CHAPTER 2

Working with the Cisco ANA NetworkVision Client

These topics describe the Cisco ANA NetworkVision working environment and how to access the Cisco ANA NetworkVision tools and commands:

- Starting Cisco ANA NetworkVision, page 2-1—Describes how to log in to Cisco ANA NetworkVision.
- Cisco ANA NetworkVision Window, page 2-3—Describes the enhanced security provided when working with and managing the Cisco ANA system.
- Cisco ANA NetworkVision Window, page 2-3—Describes the Cisco ANA NetworkVision window, including the tree pane, workspace and properties pane, ticket pane, toolbar and menus.
- Changing a User Password in Cisco ANA NetworkVision, page 2-27—Describes how the user can change their login password.
- Selecting Cisco ANA NetworkVision Map and Alarm Options, page 2-28—Describes how to customize Cisco ANA NetworkVision's startup and display options.
- Managing Cisco ANA NetworkVision Tables, page 2-29—Describes how to work with Cisco ANA NetworkVision's tables.

Starting Cisco ANA NetworkVision

This section provides instructions for launching the Cisco ANA NetworkVision application. Cisco ANA NetworkVision is password protected to ensure security. Before you start working with Cisco ANA NetworkVision make sure you know your username, password, and the Cisco ANA Gateway IP address or hostname that you require.

Note If a user does not log in to the Cisco ANA Manage, Cisco ANA NetworkVision, or Cisco ANA EventVision applications during a specified period of time (the default is one month), the user's account will be automatically locked. The default period can be changed per user in Cisco ANA Manage. The period of time is measured from the time the user last logged out of any of the Cisco ANA client applications.

The security level required to enable you to perform the specific Cisco ANA NetworkVision function is indicated in this guide by means of icons. For more information about the icons used, see Cisco ANA NetworkVision Window, page 2-3.

To start Cisco ANA NetworkVision:

Step 1 Choose **Start > Programs >** Cisco ANA **>** Cisco ANA **NetworkVision**.

The Cisco ANA NetworkVision Login dialog box is displayed. The last four Cisco ANA Gateways to which the user logged in successfully are displayed in the Host drop-down list. The list is displayed in chronological order with the most recent Cisco ANA Gateway displayed at the top of the list.

Step 2 Enter your username and password.

Step 3 Do one of the following to choose a Cisco ANA Gateway:

- Enter an IP address or hostname in the Host field.
- Select a Cisco ANA Gateway from the Host drop-down list. (The Cisco ANA Gateway IP address or hostname that was used when you last logged in is automatically displayed at the top of the Host drop-down list.)

Note Make sure that you use the leading IP address (the IP address on which the Cisco ANA Gateway was configured) when logging in to the system.

Step 4 Click **OK**. The Cisco ANA NetworkVision window is displayed.

If there are any available updates to the client, Cisco ANA will automatically install them.

The Cisco ANA NetworkVision window appears empty when it is opened for the first time. You can create a new map or open a map that has been previously saved; see Chapter 8, "Working with Cisco ANA NetworkVision Maps," for information on network maps.

After logging in to Cisco ANA NetworkVision and launching the application, you may customize the Cisco ANA NetworkVision settings. For example, you can:

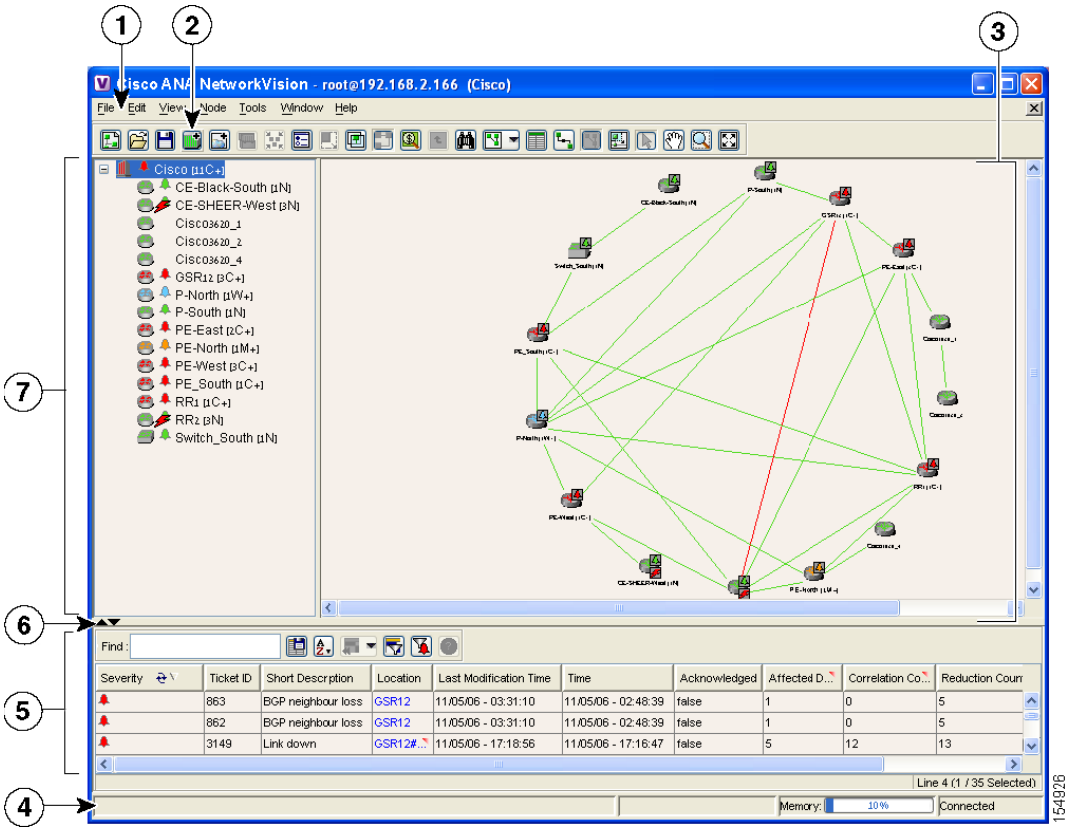
- Load the workspace with information when starting Cisco ANA NetworkVision.
- Display network elements in the Cisco ANA NetworkVision map and tree panes.
- Configure audio responses when different alarms are triggered.

For more information on how to customize Cisco ANA NetworkVision startup and display options, see Selecting Cisco ANA NetworkVision Map and Alarm Options, page 2-28.

Cisco ANA NetworkVision Window

The Cisco ANA NetworkVision window with an open map is displayed in Figure 2-1.

Figure 2-1 Cisco ANA NetworkVision Window



1	Menu bar	**5**	Ticket pane
2	Toolbar	**6**	Hide/display ticket pane
3	Workspace (showing a Map view)	**7**	Tree pane
4	Status bar		

The workspace, ticket pane, and tree pane are the three main areas of the Cisco ANA NetworkVision user interface.

Note The ticket pane can be displayed or hidden by clicking the arrows below the tree pane.

The status bar at the bottom of the window provides information about the current connection status for the view. The status bar also displays what is happening to the command that was sent while the application waits for an answer.

In addition, the memory utilization bar in the status bar displays the amount of memory used by the client. By default, if memory utilization exceeds 60%, it is colored yellow, and if it exceeds 80%, it is colored red. The default percentage and color values can be configured in the registry.

Dragging the borders of the Cisco ANA NetworkVision window adjusts the size of each pane. The tree pane and workspace are correlated; this means that selecting an option in one pane affects the information displayed in the other pane.

Some of the functions that the Cisco ANA NetworkVision window enables you to perform are:

- View the network.
- View device properties.
- View physical and logical inventory information.
- View a complete list of the physical links and their status.
- View link properties.
- View and manage tickets.

Tree Pane

The tree pane displays a tree-and-branch representation of the network elements and aggregations defined for the loaded map.

The highest level of the tree pane displays the map name (for example, the name of a geographic area). When the map name is changed, the Cisco ANA NetworkVision window is updated. The new map name is displayed, between brackets, at the top of the tree pane and in the title bar of the window.

The lowest level of the tree pane displays a single NE (for example, a router and the device name, or the name of the business tag). The tooltip displays the NE name, NE type and IP address. For information about the status of network objects, see Network Element Status Indicators, page 2-13.

Workspace: Map, Device, and Links Views

The workspace enables you to view and modify low-level information. It supports the following views:

- Map view—Displays managed network elements on a geographical map. For more information, see Map View, page 2-5.
- Device view—Displays the details of the network devices contained in the currently selected hierarchy or subnetwork (map), such as the IP address and vendor. For more information, see Device View, page 2-7.
- Links view—Displays a complete list of the links shown in the map view and their status. For more information, see Links View, page 2-9.

When a user switches between the map, device, and links views, the following are preserved:

- The currently selected network elements or links.
- The sorting preferences.
- The filtering preferences, as defined using:
  - The Map Options dialog box; see Filtering Links According to Type, page 8-17.
  - The Filter dialog box; see Defining a Filter, page 2-31.
  - The links view collection method; see Filtering Links Using the Collection Method, page 14-13.

Map View

Cisco ANA NetworkVision displays managed network elements in the Map view. In addition, the map view displays the links (and any link aggregations); the map view also displays relationships between network devices, aggregations, and networks on a geographical map.

Each NE is displayed using an NE icon, the color of which reflects severity, as described in the Map View, page 2-5. In addition, a management state or alarm icon is displayed together with the IP address. For more information, see Chapter A, "Icon Reference." The tooltip displays the NE name, NE type and IP address.

The links (and link aggregations) that are presented in the map view:

- Display arrowheads if they are unidirectional
- Do not have arrowheads if they are bidirectional

Note A maximum of 6000 links can be displayed in the map (configurable in the registry). If this number is exceeded, a warning message is displayed and all the lines (links) are removed from the map (they are still displayed in the links view). In addition, the map is surrounded by a red border. Filtering the links may reduce the number of links so that the client can return to a normal state.

The links have tooltips that provide you with information regarding the number of links that are represented by a line, along with partial link descriptions. Physical links are highlighted in bold. Because a single link may actually represent a number of links, you can use the links view to get more details (see Links View, page 2-9).

Note If a link filter is applied to the map, then the Links tooltip displays only the relevant links.

The map view enables network objects to be viewed down to the device level. An example of the map view is displayed in the Cisco ANA NetworkVision Window, page 2-3.

The devices can be moved manually on the geographical map by dragging the required device. In addition, clicking Layout on the toolbar or using the Zoom tools in the menu bar can change the way that the devices are displayed on the map.

Note Click **Map view** on the toolbar to display the map view in the Cisco ANA NetworkVision window.

Some of the functions that can be performed using the right-click shortcut menu in the map view are as follows (some of these are also available in the tree pane):

Right-Click Functions Available from Map View	For more information, see:
Aggregating network elements	Chapter 8, "Working with Cisco ANA NetworkVision Maps"
Changing the view and content of network maps	Chapter 8, "Working with Cisco ANA NetworkVision Maps"
Communicating with network devices	Chapter 8, "Working with Cisco ANA NetworkVision Maps"
Viewing device information (device properties)	Chapter 10, "Viewing Device Properties"

Right-Click Functions Available from Map View	For more information, see:
Viewing device inventory	Chapter 11, "Viewing the Network Element Inventory"
Configuring the topology	Chapter 14, "Working with Links"
Creating and attaching business tags	Chapter 12, "Working with Business Tags"
Creating and viewing tickets	Chapter 15, "Working with Tickets"

When working with this functionality for MPLS VPN networks, see the *Cisco Active Network Abstraction 3.6.6 MPLS User Guide*.

The following icons are used to display the network elements in the Cisco ANA NetworkVision window's tree pane and workspace:

Table 2-1 Device Icons

Icon	Device
	Unmanaged network
	Network, subnetwork, or logical aggregation
	Router
	Generic SNMP
	Ethernet switch
	DSLAM
	ATM switch
	BRAS
	Ping VNE
	Viewable by a user with a higher permission level
	Ghost device

Note When Cisco ANA NetworkVision detects a network device for which there is not enough information available, the device is displayed as a ghost device on the map. In this case, the user is unable to view the ghost device's properties or communicate with it. When the ghost device's information is updated, its icon is replaced with the relevant device icon, and all the related device information and communication become available.

The following colors are used to display the severity (or propagated severity) of a network device when displayed in the tree pane, workspace, and ticket pane:

- Red—Critical.
- Orange—Major.
- Yellow—Minor.
- Sky Blue—Warning.
- Green—Cleared/Normal/OK.
- Dark Blue—Information.

  Note The Information severity does not affect the severity (color) of the network object.

- White—Indeterminate.

The same coloring conventions apply to the link severity displayed in the map pane and links view.

Note The color of a selected link is customizable. The default color is blue.

When an aggregated node is selected in the tree pane, the workspace displays the elements contained within the aggregation and the relationships between them.

For more information about how the status of a network device is displayed in the map pane, see Network Element Status Indicators, page 2-13.

Device View

The device view displays the details of the network devices contained in the currently selected hierarchy (map), such as the IP address and vendor.

Note

- Click the Device View icon in the main toolbar to display the device view in the Cisco ANA NetworkVision window.
- Locked devices only display managed element information and the locked device icon.
- Use the scroll bar to view all the columns in the table.

Table 2-2 describes the information that is displayed in the Device View.

Table 2-2 Network Element Information Displayed in Device View

Field Name	Description
Managed Element	The device name of the element managed by Cisco, as defined in Cisco ANA Manage. It also displays a device icon, the color of which reflects severity. In addition, the management state or an alarm icon is displayed.
IP_Address	The IP address used for managing the device as a hyperlink that opens the properties of the relevant device.
System Name	The system name of the device, as defined in the device's MIB. If you are using Telnet to connect to the device, then it is the prompt.
Communication State	The status of communication with the device or VNE (for example, Device Unreachable). For more information, see Network Element Management State, page 2-15.
Investigation State	The investigation status of the VNE (such as Normal, Initializing, or Maintenance).
Element Category	The device category, such as Router or ATM-Switch.
Element Type	The device type (manufacturer name), such as Cisco 7200.
Vendor	The vendor name.
Up Since	The date and time when the device was last reset.
Sending Alarms	The status of alarms on the device in the Cisco ANA system: enabled (true) or disabled (false). This can be enabled on only part of the device.

Caution You can optionally add the System Description, Location and Contact columns to the device view. However, adding these to the device view will increase memory consumption. Changing these settings must be done with the support of the Cisco Account Team.

Note Clicking the red triangle displayed in a cell expands the cell to display all the information. You can also use a tooltip to view all the information.

The following buttons are displayed in the device view toolbar:

Table 2-3 Device View Toolbar

Icon	Description
	Export to CSV—Exports the information displayed in the device view. Either the selected rows are exported, or, when nothing is selected, the entire table is exported.
	Sort Table Values—Sorts the information displayed in the device view (for example, according to *element category*).
	Filter—Defines a filter for the data displayed in the table according to a selected column. **Note** When a filter is applied, the Set Selection Filter button is activated.

Table 2-3 Device View Toolbar

Icon	Description
	Previous Selection Filter—Cancels the last applied filter selection.
	Rewind All—Cancels previous filter selections and displays all the original information in the device view.

See Managing Cisco ANA NetworkVision Tables, page 2-29, for more information about filtering and finding details about a device displayed in Cisco ANA NetworkVision's tables, and for the keyboard shortcuts used for accessing table functionality.

Some of the functions that can be performed using the right-click shortcut menu in the device view are:

- View device information (device properties). For more information, see Chapter 10, "Viewing Device Properties."
- View device inventory. For more information, see Chapter 11, "Viewing the Network Element Inventory."
- Configure the topology. For more information, see Chapter 14, "Working with Links."
- Configure and view Business Tag information. For more information, see Chapter 12, "Working with Business Tags."

Note Clicking on a header in the device view sorts the information displayed (for example, by Element Category).

Links View

The links view is displayed in the Cisco ANA NetworkVision window when clicking  on the toolbar.

For example, when the user views a map, it may have many links, and some links may be a collection (aggregation) of links. This may make it difficult for the user to view the links in which they are interested. The links view enables the user to clearly view the required links, and to easily search for a specific link. The user can also view the status of the link.

Note You can view and filter the links according to type using the Map Options dialog box. For more information, see Filtering Links According to Type, page 8-17.

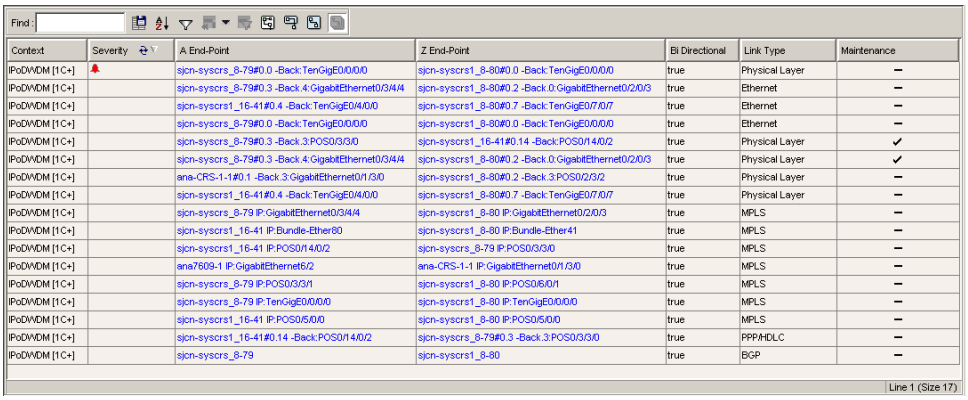
Note Business links are part of the links view. For information about business links, see the *Cisco Active Network Abstraction 3.6.6 MPLS User Guide*.

Any links that are added or removed from the map are automatically added or removed from the links view, provided they have not been filtered out.

The links view is selection sensitive; that is, the links displayed in the links view depend on the context selected in the tree pane or map pane. For example, if an aggregated node is selected, the links in that aggregation are displayed in the links view.

Figure 2-2 shows a links view.

Figure 2-2 Links View



Note An external link has a gray cell background in the table, and the Inventory window can be opened by clicking the hyperlink. For more information about external links, see Viewing Links and their Properties with the Links View, page 14-11.

Table 2-4 describes the information that is displayed in the Links View.

Table 2-4 Link Information Displayed in the Links View

Field Name	Description
Context	The name of the map or aggregated node containing the link.
Severity	Severity of link alarm, represented by a bell icon. The color indicates the alarm severity, indicating the impact of the alarm on the network. For more information about severity, see Map View, page 2-5.
A End-Point	The device or site that is the source of the link as a hyperlink to the inventory of the device or site.
Bi Directional	The direction of the link: true (bidirectional) or false (unidirectional). If the link is unidirectional (false) then the traffic is from A to Z.
Z End-Point	The device or site that is the destination of the link as a hyperlink to the inventory of the device or site.
Link Type	The type of link, such as Physical Layer, VPN, or MPLS.
Maintenance	Indicates whether the link is in maintenance mode. If a link is in maintenance mode, the column displays a check mark. Link-related problems are not reported in Cisco ANA NetworkVision when a link is in maintenance mode. See Suppressing Link Alarms Using the Link Maintenance State, page 14-9.

Note Clicking on a header (such as Severity) in the links view sorts the information displayed by that header value.

The following additional buttons are displayed at the top of the links view (navigation sensitive) and enable you to filter the links using the collection method:

	All Links—Displays the complete list of links for the selected context (map or aggregated node). In other words, the list is not filtered and all the links are displayed (including external links).
	External Links—Displays the links where only one side of the link starts in this context (map or aggregated node) and the other side ends somewhere else. In other words, one side of the link is not in the map or is outside the currently selected context.
	Flat Links (Surface)—Displays the links currently visible on the map for the selected context (map or aggregated node), excluding any thumbnails.
	Deep Links—Displays the links for the current aggregated node where both of the endpoints are somewhere within the currently selected context.

For more information about filtering and sorting links in links view, see Viewing Links and their Properties with the Links View, page 14-11.

Ticket Pane

When Cisco ANA detects faulty behavior in the network, the VNEs and their internal device components initiate an internal, end-to-end message flow, resulting in the full understanding and containment of the fault across all relevant network elements and network layers.

The ticket pane enables you to view and manage tickets as well as pinpoint the source of the ticket. All the tickets that are reported by Cisco ANA are stored in Cisco ANA Gateway's database.

The ticket pane is displayed beneath the tree pane and workspace in the Cisco ANA NetworkVision window. The ticket pane can be displayed or hidden by clicking the arrows displayed below the tree pane.

A ticket represents the complete hierarchy of correlated alarms representing a single specific fault scenario. A ticket points to the root cause alarm that is the top-most alarm in the correlation hierarchy. Examples of alarms are Link Down, Device Unreachable, or Module Out. Some event types are capable of creating tickets. When an event is generated, it is correlated to an existing event, which is correlated to a ticket. If there is no existing ticket then a new ticket is created.

Note For detailed definitions of the key concepts in fault management, such as tickets, alarms, and events, see Chapter 5, "Understanding Fault Management." For information about how to manage tickets, see Chapter 15, "Working with Tickets."

Cisco ANA identifies the relationship between a root cause alarm and its consequent alarms. It automatically correlates the consequent alarms as "children" of the root alarm. The ticket pane displays the ticket (the root cause alarm), and the Ticket Properties dialog box enables you to view all correlated alarms.

Note The root cause alarm severity is the top-most severity of its contained alarms.

The ticket pane enables you to perform the following functions:

- View all the tickets or only the filtered tickets of a selected device. For more information, see Filtering Tickets by Device, page 15-8.
- View and filter all the tickets according to specified criteria. See Filtering Tickets by Criteria, page 15-8.
- View and acknowledge tickets.
- View the properties of a ticket, including the history, correlated alarms, and affected parties.
- Clear a ticket.
- Remove a ticket.
- Clear and remove a ticket.
- Locate the source of a ticket in the map.
- Sort the tickets displayed.

Table 2-5 describes the information that is displayed in the ticket pane.

Table 2-5 Ticket Information Displayed in the Ticket Pane

Field Name		Description
Severity		Severity of alarm, represented by a bell icon. The color indicates the alarm severity, indicating the impact of the alarm on the network. For more information about severity, see Map View, page 2-5.
	Red	Critical
	Orange	Major
	Yellow	Minor
	Sky Blue	Warning
	Green	Cleared/Normal/OK
	Dark Blue	Informational (does not affect the severity (color) of the network object)
	White	Indeterminate
Ticket ID		The sequential ID number of the ticket.
Short Description		The supported ticket name. **Note** Rule-based alarms can be configured per customer site or upon request.
Location		The entity that triggered the ticket, as a hyperlink that opens the relevant location.
Last Modification Time		The date and time when the ticket was last modified. The ticket is modified when a user acknowledges the ticket or when an event is correlated.
Time		The date and time when the initial ticket occurred.
Acknowledged		The status of the ticket that is being handled: acknowledged (true) or unacknowledged (false).
Affected Devices		The number of devices affected by the ticket (the sources of the alarm and their subsequent alarms).

Table 2-5 Ticket Information Displayed in the Ticket Pane

Field Name	Description
Correlation Count	The number of correlated alarms included in the ticket. For example, if in the Correlation tab of the Ticket Properties window, there are three alarms correlated to the root cause alarm, then the counter displays the number 3. If there are two alarms correlated to the root cause alarm, and each alarm in turn has two alarms correlated to it, then the counter displays the number 4.
Reduction Count	The number of alarms included in the ticket. For example, nine alarms can be viewed in the History tab of the Ticket Properties window, but only a single ticket is displayed in the ticket pane.
Duplication Count	The number of occurrences of the original root cause alarm included in the ticket. For example, if the ticket was created by a Link Down root cause alarm, and then the link goes up and down again quickly so that it is included in the same ticket, then the duplication counter displays the number 2, because the root cause alarm occurred twice.

The ticket details in the ticket pane change constantly as they are updated with new information. For example, Port Down is updated to Port Up.

The tickets in the ticket pane are by default sorted according to Ticket ID. For information about tickets, see Chapter 15, "Working with Tickets."

The Location field displays the number of selected rows and the total number of rows in the table (for example, 2/16 Selected). In addition, it displays the location of the selected rows in the table (for example, Line 3).

The Find field enables you to search for information in the ticket pane table according to the selected column. For more information about the buttons displayed in Cisco ANA NetworkVision's tables and table functionality, see Working with Cisco ANA NetworkVision Tables, page 2-29.

For more information about how the status of a network device is displayed in the ticket pane, see Network Element Status Indicators, page 2-13.

Network Element Status Indicators

The status of a network object is displayed in Cisco ANA NetworkVision in the following ways:

Severity

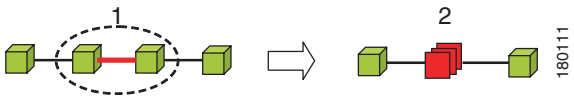
Severity indicates the "operational health" of the network device. At any give time an icon has only one severity value and this value is displayed using the severity colors. For more information about the colors used to display the severity (or propagated severity) of network devices and links, see Map View, page 2-5.

Propagation

Severity is propagated upward in the network hierarchy, displaying the top-most severity of its children and so ensuring that every single problem in the network is propagated and visible.

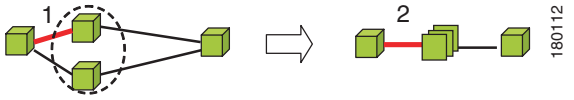
The same severity propagation rules that are used for network elements apply to links. A link is a child object of an aggregation *only* if it is fully contained in the aggregation; that is, the network elements on both sides of the link are part of the aggregation, as displayed in the following examples.

Figure 2-3 Link Severity Example 1



In Figure 2-3 there is a critical link (#1) between two NEs in an aggregation. This affects the severity of the aggregation (#2)—that is, aggregation is critical because it contains a link with a critical severity. Link severity affects the context.

Figure 2-4 Link Severity Example 2



In Figure 2-4 there is one critical link (#1) that forms part of a link aggregation. This affects the severity of link #2, because it contains a link with a critical severity.

New Ticket Propagation

A new ticket indicates a new local fault or accumulates and propagates the number of new faults in its children. New tickets are propagated upward, displaying the number of new tickets and the top-most severity.

When new tickets are accumulated, a label is displayed in the tree pane and map pane, based on the following formula:

n s [**+**]

where:

Symbol	Meaning
n	The number of tickets with the highest severity in the new ticket count.
s	The highest severity level in the new tickets: • C = Critical • M = Major • m = Minor • W = Warning • N = Normal (cleared alarm)
+	Additional, less severe tickets (optional) exist.

The color of the bell displays the top-most severity levels.

Examples:

- An object with three critical new alarms, two major alarms and one warning alarm is labeled 3C+.
- An object with five minor new alarms is labeled 5m.

Network Element Management State

The management state indicates the state/mode of the software component (a VNE) managing a network device and the communication with it. This enables you to determine the accuracy of the network information and the availability of the Cisco ANA VNEs in order to carry out network operations.

Management states are always local indications and are not propagated. A partial exception to this rule is the propagation of unreachable network elements.

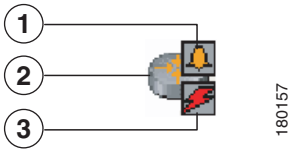
The management state indication only applies to network elements and network element components. A network object can only have one state (for example, Unsupported or Initializing).

A network device icon consists of two components: a device icon and an overlay icon that reflects the status: the severity, management state, or new alarm.

The device icon displays a symbol of the network device, and the color of the symbol displays the severity (or propagated severity) of the network device. For more information about device icons, see Device Icons, page A-1. For more information about severity colors, see Map View, page 2-5.

A small overlay icon is displayed on top of the device icon to indicate the management state in the tree pane and map pane. For example, a router that Cisco ANA failed to access (the router is unreachable) is displayed as illustrated in Figure 2-5.

Figure 2-5 Device with Overlay Icons



1	Alarm icon
2	Device icon
3	VNE Management State icon

Cisco ANA NetworkVision supports the following management states:

Table 2-6 Management States

Priority Value	Description	Tree Pane	Map Pane
Unsupported	The VNE does not support the network object hardware or software version or a device module.		
Initializing	The VNE or VNE component is in startup mode or is temporarily non-operational.		

Table 2-6 Management States (continued)

Priority Value	Description	Tree Pane	Map Pane
VNE Unreachable or Agent Unreachable	Cisco ANA Gateway received no response from the VNE.		
Device Unreachable	Cisco ANA failed to access the device.		
Partially Supported	The group of devices is supported in general, but the specific device is only partially supported.		
Maintenance	The NE is working (status Up) but is no longer polled (if there are any alarms or tickets that are generated on the device, they are not sent to the application). VNEs are placed in this mode when: • A user manually changes the VNE state to maintenance, or • The adaptive polling mechanism moves the VNE to maintenance mode because CPU usage is too high. (For more information, see the *Cisco Active Network Abstraction 3.6.6 Administrator Guide*.)		
Unknown	The device (ghost) type is unknown.		
Operational	Fully functional.	NE icon	NE icon

More than one management state can occur at the same time. In this case, a single overlay icon is displayed, reflecting the device status based on the following priorities: Unsupported > Initializing > VNE Unreachable > Device Unreachable > Partially Supported > Operational.

Tickets

A bell icon is displayed in the tree pane, map pane and ticket pane to indicate tickets. Every alarm is assigned a severity level, representing the impact of the fault on the network device. The bell icon displays the severity level of the top-most alarm. The following is an example:

Value	Tree Pane	Map Pane
Ticket		

Cisco ANA NetworkVision Toolbar

The Cisco ANA NetworkVision toolbar is context-sensitive and the options vary depending on your selection in the application.

Note The functionality (available on the toolbar and menus) that is accessible to the user depends on the permissions defined for the user.

The Cisco ANA NetworkVision window contains the following tools:

Table 2-7 Cisco ANA NetworkVision Toolbar

Button	Function
	Creates a new map in the database.
	Opens a map saved in the database using the Open dialog box.
	Saves the current map (the background and the location of devices) to the database.
	Adds a device to the map or to the subnetwork selected in the tree pane and displayed in the map pane.
	Adds a VPN (that has not yet been loaded) to the currently displayed map. For more information, see the *Cisco Active Network Abstraction 3.6. 6 MPLS User Guide*.
	Opens the Inventory window, enabling you to view the physical and logical inventory of a device.
	Aggregates the network elements selected in the map pane of the Cisco ANA NetworkVision window and enables you to define a name for the new aggregated node.
	Opens the Map Options dialog box, enabling the network administrator to display or hide different types of links on the map and in the links view.
	Defines the size of selected devices or aggregated nodes in the map pane, according to predefined sizes or according to a percentage of the current size.
	Choose and display an overlay of a specific VPN on top of the devices displayed in the network map of the map pane using the Choose Overlay dialog box. When a VPN in the network is selected, all the devices and links that are part of the VPN are colored, and those that are not part of the VPN are dimmed. The ones that remain highlighted are the provider edge routers and the physical links that carry the label switched path (LSP) that is being used by the VPN. For more information, see the *Cisco Active Network Abstraction 3.6.6 MPLS User Guide*.

Table 2-7 Cisco ANA NetworkVision Toolbar (continued)

Button	Function
	After a selection is made by clicking Choose Overlay, displays or hides a previously defined overlay of a specific VPN on top of the physical devices displayed in the network map of the map pane. For more information, see the *Cisco Active Network Abstraction 3.6.6 MPLS User Guide*.
	Opens the Find Business Tag dialog box, enabling the network administrator to find and delete a business tag according to a name, key or type.
	Moves up a branch in the tree pane and map pane to enable you to view different information.
	Finds a device or aggregated node in the map according to the name.
	Defines the way in which the map lays out the NEs in the map pane of the Cisco ANA NetworkVision window: circular, symmetric, tree, or hierarchical.
	Displays the device view in the Cisco ANA NetworkVision window (the button toggles when selected or deselected).
	Displays the links view in the Cisco ANA NetworkVision window (the button toggles when selected or deselected).
	Displays the map pane in the Cisco ANA NetworkVision window (the button toggles when selected or deselected).
	Opens a window displaying an overview of the network.
	Activates the normal selection mode (the button toggles when selected or deselected).
	Activates the pan mode, which enables you to move around in the map pane by clicking and dragging (the button toggles when selected or deselected).
	Activates the zoom selection mode, which enables you to select an area in the map pane to be enlarged by clicking and dragging to view the selected area (the button toggles when selected or deselected).
	Fits the entire subnetwork or map in the map pane.

Cisco ANA NetworkVision Menu Bar

This section provides a description of each option available in the Cisco ANA NetworkVision menus. The following menus are available:

Note Based on the security level and access permissions assigned to a user, some of the menu options may not be available.

Note The menus are context-sensitive and the options vary depending on your selection in the application.

File Menu

The Cisco ANA NetworkVision File menu displays the following options (for more information, see Chapter 8, "Working with Cisco ANA NetworkVision Maps").

File Menu Option	Description
New Map	Creates a new (empty) map in the database.
Open	Opens map saved in the database using the Open dialog box.
Close Map	Closes the map currently displayed in the Cisco ANA NetworkVision window.
Load PathTracer	Loads a Cisco ANA PathTracer map from a previously saved file in the Cisco ANA PathTracer Multi-Path window.
Add Device	Opens the device view and enables you to add a device to the map or to the subnetwork selected in the tree pane and displayed in the map pane. This option is enabled when a map is open and you have the relevant security level (OperatorPlus).
Add VPN	Adds a VPN (that has not yet been loaded) to the currently displayed map. For more information, see the *Cisco Active Network Abstraction 3.6.6 MPLS User Guide*. **Note** When you create a VPN or load a VPN Service View map, you may add and configure tunnels using a shortcut menu. For more information, see the *Cisco Active Network Abstraction 3.6.6 MPLS User Guide*.
Save Map	Saves the appearance of the map (the background and the location of devices) to the database. This option is enabled when a map is open and you have the relevant security level (OperatorPlus).

File Menu Option	Description
Save As Image	Saves the active map as an image and automatically displays the Save as Image dialog box. Use this dialog box to save an image using a different file format or name.
Print Preview	Displays each map as it will look when printed.
Print	Prints the active map as displayed in the Print Preview dialog box.
Exit	Exits the Cisco ANA NetworkVision application and saves the workspace.

Edit Menu

The Cisco ANA NetworkVision Edit menu displays the following options (for more information, see Chapter 8, "Working with Cisco ANA NetworkVision Maps").

Edit Menu Option	Description
Find in Map	Searches for a device in the map that contains the specified text in the name or the IP address fields.
Find Business Tag	Searches for business tag information in the database.
Resize	Displays the Resize dialog box, enabling you to define the percentage used to resize device icons or aggregated nodes in the map pane. **Note** The Resize option is only available when device icons or aggregated nodes are selected.

View Menu

The Cisco ANA NetworkVision View menu displays the following options. (for more information, see Viewing the Network Map, page 8-11).

View Menu Option	Description
Layout	Defines the way in which the map is displayed in the map pane of the Cisco ANA NetworkVision window's workspace: circular, symmetric, tree, or hierarchical.
Overview	Opens a window displaying an overview of the network map.
Zoom In	Zooms in on the network map.
Zoom Out	Zooms out of the network map.
Fit In Window	Displays the entire network map in the map pane.
Normal Select	Activates the normal selection mode. The selected option is grayed out.
Pan	Activates the pan mode, which enables you to move around in the map pane by clicking and dragging. The selected option is grayed out.
Zoom Selection	Activates the zoom selection mode, which enables you to select an area in the map pane to be enlarged by clicking and dragging to view the selected area. The selected option is grayed out.

Node Menu

The Cisco ANA NetworkVision Node menu displays the following options.

Note Most of the functionality available in this menu is only available when a device icon or an aggregated node is selected in the tree or map pane.

View Menu Option	Description
Inventory	Displays a dialog box that enables you to view the physical and logical inventory. For physical inventory, you can view all the components of the device, such as modules and ports. In addition, you can view the status of each component. For logical inventory, you can view all the profiles and virtual channels or routing tables of the device. For more information, see Chapter 11, "Viewing the Network Element Inventory."
Aggregate	Groups the selected network elements into an aggregation in the map pane of the Cisco ANA NetworkVision window's workspace, and enables you to define a name for the new aggregated node. For more information, see Chapter 8, "Working with Cisco ANA NetworkVision Maps."
Disaggregate	Ungroups the selected aggregated node in the tree pane and map pane of the Cisco ANA NetworkVision window. All the aggregations in the selected node move up one level, and the original aggregated node is removed. For more information, see Chapter 8, "Working with Cisco ANA NetworkVision Maps." **Note** Only available when an aggregated node is selected in the tree or map pane.
Mark as A Side	Starts the process of creating a new static link. This option is enabled when a device, port or unmanaged network is selected.
Mark as Z Side	Launches the Add Static Link dialog box, enabling you to create a static link between the two selected nodes. This option is enabled after a device, port or unmanaged network is selected and after the Mark as A Side option is selected. **Note** When the user selects two ports, the Add Static Link dialog box is not displayed.
Properties	Displays a dialog box enabling you to view the properties of the selected device, such as the severity, IP address, and communication state. For more information, see Chapter 10, "Viewing Device Properties."

Tools Menu

The Cisco ANA NetworkVision Tools menu displays the following options.

Tools Menu Option	Description
Change User Password	Enables you to change the password used when logging in to the Cisco ANA client application suite. The change will take effect the next time that the user logs in to the application. **Note** The administrator can also change a user password in Cisco ANA Manage.
Options	Enables you to customize several of Cisco ANA NetworkVision's options, such as whether or not to load the workspace on startup. For more information, see Selecting Cisco ANA NetworkVision Map and Alarm Options, page 2-28.

Window Menu

The Cisco ANA NetworkVision Window menu displays the names of all the maps open in the Cisco ANA NetworkVision window's workspace, enabling you to move between the maps.

Help Menu

The Cisco ANA NetworkVision Help menu provides the user with information about Cisco ANA NetworkVision and provides access to the help.

Help Menu Option	Description
Cisco ANA Network Vision Help	Opens the Cisco ANA NetworkVision online help
Cisco.com	This option is unavailable in this version.
About Cisco ANA Network Vision	Displays application information about Cisco ANA NetworkVision.

Cisco ANA NetworkVision Shortcut Menus

Right-clicking in a specific area or on a link, device or alarm in the Cisco ANA NetworkVision window opens the following shortcut menus:

- Device Shortcut Menu, page 2-23
- Map Shortcut Menu, page 2-25
- Aggregated Node Shortcut Menu, page 2-25
- Link Shortcut Menu, page 2-26
- Links View Shortcut Menu, page 2-26
- Ticket Shortcut Menu, page 2-26

A shortcut menu is displayed when you right-click in many of the Cisco ANA NetworkVision's windows or tables. For example, you can open a map from the Map List dialog box using the shortcut menu. The options displayed vary depending on the window or table currently displayed and the selection. For more information about any of the shortcut menu options displayed, see the options discussed in this section.

Note

- Based on the security level and access permissions assigned to a user, some of the menu options may not be available.
- The menus are context-sensitive and the options vary depending on your selection in the application; for example, the shortcut menus for NEs and aggregated nodes are different.

Device Shortcut Menu

The Device shortcut menu is displayed when you right-click a device in the tree pane and in the workspace.

Note The Device shortcut menu is context-sensitive and the options vary depending on your selection in the application. Some options may not be available when multiple devices are selected.

Device Shortcut Menu Option	Description
Inventory	Displays a window enabling you to view the physical and logical inventory. For physical inventory, you can view all the components of the device, such as the modules, ports, and its IP address or configured VLANs. In addition, you can view the status of each component. For logical inventory, you can view all the profiles and VC tables of the device. For more information, see Chapter 11, "Viewing the Network Element Inventory."
Aggregate	Groups the selected devices into an aggregation in the map pane of the Cisco ANA NetworkVision window's workspace, and enables you to define a name for the new aggregated node. For more information, see Chapter 8, "Working with Cisco ANA NetworkVision Maps."
Disaggregate	Ungroups the devices in the selected aggregated node in the tree pane and map pane of the Cisco ANA NetworkVision window. For more information, see Chapter 8, "Working with Cisco ANA NetworkVision Maps." **Note** Only available when an aggregated node is selected in the tree or map pane.
Attach Business Tag	Attaches a business tag to the selected network element. For more information, see Chapter 12, "Working with Business Tags."
Detach/Edit	You can detach or edit a business tag from the selected Network Object. For more information, see Chapter 12, "Working with Business Tags." **Note** The Detach and Edit options are only displayed when a business tag is attached to a Network Object.
Filter Tickets	Filters the tickets shown in the ticket pane so that it only displays the tickets of a selected device/network element.

Device Shortcut Menu Option	Description
Remove from Map	Removes the selected device and all its children from the map (tree pane and workspace). The device that has been removed is still maintained in the network.
Save As New Map	Creates a new map and places the selected aggregation as the root, while leaving the original map intact.
Tools	The Tools option contains the following submenu options: • CPU Usage—Displays memory and CPU usage information for a device/network element. • Ping—Pings the device from the client station. • Telnet—Communicates with the device using the Telnet window from the client station.
Topology	The Topology option enables you to: • Add a new static link between two devices. • Add new static topology between a device and an unmanaged network. It contains the following submenu options to enable you to define the A Side and Z Side of the link: • Mark as A Side • Mark as Z Side When working with VPNs in VPN Service View, the Topology submenu allows you define and configure tunnels. For more information, see the *Cisco Active Network Abstraction 3.6.6 MPLS User Guide*.
Properties	Displays the properties of the selected device, such as the IP address and system name. In addition, you can open the VNE Properties dialog box and manage VNE properties. For more information, see Chapter 11, "Viewing the Network Element Inventory."
VNE Tools	Changes the status of the VNE by starting or stopping it. For more information, see Chapter 10, "Viewing Device Properties."
Management	Contains the following submenu options: • Command Builder—Defines commands and scripts using the Cisco ANA Command Builder tool (Configurator security level required). For more information, see the *Cisco Active Network Abstraction 3.6.6 Customization User Guide*. • Soft Properties Management—Extend VNEs by adding SNMP MIB or Telnet/SHH/TL-1 properties to the device's collected information model using the Cisco ANA Soft Properties Manager (Administrator security level required). For more information, see the *Cisco Active Network Abstraction 3.6.6 Customization User Guide*.

Map Shortcut Menu

The Map shortcut menu is displayed when you right-click anywhere on a map in the map pane.

Map Shortcut Menu Option	Description
Go to Parent	Goes to the parent in the tree pane and map pane to enable you to view different information.
Go to Root	Goes to the root in the tree pane and map pane to enable you to view different information.
Aggregate	Creates an aggregation of the selected nodes in the tree pane and map pane of the Cisco ANA NetworkVision window and enables you to define a name for the aggregation. For more information, see Chapter 8, "Working with Cisco ANA NetworkVision Maps."
Filter Tickets	Filters the tickets shown in the ticket pane so that it only displays the tickets of a selected device/network element.

Aggregated Node Shortcut Menu

The Aggregated Node shortcut menu is displayed when you right-click an aggregated node in the map pane.

Aggregated Node Shortcut Menu Option	Description
Aggregate	Groups the selected aggregated nodes into an aggregation in the map pane of the Cisco ANA NetworkVision window's workspace, and enables you to define a name for the new aggregated node. For more information, see Chapter 8, "Working with Cisco ANA NetworkVision Maps."
Disaggregate	Ungroups the selected aggregated node in the tree pane and map pane of the Cisco ANA NetworkVision window. All the aggregations in the selected node move up one level, and the original aggregated node is removed. For more information, see Chapter 8, "Working with Cisco ANA NetworkVision Maps."
Filter Tickets	Filters the tickets shown in the ticket pane so that it only displays the tickets of the selected aggregated node.
Rename	Renames the selected aggregated node.
Resize	Defines the size of selected aggregated nodes in the map pane according to predefined sizes or according to a percentage of the current size.
Remove from Map	Removes the selected aggregated node and all its children from the map (tree pane and map pane).
Save as New Map	Creates a new map and places the selected aggregation as the root, while leaving the original map intact.

Aggregated Node Shortcut Menu Option	Description
Show Thumbnail	Displays a thumbnail of the selected aggregated node in the map pane, including all the aggregated devices.
Show as Aggregation	Displays the aggregated node in the map pane. **Note** The Show as Aggregation option is displayed in the shortcut menu when a thumbnail is displayed in the map pane.

Link Shortcut Menu

The Link shortcut menu is displayed when you right-click a link in the map pane. For more information, see Chapter 14, "Working with Links."

Link Shortcut Menu Option	Description
Filter Tickets	Filters the tickets shown in the ticket pane so that it only displays the tickets of a selected Network Object.
Properties	Displays the properties of the selected link.

Links View Shortcut Menu

The links view shortcut menu is displayed when you right-click a link in the links view table displayed in the Cisco ANA NetworkVision window's workspace. For more information, see Chapter 14, "Working with Links."

Links View Shortcut Menu Option	Description
Attach Business Tag	Attaches a business tag to the selected link. For more information, see Chapter 12, "Working with Business Tags."
Detach/Edit	Detaches or edits a business tag from the selected link. For more information, see Chapter 12, "Working with Business Tags." **Note** The Detach and Edit options are only displayed when a business tag is attached to a link.
Find Source	Finds the link source, if it exists, by highlighting the link in the map pane.
Properties	Displays the properties of the selected link.

Ticket Shortcut Menu

The Ticket menu is displayed when you right-click the ticket in the ticket pane. The Ticket menu enables the network administrator to view ticket properties and to highlight a device that is the source of a ticket. The Ticket menu also enables you to acknowledge, clear and remove a ticket. For more information, see Chapter 15, "Working with Tickets."

Ticket Shortcut Menu Option	Description
Acknowledge	Acknowledges that the ticket is being handled and the ticket is displayed as true in the ticket pane. Acknowledging an alarm removes the alarm icon from the device icon. Multiple tickets can be acknowledged at the same time.
Clear	Approves the reported faulty ticket and clears the faulty networking entity from Cisco ANA. The ticket is displayed as Clear in the ticket pane. **Note** When a Card Out or Link Down alarm occurs, the relevant information is displayed in the inventory and maintained in the VNE.
Remove	Removes the ticket and all its active subtickets from the ticket pane (this option is only available after the ticket has been cleared). The deleted tickets can be viewed using Cisco ANA EventVision. Multiple tickets can be removed at the same time. **Note** When a ticket is removed the information is no longer displayed in the inventory and is removed from the VNE.
Clear and Remove	Approves the reported faulty ticket and clears the faulty networking entity from Cisco ANA. In addition, the ticket and all its active subtickets are removed from the ticket pane.
Find Source	Finds the ticket source, if it exists, by highlighting the device or link in the map pane.
Properties	Displays the Ticket Properties dialog box, enabling you to view ticket information, including impact analysis details of the affected parties and correlated alarms. See Opening Ticket Properties, page 15-10

Changing a User Password in Cisco ANA NetworkVision

Cisco ANA NetworkVision enables the user to change his/her login password.

Note The administrator can also change the user password in Cisco ANA Manage.

Note Cisco ANA NetworkVision has the following preconfigured password defaults; the administrator can however modify these defaults using the Cisco ANA Registry:

- The minimum length of the user password is 6 characters.
- The maximum length of the user password is 10 characters.
- The minimum number of digits that must be included in the user password is 1.

To change a user password:

Step 1 Choose **Tools > Change User Password** from the main menu. The Change User Password dialog box is displayed.

The following fields are displayed in the Change User Password dialog box:

- Old password—Enter the old user password.
- New password—Enter the new user password.
- Confirm password—Enter the new user password again to confirm the new password.

Step 2 Click **OK**. The change will take effect the next time that you log in to the application.

Note To display the password rules, click **Show Password Rules** in the Change User Password dialog box.

Selecting Cisco ANA NetworkVision Map and Alarm Options

To customize the Cisco ANA NetworkVision display, choose **Tools > Options** from the main menu. The following options are displayed.

Cisco ANA NetworkVision Viewing Options	Description
Startup	• Load Workspace On Startup—Loads your workspace when you log in.
Display	Severity settings: • Show Severity Text—Displays severity labels in the tree pane and map pane, as per the formula described in New Ticket Propagation, page 2-14. • Show Acknowledged—Displays a critical alarm severity even after the alarm is acknowledged. • Show Propagated—Displays only the alarms on the specific entity; it does not display propagated alarms. Display Name settings: • Do not use Business Tag—Displays the original network element name only. • Add Business Tag to name—Displays the original network element name and the name of the business tag. • Replace name with Business Tag—Replaces the network element name with the name of the business tag. When a subscriber is attached to a port, the name of the subscriber is also added.

Cisco ANA NetworkVision Viewing Options	Description
Audio	Defines whether sounds are used when an alarm is triggered and what these sounds will be. You can select different sound files for critical, major, and minor alarms. • Critical—Defines and tests the .wav file that is used to alert the user when a critical alarm is triggered. • Major—Defines and tests the .wav file that is used to alert the user when a major alarm is triggered. • Minor—Defines and tests the .wav file that is used to alert the user when a minor alarm is triggered. • Loop Sound on Critical Alarm—Defines whether the critical alarm sound is played once only or is continuous (loops).

Managing Cisco ANA NetworkVision Tables

The following sections describe how to work with Cisco ANA NetworkVision's tables, including how to perform general Cisco ANA NetworkVision functions, such as printing, filtering, and saving a map image:

- Working with Cisco ANA NetworkVision Tables, page 2-29, describes how to work with the Cisco ANA NetworkVision tables, including finding text, defining filters and clearing filters.
- Setting Selection Filters, page 2-32, describes how to define a selection filter in a table.
- Sorting a Table, page 2-33, describes how to sort a table by defining specific criteria.
- Exporting Cisco ANA NetworkVision Tables to a File, page 2-34, describes how to export all the currently displayed data from the Cisco ANA NetworkVision table.

Working with Cisco ANA NetworkVision Tables

Various tables are used throughout the application to display different types of information. Some of the functionality provided in the Cisco ANA NetworkVision tables is described in the following topics:

- Find text in a table. For more information, see Finding Text in a Table, page 2-30.
- Define and remove a filter in a table. For more information, see Defining a Filter, page 2-31 and Clearing a Filter, page 2-32.
- Set a selection filter or view a previous selection filter. For more information, see Setting Selection Filters, page 2-32.
- Export table information. For more information, see Exporting Cisco ANA NetworkVision Tables to a File, page 2-34.
- Sort the table according to a column. For more information, see Sorting a Table, page 2-33.

For more information about the toolbar displayed in the workspace, see Device View, page 2-7.

Cisco ANA NetworkVision enables the user to sort a table in one or more of the following ways:

- According to a column by clicking on the required column heading. The  icon is displayed next to the selected column heading indicating continuous sorting.
- In ascending or descending order by clicking on the column heading.
- By clicking the Sort Table Values button on the toolbar of the table and specifying the criterion by which the table will be sorted. For more information about sorting a table using the Sort Table Values button, see Sorting a Table, page 2-33.

A triangle is displayed next to the column heading to indicate the column according to which the table is sorted.

The user can open the Filter dialog box by clicking the Filter button and sorting criteria by table field, operator, and text.

Clicking on a red triangle automatically expands the cell to view all the data.

Finding Text in a Table

Cisco ANA NetworkVision enables you to search for information about a specific network object in a table by entering the search criteria, such as partial IP address)

The following table lists the keyboard shortcuts that can be used when working with tables:

Keyboard Shortcut	Description
Ctrl + A	Select all the rows in the table.
Ctrl + Space	Deselect all the rows in the table.
Enter	On a selected row, opens the default action.
Arrow Navigation Keys	Navigates up and down in the rows.
Ctrl + Up/Down	Keeps the selected row, and moves up or down.
Ctrl + Up/Down + Space	Keeps the selected row and moves up or down. The space selects the required row.
Shift + Up/Down	Keeps the selected row and selects all the rows that are above or below it.
Shift + F10	Opens the shortcut menu.
F3	Finds next.
Shift F3	Finds previous.

To find text in a table:

Step 1 In the Find field on the toolbar, enter the search criteria for the entity that you want to find.

Step 2 Click **Enter**. The row matching the search criteria is highlighted in the table.

Note Click **F3** to continue searching the table.

Note Use **Ctrl + F** to jump to the find operation.

Defining a Filter

Cisco ANA NetworkVision enables you to define a filter for the data displayed in a Cisco ANA NetworkVision table by selecting filter criteria.

This tool appears throughout the application with the same functionality. The ticket pane has its own unique filter. For more information, see Filtering Tickets by Criteria, page 15-8.

To define a filter:

Step 1 In the toolbar above the table, click the Filter icon. The Filter dialog box is displayed.

The following drop-down lists are displayed in the Filter dialog box:

- Field—A drop-down list of all the columns displayed in the table.
- Operator—A drop-down list of the values included in the filter operation. The Not check box indicates that the selected value should not be included in the filter. For example, if you also select Contains, the value should not be contained in the filter.

The following field is also displayed:

- Search for—Enter the required filter value or select the required value from the Field and Operator drop-down lists.

Step 2 Select an option from the Field and Operator drop-down lists.

Step 3 Enter the required filter values or select the required value from the drop-down list in the Search for field.

Step 4 Click **OK**. The table data is displayed using the defined filter.

Note The Filter button toggles to indicate that a filter has been applied.

The filter can be cleared in order to redisplay all the data in the table.

Clearing a Filter

Cisco ANA NetworkVision enables you to clear a filter that was defined for the data displayed in a Cisco ANA NetworkVision table.

To clear a filter:

Step 1 In the toolbar above the table, click the Filter icon. The Filter dialog box is displayed.

Step 2 Click **Clear**. The table is redisplayed with all the data in the Cisco ANA NetworkVision window's workspace.

Setting Selection Filters

You can choose a line or specific set of lines, and display them in the table (all unselected lines are hidden). You may make continuous multiple line selections, setting the table content after each selection, using the Set Selection Filter button.

You can undo the last selections (one step back), one at a time, using the Previous Selection Filter button, or undo (rewind) all selections, using the Rewind All drop-down menu option.

This powerful Cisco ANA filtering mechanism enables you to sort though several hundred lines and pinpoint the appropriate lines that contain the required information.

For example, to filter and display seven lines in a 129-line Database Segment table, you:

- Select the appropriate lines in the table using standard Windows mouse or keystroke operations.
- Apply the filter to the selected lines using the Set Selection Filter button.

To choose multiple lines and apply the set a selection filter:

Step 1 Select the lines in the table using the mouse and standard Windows selection keys. The Set Selection Filter button is activated.

Step 2 In the toolbar above the table, click the Set Selection Filter icon. Only the selected lines remain in the table.

You can undo the last line selections (one step back), one at a time, using the Previous Selection Filter button.

To undo the previous filter selection:

Step 1 Select one or several lines and filter them out using the Set Selection Filter button.

Step 2 To undo the last filtering out selection, click the Previous Selection Filter icon above the table. The table will display all lines that appeared before your last filter selection.

You can undo (rewind) all multiple line selections, using the Rewind All drop-down menu option.

To undo all previous selected filter out options:

Step 1 Select, filter out and sort lines as required in the table using the Set Selection Filter icon.

Step 2 Click the Previous Selection Filter icon above the table. The Rewind All drop-down menu option is displayed.

Step 3 Select Rewind All. All the lines in the table are displayed.

Note To clear all manually selected and defined filter options, use the Clear button in the Filter dialog box (see Clearing a Filter, page 2-32, for more information about clearing filters).

Sorting a Table

The tables displayed in Cisco ANA Manage can be sorted by defining specific criteria on a one-time basis or continuously.

To sort a table:

Step 1 In the toolbar above the table, click the Sort Table Values icon. The Sort dialog box is displayed.

The following drop-down lists are displayed in the Sort By area:

- Sort By—A drop-down list of all the columns displayed in the currently displayed table. The table is sorted first according to the selection made here. Select ascending or descending order.
- Then By—Drop-down lists of all the columns displayed in the table. The table is sorted second and then last according to the selections made here. Select ascending or descending order.

The following radio buttons are displayed in the Sort Operation area:

- Once Only—Sorts the information displayed in the table, once only, according to the specified criteria. When this option is selected a triangle is displayed in the table heading for the selected column.
- Continuously/Repeatedly—Continuously sorts the information displayed in the table according to the specified criterion. When this option is selected the icon is displayed next to the selected column heading.

Step 2 Select an option from the Sort By drop-down list and Ascending or Descending order.

Step 3 (Optional) Select an option from the Then By drop-down lists and Ascending or Descending order.

Step 4 Select Once Only or Continuously/Repeatedly.

Step 5 Click **OK**. The table information is sorted according to the filter defined.

Note The Sort By default option depends on the table you are sorting. For example, when you click Sort Table Values in the links view table, the default value is Context. The default sorting is configured in the registry by type.

Exporting Cisco ANA NetworkVision Tables to a File

Cisco ANA NetworkVision enables you to export all the currently displayed data from the Cisco ANA NetworkVision table. Either the selected rows is exported, or, when nothing is selected, the entire table is exported. The data can then be imported and viewed at a later stage.

Note Press **Ctrl + Space** to ensure that nothing is selected in the table.

To export the table to a file:

Step 1 In the toolbar above the table, click the Export to CSV icon. The Export Table to File dialog box is displayed.

Step 2 Browse to the directory where you want to save the table.

Step 3 In the File name field, enter a name for the table.

Step 4 Click **Save**. The table or rows is saved in the selected directory.