayed, verify that the syntax is correct and/or view the .rhosts manpage (man .rhosts).
6	Log out and close the shell.
	End of Procedure

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Configuring the Secondary Master to Allow Remote Shell Operation from the Primary Master

Follow Procedure C to configure the Secondary Master to allow remote shell operation from the Primary Master.

Procedure C. Configuring the Secondary Master to Allow Remote Shell Operation from the Primary Master

Step	Procedure
1	Log on as user **otroot** on Secondary Master.
2	Enter the following command: **vi /home/otroot/.rhosts**
3	Enter the following line into this file: **<Primary Master hostname> otroot** Where <Primary Master hostname> is the actual hostname of the Unix workstation.
4	Save the file.
5	Log into the machine acting as the Primary Master as the otroot user, and give the following command: **remsh <Secondary Master hostname>** A shell prompt should be displayed. Using the hostname command, verify that there has been a successful login to the machine acting as the Secondary Master. If an error is displayed, verify that the syntax is correct and/or view the .rhosts manpage (man .rhosts).
6	Log out and close the shell.
	End of Procedure

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The Replication installation and commissioning is complete. The user can now use the replication status option to see status on either of the workstations.

Enable Replication on Primary and Secondary Masters

Once Resiliency Option files are installed on both servers, it is time to configure the roles of each server. The determination of which workstation will be the primary master, and act as the production server in normal operating conditions, must be finalized before enabling and starting replication. Keep the following concepts in mind when making this determination.

The Production server is the server from which TimePictra will be running and is actively managing network elements. The Production server can be setup to run from the Primary Master or the Secondary Master servers. There can be only one active production server at any given time. Network elements should never be managed by both the Primary Master and Secondary Master servers at the same time. Precautions are in place to help avoid this circumstance, but it is possible for the user to override this and have both servers trying to communicate with the network elements. This situation can lead to database inconsistency and loss of data and must be avoided. The role of the Production server must be known by all management functions and a clear process must be incorporated when switching roles of the servers.

The Primary Master (PM) is the server which will normally be running as the Production server. The PM will replicate data to the Secondary Master, if both servers are running replication and a communication link is available. In normal operating conditions, the TimePictra daemons are up and running on this server.

The Secondary Master (SM) will act as the stand-by system and be ready to assume the role of Production server when needed. In normal operation conditions, the TimePictra daemons are not running on this server.

Prerequisites

1. Determination of PM and SM roles are assigned to workstations.

2. Communication link and permissions are in place.

3. TimePictra daemons are not running.

4. Oracle database is up and running.

Notes:

1. Enable or Disable are replication configuration change operations, and are only allowed if both the Primary and Secondary Masters have Replication installed (plus their databases are running) and are able to communicate through *remsh* with each other.

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2. User is not allowed to enable replication on the Secondary Master if replication has not yet been enabled on the Primary Master.

Enable and Start Replication on Primary and Secondary Masters

Procedure D describes how to enable Replication on a Primary Master and Secondary Master.

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Procedure D. Enabling Replication on Primary Master and Secondary Master

Step	Procedure
1	Log on as user **otroot** from Primary Master.
2	Type **/opt/osmf/utils/osmfadmin** to run the osmfadmin script.
3	Select **Replication Server Administration** option.
4	Select **Enable/Disable Replication**. *Note:* If Replication was never enabled on the local machine, this option would prompt a user to enter the valid hostname for the Primary Master and Secondary Master.
5	Select **Enable and Start Replication on Primary Master** to enable replication on Primary Master server. Once operation is successfully completed, it would prompt the user to select **Enable and Start Replication on Secondary Master**. Selecting **Y** or **y** would enable and start replication on the Seondary Master. *Notes:* 1. Check output for any error. If the operation is unsuccessful, look at the error message generated and make necessary corrections. 2. The process of enabling Replication on the Secondary Master will stop Oracle Web Server and TimePictra processes if these operations are running. 3. Oracle Web Server or TimePictra processes cannot be started on the Secondary Server if Replication is running on it. 4. The user needs to start TimePictra processes on the Primary Master once Replication is enabled on it.

End of Procedure

Status of Replication

Once replication is started, the Primary Master will send snapshot updates to the Secondary Master on a regular basis. The status of replication may be monitored from both the Primary Master and Secondary Master. The status utility will check connection between PM and SM, process status, and condition of database during the check. The system administrator is responsible for monitoring the status of the TimePictra servers as well as the state of replication. The Administrator should always be aware which server is the PM and which is the SM. The status of replication should be checked frequently to ensure all is well.

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The status of replication may be viewed by using the osmfadmin utility. To view the status of replication operations and process status, use the "Status of Replication" choice under the "Replication Administration" menu in osmfadmin.

Checking Resiliency Status

The *osmfadmin* **Status of Replication** option reports the following:

- whether Replication processes are running

- whether both the Primary Master and the Secondary Master are available and communicating.

Procedure E describes how to check Resiliency status.

Procedure E. Checking Resiliency Status

Step	Procedure
1	Log on as user **otroot** from any one machine (either Primary Master or Secondary Master).
2	Type **/opt/osmf/utils/osmfadmin** to run the osmfadmin script.
3	Select **Replication Server Administration** option.

4	Select **Replication Status**. Sample output of the Replication Status command is shown below:
	
	``
	Verifying Server Configuration. Please wait ...
	Replication status
	Role Status Server
	Primary_Master up demo1
	Secondary_Master up demo3
	##
	Status Primary_Master:
	
	     JOB WHAT B LAST_DATE NEXT_DATE
	--------- ------------------------- - ---------------- -----------------
	     761 begin mv_repd_master.do; N 02-03-29 11:32:30
	         end;
	Status Secondary_Master:
	
	Last Resync : 02-03-29 14:38:59
	##
	``
	
	Note: Check output for any error. If the operation is unsuccessful, look at the error message generated and make necessary corrections.

End of Procedure

Operating Scenarios and Troubleshooting

This chapter provides information on failure recovery methods and troubleshooting aids.

Chapter 3

Overview

The information in this chapter describes what steps the system administrator should take if a problem or condition exists which affects normal operating conditions.

The following scenarios will be described:

1. Primary Master is up, Secondary Master is up.

2. Primary Master is down, Secondary Master is up.

3. Relocation of Primary Master to Secondary Master.

4. Replication is automatically stopped due to communication loss.

5. Primary Master is up, Secondary Master is down.

3 Replication Server Administration

All replication administration and configuration is done with the TimePictra admin utility *osmfadmin*. Situations described in the following scenarios will require the use of *osmfadmin* to remedy the issue. The system administrator should become comfortable using this utility and understand the impact of each menu choice. Some situations can lead to data loss if the user does not understand the impact of the menu choice. The osmfadmin includes the following replication menu choices:

Replication Administration Menu

- Replication Process Status

- Synchronize Secondary Master Database

- Relocate Production Database on Secondary Master to Primary Master

- Configure Secondary Master acting as Production Server to role of Primary Master

- Relocate Primary Master Database

- Enable/Disable Replication

    - Enable & Start Replication on Primary Master

    - Enable & Start Replication on Secondary Master

    - Disable/Stop Replication on Primary Master

    - Disable/Stop Replication on Secondary Master

- Replication Help

Each menu operation is described below.

Replication Process status

Will show the status of replication processes, hostname designation of Primary Master and Secondary Master, and time of last snapshot update.

Synchronize Secondary Master Database

Will copy snapshot database tables to main database tables on Secondary Master. This action will erase any data contained in the secondary database and replace it with snapshot information which was delivered from the Primary Master. The operation performs no action on the Primary Master.

Relocate Production Database on Secondary Master to Primary Master

Copy Secondary Master database, which is acting as Production Server, to Primary Master. This operation is used to switch back to PM after using the SM as production server for any given period of time.

Configure Secondary Master acting as Production Server to Role of Primary Master

Secondary Master Database acting as Production server would be upgraded to role of Primary Master, and its database will be treated as Production Database. Existing Primary Master role would be changed to Secondary Master.

Relocate Primary Master Database

This operation will switch the roles of Primary Master and Secondary Master. This is used when TimePictra management operations need to relocate from one server to the other.

Enable & Start Replication on Primary Master

Will enable and start the replication process on PM. This is normally done at installation and activation time.

Enable & Start Replication on Secondary Master

Will enable and start the replication process on SM. This is normally done at installation and activation time.

Disable/Stop Replication on Primary Master

Will disable and stop the replication process on PM. This option is normally not used, but is available for troubleshooting and system administration control.

Disable/Stop Replication on Secondary Master

Will disable and stop the replication process on SM. This option is normally not used, but is available for troubleshooting and system administration control.

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Replication Help

Any additional documentation which may be of use.

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Operating Scenarios

Scenario 1

Normal operating condition. Primary Master is serving as production server and replicating data to Secondary Master. The Primary Master is running the TimePictra application.

State of TimePictra-related functions

Hostname	Tp1	Tp2
Function	PM	SM
Database	Up	Up
TP daemons	Up	Down
Replication	Up	Up
Web Server	Up	Down
OV daemons	Up	Either
Ethernet	Up	Up

Prerequisites

Successful installation of TimePictra and Resiliency Option.

Required Action

Normal system administration monitoring.

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Scenario 2

Primary Master has failed and cannot perform as production server. Secondary Master was up when PM failed.

Note: Failure on PM may also be related to other factors such as power failure or network being down.

State of TimePictra-related functions

Hostname	Tp1	Tp2
Function	PM	SM
Database	?	Up
TP daemons	?	Down
Replication	?	Up
Web Server	?	Down
OV daemons	?	Either
Ethernet	?	Up

Prerequisites

1. Verify that failure exists and transition to backup server is really needed.

2. Communicate intention to user community.

Required Action

1. Determine issue with Primary Master. If estimated PM downtime exceeds process recommendation, then have Secondary Master assume role of production server.

   a. Use *osmfadmin* to run "Synchronize Secondary Master" in the Replication Administration menu.

   b. Use *osmfadmin* to run "Startup Timepictra daemons" in Database Administration menu on Secondary Master acting as Production server.

   c. Use *osmfadmin* to run "Start Web Server" in "Web Server Administration" on Secondary Master acting as Production server.

   d. Resume network monitoring using TimePictra application.

Estimated Time of Action 1

Less than 5 minutes.

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State of TimePictra-related functions after Action 1

Hostname	Tp1	Tp2
Function	PM	SM
Database	?	Up
TP daemons	?	Up
Replication	?	Down
Web Server	?	Up
OV daemons	?	Either
Ethernet	?	Up

2. When Primary Master issue has been resolved, there are two options that may be used:

   a. Relocate Production Database on Secondary Master to Primary Master.

Note: Use this option when Production server needs to move back to original server to resume normal operating conditions.

   b. Update Secondary Master acting as Production server to role of Primary Master. Existing Primary Master would then perform the role of Secondary Master.

Note: Use this option when the Production server needs to stay in current location for a period of time and normal operating conditions need to resume.

Option a

- Use *osmfadmin* to run "Relocate Production Database on Secondary Master to Primary Master" in Replication Server Administration.

- Use *osmfadmin* to "Stop Web Server" in Web Server Administration on Secondary Master

- Use *osmfadmin* to run "Startup Timepictra daemons" in Database Administration menu on Primary Master.

- Use *osmfadmin* to run "Start Web Server" in Web Server Administration on Primary Master.

- Resume network monitoring using TimePictra application.

Estimated time of Action 2

Less than 30 minutes.

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State of TimePictra-related functions after Action 2 option a

Hostname	Tp1	Tp2
Function	PM	SM
Database	Up	Up
TP daemons	Up	Down
Replication	Up	Up
Web Server	Up	Down
OV daemons	Up	Either
Ethernet	Up	Up

Option b

- Use *osmfadmin* to run "Configure Secondary Master acting as Production Server to Role of Primary Master" in Replication Server Administration.

- Use *osmfadmin* to run "Startup Timepictra daemons" in Database Administration menu on Primary Master.

- Use *osmfadmin* to run "Start Web Server" in Web Server Administration on Primary Master.

- Resume network monitoring using TimePictra application.

Estimated time of Action 2

Less than 30 minutes.

State of TimePictra-related functions after Action 2 option b

Hostname	Tp2	Tp1
Function	PM	SM
Database	Up	Up
TP daemons	Up	Down
Replication	Up	Up
Web Server	Up	Down
OV daemons	Up	Either
Ethernet	Up	Up

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Scenario 3

Both servers are operating in normal conditions. The Primary Master may need to move from one location to another, or normal IT maintenance may be scheduled. It may be desirable to relocate the role of Primary Master to the Secondary Master during this period. In this case, the PM will become the SM and the SM will become the PM. This process is called Relocation of Primary Master.

State of TimePictra-related functions

Hostname	Tp1	Tp2
Function	PM	SM
Database	Up	Up
TP daemons	Up	Down
Replication	Up	Up
Web Server	Up	Down
OV daemons	Up	Either
Ethernet	Up	Up

Prerequisites

TimePictra daemons will be shutdown during this operation. Users must log off and will not have access to TimePictra.

Required Action

1. Schedule transition time for this operation.

2. Use osmfadmin to "Stop Web Server" in Web Server Administration on Primary Master.

3. Use *osmfadmin* and run the "Relocate Primary Master Database" under the Replication Administration menu.

4. Use *osmfadmin* to run "Startup TimePictra daemons" in Database Administration menu on Primary Master.

5. Use *osmfadmin* to run "Start Web Server" in Web Server Administration on Primary Master.

Estimated Time of Operation

Less than 30 minutes.

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State of TimePictra-related Functions after Action

Hostname	Tp2	Tp1
Function	PM	SM
Database	Up	Up
TP daemons	Up	Down
Replication	Up	Up
Web Server	Up	Down
OV daemons	Up	Either
Ethernet	Up	Up

Note: PM will now reside on the workstation that was previously the SM.

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Scenario 4

Normal operating conditions are in place and some issue, such as loss of DCN, has prevented communication between PM and SM servers. Replication has been automatically disabled due to this prolonged condition. The following condition will trigger this automatic process on the Primary Master:

- Loss of communication between PM and SM for over 24 hours.

State of TimePictra-related functions

Hostname	Tp1	Tp2
Function	PM	SM
Database	Up	Up
TP daemons	Up	Down
Replication	Down	Up
Web Server	Up	Down
OV daemons	Up	Down
Ethernet	Down	?

3

Required Action

1. Remedy the communication issue between the PM and SM.

2. Use *osmfadmin* to run "Enable & Start Replication on Primary Master" under Replication Management menu.

3. Use *osmfadmin* to run "Status" in main menu to verify status of replication and TimePictra daemons.

4. Start TimePictra and resume normal operating conditions on Primary Master.

Estimated Time of Operation

Less than 5 minutes.

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State of TimePictra-related Functions after Action

Hostname	Tp1	Tp2
Function	PM	SM
Database	Up	Up
TP daemons	Up	Down
Replication	Up	Up
Web Server	Up	Down
OV daemons	Up	Down
Ethernet	Up	Up

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Scenario 5

Secondary Master is down because of any of the following reasons:

1. Network is down

2. Power failure

3. Unscheduled maintenance

4. System problems

State of TimePictra-related functions

Hostname	Tp1	Tp2
Function	PM	SM
Database	Up	?
TP daemons	Up	Down
Replication	Up	?
Web Server	Up	Down
OV daemons	Up	Down
Ethernet	Up	?

Required Action

1. Determine the issue with the Secondary Master and estimate how long SM will be unavailable.

2. The system administrator can take one of the following actions:

   a. Allow the Primary Master to continue as is and keep running in replication mode. When the Secondary Master is restored and running again, replication will resume as normal.

   b. If the Secondary Master is going to be down for more than 24 hours:

   • Use osmfadmin to run "Disable and Stop Replication on the Primary Master" in Replication Management menu.

   • Start TimePictra Processes on Primary Master using osmfadmin utility and continue TimePictra management operations on PM until SM issue is resolved.

   • When the SM is restored, use osmfadmin to run "Enable & Start Replication on Primary Master" in Replication Management menu.

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- Start TimePictra Processes on Primary Master using osmfadmin to continue normal operation conditions on Primary Master.

Estimated Time on Operation for Action B

Less than 30 minutes.

State of TimePictra-related functions after Action B

Hostname	Tp1	Tp2
Function	PM	SM
Database	Up	Up
TP daemons	Up	Down
Replication	Up	Up
Web Server	Up	Down
OV daemons	Up	Either
Ethernet	Up	Up

TimePictra Database Tables

The following tables represent the data which is needed to facilitate duplication of systems.

PM_LOG

TL1_CMDS

NE_FILTER

PASSTHRU_CMDS

SESSION_NE_FILTER

SESSION_TYPE_FILTER

TYPE_FILTER

USER_PREFS

USER_SEVERITY_MAP

TEMPLATE_CMDS

TEMPLATES

ACTION_ASSOCIATION

ACTION_DESCRIPTION

ALM_EVTS

NES_ST

NES_TEMPLATE

CARDS

OUTPUT_PORTS2

CH_THRESHOLDS

INPUT_CH

INVENTORIES

TR_LOG

CURRENT_ALARMS

GROUPS

NES

USER_PROFILES

VF

HISTORIC_EVENTS

PO

SO

VW

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Known Issues

1. Once the Secondary Master has been prepared from the Primary Master, automatic events from PRR10 netype would no longer be logged in Event History, if the events reported already exist on NE.

2. After the Secondary Master has been prepared from the Primary Master, an attempt to start TimePictra processes might lead to: "TRUNCATE TABLE mv_status_notifications". If this happens, OV Alert Daemon might not come up. To fix the problem, stop TimePictra, stop Openview, start Openview, and start TimePictra. The sample output is as follows:

```
Starting SE Monitoring Daemon...
Sending output to /home/otroot/nohup.out
Starting Command Dispatcher...
Sending output to /home/otroot/nohup.out
Starting Event Receiver...
Starting Event Action...
Sending output to /home/otroot/nohup.out
TRUNCATE TABLE mv_status_notifications
ERROR at line 1:
ORA-00054: resource busy and acquire with NOWAIT specified
Starting OV Command Processor...
Sending output to /home/otroot/nohup.out
Starting OV Alert...
Sending output to /home/otroot/nohup.out
```

3. Once the relocation operation is performed, the user might see one or two NE displayed in red in Openview (a different color from their Launch Pad counterpart). NE status would be corrected after the next Automatic Alarm Sync. Or the user can execute the **resync_alarms.ks** script provided under **/opt/osmf/DB/admin** to revalidate Network Element severity status.

4. Positional data for "Root" level Openview maps is not replicated. (This refers to the X, Y coordinates of each Network Element and Domain Icon on the top level Openview map.) Openview APIs do not allow access to this data and thus this information is not transferred between Primary and Secondary machines. If positional data is desired at the top level, it is recommended that one domain be created at the "Root" level and create the sync network layout within this domain. All positional data will be replicated beneath this level.

32 (End)

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