

снарте 7

Configuring Cisco ANA Units

This chapter describes customizing protection groups, configuring units for high availability and configuring standby units.

- Customizing Protection Groups, page 4-1—Describes how to customize protection groups for units.
- Configuring a Unit's Protection Group and High Availability, page 4-2—Describes how to assign a unit to a protection group and enable the unit for high availability.
- Configuring Standby Units, page 4-4—Describes how to create standby units and assign them to protection groups.
- Checking the Assignment of Units to Protection Groups, page 4-5—Describes how to view the current assignments of units to protection groups.
- Changing a Unit's Protection Group, page 4-5—Describes how to change the protection group allocation of a unit.
- Viewing and Editing Protection Group Properties, page 4-6—Describes how to view or edit the properties of a protection group.
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Customizing Protection Groups

By default all the units in the Cisco ANA fabric belong to one big cluster. The administrator can change the default setup of the units by customizing protection groups (clusters) and then assigning units to these groups.

To customize a protection group:

- **Step 1** Select the Global Settings branch in the Cisco ANA Manage window's tree pane. The Global Settings branch is displayed.
- **Step 2** Expand the Global Settings branch and select the Protection Groups sub-branch.

Right-click to display the shortcut menu and select New Protection Group, Step 3 or On the toolbar click New Protection Group, or From the File menu select New Protection Group. The New Protection Group dialog box is displayed. Step 4 Enter the name of the protection group in the Name field. Step 5 Enter a description for the protection group in the **Description** field (optional). Step 6 Click **OK**. The new protection group is displayed in the workspace of the Cisco ANA Manage window. The workspace displays all the currently defined protection groups. Note The **default-pg** protection group displayed in the workspace is the default protection group (cluster), to

Configuring a Unit's Protection Group and High Availability

which, by default, all the units in the Cisco ANA fabric belong.

The administrator can change the default settings of a unit and assign it to a customized protection group. For more information about customizing protection groups see Customizing Protection Groups, page 4-1.

In addition, the administrator can enable or disable high availability for a unit. In other words, these settings enable the administrator to define to which protection group a unit is assigned and whether it is enabled for high availability.

Note

By default, all the units in the Cisco ANA fabric belong to one big cluster, namely, the **default-pg** protection group, and High Availability is enabled.

Advanced configurations can be found in the registry to:

- Enable or disable the Watchdog protocol for each process, including timeouts for discovery when the process is down.
- Control the timeouts for detecting when a unit is down.

For further information, contact your nearest Cisco representative.

To configure a unit:

Step 1 Select the Cisco ANA Servers branch in the Cisco ANA Manage window's tree pane. The Cisco ANA Servers branch is displayed.

Step 2 Right-click to display the shortcut menu and select New Cisco ANA Unit,

or

On the toolbar click New Cisco ANA Unit

or

From the File menu select New Cisco ANA Unit.

The Cisco ANA Unit dialog box is displayed.

Step 3 Enter the IP address of the new unit in the **IP Address** field.

Note

For a detailed description on configuring units see the Cisco Active Network Abstraction Administrator Guide.

The **Enable Unit Protection** checkbox enables the administrator to define whether a unit is enabled (checkbox is selected) for high availability. This option is selected by default.



Note It is highly recommended that the user does not disable this option.

The **Standby Unit** checkbox enables the administrator to define whether a unit is defined (checkbox is selected) as a standby unit.

The **Protection Group** dropdown list displays the current list of customized protection groups. For more information about defining a new protection group see Customizing Protection Groups, page 4-1.

- **Step 4** Confirm the **Enable Unit Protection** checkbox is selected to enable high availability.
- Step 5 Select the required protection group from the Protection Group dropdown list.
- Step 6 Confirm the real IP address of the gateway appears in the Gateway IP field.
- **Step 7** Click **OK**. The new unit is displayed in the tree pane and the workspace of the Cisco ANA Manage window.

If the new unit is installed and reachable it will start automatically. The unit is registered with the gateway. Specifically, the command creates the configuration registry for the new unit in the Golden Source. (For more information on the Golden Source registry see the Cisco Active Network Abstraction Administrator Guide.)

For information about changing a unit's protection group see Changing a Unit's Protection Group, page 4-5.



To make an active unit a standby unit:

- 1 Shutdown all the (Virtual Network Elements) VNEs of the active unit
- 2 Remove all the configurable (Agent Virtual Machines) AVMs of the active unit (AVMs below a value of 100 cannot be deleted)
- 3 Delete (remove) the active unit from the setup
- 4 Configure the new standby unit. For more information see Configuring Standby Units, page 4-4.

Configuring Standby Units

Manage enables the administrator to configure standby units and assign the standby units to protection groups.

To configure a standby unit:

- **Step 1** Select the Cisco ANA Servers branch in the Cisco ANA Manage window's tree pane. The Cisco ANA Servers branch is displayed.
- Step 2 Right-click to display the shortcut menu and select New Cisco ANA Unit,

or

On the toolbar click New Cisco ANA Unit

or

From the File menu select New Cisco ANA Unit.

The New Cisco ANA Unit dialog box is displayed.

Note

For a detailed description on configuring units see the Cisco Active Network Abstraction Administrator Guide.

The **Enable Unit Protection** checkbox enables the administrator to define whether a unit is enabled (checkbox is selected) for high availability. This option is selected by default.



It is highly recommended that the user does not disable this option.

The **Standby Unit** checkbox enables the administrator to define whether a unit is defined (checkbox is selected) as a standby unit.

- Step 3 Enter the IP address for the standby unit in the IP Address field.
- **Step 4** Select the **Standby Unit** checkbox to define the unit as a standby unit.

The **Protection Group** dropdown list displays the currently customized protection groups. For more information about defining a new protection group see Customizing Protection Groups, page 4-1.

- **Step 5** Select the protection group from the **Protection Group** dropdown list for which the newly created standby unit will act as a standby unit.
- Step 6 Click OK.



Important standby units are not displayed anywhere in the Cisco ANA Manage window.

For information about changing the protection group to which a unit is assigned see Changing a Unit's Protection Group, page 4-5.

Checking the Assignment of Units to Protection Groups

The administrator can view the protection groups to which the units are currently assigned. In so doing, the administrator can, at a glance, check that the configuration or assignment matches the initial deployment plan.

To check the units-protection groups assignments, select the Cisco ANA Servers branch in the Cisco ANA Manage window's tree pane. The properties of the Cisco ANA Servers branch are displayed in the workspace, including the details of the protection group to which each unit and standby unit currently belongs.

Changing a Unit's Protection Group

The administrator can easily and quickly change the protection group to which a unit has been assigned. To change the protection group setting of a unit:

- Step 1 Select the Cisco ANA Servers branch in the Cisco ANA Manage window's tree pane. The Cisco ANA Servers branch is displayed.
- **Step 2** Expand the Cisco ANA Servers branch and select the required Cisco ANA Unit sub-branch.
- Step 3 Right-click on the required unit to display the shortcut menu and select Properties,

or

On the toolbar click Properties

or

From the File menu select **Properties**. The Cisco ANA Unit Properties dialog box is displayed.



For a detailed description on configuring units see the Cisco Active Network Abstraction Administrator Guide.

The **Protection Group** dropdown list displays the currently customized protection groups. For more information about defining a new protection group see Customizing Protection Groups, page 4-1.

The **Enable Unit Protection** checkbox enables the administrator to define whether a unit is enabled (checkbox is selected) for high availability.



It is recommended that the user does not disable this option.

- **Step 4** Select the protection group from the **Protection Group** dropdown list to which you want to assign the unit.
- **Step 5** Click **OK** to save the updated protection group settings for the selected unit. The Cisco ANA Manage window is displayed.

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Viewing and Editing Protection Group Properties

The administrator can view the properties of a protection group, for example, the description. In addition, the administrator can edit the description of the protection group.

To view and edit a protection group's properties:

Step 1	Select the Global Settings branch in the Cisco ANA Manage window's tree pane. The Global Settings branch is displayed.
Step 2	Expand the Global Settings branch and select the Protection Groups sub-branch.
Step 3	Select the required protection group in the Cisco ANA Manage window's workspace.
Step 4	Right-click to display the shortcut menu and select Properties,
	or
	On the toolbar click Properties ,
	ог
	From the File menu select Properties .
	The Properties dialog box is displayed.
Step 5	View the properties of the protection group and/or edit the description.
Step 6	Click OK . The Cisco ANA Manage window is displayed.

Manually Switching to the Standby Unit

Manage enables the administrator to manually switch to the standby unit, for example, when a unit needs to be temporarily shut down for maintenance.

To manually switch to the standby unit:

- **Step 1** Select the Cisco ANA Servers branch in the Cisco ANA Manage window's tree pane. The Cisco ANA Servers branch is displayed.
- Step 2 Expand the Cisco ANA Servers branch and select the required Cisco ANA Unit sub-branch.
- Step 3 Right-click on the required unit to display the shortcut menu and select Switch.

A confirmation message is displayed.

Step 4 Click Yes. The standby unit becomes the active unit and is displayed in the Cisco ANA Servers branch. The original unit is removed from the setup and can be safely shutdown (it is no longer displayed in the Cisco ANA Servers branch of the Cisco ANA Manage window).



Note In the event of unit failover, the gateway will randomly select a redundant unit (when there are more than one Cisco ANA N+m redundant units).

Automatically Switching to a Standby Unit

When the gateway discovers that one of the active units has, for example, timed out (see High Availability Events, page A-1 for more information), Cisco ANA will automatically transfer all data from the failed unit to a standby unit in the same protection group.

