



## Working with the Prime Network Vision Client

The following topics describe the user access roles required to use Cisco Prime Network Vision (Prime Network Vision), the Prime Network Vision working environment, and how to access the Prime Network Vision tools and commands:

- [User Roles Required to Work with Basic Operations in Prime Network Vision, page 2-1](#)
- [Launching Prime Network Vision, page 2-2](#)
- [Changing Your GUI Client Password, page 2-4](#)
- [The Prime Network Vision Window, page 2-4](#)
- [Prime Network Vision Status Indicators, page 2-17](#)
- [Prime Network Vision Toolbar, page 2-23](#)
- [Prime Network Vision Menu Bar, page 2-25](#)
- [Prime Network Vision Right-Click Menus, page 2-31](#)
- [Adjusting the Prime Network Vision GUI Client Settings, page 2-40](#)
- [Filtering and Sorting Tabular Content, page 2-42](#)

## User Roles Required to Work with Basic Operations in Prime Network Vision

[Table 2-1](#) identifies the GUI default permission or device scope security level that is required to work with Prime Network Vision. Prime Network Vision determines whether you are authorized to perform a task as follows:

- For GUI-based tasks (tasks that do not affect devices), authorization is based on the default permission that is assigned to your user account.
- For element-based tasks (tasks that do affect elements), authorization is based on the default permission that is assigned to your account. That is, whether the element is in one of your assigned scopes and whether you meet the minimum security level for that scope.

For more information on user authorization, see the [Cisco Prime Network 4.0 Administrator Guide](#).

By default, users with the Administrator role have access to all managed elements. To change the Administrator user scope, see the topic on device scopes in the [Cisco Prime Network 4.0 Administrator Guide](#).

**Table 2-1**      **Default Permission/Security Level Required for the Basic Prime Network Vision Functions**

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Start Prime Network Vision	X	X	X	X	X
Change a user password in Prime Network Vision	— <sup>1</sup>	— <sup>1</sup>	— <sup>1</sup>	— <sup>1</sup>	X <sup>1</sup>
Set Prime Network Vision options	X	X	X	X	X
Work with Prime Network Vision tables	X	X	X	X	X

1. Each user can change their own password, but only the Administrator role can change another user's password.

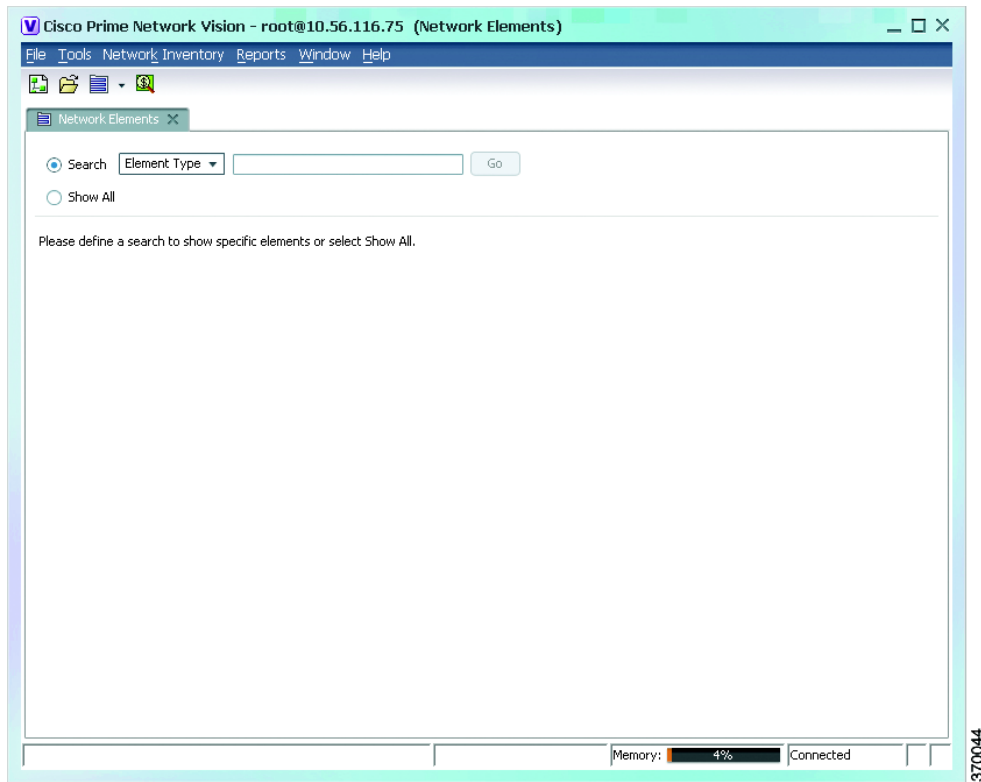
## Launching Prime Network Vision

Prime Network Vision is password protected to ensure security. Before you start working with Prime Network Vision, make sure you know your username and password. If you use the standalone application, you also need to know the Prime Network Vision gateway IP address or hostname.

- Launch Prime Network Vision from Prime Central—Choose **Assure > Prime Network > Vision** in the menu bar. The Prime Network Vision application is opened in a separate window. For information on Prime Central, see the Cisco Prime Central User Guide.
- Launch Prime Network Vision as a Standalone Application—Choose **Start > Programs > Cisco Prime Network > gateway IP address > Cisco Prime Network Vision**, and enter your username and password. If any client updates are available, Prime Network automatically installs them.

If you see messages that say the server and client have different versions of the application, you need to update your client as described in the [Cisco Prime Network 4.0 Installation Guide](#).

The Prime Network Vision GUI opens with the Network Elements tab as default as shown in [Figure 2-1](#).

**Figure 2-1** Prime Network Vision with Network Elements Tab

This tab contains the following radio buttons:

- Search—This radio button is selected by default and allows you to search for a device by selecting any one of the following options and specifying the relevant search criteria:
  - Element Type
  - IP Address
  - Name
  - Product
  - System Name
  - Vendor
- Show All—Selecting this option will display all the devices available in your network.

Once the GUI client is displayed, open an existing map or create a new one; see [Working with Prime Network Vision Maps, page 5-1](#).



#### Note

If this is not the first time you are logging into Prime Network Vision GUI, then the Prime Network Vision GUI opens with the default Network Elements tab along with the **Last Open Maps** dialog box. This dialog box will list the names of the maps that you opened previously along with a selected check box next to it. If you want to open the same maps again, then click the **OK** button. Otherwise, close the dialog box.

After logging into Prime Network Vision and launching the application, you can customize the Prime Network Vision settings. For example, you can:

- Load the content pane with information when starting Prime Network Vision.
- Display network elements in the Prime Network Vision content pane and navigation pane.
- Configure audio responses when different alarms are triggered.
- Specify the length of time that events should be displayed in the inventory window.

For more information on customizing Prime Network Vision startup and display options, see [Adjusting the Prime Network Vision GUI Client Settings](#), page 2-40.

## Changing Your GUI Client Password

The method used to change your password depends on whether authentication is provided by Prime Network or an LDAP server. If you can see the **Tools > Change User Password** choice in the Prime Network Vision menu, the system is using authentication provided by Prime Network. You can change your password by entering the old and new passwords.

If the menu choice is disabled, the system is using an external authentication method. To change your password, contact your administrator. For more information about user authentication, see the [Cisco Prime Network 4.0 Administrator Guide](#).

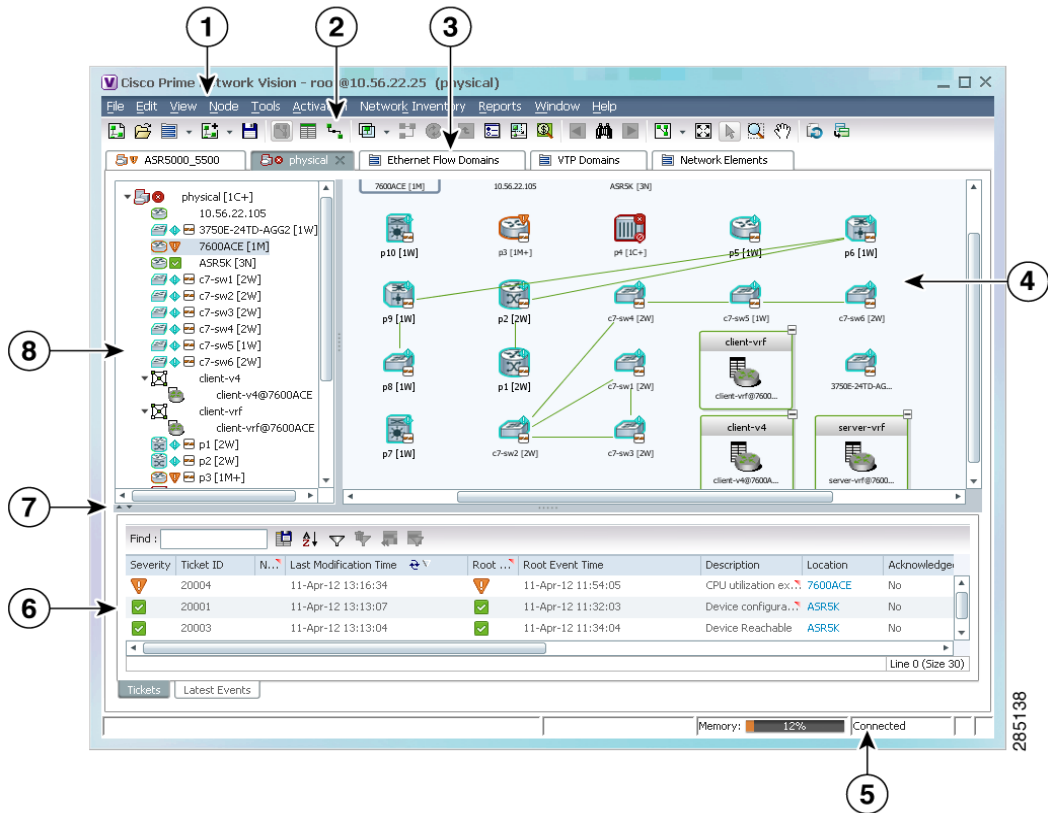
## The Prime Network Vision Window

[Figure 2-2](#) displays the Prime Network Vision window with an open map.

**Tip**

The ticket pane can be displayed or hidden by clicking the arrows below the navigation pane (see Callout 7 in [Figure 2-2](#)).

Figure 2-2 Prime Network Vision Window



1	GUI client menu bar	5	GUI client status bar (amount of memory used by client and gateway connection status)
2	GUI client toolbar	6	List of tickets on selected item
3	Active map and inventory tabs	7	Toggle to hide/display ticket pane
4	Map view (content pane)	8	Inventory window (navigation pane)

## Prime Network Vision Inventory Tabs

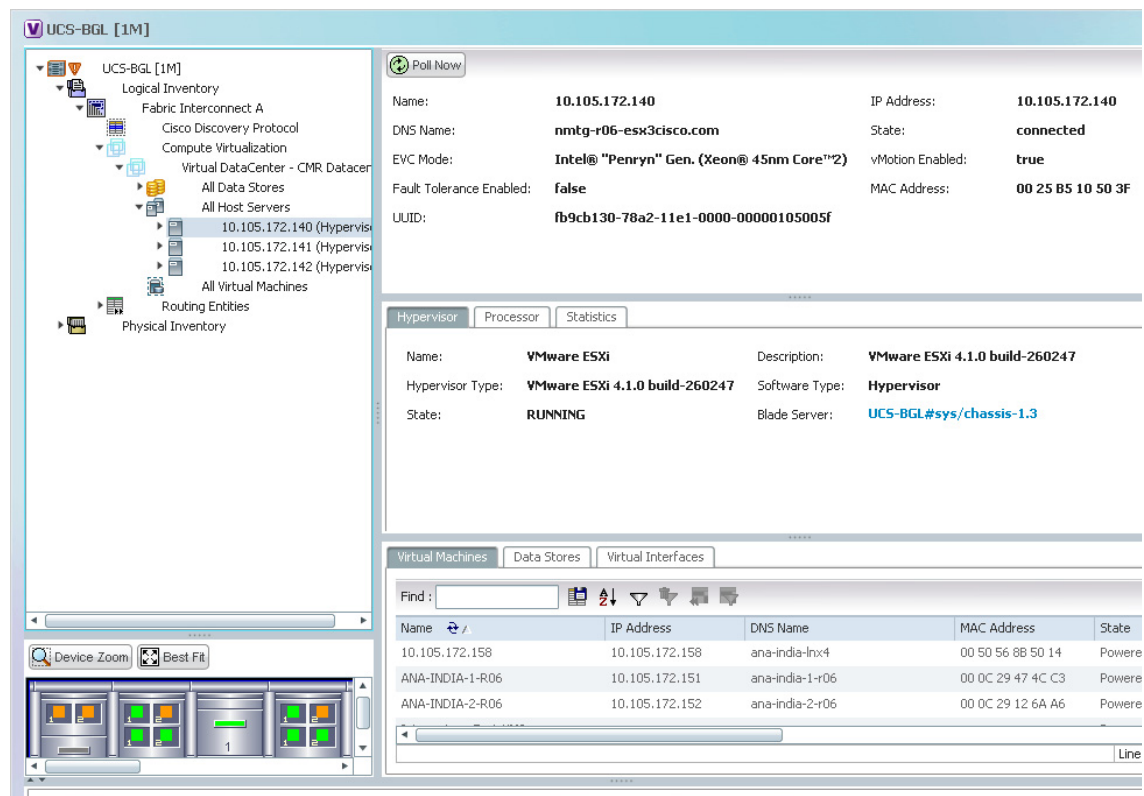
Prime Network Vision includes the following inventory tabs:

- **Network Elements**—Lists all network elements with the information described in [Table 2-7, Network Element Information Displayed in List View](#). If there are tickets associated with the element, an icon is displayed. The color of the icon indicates the ticket severity.
- **Ethernet Flow Domains**—Lists all Ethernet flow domains, including the domain name, the system-defined domain name, and a brief description for each domain. For more information about Ethernet flow domains, see [Viewing and Renaming Ethernet Flow Domains, page 12-42](#).
- **VTP Domains**—Lists all VTP domains. For more information about VTP domains, see [Viewing VLAN Trunk Group Properties, page 12-68](#).

- **Virtual Machines**—Lists all the virtual machines. For more information about virtual machines, see [Viewing the Virtual Machines of a Data Center, page 26-19](#). If there are tickets associated with the virtual machine, an icon is displayed. The color of the icon indicates the ticket severity.

To open an inventory tab, choose **Network Inventory** in the menu bar, and choose the required option. The selected inventory table is displayed as shown in [Figure 2-3](#).

**Figure 2-3 Prime Network Vision Inventory Tabs**



## Prime Network Vision Maps

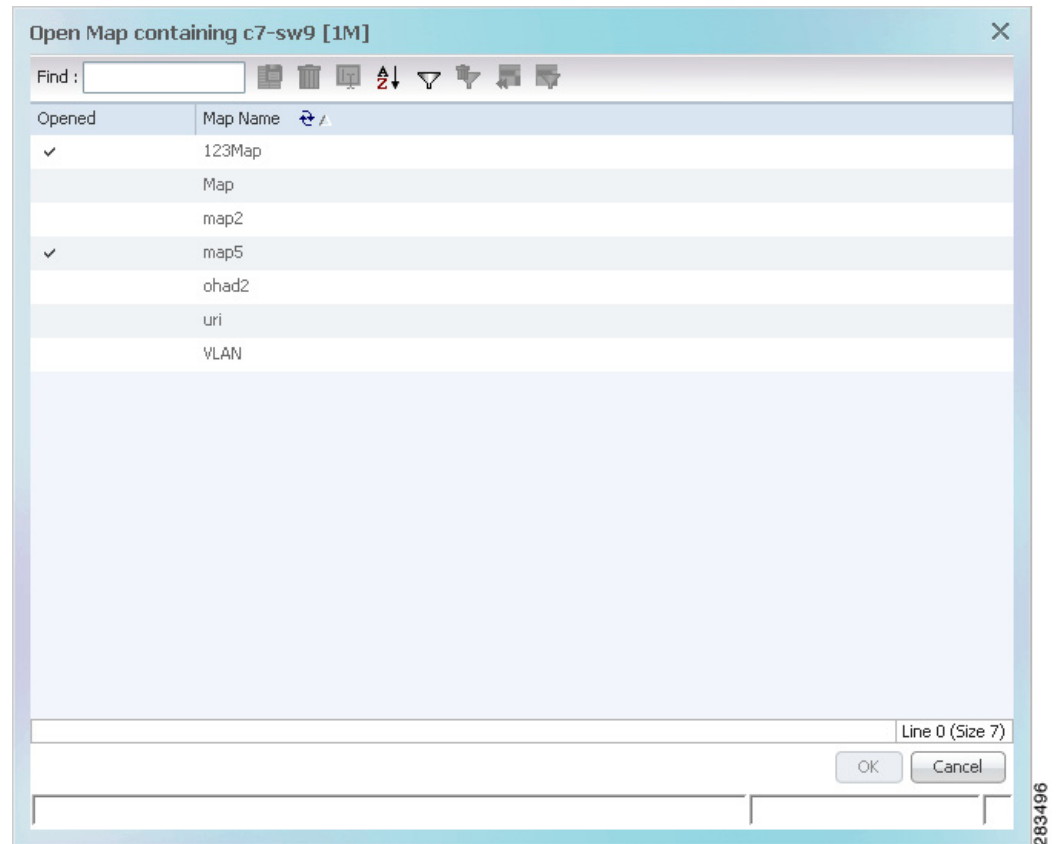
You can create as many maps as required to represent the network views you need. For example, maps can include specific network segments, customer networks, or the particular network elements and services that you require. Each map has three major areas:

- A tee-and-branch representation of the network elements and aggregations in the current map. For more information, see [Navigation Pane, page 2-7](#).
- A large area showing the map elements and links in a map (topological layout) or in list format. For more information, see [Content Pane: Map, List, and Links Views, page 2-8](#).
- A table of tickets associated with elements displayed in the map. For more information, see [Ticket Pane, page 2-17](#).

## Opening Maps

You can open up to five maps at one time. To open a map, choose **File > Open Map**. The Open Map dialog box is displayed (see [Figure 2-4](#)).

**Figure 2-4** Open Map Dialog Box



A check mark in the Opened column indicates that the map is already open. Map tabs display the root node icon and name.

In addition, the icon color reflects the highest severity ticket that is not cleared in the map, and an alarm icon indicates the severity of the highest severity ticket that is not acknowledged. For more information about maps, see [Working with Prime Network Vision Maps, page 5-1](#).

You can open up to eight tabs at one time.

## Navigation Pane

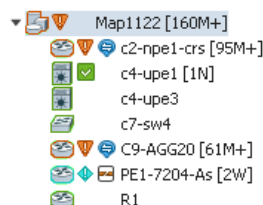
The navigation pane displays a tree-and-branch representation of the network elements and aggregations defined for the loaded map.

The highest level in the navigation tree displays root node icon with the map name. When the map name is changed, the Prime Network Vision window is updated, and the new map name is displayed at the top of the navigation tree and in the window title bar.

The lowest level of the navigation tree displays a single network element or service, such as a port, Ethernet flow point, or bridge.

The navigation pane can include up to two icons for each element. These icons can include alarm icons, communication or investigation state icons, and badges, as shown in [Figure 2-5](#). Alarm icons are always displayed next to the element icon.

**Figure 2-5** *Navigation Pane with Icons*



For information about the status of network objects, see [Prime Network Vision Status Indicators](#), [page 2-17](#).

## Content Pane: Map, List, and Links Views

The content pane 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 2-8](#).
- List view—Displays the details of the network elements contained in the currently selected hierarchy or subnetwork (map), such as the IP address and system name. For more information, see [List View](#), [page 2-12](#).
- Links view—Displays a complete list of the links in the map view and their status. For more information, see [Links View](#), [page 2-15](#).

### Map View

Click **Show Map View** on the toolbar to display the map view in the Prime Network Vision window. In the map view, Prime Network Vision displays:

- Aggregations
- Managed network elements
  - Each network element is displayed as an icon, the color of which reflects severity, as described in [Alarm Indicators](#), [page 2-12](#).
  - Depending on the size of the icon, additional information can be displayed. For more information, see [Information Available in Element Icons](#), [page 3-3](#).
- Ethernet flow point cross-connects
- Ethernet services
- MPLS-TP tunnels
- Pseudowires
- VLANs
- VPLS instances
- VPNs




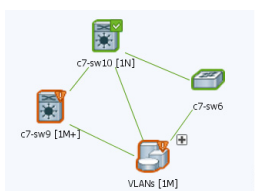
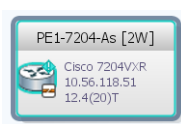

- Links
  - Service and business links are represented as well as physical and topological links.
  - Unidirectional links include arrowheads that indicate the direction of the flow, while bidirectional links do not have arrowheads.
- Relationships between network elements, aggregations, and networks

You can move network elements manually on the map by dragging the required icon. You can also click **Layout Map** in the toolbar or use your mouse to change the way the elements are displayed on the map. For more information about working with maps, see [Chapter 5, “Working with Prime Network Vision Maps.”](#)

## Element Icons

To view icons more easily, zoom in with your mouse. Four sizes are supported. [Table 2-2](#) provides examples of each. For more details about data this is displayed, see [Information Available in Element Icons, page 3-3](#).

**Table 2-2 Prime Network Vision Element Icon Sizes**

Example Icon	Name and Description
	Tiny—Elements are displayed as dots. Alarm severity is indicated by colors.
	Normal—Elements are displayed with icons and names. Alarms include badges. Alarm severity is represented by colors.
	Large—Same as Normal, with additional NE properties. You can also perform cut-and-paste operations by pressing and dragging the mouse scroll wheel over the text.
	Huge—Same as Normal, with additional action buttons.
























Prime Network Vision also provides additional features for working with aggregations. For more information, see [Working with Aggregations, page 5-16](#).

The following tables identify some of the icons used to represent network elements and business elements in the Prime Network Vision window’s navigation pane and content pane:























- [Table 2-3, Network Element Icons](#)
- [Table 2-4, Business Element Icons](#)

For a complete list of the icons and their descriptions, see [Appendix A, “Icon and Button Reference.”](#)

**Table 2-3 Network Element Icons**

Icon	Network Element	Icon	Network Element
	Access pseudowire Router		Cloud
	ATM switch		Digital subscriber line access multiplexer (DSLAM)
	Basic rate access (BRA)		Ethernet switch
	Cisco 7600 series router		Generic SNMP device
	Cisco ASR 1000 series router		Ghost, or unknown device
	Cisco ASR 5000 series router		ICMP device
	Cisco ASR 9000 series router		Lock, or security violation; viewable by a user with a higher permission level
	Cisco CRS series router		Missing icon or ghost NE (the NE was deleted and is no longer managed, or there is no icon for this NE)
	Cisco MWR 3941		Sun Netra server
	Cisco Nexus 1000 series devices		Service control switch
	Cisco IOS XR 12000 series router		WiFi element
	Cisco Unified Computing System (UCS)		

**Table 2-4 Business Element Icons**

Icon	Business Element	Icon	Business Element
	Aggregation or root node		Network Traffic Profile (TP) tunnel
	Backup pseudowire edge		Network VLAN
	Connection termination point (TP) Ethernet flow point (EFP) MToP service		Pseudowire edge
	EFP cross-connect		Pseudowire switching entity
	Ethernet service		Subnet
	Ethernet virtual connection (EVC)		Switching entity
	Label-Switched Path (LSP) endpoint		TP tunnel endpoint
	LSP midpoint		vCenter VNE
	Missing icon or ghost NE (the NE was deleted and is no longer managed, or there is no icon for this NE)		VPLS forward
	Network LSP Protected LSP Working LSP		VPLS instance
	Network pseudowire		VPN

## Links

Prime Network Vision maps contain *graphical links* that can represent multiple physical, topological, service, and business links. The maximum number of graphical links that can be displayed is specified in the registry. If the number of graphical links exceeds the specified limit, a warning message with a Refresh button is displayed, and the map is surrounded by a red border. The presence of a red border around a map indicates that some links exist that are not displayed in the map.

To reduce the number of graphical links in a map, click **Link Filter** in the toolbar, and uncheck the check boxes for the links you do not need to view.

Links in maps have tooltips that provide you with information regarding the link endpoints and the number of links represented by the selected link in the map. Click the link tooltip to view additional information about the link in a link *quick view* window. Click **Properties** in the link quick view window to open the link properties window. For more information about viewing link properties, see [Viewing Link Properties in Prime Network Vision Maps, page 6-4](#).








  
**Note**

If you apply a link filter to the map, the link tooltip displays only the relevant links.

Alarm Indicators

[Table 2-5](#) shows the colors that are used to display the severity (or propagated severity) of a network element. The same coloring conventions apply to the link severities.

**Table 2-5**      **Severity Indicators**

Icon	Color	Severity	Icon	Color	Severity
	Red	Critical		Light Blue	Warning
	Orange	Major		Medium Blue	Information
	Yellow	Minor		Dark blue	Indeterminate
	Green	Cleared, Normal, or OK			

  
**Note**

The color of a selected link can be customized. The default color is blue.

Right-Click Functions

Many functions can be performed by using the right-click menu in the map view, including launching external applications or tools. Some of these functions are also available in the navigation pane, links view, and ticket pane.

The specific options that are available in the right-click menu depend on whether you select a network element, click in the map background, select an aggregation, or select a ticket in the ticket pane. For details on the specific right-click options that are available for each scenario, see [Prime Network Vision Right-Click Menus, page 2-31](#).

List View

Click **Show List View** in the toolbar to display the Prime Network Vision list view. The list view displays the tabs described in [Table 2-6](#), depending on the items included in the current map and the item selected in the navigation tree.

**Table 2-6 Prime Network Vision List View Tabs**

Tab	Description
Aggregations	Aggregations in the current map.
Connection TP	Connection termination points (TPs) in the current map.
EFP Cross-Connect	EFP cross-connects in the current map.
Ethernet Flow Points	EFPs in the current map.
Ethernet Services	Ethernet services in the current map.
EVCs	EVCs in the current map.
Network Elements	Network elements in the current map that are in the user's scope.
Network Pseudowire	Network pseudowires in the current map.
Network TP Tunnel	Network Traffic Profile (TP) tunnels in the current map.
Pseudowires	Pseudowires in the current map.
Pseudowire Edge	Pseudowire endpoints in the current map.
PW Switching Entity	Pseudowire switching entities in the current map.
Restricted Elements	Network elements in the current map that are not in the user's scope.
Sites	Sites for the selected VLAN. Site properties include site name, description, location, and IP interface.
Switching Entities	Switching entities in the current map.
Virtual Routers	Virtual routers on the selected VLAN. Virtual router properties include the virtual router name and description.
VLANs	VLANs in the current map. VLAN properties include VLAN name, identifier, description, and Ethernet flow points.
VPLS Forward	VPLS forwards in the current map.
VPLS Instance	VPLS instances in the current map.
VPNs	VPNs in the current map. VPN properties include VPN name and description.

Table 2-7 describes the network element properties displayed in the Network Elements tab. (Locked network elements display only managed element information and the locked element icon.) To ensure that you are viewing the latest information, either perform a new search or click the Refresh button.

**Table 2-7 Network Element Information Displayed in List View**

Field Name	Description
Name	Name of the network element managed by Cisco, as defined in Cisco Prime Network Administration. The Name property also displays a network element icon. The icon color reflects the highest network element alarm severity. In addition, the management state or an alarm icon is displayed.
IP Address	IP address used for managing the network element.
System Name	System name of the network element, as defined in the network element's MIB. If the network element is configured for Telnet access, the prompt is displayed.
Severity	Current operational health of the network element.

**Table 2-7** Network Element Information Displayed in List View (continued)

Field Name	Description
Unacknowledged	Severity of the most severe unacknowledged ticket.
Communication State	Ability of the VNE to reach the network element, according to the health of the element. For more information about communication states, see the <a href="#">Cisco Prime Network 4.0 Administrator Guide</a> .
Investigation State	Level of network element discovery that has been performed or is being performed by the VNE. For more information about investigation states, see the <a href="#">Cisco Prime Network 4.0 Administrator Guide</a> .
Vendor	Vendor name.
Product	Network element category, such as Router or Eth-Switch (Ethernet switch).
Device Series	Device series, such as Cisco 7600 Series Routers.
Element Type	Network element type including the manufacturer's name, such as Cisco 7200.
Software Version	Cisco IOS software version running on the network element.
Location	Location of the network element.
Up Since	Date and time the network element was last reset.

**Tip**

Click the red triangle in a cell to expand the cell and view all the information it contains. You can also use a tooltip to view all the information.

See [Filtering and Sorting Tabular Content, page 2-42](#) for more information about filtering, finding details about a network element in Prime Network Vision tables.

[Table 2-8](#) describes some of the functions that are available from the right-click menu in the list view. You must select an item for the right-click menu to appear. Not all options are available for all selections.

**Table 2-8** List View Right-Click Options

Right-Click Option	Function	Related Documentation
Inventory	View network element inventory	<a href="#">Inventory Window, page 3-9</a>
Poll Now	Poll the selected element	
Attach / Detach / Edit Business Tag	Configure and view business tag information	<a href="#">Chapter 7, “Labeling NEs Using Business Tags”</a>
Config Mgmnt	View the Configuration Management page in Prime Network Change and Configuration Management	<a href="#">Chapter 4, “Device Configurations and Software Images”</a>
Image Mgmnt	View the Image Management page in Prime Network Change and Configuration Management	<a href="#">Chapter 4, “Device Configurations and Software Images”</a>
Run Report	Generate reports	<a href="#">Chapter 10, “Working with Reports”</a>
Tools	Ping or telnet a VNE, or check VNE CPU usage	<a href="#">List View Right-Click Menu, page 2-37</a>
Topology	Configure the topology	<a href="#">Adding Static Links, page 6-15</a>

**Table 2-8**      **List View Right-Click Options (continued)**

Right-Click Option	Function	Related Documentation
Properties	View network element properties	<a href="#">Viewing the Properties of a Network Element, page 3-6</a>
Commands	Launch any of the commands that are included with Prime Network Vision	<a href="#">Setting Up Devices and Validating Device Information, page 1-4</a>
Management	Access Command Builder and Soft Properties Management	<a href="#">Cisco Prime Network 4.0 Customization Guide</a>
VNE Tools	Poll a VNE, or start or stop a VNE	<a href="#">Performing a Manual Device Poll, page 3-18</a>

**Tip**

Click a column heading in a table to sort the information by that property.

**Links View**

Click **Show Links View** in the toolbar to display the links view in the Prime Network Vision window.

Maps can contain many graphical links, each of which can represent multiple physical, topological, service, and business links. This can make it difficult for you to view the links you are interested in. In addition, if the number of graphical links exceeds the number that can be displayed in a map, not all links are displayed. By using the links view, you can view all links in the map, as well as search for a specific link and view the status of a link.

**Note**

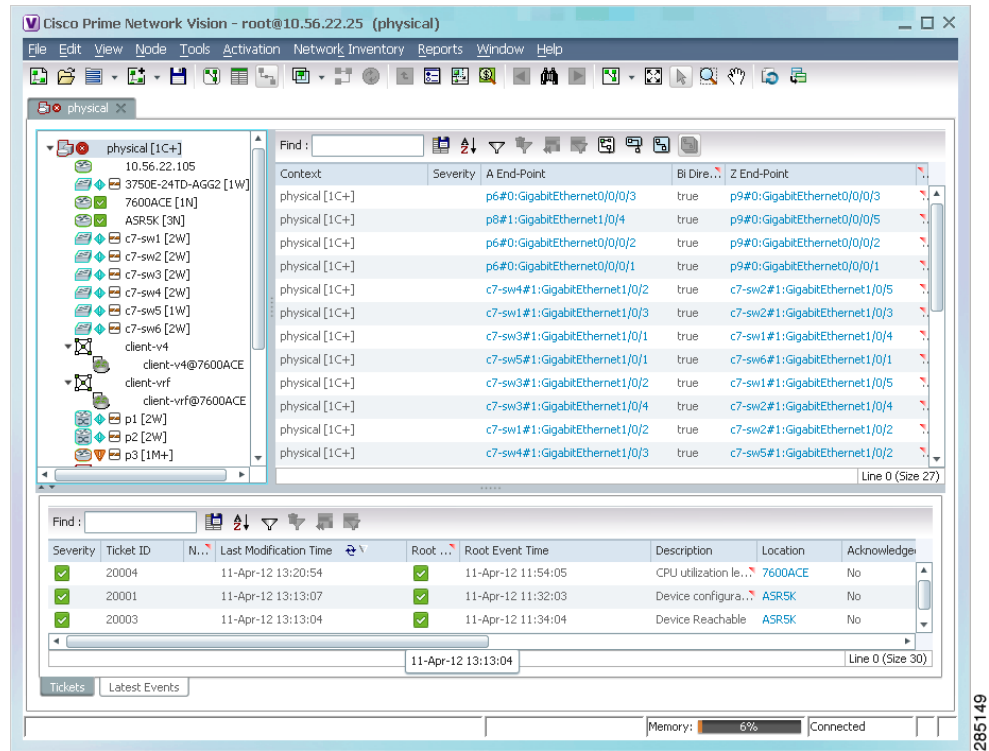
You can view and filter the links according to type by using the Link Filter dialog box. For more information, see [Filtering Links in a Map, page 5-25](#).

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 navigation pane or map. For example, if an aggregation is selected, the links in the selected aggregation are displayed in the links view.

Figure 2-6 shows a links view.

**Figure 2-6 Links View**



**Note**

An external link has a blue cell background in the table, and you can open the inventory window by clicking the hyperlink. For more information about external links, see [Viewing Link Properties in the Links View](#), page 6-8.

Table 2-9 describes the information that is displayed in the links view.

**Table 2-9 Information Displayed in the Links View**

Field Name	Description
Context	Name of the map or aggregation containing the link.  This field can be empty for either of the following reasons: <ul style="list-style-type: none"> <li>One side of the link is not included in the map.</li> <li>The link is filtered out of all contexts.</li> </ul>
Severity	Link alarm severity, represented by an icon. The icon and its color indicate the alarm severity and thereby the impact of the alarm on the network. For more information about severity, see <a href="#">Map View</a> , page 2-8.
A End-Point	Element or site that is the source of the link as a hyperlink to the inventory of the element or site.
Bi Directional	Whether the link is bidirectional or unidirectional: true (bidirectional) or false (unidirectional). If the link is unidirectional (false), the traffic is from A to Z.







**Table 2-9** Information Displayed in the Links View (continued)

Field Name	Description
Z End-Point	Element or site that is the destination of the link as a hyperlink to the inventory of the element or site.
Link Type	Type of link, such as Physical Layer, LAG, MPLS TE Tunnel, pseudowire (PW) or VPN.

The links view toolbar includes the tools described in [Table 2-10](#) and the link filtering buttons described in [Table 2-10](#).

**Table 2-10** Link Filtering Buttons

Button	Name	Description
	All Links	Displays the complete list of links for the selected context (map or aggregation). In other words, the list is not filtered and all the links are displayed, including external links.
	External Links	Displays links with only one side of the link in this context (map or aggregation) and the other side either not in the map or outside the selected context.
	Flat Links	Displays the links currently visible on the map for the selected context (map or aggregation), excluding any thumbnails.
	Deep Links	Displays the links for the current aggregation where both endpoints are within the currently selected context.

For more information about filtering and sorting links in the links view, see [Viewing Link Properties in the Links View, page 6-8](#).

For information about the right-click options available in the links view, see [Links View Right-Click Menu, page 2-39](#).

## Ticket Pane

The ticket pane shows the tickets that relate to the elements in the displayed map. It also contains the Latest Events tab that shows the latest incoming events for the elements in the map from the time the map was opened. See [Chapter 9, “Working with Tickets in Prime Network Vision”](#) for more information.

# Prime Network Vision Status Indicators

The following topics describe the ways in which the status of an element is displayed in Prime Network Vision:

- [Severity, page 2-18](#)
- [VNE Management States, page 2-19](#)
- [Tickets, page 2-23](#)

## Severity

Severity indicates the operational health of the element. An element has only one severity value at any given time, and this value is displayed using a severity color. For more information about the colors used to display the severity (or propagated severity) of network elements and links, see [Alarm Indicators](#), page 2-12.

### Propagation

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

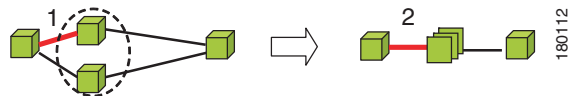
The same severity propagation rules that are used for network elements apply to links. A link is a child object of an aggregation *only* if it is fully contained in the aggregation; that is, the network elements on both sides of the link are part of the aggregation, as shown in [Figure 2-7](#) and [Figure 2-8](#).

**Figure 2-7 Link Severity Example 1**



[Figure 2-7](#) shows critical link 1 between two network elements in an aggregation. This critical link affects the severity of aggregation 2. That is, the aggregation is critical because it contains a link with a critical severity. Link severity affects the context.

**Figure 2-8 Link Severity Example 2**



[Figure 2-8](#) shows 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.

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

$n s [+]$

where:

Symbol	Description
$n$	The number of alarms with the highest severity that have the source as the network element and are part of the network element ticket(s).
$s$	The highest severity level in the new tickets: <ul style="list-style-type: none"> <li>• C = Critical</li> <li>• M = Major</li> <li>• m = Minor</li> <li>• W = Warning</li> <li>• N = Normal (cleared alarm)</li> <li>• i = Informational</li> </ul>
$+$	Additional, less severe tickets (optional) exist.

For example:

- 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.

An icon represents unacknowledged tickets, and the icon color is that of the most severe, unacknowledged ticket. For more information about severity colors and icons, see [Alarm Indicators, page 2-12](#).

If all relevant tickets are acknowledged, no bell is displayed.

## VNE Management States

VNEs are the building blocks of the Prime Network model because each VNE maintains a real-time model of a single device, and together, VNEs maintain a model of the entire network. VNE management states indicate:

- Whether a VNE can communicate with the device it is modeling and with other Prime Network components (communication state)
- How successfully a VNE has modeled the device it represents (investigation state)

This enables you to determine the accuracy of the network information and the availability of VNEs 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 VNEs. The management state indication applies only to VNE and its components. A VNE can have only one state at a time (for example, Unsupported or Connecting).

- A managed VNE icon consists of a managed element icon and one or two overlay icons, or *badges*:
- The *managed element icon* displays a symbol of the element, and the color of the symbol indicates the highest severity ticket that is *not cleared* for the element.

An element icon is colored green if either of the following is true:

- No ticket of any severity exists for the element.
- All tickets that exist for the element have the severity Cleared or Informational.

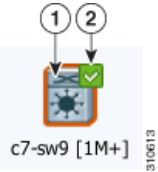
For more information about network element icons, see [Element Icons, page 2-9](#). For more information about severity colors, see [Alarm Indicators, page 2-12](#).

- An *alarm badge* is displayed on top of a managed element icon, and the color of the alarm badge indicates the severity of the highest severity ticket that is *not acknowledged* for the element. If all tickets are acknowledged, no alarm icon appears.

Figure 2-9 shows an example of an element with the following ticket and alarm severities:

- The highest severity ticket that is not cleared for the element is Major, as indicated by the orange color applied to the element icon.
- The highest severity alarm that is not acknowledged for the element is Cleared or OK, as indicated by the green alarm badge.

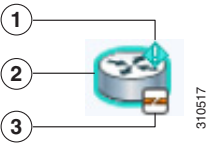
Figure 2-9 Element with Ticket and Alarm Severity Indicators



1	Element icon with severity Major (orange)
2	Alarm badge with severity Cleared or OK (green)

- A *VNE management state badge* is displayed on top of the managed element icon to indicate the management state of the VNE in the navigation tree and map. For example, a router that is partially reachable by Prime Network Vision is displayed as illustrated in Figure 2-10.




Figure 2-10 Element with Overlay Badges



1	Alarm badge with severity Warning.
2	Managed element icon with severity Warning.
3	VNE management state badge of Device Partially Reachable.

Table 2-11 and Table 2-12 describe network element communication and investigation states and shows the related badge for each state.

**Table 2-11 VNE Communication States**

State Name	Description	Badge
Agent Not Loaded	The VNE is not responding to the gateway because it was stopped, or it was just created. This communication state is the equivalent of the Defined Not Started investigation state.	None
VNE/Agent Unreachable	The VNE is not responding to the gateway. This can happen if the unit or AVM is overutilized, the connection between the gateway and unit or AVM was lost, or the VNE is not responding in a timely fashion. (A VNE in this state does not mean the device is down; it might still be processing network traffic.)	
Connecting	The VNE is starting and the initial connection has not yet been made to the device. This is a momentary state. Because the investigation state decorator (the hourglass) will already be displayed, a special GUI decorator is not required.	None
Device Partially Reachable	The VNE is not fully reachable because at least one protocol is not operational. <b>Note</b> This is the default behavior. You can change the settings that determine when Cisco Prime Network moves a VNE to Device Unreachable. For more information, see the <a href="#">Cisco Prime Network 4.0 Administrator Guide</a> .	
Device Unreachable	The connection between the VNE and the device is down because all of the protocols are down (though the device might be sending traps or syslogs). <b>Note</b> This is the default behavior. You can change the settings that determine when Cisco Prime Network moves a VNE to Device Unreachable. For more information, see the <a href="#">Cisco Prime Network 4.0 Administrator Guide</a> .	
Tracking Disabled	The reachability detection process is not enabled for any of the protocols used by the VNE. The VNE will not perform reachability tests nor will Cisco Prime Network generate reachability-related events. In some cases this is desirable; for example, tracking for Cloud VNEs should be disabled because Cloud VNEs represent unmanaged network segments.  Because this is a user-defined mode (rather than an error or transitional mode), Cisco Prime Network does not display a decorator for this state. To troubleshoot a VNE that is in this state, see the <a href="#">Cisco Prime Network 4.0 Administrator Guide</a> .	None

**Table 2-12 VNE Investigation States**







State Name	Description	Badge
Defined Not Started	A new VNE was created (and is starting); or an existing VNE was stopped. In this state, the VNE is managed and is validating support for the device type. (This investigation state is the equivalent of the Agent Not Loaded communication state.) A VNE remains in this state until it is started (or restarted).	None
Unsupported	The device type is either not supported by Prime Network or is misconfigured (it is using the wrong scheme, or is using reduced polling but the device does not support it).  To extend Cisco Prime Network functionality so that it recognizes unsupported devices, use the VNE Customization Builder. See the <a href="#">Cisco Prime Network 4.0 Customization Guide</a> .	

Table 2-12 VNE Investigation States (continued)

State Name	Description	Badge
Discovering	The VNE is building the model of the device (the device type was found and is supported by Cisco Prime Network). A VNE remains in this state until all device commands are successfully executed at least once, or until there is a discovery timeout.	
Operational	The VNE has a stable model of the device. Modeling may not be fully complete, but there is enough information to monitor the device and make its data available to other applications, such as activation scripts. A VNE remains in this state unless it is stopped or moved to the maintenance state, or there are device errors.	None
Currently Unsynchronized	The VNE model is inconsistent with the device. This can be due to a variety of reasons; for a list of these reasons along with troubleshooting tips, see the topic on troubleshooting VNE investigation state issues in the <a href="#">Cisco Prime Network 4.0 Administrator Guide</a> .	
Maintenance	<p>VNE polling was suspended because it was manually moved to this state (by right-clicking the VNE and choosing <b>Actions &gt; Maintenance</b>). The VNE remains in this state until it is manually restarted. A VNE in the maintenance state has the following characteristics:</p> <ul style="list-style-type: none"> <li>Does not poll the device, but handles syslogs and traps.</li> <li>Maintains the status of any existing links.</li> <li>Does not fail on VNE reachability requests.</li> <li>Handles events for correlation flow issues. It does not initiate new service alarms, but does receive events from adjacent VNEs, such as in the case of a Link Down alarm.</li> </ul> <p>The VNE is moved to the Stopped state if: it is VNE is moved, the parent AVM is moved or restarted, the parent unit switches to a standby unit, or the gateway is restarted.</p>	
Partially Discovered	<p>The VNE model is inconsistent with the device because a required device command failed, even after repeated retries. A common cause of this state is that the device contains an unsupported module.</p> <p>To extend Cisco Prime Network functionality so that it recognizes unsupported modules, use the VNE Customization Builder. See the <a href="#">Cisco Prime Network 4.0 Customization Guide</a>.</p>	
Shutting Down	The VNE has been stopped or deleted by the user, and the VNE is terminating its connection to the device.	
Stopped	The VNE process has terminated; it will immediately move to Defined Not Started.	None






More than one management state can occur at the same time. For example, a single overlay icon can be displayed, reflecting the device status based on the following priorities:

Unsupported > Discovering > VNE/Agent Unreachable > Device Unreachable > Partially Discovered > Operational.

For more information about each of these states and how to troubleshoot any issues, see the [Cisco Prime Network 4.0 Administrator Guide](#).

## Tickets

Cisco Prime Network Vision displays an icon with a ticket to indicate the severity of the top-most alarm on the ticket. The icons are the same as those used with network elements (see [Table 2-5](#)) and are displayed in Cisco Prime Network Vision as follows:

Value	Navigation Pane	Map	Ticket Pane				
Element with ticket of Major severity			<table><tr><th>Severity</th><th>Ticket ID</th></tr><tr><td></td><td>520030</td></tr></table>	Severity	Ticket ID		520030
Severity	Ticket ID						
	520030						

## Prime Network Vision Toolbar

The Prime Network Vision toolbar is context-sensitive and the options vary depending on your selection in the application.



### Note

The functionality that a user can access in Prime Network Vision depends on the user role and the security level of the scopes assigned to the user. For more information, see [User Roles Required for Working with Prime Network Vision Maps, page 5-2](#).

[Table 2-13](#) identifies the toolbar buttons and describes the functions that are available in the Prime Network Vision toolbar.

**Table 2-13 Prime Network Vision Toolbar**



























Button	Name	Function
	Open Network Inventory	Opens the Network Elements tab.
<b>Map Options</b>		
	New Map	Creates a new map in the database.
	Open Map	Opens a map saved in the database using the Open dialog box.
	Add to Map	Adds an element to the map or to the subnetwork selected in the navigation pane and displayed in the content pane.
	Save Map Appearance	Saves the current map (the background and the location of devices) to the database.
<b>Viewing Options</b>		
	Show Map View	Displays the map view in the Prime Network Vision content pane (the button toggles when selected or deselected).
	Show List View	Displays the list view in the Prime Network Vision content pane (the button toggles when selected or deselected).

Table 2-13 Prime Network Vision Toolbar (continued)

Button	Name	Function
	Show Links View	Displays the links view in the Prime Network Vision content pane (the button toggles when selected or deselected).
<b>Overlay Tools</b>		
	Choose Overlay Type	<p>Chooses and displays an overlay of a specific type on top of the elements displayed in the content pane in a map view.</p> <p>Available overlay options are:</p> <ul style="list-style-type: none"> <li>• Ethernet Service</li> <li>• MPLS-TP Tunnel</li> <li>• Network Clock</li> <li>• Pseudowire</li> <li>• VLAN</li> <li>• VPLS</li> <li>• VPN</li> <li>• None—Removes the existing overlays.</li> </ul>
	Show Overlay / Hide Overlay	<p>Displays or hides a previously defined overlay on top of the elements displayed in the map view.</p> <p><b>Note</b> Overlays do not reflect changes that occur in the selected service. As a result, the information in an overlay can become stale.</p>
	Refresh Overlay	Refreshes the overlay that was last selected.
<b>Viewing Tools</b>		
	Go to Parent	Moves up one level in the navigation pane and content pane so you can view different information.
	Link Filter	<p>Opens the Link Filter dialog box, enabling you to display or hide different types of links in the map and links views.</p> <p>If a link filter is applied to the map, the Link Filter Applied button is displayed instead.</p>
	Link Filter Applied	<p>Indicates a link filter is currently applied to the map and opens the Link Filter dialog box so you can remove or modify the existing link filter.</p> <p>If no link filter is applied to the map, the Link Filter button is displayed instead.</p>
	Overview	Opens a window displaying an overview of the network.
	Find Business Tag	Opens the Find Business Tag dialog box, enabling you to find and delete a business tag according to name, key, or type.



**Table 2-13 Prime Network Vision Toolbar (continued)**

Button	Name	Function
<b>Search Tools</b>		
	Find Previous	Finds the previous instance of the search string entered in the Find in Map dialog box.
	Find	Opens the Find in Map dialog box, enabling you to find an element in the map by its name or IP address.
	Find Next	Finds the next instance of the search string entered in the Find in Map dialog box.
<b>Map Zoom and Layout Tools</b>		
	Layout Map	Defines the way in which the elements are arranged in the Prime Network Vision window: Circular, hierarchical, orthogonal, or symmetric.
	Fit in Window	Fits all elements in the map in the content pane.
	Normal Selection Mode	Activates the normal selection mode.
	Zoom Selection Mode	Activates the zoom selection mode, which enables you to zoom in on a section of the map by clicking and dragging the required area.
	Pan Mode	Activates the pan mode, which enables you to view different areas of the map by clicking and dragging the map.
<b>Application-Specific Tools</b>		
	Open Activation	Opens the Activation dialog box. For more information, see the <a href="#">Cisco Prime Network 4.0 Customization Guide</a> .
	Activation History	Opens the Activation History dialog box. For more information, see the <a href="#">Cisco Prime Network 4.0 Customization Guide</a> .

## Prime Network Vision Menu Bar

The following topics describe the options that are available in each Prime Network Vision menu:

- [File Menu, page 2-26](#)
- [Edit Menu, page 2-27](#)
- [View Menu, page 2-27](#)
- [Node Menu, page 2-28](#)
- [Tools Menu, page 2-28](#)
- [Activation Menu, page 2-29](#)
- [Network Inventory Menu, page 2-29](#)

- [Reports Menu, page 2-30](#)
- [Window Menu, page 2-30](#)
- [Help Menu, page 2-30](#)

**Note**

The functionality that a user can access in Prime Network Vision depends on the user role and the security level of the scopes assigned to the user. For more information, see [User Roles Required for Working with Prime Network Vision Maps, page 5-2](#). Also, the menus are context-sensitive and the options vary depending on your selection in the application.

## File Menu

[Table 2-14](#) describes the options that are available in the Prime Network Vision File menu. For more information, see [Chapter 5, “Working with Prime Network Vision Maps.”](#)

**Table 2-14**      **File Menu Options**

File Menu Option	Description
New Map	Creates a new empty map in the database.
Open Map	Opens a map saved in the database using the Open dialog box.
Add to Map <sup>1</sup>	Opens the Add dialog box and enables you to add any of the following to the map or to the subnetwork selected in the navigation pane and displayed in the content pane: <ul style="list-style-type: none"> <li>• Cross Connect</li> <li>• Ethernet Service</li> <li>• MPLS-TP Tunnel</li> <li>• Network Element</li> <li>• Pseudowire</li> <li>• Unassociated Bridge</li> <li>• VLAN</li> <li>• VPLS</li> <li>• VPN</li> </ul>
Save Map <sup>1</sup>	Saves the appearance of the map (the background and the location of devices) to the database.
Save As Image <sup>1</sup>	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 <sup>1</sup>	Displays how the map will look when it is printed.
Print <sup>1</sup>	Prints the active map as displayed in the Print Preview dialog box.
Load MultiPath	Loads a Cisco PathTracer multiple-path trace from a file that was previously saved in Cisco PathTracer.

**Table 2-14** File Menu Options (continued)

File Menu Option	Description
Close	Closes the selected map or tab.
Exit	Exits the Prime Network Vision application and saves the content pane.

1. This option is available only when a map is displayed in the content pane.

## Edit Menu

[Table 2-15](#) identifies the options available in the Prime Network Vision Edit menu. For more information, see [Chapter 5, “Working with Prime Network Vision Maps.”](#)

**Table 2-15** Edit Menu Options

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	This option is displayed only when element icons or aggregations are selected. Displays the Resize dialog box, enabling you to specify the size of selected icons or aggregations in the map, either by percentage or size.
Select All	Selects all elements in the map.

## View Menu

[Table 2-16](#) identifies the options available in the Prime Network Vision View menu. For more information, see [Using the Overview Window, page 5-14](#).

**Table 2-16** View Menu Options

View Menu Option	Description
Layout	Defines the way in which the map is displayed in the Prime Network Vision content pane: Circular, hierarchical, orthogonal, or symmetric.
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 content pane.
Normal Select	Activates the normal selection mode. The selected option is dimmed.
Pan	Activates the pan mode, which enables you to move around in a map by clicking and dragging. The selected option is dimmed.
Zoom Selection	Activates the zoom selection mode, which enables you to select an area in a map to zoom in on by clicking and dragging. The selected option is dimmed.

## Node Menu

Table 2-17 describes the Node menu options.


**Note**

Most of the functionality available in this menu is available only when an element icon or an aggregation is selected in the navigation pane or a map.

**Table 2-17** Node Menu Options

Node 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 <a href="#">Chapter 3, “Viewing and Managing NE Properties.”</a>
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. <b>Note</b> If you select 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 <a href="#">Chapter 3, “Viewing and Managing NE Properties.”</a>

## Tools Menu

Table 2-18 describes the Tools menu options.

**Table 2-18** Tools Menu Options

Tools Menu Option	Description
Change User Password	Enables you to change the password used when logging into the Prime Network client application suite. The change takes effect the next time you log into the application. <b>Note</b> The administrator can also change a user password in Cisco Prime Network Administration.
Options	Enables you to customize several of Prime Network’s options, such as whether or not to load the content upon startup. For more information, see <a href="#">Adjusting the Prime Network Vision GUI Client Settings, page 2-40.</a>

**Table 2-18 Tools Menu Options (continued)**

Tools Menu Option	Description
Change and Config Mgmt	Displays the Prime Network Change and Configuration Management dashboard. For more information, see the <a href="#">Chapter 4, “Device Configurations and Software Images.”</a>
Command Jobs	Displays all Command Builder jobs that have been scheduled and their details. For more information, see the <a href="#">Cisco Prime Network 4.0 Customization Guide</a> .

## Activation Menu



### Note

Transaction Manager replaces the Prime Network Workflow and Action features in all new installations of Prime Network 4.0. If you have upgraded to Prime Network 4.0, the Workflow and Activation features are still available, but they will be deprecated in the future. We recommend that you use Transaction Manager.

See the [Cisco Prime Network 4.0 Customization Guide](#) for more information about any of the options in this menu.

[Table 2-19](#) describes the Activation menu options.

**Table 2-19 Activation Menu Options**

Activation Menu Option	Description
Activation	Opens the Activation dialog box.
Activation History	Opens the Activation History dialog box.
Activation Modification Utility	Opens the Activation Modification Utility dialog box.

## Network Inventory Menu

[Table 2-20](#) describes the Network Inventory menu options.

**Table 2-20 Network Inventory Menu Options**

Network Inventory Menu Option	Description
Network Elements	Displays a list of the available network elements in the Network Elements tab. For more information, see <a href="#">Prime Network Vision Inventory Tabs, page 2-5</a> .
Ethernet Flow Domains	Displays a list of the current Ethernet flow domains in the Ethernet Flow Domains tab. For more information, see <a href="#">Viewing and Renaming Ethernet Flow Domains, page 12-42</a>

**Table 2-20**      *Network Inventory Menu Options (continued)*

Network Inventory Menu Option	Description
VTP Domains	Displays a list of the current of the VLAN Trunk Protocol (VTP) domains in the VTP Domains tab. For more information, see <a href="#">Viewing VLAN Trunk Group Properties, page 12-68</a> .
Virtual Machines	Displays a list of the available virtual machines in the Virtual Machines tab. For more information about virtual machines, see <a href="#">Viewing the Virtual Machines of a Data Center, page 26-19</a> .

## Reports Menu

[Table 2-21](#) describes the Reports menu options.

**Table 2-21**      *Reports Menu Options*

Reports Menu Option	Description
Report Manager	Opens the Reports Manager window so you can create, run, and manage reports.
Run Report	Enables you to run standard or user-defined events, inventory, and network service reports on demand.

For more information about Report Manager and reports, see [Chapter 10, “Working with Reports.”](#)

## Window Menu

The Prime Network Vision Window menu lists all maps open in the Prime Network Vision content pane, enabling you to move between the maps. The menu also lists any network element inventory tabs that are open.

## Help Menu

[Table 2-22](#) describes the Help menu options.

**Table 2-22**      *Help Menu Options*

Help Menu Option	Description
Cisco Prime Network Vision Help	Opens the online help for Prime Network Vision and Prime Network Events.
Icon Reference	Opens a window that identifies and describes the icons and buttons used in Prime Network Vision and Prime Network Events.
Cisco.com	This option is unavailable.
About Cisco Prime Network Vision	Displays the Prime Network version and any additionally installed applications.

# Prime Network Vision Right-Click Menus

If you right-click a specific area, link, network element, device, or alarm in a Prime Network Vision window, a context-sensitive right-click menu is displayed that contains options available for the selected item or items.

Right-click menus are also available in many of the inventory and property windows. For example, if you right-click an entry in a logical inventory table, you can view properties specific to that entry. The options that are available depend on the window or table currently displayed and the item selected.

The menus are context-sensitive and the options vary according to your selection in the application. For example, the right-click menus for network elements and aggregations are different.

Additional right-click options are displayed in the following situations:

- If Prime Network is installed as part of the Cisco Prime suite of applications, right-click menus in Prime Network Vision include options for accessing the other Cisco Prime applications.
- If Prime Performance Manager is installed in your environment, Prime Network Vision includes right-click options that allow you to generate device, interface, and VRF-related reports using Prime Performance Manager.
- The Prime Network Vision installation includes a number of scripts. When these scripts are installed, they are displayed as options in the right-click menus of the devices that support them. For more information about these scripts, see [Setting Up Devices and Validating Device Information, page 1-4](#).

The functionality that you can access in Prime Network Vision depends on your user role and the security level of the scopes that you can access. For more information, see [User Roles Required for Working with Prime Network Vision Maps, page 5-2](#).

See the following topics for the default options available in Prime Network Vision right-click menus:

- [Map Right-Click Menu, page 2-32](#)
- [Element Right-Click Menu, page 2-32](#)
- [Aggregation Right-Click Menu, page 2-36](#)
- [Link Right-Click Menu, page 2-36](#)
- [List View Right-Click Menu, page 2-37](#)
- [Links View Right-Click Menu, page 2-39](#)
- [Ticket Right-Click Menu, page 2-40](#)

## Map Right-Click Menu

The map right-click menu is displayed when you right-click anywhere on a map in the content pane and no elements are selected.

[Table 2-23](#) describes the map right-click menu options.

**Table 2-23** *Map Right-Click Menu Options*

Option	Description
Go to Parent	Moves up one level in the navigation pane and content pane to enable you to view different information.
Go to Root	Moves to the root level in the navigation pane and content pane to enable you to view different information.
Set Map Background	Displays a background image for the map in the content pane. For more information, see <a href="#">Applying a Background Image, page 5-12</a> .

## Element Right-Click Menu

The element right-click menu is displayed when you right-click an element in the navigation pane, the content pane, or in the Network Elements inventory tab.



### Note

The element right-click menu is context-sensitive and the options vary depending on your selection in the application. Also, some options might not be available if multiple elements are selected.

[Table 2-24](#) describes the options available in the element right-click menu.

**Table 2-24** *Element Right-Click Menu Options*

Option	Description
Add Associated VLAN	Opens the Add Associated VLAN dialog box so that you can add an associated VLAN to the selected VLAN. For more information, see <a href="#">Adding an Associated VLAN, page 12-55</a> .
Aggregate	Groups the selected devices into an aggregation in the Prime Network Vision content pane, and enables you to define a name for the new aggregation. For more information, see <a href="#">Chapter 5, “Working with Prime Network Vision Maps.”</a>  <b>Note</b> You cannot aggregate service entities that exist within services. For example, you cannot aggregate VRFs that exist in a VLAN.
Attach / Detach / Edit Business Tag	Allows you to perform the following actions: <ul style="list-style-type: none"> <li>• Attach a business tag to the selected network element.</li> <li>• Detach a business tag from a network element.</li> <li>• Edit a business tag for a network element.</li> </ul> <b>Note</b> The Detach and Edit options are displayed only when a business tag is attached to a network element.  For more information, see <a href="#">Chapter 7, “Labeling NEs Using Business Tags.”</a>



**Table 2-24**      **Element Right-Click Menu Options (continued)**

Option	Description
Commands	<p>Enables you to launch any of the commands that are included with Prime Network Vision.</p> <p>For more information on the available commands and how to implement them, see <a href="#">Configure Basic Device Settings: Name, DNS, NTP, RADIUS, TACACs, ACLs</a>, page 1-5.</p> <p><b>Note</b> Additional commands may be available for your devices. New commands are often provided in Prime Network Device Packages, which can be downloaded from the Prime Network software download site. For more information on how to download and install DPs and enable new commands, see the information on “Adding Additional Device (VNE) Support” in the <a href="#">Cisco Prime Network 4.0 Administrator Guide</a>.</p>
Config Mgmnt	<p>This option is available only if Prime Network Change and Configuration Management is installed.</p> <p>Displays the Configuration Management page for the selected device in Prime Network Change and Configuration Management.</p> <p>For more information, see <a href="#">Chapter 4, “Device Configurations and Software Images.”</a></p>
Delete	Deletes the selected item from the map.
Disaggregate	<p>Ungroups the devices in the selected aggregation in the navigation and map panes. For more information, see <a href="#">Chapter 5, “Working with Prime Network Vision Maps.”</a></p> <p><b>Note</b> This option is available only when an aggregation is selected in the navigation pane or map.</p>
Edit	Move the selected virtual router to the location you specify.
Filter Tickets	<p>Displays only those tickets that have the selected VNE as the root cause.</p> <p>This option is available only for VNEs that have not been deleted by Prime Network Administration.</p>
Hide Connected Devices	Hides the devices for sites with one or more connected devices.
Image Mgmnt	<p>This option is available only if Prime Network Change and Configuration Management is installed.</p> <p>Displays the Image Management page for the selected device in Prime Network Change and Configuration Management.</p> <p>For more information, see <a href="#">Chapter 4, “Device Configurations and Software Images.”</a></p>
Inventory	<p>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 <a href="#">Chapter 3, “Viewing and Managing NE Properties.”</a></p>

**Table 2-24** Element Right-Click Menu Options (continued)

Option	Description
<i>Launch external applications</i>	Starts an external application or tool that has been configured for access via the right-click menu. For more information, see the <a href="#">Cisco Prime Network 4.0 Customization Guide</a> .
Management	<p>Contains the following submenu options:</p> <ul style="list-style-type: none"> <li>Command Builder—Defines commands and scripts using the Prime Network Command Builder tool (Configurator security level required).</li> <li>Soft Properties Management—Extends VNEs by adding SNMP MIB or Telnet/SSH/TLS-1 properties to the device's collected information model using the Prime Network Soft Properties Manager (Administrator security level required).</li> </ul> <p>For more information about Command Builder and Soft Properties Manager, see the <a href="#">Cisco Prime Network 4.0 Customization Guide</a>.</p>
Modify	Displays the Modify dialog box so that you can change the selected item's name, description, or icon.
Open Relevant Maps	Displays the Open Map dialog box so that you can view and open maps that contain the selected element.
PathTracer	Launches a path trace from the selected item.
Poll Now	Polls the selected element.
Properties	Displays the properties of the selected item, 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 <a href="#">Chapter 3, "Viewing and Managing NE Properties."</a>
Remove from Map	Removes the selected device and all its children from the map (navigation pane and content pane). The device that has been removed is still maintained in the network.
Rename	Renames the selected item.
Resize	Enables you to resize an object on the map by percentage or size.
Run Report	Enables you to run standard or user-defined events, inventory, and network service reports on demand.
Save as New Map	Creates a new map and places the selected aggregation as the root, while leaving the original map intact.
<i>Script names</i>	Launches available activation and configuration scripts. This can include the commands documented in <a href="#">Setting Up Devices and Validating Device Information, page 1-4</a> .
Show as Aggregation / Thumbnail	<p>Displays the selected aggregation as a single entity or as a collection of items.</p> <p>The options toggle, depending on whether the aggregation is in a thumbnail or aggregated view.</p>
Show CE Device	Displays devices for sites or LCPs with one or more hidden, connected devices.

**Table 2-24** Element Right-Click Menu Options (continued)

Option	Description
Tools	<p>The Tools option contains the following choices:</p> <ul style="list-style-type: none"> <li>• CPU Usage—Displays memory and CPU usage information for a device or network element.</li> <li>• Ping—Pings the device from the client station.</li> <li>• Telnet—Communicates with the device using the Telnet window from the client station.</li> </ul> <p><b>Note</b> If you are using a Windows 7 system and want to use the Prime Network Telnet option, you need to set up Telnet on the Windows 7 system as follows:</p> <ul style="list-style-type: none"> <li>- For Windows 7 32-bit systems, enable the Windows Telnet Client to use the Prime Network Telnet option.</li> <li>- For Windows 7 64-bit systems, a solution is available on the Cisco Developer Network at <a href="http://developer.cisco.com/web/prime-network/forums/-/message_boards/message/2780108">http://developer.cisco.com/web/prime-network/forums/-/message_boards/message/2780108</a>.</li> </ul>
Topology	<p>The Topology option enables you to add:</p> <ul style="list-style-type: none"> <li>• A static link between two devices.</li> <li>• A static topology between a device and an unmanaged network.</li> <li>• A tunnel to a VPN.</li> </ul> <p>When working with static links, the following submenu options enable you to define the A Side and Z Side of the link:</p> <ul style="list-style-type: none"> <li>• Mark as A Side</li> <li>• Mark as Z Side</li> </ul> <p>When working with VPNs in VPN Service View, the Add Tunnel submenu option allows you define and configure tunnels.</p>
VNE Tools	<p>Contains the following submenu options:</p> <ul style="list-style-type: none"> <li>• Poll Now—Updates the VNE information.</li> <li>• Stop VNE—Stops the VNE.</li> <li>• Start VNE—Starts the VNE.</li> </ul> <p>For more information, see <a href="#">Chapter 3, “Viewing and Managing NE Properties.”</a></p>

## Aggregation Right-Click Menu

The aggregation right-click menu is displayed when you right-click an aggregation in a map.

[Table 2-25](#) describes the aggregation right-click menu options.

**Table 2-25**      **Aggregation Right-Click Menu Options**

Option	Description
Aggregate	Groups the selected aggregations into an aggregation in the Prime Network Vision content pane, and enables you to define a name for the new aggregation. For more information, see <a href="#">Chapter 5, “Working with Prime Network Vision Maps.”</a>
Disaggregate	Ungroups the selected aggregation in the navigation pane and map in the Prime Network Vision window. All the aggregations in the selected node move up one level, and the original aggregation is removed. For more information, see <a href="#">Chapter 5, “Working with Prime Network Vision Maps.”</a>
Rename	Renames the selected aggregation.
Resize	Defines the size of selected aggregations in a map according to one of four sizes or according to a percentage of the current size.
Remove from Map	Removes the selected aggregation and all its children from the navigation pane and the map.
Save as New Map	Creates a new map and places the selected aggregation as the root, while leaving the original map intact.
Run Report	Enables you to run standard or user-defined events, inventory, and network service reports.
Show as Aggregation / Thumbnail	Displays the aggregation as a single entity or as a collection of items. The options toggle, depending on whether the aggregation is in a thumbnail or aggregated view.
Delete	Deletes the selected item.  This option is available when the item is marked with the reconciliation icon.

## Link Right-Click Menu

The Link right-click menu is displayed when you right-click a link in the map view. For more information, see [Chapter 6, “Working with Links.”](#)

[Table 2-26](#) describes the link right-click menu options.

**Table 2-26**      **Link Right-Click Menu Option**

Option	Description
Properties	Displays the properties of the selected link.

## List View Right-Click Menu

The list view right-click menu is displayed when you right-click an entry in the Network Elements tab in the list view table. For more information, see [List View, page 2-12](#).

[Table 2-27](#) describes the list view right-click menu options.

**Table 2-27 List View Right-Click Menu Options - Network Elements Tab**

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 <a href="#">Chapter 3, “Viewing and Managing NE Properties.”</a>
Attach / Detach / Edit Business Tag	<p>Allows you to perform the following actions:</p> <ul style="list-style-type: none"> <li>• Attach a business tag to the selected element.</li> <li>• Remove a business tag from the selected element.</li> <li>• Edit an existing business tag for the selected element.</li> </ul> <p><b>Note</b> The Detach and Edit options are available only when a business tag is attached to a link.</p> <p>For more information, see <a href="#">Chapter 7, “Labeling NEs Using Business Tags.”</a></p>
Config Mgmnt	<p>Displays the Configuration Management page for the selected device in Prime Network Change and Configuration Management.</p> <p>For more information, see <a href="#">Chapter 4, “Device Configurations and Software Images.”</a></p>
Image Mgmnt	<p>Displays the Image Management page for the selected device in Prime Network Change and Configuration Management.</p> <p>For more information, see <a href="#">Chapter 4, “Device Configurations and Software Images.”</a></p>
Run Report	Enables you to run standard or user-defined events, inventory, and network service reports.
Show Only Selected Rows	Displays only the rows that you select.
Show All Rows	Displays all table rows that meet the current filtering criteria.

**Table 2-27** List View Right-Click Menu Options - Network Elements Tab (continued)

Option	Description
Tools	<p>Contains the following submenu options:</p> <ul style="list-style-type: none"> <li>• CPU Usage—Displays memory and CPU usage information for a device or network element.</li> <li>• Ping—Pings the device from the client station.</li> <li>• Telnet—Communicates with the device using the Telnet window from the client station.</li> </ul> <p><b>Note</b> If you are using a Windows 7 system and want to use the Prime Network Telnet option, you need to set up Telnet on the Windows 7 system as follows:</p> <ul style="list-style-type: none"> <li>- For Windows 7 32-bit systems, enable the Windows Telnet Client to use the Prime Network Telnet option.</li> <li>- For Windows 7 64-bit systems, a solution is available on the Cisco Developer Network at <a href="http://developer.cisco.com/web/prime-network/forums/-/message_boards/message/2780108">http://developer.cisco.com/web/prime-network/forums/-/message_boards/message/2780108</a>.</li> </ul>
Topology	<p>Enables you to add:</p> <ul style="list-style-type: none"> <li>• A static link between two devices.</li> <li>• A static topology between a device and an unmanaged network.</li> <li>• A tunnel to a VPN.</li> </ul> <p>When working with static links, the following submenu options enable you to define the A Side and Z Side of the link:</p> <ul style="list-style-type: none"> <li>• Mark as A Side</li> <li>• Mark as Z Side</li> </ul> <p>When working with VPNs in VPN Service View, the Add Tunnel submenu option allows you define and configure tunnels.</p>
Launch external applications	<p>Launches external applications or tools, such as an SSH client. See the <a href="#">Cisco Prime Network 4.0 Customization Guide</a>.</p>
Properties	<p>Displays the properties of the selected item, 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 <a href="#">Chapter 3, “Viewing and Managing NE Properties.”</a></p>
Commands	<p>Enables you to launch any of the commands that are included with Prime Network Vision. For a complete list of the available commands, see <a href="#">Setting Up Devices and Validating Device Information, page 1-4</a>.</p> <p><b>Note</b> Additional commands may be available for your devices. New commands are often provided in Prime Network Device Packages, which can be downloaded from the Prime Network software download site. For more information on how to download and install DPs and enable new commands, see the information on “Adding Additional Device (VNE) Support” in the <a href="#">Cisco Prime Network 4.0 Administrator Guide</a>.</p>

**Table 2-27 List View Right-Click Menu Options - Network Elements Tab (continued)**

Option	Description
<i>Script names</i>	Launches available activation and configuration scripts. This includes the commands documented throughout this guide and those you create using Command Manager and Command Builder. A list of scripts is provided in <a href="#">Cisco Prime Network 4.0 Supported VNEs - Addendum</a> .
Management	<p>Contains the following submenu options:</p> <ul style="list-style-type: none"> <li>Command Builder—Defines commands and scripts using the Prime Network Command Builder tool (Configurator security level required).</li> <li>Soft Properties Management—Extends VNEs by adding SNMP MIB or Telnet/SSH/TL-1 properties to the device's collected information model using the Prime Network Soft Properties Manager (Administrator security level required).</li> </ul> <p>For more information about Command Builder and Soft Properties Manager, see the <a href="#">Cisco Prime Network 4.0 Customization Guide</a>.</p>
VNE Tools	<p>Contains the following submenu options:</p> <ul style="list-style-type: none"> <li>Poll Now—Updates the VNE information.</li> <li>Stop VNE—Stops the VNE.</li> <li>Start VNE—Starts the VNE.</li> </ul> <p>For more information, see <a href="#">Chapter 3, "Viewing and Managing NE Properties."</a></p>

## Links View Right-Click Menu

The links view right-click menu is displayed when you right-click a link in the links view table. For more information, see [Chapter 6, "Working with Links."](#)

[Table 2-28](#) describes the links view right-click menu options.

**Table 2-28 Links View Right-Click Menu Options**

Option	Description
Attach Business Tag	Attaches a business tag to the selected link. For more information, see <a href="#">Chapter 7, "Labeling NEs Using Business Tags."</a>
Detach/Edit Business Tag	<p>Detaches or edits a business tag from the selected link. For more information, see <a href="#">Chapter 7, "Labeling NEs Using Business Tags."</a></p> <p>The Detach and Edit options are available only when a business tag is attached to a link.</p>
Select Link in Map	Highlights the selected link in the content pane.
Show Only Selected Rows	Displays only the rows that you select.
Show All Rows	Displays all table rows that meet the current filtering criteria.
Properties	Displays the properties of the selected link.

## Ticket Right-Click Menu

The Ticket right-click menu is displayed when you right-click a ticket in the ticket pane. The Ticket right-click menu enables you to view ticket properties and highlights the links or elements that are affected by a ticket. The Ticket menu also enables you to acknowledge, clear, and remove a ticket. For more information, see [Chapter 9, “Working with Tickets in Prime Network Vision.”](#)

[Table 2-29](#) describes the ticket right-click menu options.

**Table 2-29** *Ticket Right-Click Menu Options*

Option	Description
Acknowledge	Acknowledges that the ticket is being handled; 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 Prime Network. The ticket is displayed as Clear in the ticket pane.  <b>Note</b> 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 Prime Network Events. Multiple tickets can be removed at the same time.  <b>Note</b> 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 Prime Network. In addition, the ticket and all its active subtickets are removed from the ticket pane.
Find Affected Elements	Finds any elements affected by the selected ticket: <ul style="list-style-type: none"> <li>• If only one element is affected, it is selected in the Prime Network navigation pane and content area.</li> <li>• If multiple elements are affected, they are displayed in the Affected Elements window.</li> </ul>
Show Only Selected Rows	Displays only the rows that you select.
Show All Rows	Displays all table rows that meet the current filtering criteria.
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 <a href="#">Viewing Ticket Properties, page 9-9</a> .

## Adjusting the Prime Network Vision GUI Client Settings

[Table 2-30](#) lists the options for changing the GUI client display and audio settings, and for controlling the startup view and event history. You can adjust these settings by selecting **Tools > Options** from the main menu.



**Table 2-30 Options for Changing Prime Network Vision GUI Client**

Field		Description
Startup		
Load Workspace on Startup	Open to content pane on login. Check the box if you do <i>not</i> want to view the content pane when you log in.	
Display Tab		
Preferences	Map Labels Font Size	Font size for map labels (26, 28, 30, 32, and 34; 30 is the default).
Severity	Show Severity Text (e.g. [3M+])	List severity levels in the navigation pane and maps, using the formula described in <a href="#">New Ticket Propagation, page 2-18</a> . Check the box if you <i>do</i> want to see severity text.
	Show Acknowledged	View both acknowledged and unacknowledged alarms in the network element display name. Check the box if you do want to see both unacknowledged and acknowledged alarms.
	Show Propagated	View propagated alarms on the specific entity. Propagated alarms are those that occur on other NEs. Check the box if you <i>do</i> want to see propagated alarms.
Display Name	How NE name is displayed: <ul style="list-style-type: none"><li>Do not use Business Tag—Display NE name only</li><li>Add Business Tag to name—Display NE name <i>and</i> business tag.</li><li>Replace name with Business Tag—Display business tag only (when a subscriber is attached to a port, the subscriber name is also added)</li></ul>	
Audio Tab		
Enable Audio Response for Alarm	Audio notification settings. Check the box if you <i>do</i> want a sound to be issued when an alarm is triggered.	
Critical	The .wav file to use for critical alarms.	
Major	The .wav file to use for major alarms.	
Minor	The .wav file to use for minor alarms.	
Loop Sound on Critical Alarm	If critical alarm sound should sound continuously when a critical alarm is triggered. Check the box if you <i>do</i> want a sound to play continuously.	
Events Tab		
Events History Size in Hours	Maximum age of events to display in the Network Events and Provisioning Events tab in the inventory window (see <a href="#">Ticket and Events Pane, page 3-15</a> ). If you only want to see active events, enter 0 (zero). The default (6 hours) is controlled from the Prime Network Administration GUI client.	

# Filtering and Sorting Tabular Content

For tables with extensive data, you can view all of the information in a table cell by hovering your mouse cursor over the cell. These topics explain how to sort and filter tabular information.

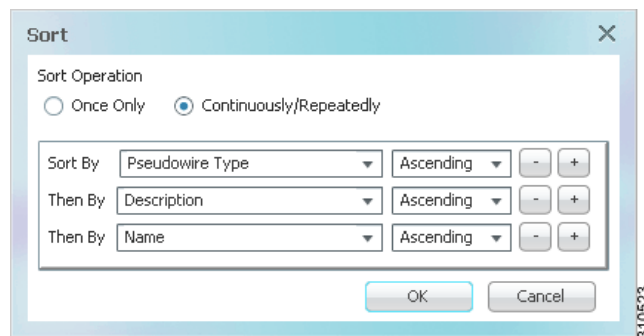
## Sorting Tables

Sorting a table lets you arrange existing data in various ways, while filtering a table only displays the information that matches the filter.


To sort a table using the Sort Table Values option:

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

**Figure 2-11 Sort Dialog Box**





- Step 2** In the Sort Operation field, specify the frequency of the sort operation:
- **Only Once**—Sorts the information in the table only once according to the specified criteria. When this option is selected, newly added rows will always be listed at the bottom of the table, regardless of their sort criteria value. Also, if an existing row's value changes, the row will remain where it is.
  - **Continuously/Repeatedly**—Sorts the information in the table continuously according to the specified criteria.

If you select this option, the  icon is displayed next to the selected column heading.

- Step 3** In the Sort By field, specify the first sort criterion:
- In the first drop-down list, choose the column to use for the first sort criterion.
  - In the second drop-down list, choose **Ascending** or **Descending** to indicate the sort order.

- Step 4** If needed, click  to add another sort criterion.

- Step 5** Adjust the sort criteria as needed:

- To add additional criteria, click .
- To remove a criterion, click .

- Step 6** Click **OK** to sort the table using the specified criteria.

### Filtering Tables

Filtering can be extremely helpful when working with tables that contain many entries.





#### Note

If you load a table with many entries, (for example, thousands of entries), it can take a while for the complete table to load. The filtering options in the table toolbar are unavailable until the table has completely loaded.

You can tell a table is being filtered if any filter details are displayed in the status line below the table or when you hover the mouse cursor over the filter button.

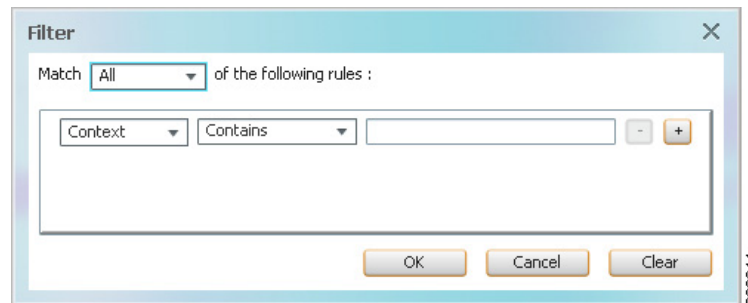
**Table 2-31** Table Toolbar Options

Option	Name	Description
	Filter	Filters the information displayed in the table by the criteria you specify. For more information, see <a href="#">Filtering Tables, page 2-43</a> .
	Clear Filter	Clears the existing filter.

To define a filter:

- Step 1** In the toolbar above the table, click **Filter**. The Filter dialog box is displayed as shown in [Figure 2-12](#).

**Figure 2-12** Table Filter Dialog Box



- Step 2** In the Match drop-down list, choose the rule for including items that meet the specified criteria:


- All—All of the following criteria are to be met.
- Any—Any of the following criteria are to be met.


- Step 3** For each criterion, specify the following information:

- In the first drop-down list, choose the primary match category. The drop-down list contains all columns in the current table.
- In the second drop-down list, choose the rule to use for this criterion.
- The third field either lists the available values or allows you to enter text using a drop-down list or free text.

**Tip**

You can use the “Greater than” or “Less than” rule with a string for filtering. For example, if you want to include all interfaces above Ethernet0/0/3, you can select **Greater than** and enter the string **Ethernet0/0/3** to view interfaces Ethernet0/0/4, Ethernet0/0/5, and so on.

**Step 4** Click  to add another criterion for this filter.

**Step 5** Add additional criteria as required. To remove a criterion, click .

**Step 6** When you have specified all criteria for the filter, click **OK**.

The table data is displayed using the defined filter.

**Step 7** To clear a filter, click **Clear Filter** in the table toolbar.

The table is refreshed and all entries are displayed.