

Configuring SBC to Use External PSX

The SBC can be configured to operate with up to nine active policy servers for load sharing and/or redundancy in a Centralized PSX routing scenario.

Policy requests are distributed among active PSXs via the round robin process. When an active PSX becomes congested, the SBC applies call-gapping to distribute any overflow traffic to an uncongested active server in the pool, or else to an uncongested standby server. For example, if a PSX becomes congested such that only three out of four transactions get through, then one out of four transactions skip the server and overflow to another server in the 'Active' state.

The SBC promotes a standby PSX to 'Active' status whenever one of the currently-active PSX goes out-of-service or becomes unreachable.

Procedure

This section provides examples of the steps an administrator uses from CLI and EMA to configure the SBC to communicate with external PSX policy servers in 'Active', 'Standby' or 'Alternate' modes.

⚠ When configuring external PSXs for Centralized PSX routing, it is highly recommended to put the local policy server (ERE) out-of-service.

1. Set the local policy server mode to "outOfService".

a. CLI:

```
% set system policyServer localServer PSX_LOCAL_SERVER mode outOfService
% show system policyServer localServer PSX_LOCAL_SERVER
state          enabled;
mode           outOfService;
action         dryUp;
transactionTimer 2500;
keepAliveTimer 5;
retryTimer     2500;
retries        1;
```

- b. On SBC main screen, navigate to **Configuration > System Setup > Policy Server > Local Server**. The **Local Server** window is displayed.

Figure 1: Local Server

Name	State	Mode	Action	Transaction Timer	Keep Alive Timer	Retry Timer	Retries
PSX_LOCAL_SERVER	Enabled	Active	Dry Up	2500	5	2500	1

2. Set the global configuration.

a. CLI:

```

% set system policyServer globalConfig reconnectTimeout 10 switchOverMode automatic
congestionControl enabled type mgmt mgmtInterfaceGroup mgmtGroup
% show system policyServer globalConfig
reconnectTimeout    10;
switchOverMode      automatic;
congestionControl   enabled;
type                 mgmt;
mgmtInterfaceGroup  mgmtGroup

```

- b. On SBC main screen, navigate to **Configuration > System Setup > Policy Server > Global Config**. The **Global Config** window is displayed.

Figure 2: Global Config (Type: mgmt)

Figure 3: Global Config (Type: ip)

3. To configure an external PSX as an Active remote policy server, use settings similar to the example below:

- a. CLI:

```

% set system policyServer remoteServer PSX1-A ipAddress 10.20.123.12 state enabled mode
active
% show system policyServer remoteServer PSX1-A
ipAddress 10.20.123.12;
state enabled;
mode active;

```

- b. On SBC main screen, navigate to **Configuration > System Setup > Policy Server > Remote Server**. The **Remote Server** window is displayed.

Figure 4: Remote Server (in Active mode)

Name *	<input type="text" value="RemoteServer1"/>	(up to 23 characters)
Ip Address *	<input type="text" value="10.20.123.12"/>	
Port Number	<input type="text" value="3055"/>	(1 - 65535)
State	<input type="radio"/> disabled <input checked="" type="radio"/> enabled	
Mode	active	
Action	<input checked="" type="radio"/> dryUp <input type="radio"/> force	
Transaction Timer	<input type="text" value="2500"/>	(50 - 60000)
Keep Alive Timer	<input type="text" value="5"/>	(1 - 60)
Retry Timer	<input type="text" value="2500"/>	(50 - 60000)
Retries	<input type="text" value="1"/>	(0 - 32)
Sub Port Number	<input type="text" value="3053"/>	(1 - 65535)

*Required Field

4. To configure an external PSX as a Standby remote policy server, repeat step 3 except set Mode to "standby".

a. CLI:

```
% set system policyServer remoteServer PSX1-B ipAddress 10.20.123.13 state enabled mode standby
% show system policyServer remoteServer PSX1-B
ipAddress 10.20.123.13;
state enabled;
mode standby;
```

b. On SBC main screen, navigate to **Configuration > System Setup > Policy Server > Remote Server**. The **Remote Server** window is displayed.

Figure 5: Remote Server (in Standby mode)

Name *	RemoteServer2	(up to 23 characters)
Ip Address *	10.20.123.13	
Port Number	3055	(1 - 65535)
State	<input type="radio"/> disabled <input checked="" type="radio"/> enabled	
Mode	standby	
Action	<input checked="" type="radio"/> dryUp <input type="radio"/> force	
Transaction Timer	2500	(50 - 60000)
Keep Alive Timer	5	(1 - 60)
Retry Timer	2500	(50 - 60000)
Retries	1	(0 - 32)
Sub Port Number	3053	(1 - 65535)

*Required Field

5. To optionally configure SBC to communicate with a remote policy server that will not receive any query messages from the SBC but can still send messages to it, set the remote policy server mode to "alternate".

This deployment model is intended for networks where PSXs are interacting with an SCP which may generate and deliver unsolicited mid-call action events to the SBX via the PSX. In other words, this model connects SBC to PSXs not directly used by the SBC to route calls so that it may receive SCP-generated mid-call action events from those PSXs.

- a. CLI:












```

% set system policyServer remoteServer PSX2-A ipAddress 10.20.123.14 state enabled mode
alternate
% show system policyServer remoteServer PSX2-A
ipAddress 10.20.123.14;
state      enabled;
mode      alternate;

```

- b. On SBC main screen, navigate to **Configuration > System Setup > Policy Server > Remote Server**. The **Remote Server** window is displayed.

Figure 6: Remote Server (in Alternate mode)

 Name *	<input type="text" value="RemoteServer3"/>	(up to 23 characters)
 Ip Address *	<input type="text" value="10.20.123.14"/>	
 Port Number	<input type="text" value="3055"/>	(1 - 65535)
 State	<input type="radio"/> disabled <input checked="" type="radio"/> enabled	
 Mode	alternate ▾	
 Action	<input checked="" type="radio"/> dryUp <input type="radio"/> force	
 Transaction Timer	<input type="text" value="2500"/>	(50 - 60000)
 Keep Alive Timer	<input type="text" value="5"/>	(1 - 60)
 Retry Timer	<input type="text" value="2500"/>	(50 - 60000)
 Retries	<input type="text" value="1"/>	(0 - 32)
 Sub Port Number	<input type="text" value="3053"/>	(1 - 65535)

*Required Field

For a complete list of commands and parameters, please refer to either the [CLI Reference Guide](#) or [EMA User Guide](#).

