Cisco Active Network Abstraction Change and Configuration Management

Product Overview

Unplanned changes can lead to service degradation, outages, and related costs. Automated change and configuration management is essential for helping to ensure high-quality customer experiences in service provider networks. The ideal approach to managing the network is to define the "gold standard" configuration for devices and automate the monitoring of the infrastructure to make sure the standard is maintained. When unplanned changes to the "gold standard" are detected, the standard should be automatically restored.

Cisco® Active Network Abstraction (ANA) Change and Configuration Management feature includes critical capabilities for automating the control of network device configurations. Cisco ANA is designed and optimized for large scale, carrier-grade networks. The change and configuration capabilities allow network managers to define "gold standard" images for device configurations. Cisco ANA then monitors the network and automatically detects when an unplanned configuration change occurs and alerts network operators. Operators can quickly restore the "gold standard" configuration, avoiding costly downtime and the expense of having to track down the source.

Cisco ANA Change and Configuration Management automates the deployment of software images to devices, significantly reducing the cost and time associated with software updates. ANA software deployment also helps ensure that deployments are consistent and error free across all managed devices.

Cisco ANA Change and Configuration Management improves productivity while lowering operating costs by automating time-consuming and potentially error-prone tasks. Cisco ANA provides an easy-to-use graphical user interface for the Change and Configuration Management feature as well as for software deployment, making adoption easy and providing fast time-to-value.

Features and Benefits

The features of Cisco ANA Change and Configuration Management fall into the following three main categories:

- Change Detection and Control: Provides operators with full visibility and control over changes to network devices. Unplanned changes are quickly detected and the proper configuration restored.
- Configuration Archive Management: A full history of configurations for network devices helps enable informed decisions when unplanned changes affect individual devices or groups of devices.
- Software Image Management: Automates software deployment across managed devices, significantly reducing operational costs and increasing accuracy.

Table 1 provides details for each category.

Table 1. Features and Benefits

Feature	Benefit
Change Detection and Control	
Automatic change detection	• Increases operational efficiency • Provides timely change detection with reduced processing overhead • Provides fast change isolation and restoration
Automatic change notification	• Gives operators real-time configuration visibility • Provides rapid alerts of unintended configuration changes and "gold standard" deviations
Automatic configuration backup	• Allows operators to quickly and easily restore the network to the "gold standard" • Provides the ability to roll back configurations to previous configurations when required • Provides the unique ability to back up Cisco IOS® XR Software devices with Secure Domain Router configurations
Configuration Archive Management	
Configuration view and archive manipulation	• Provides network operators with a complete and detailed view of the configuration change history of all devices in the network • Helps enable network operators to make informed decisions about unplanned changes and take appropriate actions
Configuration bookmarking	• Establishes the "gold standard" operational baseline, automating the detection of change policy violations
Configuration restore	• Within a few clicks restores the configuration of a device or a group of devices to any operational baseline • Provides the unique ability to fully restore policy map settings for Cisco IOS XR Software devices
Configuration synchronization	• Helps ensure that device configuration is synchronized and retained across reboot
On-demand or scheduled operations	• Provides flexibility and adaptability to operational procedures. Allows the configuration management tasks to take place ad hoc, at a scheduled time or at regular intervals, to best fit your organization's operating procedures
Software Image Management	
Image repository	• Provides easy access to and cataloguing of all required software images and software packages in the network
Automatic image upgrade	• Automates software image deployment • Reduces errors and improves operational efficiency • Simplifies the software image upgrade process to a few mouse clicks, reducing deployment time from days to hours or minutes
Pre- and post-upgrade verification	• Helps ensure that only compatible software images can be selected for deployment • Provides confirmation of successful deployment
Automated Cisco IOS XR Software package management process	• Allows operators to select which features to run on the router • Supports Cisco IOS XR Software devices configured with Secure Domain Router • Unique to Cisco ANA Change and Configuration Management
On-demand or scheduled operations	• Software deployments can be scheduled for large deployments or run ad hoc as needed

System Requirements

Table 2 lists the system requirements for Cisco ANA Change and Configuration Management.

Table 2. System Requirements

Supported browsers	• Microsoft Internet Explorer 7.x and 8.x on Windows 7 or Windows XP • Firefox 3.x on Windows 7 or Windows XP

Change and Configuration Management is a feature of Cisco Active Network Abstraction. There is no additional system requirement beyond that specified in the ANA data sheet.

Ordering Information and Service and Support

Ordering Information

To place an order contact your local Cisco account representative or visit the Cisco Ordering Homepage.

Advanced Services

To get the highest value from Cisco ANA, it must be installed and configured with the final operations processes in mind. The Cisco Advanced Services group offers a broad array of services to help ensure that each Cisco ANA deployment is as fast and smooth as possible, optimizing the benefits of Cisco ANA. From initial process evaluations to specifying the most effective system configuration and implementation, Cisco Advanced Services is ready to provide customized assistance. For more information about Cisco Advanced Services for Cisco ANA, contact your local Cisco account team or send an email to wwsp-onm-bus-dev@cisco.com.

Technical Support

Cisco offers a wide range of support services programs to accelerate customer success, delivered through a unique combination of people, processes, tools, and partners. Cisco services help you to protect your network investment, optimize network operations, and prepare the network for new applications. For more information about Cisco support services, see Cisco Technical Support Services.

For More Information

For more information about Cisco ANA, visit http://www.cisco.com/go/ana, contact your local Cisco account representative, or send an email to ask_ana_pm@cisco.com. Technical integration information can be found at http://developer.cisco.com/web/ana/home.