Quick Start for Data Center and Cloud Users

The following is an overview of the steps needed to configure an AppNav Controller and cluster. Perform these steps in order:

1 Preparing to Configure an AppNav Cluster, on page 1
2 Registering an AppNav Controller, on page 2
3 Creating an AppNav Cluster, on page 2
4 Configuring an AppNav Controller, on page 4

You can also monitor an AppNav cluster at any time. See the Monitoring an AppNav Cluster, on page 4. To learn about the reports available, see the AppNav-XE Reports, on page 5.

Preparing to Configure an AppNav Cluster

Before you begin, install and configure the individual AppNav Controllers and service nodes with basic network settings. Provision VRFs and network interfaces on each AppNav Controller. See the following information:

- To install and configure the Cisco CSR 1000V Series, see http://www.cisco.com/en/US/products/ps12559/tsd_products_support_series_home.html

- To install and configure the Cisco ASR 1000 Series, see http://www.cisco.com/en/US/partner/products/ps9343/prod_installation_guides_list.html .

- To install and configure the service nodes, see http://www.cisco.com/en/US/partner/products/ps6870/prod_installation_guides_list.html

Registering an AppNav Controller

Before you can use the WCM to manage the AppNav-XE features on the AppNav Controller and service nodes, you must register the AppNav Controller with the WCM.

Registering an AppNav Controller Using the WCM GUI

When you use the WCM GUI to register the AppNav Controller. the WCM creates an account record for the AppNav Controller and populates it with the information you enter.

Before You Begin

- Enable SSH on the AppNav Controller.

Procedure

SUMMARY STEPS

1. In the WCM GUI, navigate to the **Home > Admin > Registration > Cisco IOS Routers** page.
2. Enter the required information.
3. Click **Register**.

DETAILED STEPS

Step 1	In the WCM GUI, navigate to the **Home > Admin > Registration > Cisco IOS Routers** page.
Step 2	Enter the required information.
	Note For user name and password, enter the AppNav Controller credentials. The system uses these credentials one time only to retrieve configuration data, statistics, and status information.
Step 3	Click **Register**.

Viewing the AppNav Controller Registration

After you have successfully registered the AppNav Controller with the WCM, the WCM GUI displays the AppNav Controller under the devices list as "AppNav-XE Controller." Navigate to **Devices > Device List**. See the following figure.

Creating an AppNav Cluster

Use the WCM AppNav Cluster creation wizard to create and configure an AppNav cluster. Configure settings, choose cluster devices, choose VRFs, configure the service insertion of the WAN-facing interface, and

configure the cluster traffic interfaces. The wizard provides a single guided end-to-end configuration flow to the user.

Procedure

SUMMARY STEPS

1. Launch the WCM AppNav Cluster creation wizard by clicking **AppNav Cluster Wizard** in the WCM GUI.

2. (Optional) Configure AppNav class maps if you want to customize the default class map configuration. The system adds several default class maps that match traffic corresponding to most of the application accelerators and a class default class map that matches all traffic. See the "Configuring AppNav Class Maps" section on page 3 .

3. (Optional) Configure an AppNav policy if you want to customize the default policy. The system adds a default policy that distributes all traffic to the WNG-Default-nn WNG, which is the node group into which all service nodes are grouped by default. See the "Configuring AppNav Policy Maps" section on page 4 .

4. (Optional) Configure service node optimization class maps and policy rules. This step is necessary only if you want to customize the default optimization policy that is listed in Predefined Optimization Policy. See the Cisco Wide Area Application Services Configuration Guide for information.

5. Click **AppNav Clusters** to see all the configured clusters. To view the AppNav cluster settings at the AppNav Controller level, go to the device-level AppNav cluster page.

DETAILED STEPS

Step 1 Launch the WCM AppNav Cluster creation wizard by clicking **AppNav Cluster Wizard** in the WCM GUI.

Step 2 (Optional) Configure AppNav class maps if you want to customize the default class map configuration. The system adds several default class maps that match traffic corresponding to most of the application accelerators and a class default class map that matches all traffic. See the "Configuring AppNav Class Maps" section on page 3 .

Step 3 (Optional) Configure an AppNav policy if you want to customize the default policy. The system adds a default policy that distributes all traffic to the WNG-Default-nn WNG, which is the node group into which all service nodes are grouped by default. See the "Configuring AppNav Policy Maps" section on page 4 .

Step 4 (Optional) Configure service node optimization class maps and policy rules. This step is necessary only if you want to customize the default optimization policy that is listed in Predefined Optimization Policy. See the Cisco Wide Area Application Services Configuration Guide for information.

Step 5 Click **AppNav Clusters** to see all the configured clusters. To view the AppNav cluster settings at the AppNav Controller level, go to the device-level AppNav cluster page.

Note You cannot configure AppNav cluster settings at the device level as this page is read-only. The only operation you can do on this page is to remove the settings if a device has its own cluster settings. The only case when this page is editable is when it is displayed at WAAS Node device level and WAAS Node is participating in a cluster created using the CLI.

Configuring an AppNav Controller

To change the configuration of the AppNav cluster, in the WCM GUI navigate to the AppNav Cluster Home page. This page automatically presents live information collected from the AppNav Controller and service nodes.

You can perform the following tasks from the AppNav Cluster Home page.

- Configuring WAAS device interfaces.
- Creating a new AppNav context (WAAS cluster ID) with the AppNav context wizard.
- Configuring AppNav context settings like changing AppNav policy assignment and VRF associations.
- Adding new AppNav Controllers.
- Configuring AppNav Controllers, including changing service insertion on WAN interfaces and cluster traffic interfaces.
- Configuring AppNav cluster settings such as the authentication key.
- Adding service nodes.
- Configuring service node settings including changing service node groups.
- Configuring service node group settings including AppNav service node auto discovery (for Cisco CSR 1000V Series only).
- Adding and removing devices or AppNav contexts from the AppNav cluster.

Monitoring an AppNav Cluster

About Monitoring an AppNav Cluster

After you create an AppNav cluster, the system displays the topology representation along with live information from the cluster on the cluster home page. By default, the system collects data from every AppNav Controller every 300 seconds and presents the live information and statuses in the GUI. The system refreshes the cluster home page whenever the cluster changes. When you are viewing the topology page, data collection happens every 30 seconds.

Cluster State Representation

The system displays the link between the AppNav Controller and the service nodes in different colors to indicate their availability:

- Operational: When the AppNav cluster is fully operational, the system displays it in green.
- Degraded: When the AppNav cluster is degraded, the system displays it in yellow. For example, when some of the accelerators are not fully available (may be disabled), the AppNav cluster is degraded. Use the 360 degree view and the service node status information to identify the exact issue.

- Down: When the AppNav cluster is down, the system displays it in red. For example, when the only available service context in the cluster is disabled, the cluster status changes to down.

360 Degree View Representation for the AppNav Controller

Every AppNav Controller in the AppNav cluster has a 360 degree view that contains additional information about the AppNav Controller. To see the 360 degree view, hover over or click the AppNav Controller.

The AppNav Controller 360 degree view shows the following information:

- Cluster Control: The liveliness status of all the AppNav Controllers and service nodes. Includes the device name and its IP address.

- Interception: The interfaces where service insertion is configured and their statuses.

- Interfaces: All the available interfaces and their overall statuses.

- Overloaded Policies: The monitored accelerators that are overloaded, along with their corresponding policies. This is only displayed when there is an overload.

- Alarms: Alarm information from the AppNav Controller.

360 Degree View Representation for the Service Node

Every service node in the AppNav cluster has a 360 degree view that contains additional information about the service node. To see the 360 degree view, hover over or click the service node.

The service node 360 degree view shows the following information:

- Optimization: Displays the name, status, and description of all application accelerators in the service node.

- Alarms: Alarm information from the service node.

- Interfaces: All the available interfaces and their overall statuses.

AppNav-XE Reports

The WCM provides reports at the AppNav Controller and cluster level. These reports can be seen at the service context level or at a combined level, which includes all service contexts. The following are the different reports:

- Total AppNav Traffic: This chart represents the distributed, pass-through traffic as reported from all the class maps configured in the cluster.

- Top 10 AppNav Policies: This chart represents the intercepted, distributed, pass-through traffic for the top 10 class maps in the cluster.

- AppNav Policies: This chart represents the intercepted, distributed, pass-through traffic for class maps over time.

- Top 10 WAAS Node-Group Distribution: This chart represents the distribution of traffic across the top ten service node groups.

- Was Node-Group Distribution: This chart represents the distribution of traffic over time across the service node groups.

- Top 10 Pass-Through Reasons: This chart represents the top ten pass-through reasons that contributed to pass-through traffic.

- Pass-Through Reasons: This chart represents the pass-through reasons over time.