

Change Preferred Role in Active-Standby Geographical Redundancy

Ericsson Service-Aware Policy Controller

OPERATING INSTRUCTION

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1 Description

This instruction describes how to change Preferred role in Geographical redundancy in the SAPC.

1.1 Prerequisites

This section provides information of the prerequisites which must be fulfilled before using the procedure.

The following conditions must apply:

- Understand geographical redundancy functionality.
- Both SAPCs are not in Initial state.





2 Procedures

2.1 Configure Active SAPC as Preferred

The following figure shows the procedure to configure Active SAPC as Preferred:

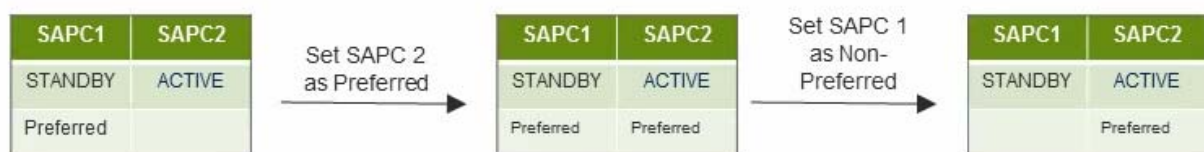


Figure 1 Procedure of configuring Active SAPC as Preferred

To configure Active SAPC as Preferred, do the following:

1. Connect to SAPC2 and open an Ericsson Command-Line Interface (CLI) session.
2. Navigate to `class GeoRedManager` object:

```
>dn ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1
```

3. Execute `setConfig` action:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>
setConfig --preferred true
```

4. Verify the result of the action:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>show
```

Note: Since this is a long-running operation, it can be required to enter `show` command several times until the final operation result is shown in the progress report.

When the operation is successfully executed, it shows the following values:

```
lastOperationExecuted=SET
```

```
lastOperationResult=ACTION_RESULT_OK
```

If an error occurs during the execution of the operation, it shows the following values.

```
lastOperationExecuted=SET
```

```
lastOperationResult=ACTION_RESULT_NOT_OK
```



Attribute `lastOperationDetailedInfo` shows more specific information about the error. It can take one of these values:

- Already configured as Preferred
- Internal error updating Preferred value
- Not possible to execute set action from <state> state

5. Check Preferred role configuration:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>  
showConfiguration
```

Verify that the attribute `Role` has Preferred value.

6. Connect to SAPC1 and open an Ericsson Command-Line Interface (CLI) session.

7. Navigate to `class GeoRedManager` object:

```
>dn ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1
```

8. Execute `setConfig` action:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>  
setConfig --preferred false
```

9. Verify the result of the action:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>show
```

Note: Since this is a long-running operation, it can be required to enter `show` command several times until the final operation result is shown in the progress report.

When the operation is successfully executed, it shows the following values:

```
lastOperationExecuted=SET
```

```
lastOperationResult=ACTION_RESULT_OK
```

If an error occurs during the execution of the operation, it shows the following values.

```
lastOperationExecuted=SET
```

```
lastOperationResult=ACTION_RESULT_NOT_OK
```

Attribute `lastOperationDetailedInfo` shows information about the error. It can take one of these values:

- Already configured as Non-Preferred



- Internal error updating Preferred value
- Not possible to execute set action from <state> state

10. Check Preferred role configuration:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>
showConfiguration
```

Verify that the attribute Role has Non-Preferred value.

2.2 Configure Standby SAPC as Preferred

The following figure shows the procedure to configure Standby SAPC as Preferred:

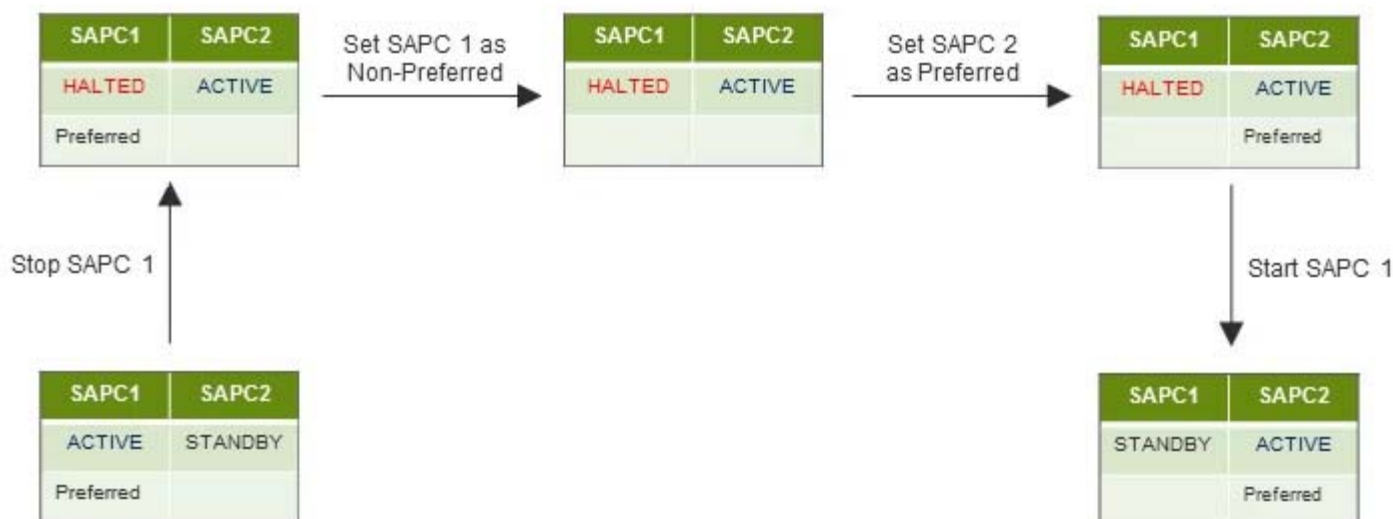


Figure 2 Procedure of configuring Standby SAPC as Preferred

To configure Standby SAPC as Preferred, do the following:

1. Connect to SAPC1 and open an Ericsson Command-Line Interface (CLI) session.
2. Navigate to `class GeoRedManager` object:

```
>dn ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1
```

3. Execute stop action:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>
stop
```

If action was successfully executed, data replication stops until start command is executed.



During this period, DBS, NR, Redundancy Disabled alarm is raised. Also, SAPC2 raises Policy Control, Geographical Redundancy Unable To Reach Peer alarm.

SAPC2 changes to Active state to take over.

4. Verify the result of the action:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>show
```

Note: Since this is a long-running operation, it can be required to enter show command several times until the final operation result is shown in the progress report.

When the operation is successfully executed, it shows the following values:

```
lastOperationExecuted=STOP
```

```
lastOperationResult=ACTION_RESULT_OK
```

To check the status of the SAPC1, verify that the attribute currentState is in Halted state.

If an error occurs during the execution of the operation, it shows the following values:

```
lastOperationExecuted=STOP
```

```
lastOperationResult=ACTION_RESULT_NOT_OK
```

Attribute lastOperationDetailedInfo shows information about the error. It can take one of these values:

- Already in Halted state
- Not possible to execute stop action from <state> state
- Not possible to execute stop action when peer is initial or halted state

5. Execute setConfig action:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>  
setConfig --preferred false
```

6. Verify the result of the action:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>show
```

Note: Since this is a long-running operation, it can be required to enter show command several times until the final operation result is shown in the progress report.



When the operation is successfully executed, it shows the following values:

```
lastOperationExecuted=SET
```

```
lastOperationResult=ACTION_RESULT_OK
```

If an error occurs during the execution of the operation, it shows the following values.

```
lastOperationExecuted=SET
```

```
lastOperationResult=ACTION_RESULT_NOT_OK
```

Attribute `lastOperationDetailedInfo` shows more specific information about the error. It can take one of these values:

- Already configured as Preferred
- Internal error updating Preferred value
- Not possible to execute set action from <state> state

7. Check Preferred role configuration:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>  
showConfiguration
```

Verify that the attribute Role has Non-Preferred value.

8. Connect to SAPC2 and open an Ericsson Command-Line Interface (CLI) session.

9. Navigate to `class GeoRedManager` object:

```
>dn ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1
```

10. Execute `setConfig` action:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>  
setConfig --preferred true
```

11. Verify the result of the action:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>show
```

Note: Since this is a long-running operation, it can be required to enter `show` command several times until the final operation result is shown in the progress report.

When the operation is successfully executed, it shows the following values:

```
lastOperationExecuted=SET
```

```
lastOperationResult=ACTION_RESULT_OK
```



If an error occurs during the execution of the operation, it shows the following values.

```
lastOperationExecuted=SET
```

```
lastOperationResult=ACTION_RESULT_NOT_OK
```

Attribute `lastOperationDetailedInfo` shows information about the error. It can take one of these values:

- Already configured as Non-Preferred
- Internal error updating Preferred value
- Not possible to execute set action from <state> state

12. Check Preferred role configuration:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>  
showConfiguration
```

Verify that the attribute `Role` has Preferred value.

13. Connect again to SAPC1 and open an Ericsson Command-Line Interface (CLI) session:

14. Navigate to `class GeoRedManager` object:

```
>dn ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1
```

15. Execute start action:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>  
start
```

If action was successfully executed, data replication starts and SAPC2 synchronizes with SAPC1.

DBS, NR, Redundancy Disabled alarm is cleared. SAPC2 clears Policy Control, Geographical Redundancy Unable To Reach Peer alarm.

16. Verify the result of the action:

```
(ManagedElement=1,PolicyControlFunction=1,GeoRedManager=1)>show
```

Note: Since this is a long-running operation, it can be required to enter `show` command several times until the final operation result is shown in the progress report.

When the operation is successfully executed, it shows the following values:

```
lastOperationExecuted=START
```

```
lastOperationResult=ACTION_RESULT_OK
```



To check the status of the node, verify that the attribute `currentState` is not `Halted`.

If an error occurs during the execution of the operation, it shows the following values:

`lastOperationExecuted=START`

`lastOperationResult=ACTION_RESULT_NOT_OK`

Attribute `lastOperationDetailedInfo` shows information about the error. It can take one of these values:

- Not possible to execute start action from `<state>` state
- Parameter `<parameter>` not valid