



Changes and Enhancements in Campus Manager 4.0.3

Campus Manager 4.0.3 provides management support for Layer 2 technologies. It is built on CiscoWorks Common Services 3.0.3 and is an integral component of CiscoWorks LAN Management Solution 2.5.1 (LMS 2.5.1).

In this release, the major change on the server side architecture is the refactoring of ANI server. On the client side, the User Tracking application has been redesigned and has a new look and feel.

This chapter contains the changes and enhancements in Campus Manager 4.0.3:

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Re-factoring ANI Server Process

ANI has been refactored to improve the performance and scalability of the application.

Before Campus Manager 4.0, the server process—Asynchronous Network Interface (ANI)—was a single process to perform ANI discovery, user tracking, and servicing query and configuration from clients.

To improve the server performance and to handle larger networks, ANI process has been separated into transient processes for device discovery and User Tracking Major Acquisition.

Campus Manager 4.0.3 contains:

- Campus Manager server (ANIServer) process as a daemon
- Transient Device Discovery process
- Transient User Tracking Major acquisition process

Data collection, query and configuration services continue to be performed in the Campus Manager server process.

Improved Network Discovery

With Campus Manager 4.0.3, you can:

- Provide seed devices. See [Specifying Seed Device and IP Address Range, page 4-9](#)
- Set the SNMP credentials. See [Setting SNMP Credentials, page 4-7](#)
- Run device discovery. See [Modifying Discovery Schedule, page 4-14](#)

Device Discovery process discovers devices and updates the Device Credential Repository (DCR) with the credentials of the devices.

**Note**

Campus Manager cannot manage the devices until you run the Data collection process.

Improved Data Collection

You can choose devices to be managed by Campus Manager from the devices in DCR, or through data collection filters (IP subnets or VTP domains).

You must run Data Collection for Campus Manager to manage devices.

- View a summary of data collection settings. For details, see [Viewing Summary of Data Collection Settings, page 4-18](#).
- Modify data collection schedule. For details, see [Scheduling Data Collection, page 4-20](#).
- Specify data collection filters. For details, see [Setting up Data Collection Filters, page 4-22](#).
- Set data collection debugging options. For details, see [Setting up Debugging Options for Data Collection, page 4-25](#).

Support for SNMPv3

For using various Campus Manager features in devices running SNMPv3, you must make specific configurations on the devices.

You must set the write community before you start using the configuration features in Campus Manager. You can set the SNMP read credentials. For more details, see [Administration Command Line Interface, page 4-53](#).

Support for IPv6

Campus Manager can discover the devices that may have IPv6 configured on their interfaces, manage devices with IPv4 configured, and dual stack IPv6 devices.

Device Discovery collects the end host details including the IP addresses from devices configured with IPv6. For more details, see [Understanding IPv6, page 11-1](#)

Support for VLAN and VTP, PVLANS, and VTPv3

You can create a primary VLAN, secondary VLANs of different types and associate them to the primary VLAN, assign or move ports to secondary VLANs, and configure Promiscuous ports. For more details, see [Creating PVLAN, page 9-20](#).

Through Campus Manager 4.0.3 you can verify the VTPv2 or VTPv3 related information for the devices in your network that are managed by Campus Manager. For more details, see [VLAN Trunking Protocol, page 9-30](#).

Campus Manager 4.0.3 provides filters such as VTP server filter, transparent filter, or client filter for VTPv2 or VTPv3 domains in Topology Maps, to highlight the VTP configured devices. For more details, see [Using Topology Filters, page 8-40](#).

Support for Spanning Tree Protocols

Campus Manager 4.0.3 provides support for managing Cisco's proprietary spanning-tree protocols, Per VLAN Spanning Tree (PVST), Multiple Spanning Tree (MSTP), and Multi-Instance Spanning Tree Protocol (MISTP) in a your network.

This application provides:

- Support for Different types of Spanning Tree Protocol (STP)—PVST, PVST+, MST, MISTP. See [Managing Network Spanning Trees, page 10-1](#).
- Ability to view STP parameters for each switch-cloud, VLAN or instance, or for each port. See [Understanding Spanning Tree Protocol, page 10-1](#).
- Ability to configure STP parameters on a each port and each device.
- Ability to view and change the instance-to-VLAN mapping (for MST and MISTP).
- Ability to configure preferred VLANs on trunk ports.

- Allows to find the recommended optimal root for a switch cloud and highlights the computed Optimal Root (switch) on topology map.
- Allows to find the recommendation for setting up the number of STP instances on a switch cloud. Highlights the recommended instances on the Map.
- Allows to find the recommendation for reduction of number of STP instances.
- Highlight the instance to which the other instances can be merged.
- Map a new VLAN to recommended instance.
- Highlight the instance on the Map.
- Ability to change certain STP parameters and view the result prior to applying the changes in the network.

Support for Ether Channel and Inter-VLAN Routing

Through Campus Manager 4.0.3 you can configure EtherChannel in your network, providing a higher bandwidth, aggregating up to Gigabit Ethernet connections, providing a 16 Gbps of bandwidth (in full duplex mode). For more details, see [Using EtherChannel, page 9-46](#).

You can do the following:

- Configure multiple links between switches as EtherChannel.
- Configure EtherChannel load balancing parameters.

Inter-VLAN Routing in Campus Manager enables you to route the traffic among different VLANs. The devices within a VLAN can communicate with one another without the help of a router. For more details, see [Using Inter-VLAN Routing, page 9-26](#).

Support for Trunking

Through Trunking, Campus Manager allows a device to pass traffic for multiple VLANs, instead of just one VLAN as would happen on a non-Trunked interface of a switch. To enable Trunking in your network, Campus Manager helps you to:

- Configure a link between two switches as a trunk.

- Configure the allowed and disallowed VLANs on a trunk.

For more details, see [Understanding Trunking, page 9-39](#).

Support for Time Domain Reflectometry

Campus Manager 4.0.3 supports TDR Cable Diagnostic Test, which provides a report listing the defects such as open circuits, short circuits, sharp bends, and other similar defects in the cables in your network.

For more details, see [Time Domain Reflectometry Reports, page 8-53](#).

Enhancements in User Interface

Campus Manager 4.0.3 uses light-weight user interfaces for User Tracking application and Campus Manager Administration. Earlier, the applications were based on Java applet.

For more details, see [Understanding the User Interface, page 3-5](#).

In Campus Manager 4.0.4, nested scroll bars have been removed from User Tracking reports, for ease of use.

Integrating With Common Services Components

Campus Manager 4.0.3 is integrated with CiscoWorks Common Services features such as :

- Object Grouping Service (OGS)
- User Interface
- Security and Access Control Server (ACS)
- CiscoSecure
- Device Credential Repository (DCR)
- Package Support Update (PSU)
- CiscoWorks Homepage.

For more details, see [Integrating Campus Manager With CiscoWorks Common Services](#), page 5-1.

Support for Visio 2003

Campus Manager 4.0.4 supports Microsoft Visio 2003 for exporting topology maps.

Improved workflow for Configuring Subnet Acquisition

Campus Manager 4.0.4 allows you to include or exclude specified subnets to perform User Tracking major acquisition.

Export and Print of User Tracking data

Campus Manager 4.0.4 allows you to print or export (CSV or PDF format) all User Tracking data at the same time.

