Permissions Required to Perform Tasks Using the Prime Network Clients

Users are allowed to view and manage devices and services depending on how their user account is configured.

- For GUI operations that do not affect network elements, authorization is based on the default permission that is assigned to your user account.

- For NE operations (tasks that do affect elements), authorization is based on whether the element is in one of your assigned *device scopes* and whether you meet the minimum security level for that scope.

For more information on user authorization, see the *Cisco Prime Network 5.0 Administrator Guide*.

These topics provide tables that describe the permissions required to perform tasks in Prime Network.

- Vision Client Permissions, page B-1—Basic operations, map and inventory window operations, Cisco PathTracer, link operations, ticket operations

- Events Client Permissions, page B-7—All operations performed from the Events client.

- Change and Configuration Management (CCM) Permissions, page B-8—Device configuration and software image file management

- Permissions for Business Tags and Business Elements (Vision and Events Clients), page B-10—Labels that are applied to NEs

- Reports Permissions (Vision and Events Clients), page B-10—The native reports feature that is launched from the **Reports** menu

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Vision Client Permissions

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Permissions for Vision Client Basic Operations

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Start the Prime Network Vision client	X	X	X	X	X
Change a user password in the Vision client	—[1]	—[1]	—[1]	—[1]	X[1]
Set Prime Network Vision client options	X	X	X	X	X
Work with Vision client 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.

Permissions for Vision Client Maps

Vision Client Maps—NEs in User's Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Map-Related Tasks					
Apply a background image	—	—	—	X	X
Create maps	—	—	X	X	X
Define a map layout	X	X	X	X	X
Delete maps	—	—	X	X	X
Open maps	X	X	X	X	X
Preview and print maps	X	X	X	X	X
Rename maps	—	—	X	X	X
Save as a new map	—	—	X	X	X
Save as an image	X	X	X	X	X
Save map appearance	—	—	X	X	X
Select viewing options	X	X	X	X	X
Use Overview window	X	X	X	X	X
View maps	X	X	X	X	X
Element-Related Tasks					
Add elements to a map	—	—	X	X	X
Remove elements from a map	—	—	X	X	X
Resize elements in a map	X	X	X	X	X
Aggregation-Related Tasks					
Group and ungroup aggregations	—	—	X	X	X
Rename aggregations	X	X	X	X	X
View aggregation thumbnails	X	X	X	X	X

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Finding Items in Maps					
Find affected elements	X	X	X	X	X
Find an element or service	X	X	X	X	X
Find and select a link in a map[1]	X	X	X	X	X
Link-Related Task					
Filter links	X	X	X	X	X
Overlay-Related Tasks					
Apply an overlay	X	X	X	X	X
Hide or view an overlay	X	X	X	X	X
Remove an overlay	X	X	X	X	X
Other Tasks					
Open the CPU Usage Graph	—	—	X	X	X
Use Ping and Telnet to communicate with devices	—	—	—	X	X

1.   This applies to links within the selected context, and not links identified as network links.

Vision Client Maps—NEs Not in User's Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Map-Related Tasks					
Apply a background image	—	—	—	X	X
Create maps	—	—	X	X	X
Define a map layout	X	X	X	X	X
Delete maps	—	—	X	X	X
Open maps	X	X	X	X	X
Preview and print maps	X	X	X	X	X
Rename maps	—	—	X	X	X
Save as a new map	—	—	X	X	X
Save as an image	X	X	X	X	X
Save map appearance	—	—	X	X	X
Select viewing options	X	X	X	X	X
Use Overview window	X	X	X	X	X
View maps	X	X	X	X	X
Element-Related Tasks					
Add elements to a map	—	—	X	X	X
Remove elements from a map	—	—	X	X	X
Resize elements in a map	X	X	X	X	X

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Aggregation-Related Tasks					
Group and ungroup aggregations	—	—	X	X	X
Rename aggregations	X	X	X	X	X
View aggregation thumbnails	X	X	X	X	X
Finding Items in Maps					
Find affected elements	—	—	—	—	X
Find an element or service	X	X	X	X	X
Find and select a link in a map[1]	X	X	X	X	X
Link-Related Task					
Filter links	X	X	X	X	X
Overlay-Related Tasks					
Apply an overlay	X	X	X	X	X
Hide or view an overlay	X	X	X	X	X
Remove an overlay	X	X	X	X	X
Other Tasks					
Open the CPU Usage Graph	—	—	—	—	X
Use Ping and Telnet to communicate with elements	—	—	—	—	X

1.   This applies to links within the selected context, and not links identified as network links.

Permissions for Vision Client NE-Related Operations

Vision Client NE Operations—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View maps	X	X	X	X	X
View network element properties	X	X	X	X	X
View network element properties in logical and physical inventory	X	X	X	X	X
View port status and properties	—	X	X	X	X
View VNE properties	X	X	X	X	X
Launch command (*NE* > **Commands**)	—[1]	—[1]	—[1]	X[1]	X[1]
Open the Port Utilization Graph	X	X	X	X	X
Enable and disable port alarms	—	—	—	X[2]	X[2]
View tickets in inventory window	X	X	X	X	X
View network events in inventory window	X	X	X	X	X
View provisioning events in inventory window	X	X	X	X	X

1. Most commands provided with Prime Network require Configurator privileges. For commands created using Command Manager or Command Builder, the access role is specified when the command is created.
2. To enable and disable port alarms on a device, the Administrator scope level must also be configured for that device.

Vision Client NE Operations—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View maps	X	X	X	X	X
View network element properties	—	—	—	—	X
View network element properties in logical and physical inventory	—	—	—	—	X
View port status and properties	—	—	—	—	X
View VNE properties	—	—	—	—	X
Launch command (*NE* > **Commands**)	—[1]	—[1]	—[1]	X[1]	X[1]
Open the Port Utilization Graph	—	—	—	—	X
Enable and disable port alarms	—	—	—	—	X[2]
View tickets in inventory window	—	—	—	—	X
View network events in inventory window	—	—	—	—	X
View provisioning events in inventory window	—	—	—	—	X

1. Most commands provided with Prime Network require Configurator privileges. For commands created using Command Manager or Command Builder, the access role is specified when the command is created.

Permissions for Vision Client Cisco PathTrace

Vision Client PathTrace—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Launch a path trace	—	X	X	X	X
View path information	—	X	X	X	X
Save Cisco PathTracer map files	—	X	X	X	X
Save Cisco PathTracer counter values	—	X	X	X	X
Rerun a path and compare results	—	X	X	X	X

Vision Client PathTrace—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
All actions	—	—	—	—	X
View path information	—	—	—	—	X
Save Cisco PathTracer map files	—	—	—	—	X
Save Cisco PathTracer counter values	—	—	—	—	X
Rerun a path and compare results	—	—	—	—	X

Permissions for Vision Client Links

Vision Client Links—NEs in User's Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View link properties in Map view	X	X	X	X	X
View link properties in Links view	X[1]	X[1]	X[1]	X[1]	X
View link properties in the Link Properties window	X	X	X	X	X
View link impact analysis	—	—	—	—	X
Add static links	—	—	—	X	X
Filter links using collection method	X	X	X	X	X
Find and select a link in a map	X	X	X	X	X

1. Link properties are limited in the Links view; not all information is available.

Links: NEs Not in User's Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View link properties in Map view	X[1]	X[1]	X[1]	X[1]	X
View link properties in Links view	X[2]	X[2]	X[2]	X[2]	X
View link properties in the Link Properties window	—	—	—	—	X
View link impact analysis	—	—	—	—	X
Add static links	—	—	—	—	X
Filter links using collection method	X	X	X	X	X
Find and select a link in a map	X	X	X	X	X

1. Link properties are limited in the Map view; not all link information is available.
2. Link properties are limited in the Links view; not all link information is available.

Permissions for Tickets in Vision Client

The following conditions apply when working with tickets in the Vision client:

- If an element that is outside of your scope is the root cause of a ticket that affects an element in your scope, you can view the ticket in the Vision client, but you will not be able to:
  - View inventory by clicking the Location hyperlink.
  - Acknowledge, deacknowledge, clear, add note, or remove the ticket.
- You can acknowledge, deacknowledge, clear, remove, or add notes for a ticket only if you have OperatorPlus or higher permission for the element that holds the root alarm for that ticket.
- If the source or contained sources of the ticket are not in your scope, you cannot view the ticket in the ticket table, view ticket properties, or perform actions on the ticket.
- If the ticket contains a source that is in your scope, but the source is not the root cause, you can view the ticket in the ticket table and view ticket properties, but you cannot perform actions on the ticket.
- If the source of the ticket is in your scope, you can view the ticket in the ticket table, view ticket properties, filter tickets, and perform actions on the ticket.
- By default, users with the Administrator role have access to all managed elements and can perform any action on tickets. To change the Administrator user scope, see the topic on device scopes in the *Cisco Prime Network 5.0 Administrator Guide*.

The following table identifies the roles required to perform the high level tasks:

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Acknowledge/deacknowledge tickets	—	—	X[1]	X	X
Add notes to a ticket	—	—	X[1]	X	X
Clear and remove tickets	—	—	X[1]	X	X
Clear tickets	—	—	X[1]	X	X
Filter tickets	X	X	X	X	X
Find affected elements	X	X	X	X	X
Remove tickets	—	—	X[1]	X	X
View ticket properties	X	X	X	X	X
View tickets	X	X	X	X	X

1. In addition, the security level for the device scope must be OperatorPlus or higher for the device that holds the root alarm for a ticket.

Events Client Permissions

This topic identifies the roles that are required to work with the Events client. Prime Network determines whether you are authorized to perform a task as follows:

- For GUI operations that do not affect elements, authorization is based on the default permission that is assigned to your user account.
- For NE operations (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.

Change and Configuration Management (CCM) Permissions

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Note   In CCM, the user role always takes precedence over the device scope security level.

Task	Minimum GUI Access Role	Minimum Device Scope Security Level
Dashboard		
Access top families	Viewer	Viewer
Access configuration sync status	Viewer	Viewer
Access configuration changes in the last week	Viewer	Viewer
Access most recent configuration changes	Viewer	Viewer
Configuration Management		
View configuration archives	Viewer	Viewer
View files in archive	Viewer	N/A
Compare files in archive	Viewer	N/A
Compare the latest configuration in device	Viewer	OperatorPlus
Synchronize configurations	Viewer	Configurator
Back up (copy) files from devices to archive	Viewer	OperatorPlus
Restore files from archive to devices	Configurator	Configurator
Edit configuration files before restoring them to devices	Configurator	Configurator
Edit the edited archive version of configuration files and restore them to devices	Configurator	Configurator
View configuration change logs	Viewer	Viewer
Delete configuration files from archive	Configurator	N/A
Manage labels for archive files[1]	Configurator	N/A
Add and edit comments for archive file	Configurator	N/A
Export configuration files from archive	Configurator	N/A
Edit configuration file from archive	Configurator	N/A
Edit configuration file and restore it to device	Configurator	N/A
Restore the edited archive versions of configuration file to device	Configurator	N/A
Restore configuration files	Viewer	N/A
Image Management		
Upload software image from device to repository	Configurator	OperatorPlus
Distribute images	Configurator	Configurator
Activate and deactivate images	Configurator	Configurator
Commit image changes	Configurator	Configurator

Task	Minimum GUI Access Role	Minimum Device Scope Security Level
Rollback images	Configurator	Configurator
View images in repository	Viewer	N/A
Add package	Configurator	Configurator
Add images to repository	Configurator	N/A
Delete images from repository	Configurator	N/A
Import images from device	Configurator	OperatorPlus
Managing Device Groups		
Create device groups	Configurator	Configurator
Edit device group details	Configurator	Configurator
Delete device groups	Configurator	N/A
Compliance Audit		
Create policies	Configurator	N/A
Create policy profiles	Operator	N/A
Execute audit job	Operator	Operator
View audit job results	Operator	Operator
Execute a Fix job **Note** To execute a fix job, the device-level role of the user must be Configurator or Administrator. The role of the user for a device overrides the role of a user on Prime Network.	Configurator	OperatorPlus
View the fix job results[2]	Configurator	OperatorPlus
Configuration Audit		
Define configuration policies	Configurator	Configurator
Schedule configuration audit	Configurator	Configurator
View configuration audit jobs and audit results	OperatorPlus	OperatorPlus
Global Tasks		
View jobs	Viewer	N/A
Administer jobs (suspend, delete, and so forth)[2]	Configurator	N/A
Change settings	Configurator	N/A

1. Configuration files are filtered according to the device scope of a user.

2. Users with Viewer, Operator, and OperatorPlus roles can view only their own jobs; Users with Configurator role can view and manage their own jobs; Administrators can view and manage all jobs.

✎

If a user role is modified in Prime Network, you need to logout from CCM and then login again for the changes to get effect.

For information on how Prime Network performs user authentication and authorization, including an explanation of user access roles and device scopes, see the *Cisco Prime Network 5.0 Administrator Guide*.

Permissions for Business Tags and Business Elements (Vision and Events Clients)

Business Tags—NEs in User's Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Attach a business tag	—	—	—	Partial[1]	X
Detach a business tag	—	—	—	Partial[1]	X
Search for a business tag	—	—	—	Partial[1]	X
View business tag properties	—	—	—	Partial[1]	X
Rename a business element	X	X	X	X	X
Delete a business element	X	X	X	X	X

1. Configurator user role default permission supports the action for business elements, which do not have scopes. The Configurator user role default permission supports the action for elements only if the elements are in the user's scope.

Business Tags—Devices Not in User's Scope (or Actions Not Related to NEs)

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Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Attach a business tag	—	—	—	Partial[1]	X
Detach a business tag	—	—	—	Partial[1]	X
Search for a business tag	—	—	—	Partial[1]	X
View business tag properties	—	—	—	Partial[1]	X
Rename a business element	X	X	X	X	X
Delete a business element	X	X	X	X	X

1. Configurator user role default permission supports the action for business elements, which do not have scopes. The Configurator user role default permission supports the action for elements only if the elements are in the user's scope.

Reports Permissions (Vision and Events Clients)

Reports—NEs in User's Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Generate Events Reports					
• Detailed Network Events Reports[1]	X	X	X	X	X
• Detailed Non-Network Events Reports	—	—	—	Partial[2]	X

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
• All other events reports	X	X	X	X	X
Generate Inventory Reports	X	X	X	X	X
Generate Network Service Reports	X	X	X	X	X

1. Detailed Ticket reports include only those tickets that have a root cause alarm associated with an element in the user's scope.

2. A user with the Configurator role can generate Detailed Provisioning Events reports for elements that are in and outside their scope.

Reports—NEs Not in User's Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Generate Events Reports					
• Detailed Network Events Reports	—	—	—	—	X
• Detailed Non-Network Events Reports	—	—	—	Partial[1]	X
• All other events reports	—	—	—	—	X
Generate Inventory Reports	—	—	—	—	X
Generate Network Service Reports	—	—	—	—	X

1. A user with the Configurator role can generate Detailed Provisioning Events reports for elements that are in and outside their scope.

Reports—Generated by User

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Schedule reports	X	X	X	X	X
Cancel reports	X	X	X	X	X
Delete reports	X	X	X	X	X
Export reports	X	X	X	X	X
Rename reports	X	X	X	X	X
Save reports	X	X	X	X	X
Set report preferences for purging and sharing	—	—	—	—	X
Share/unshare reports	X[1]	X[1]	X[1]	X[1]	X
View report properties	X	X	X	X	X
View reports	X	X	X	X	X

1. You can share or unshare reports only if sharing is enabled in the Administration client.

Reports—Generated by Other

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
All tasks	—	—	—	—	X

Reports—Report Folders

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
All tasks	—	—	—	—	X

Technologies and Services Permissions

These topics provides tables that list the permissions that are required to perform operations on devices that have the technologies or services configured on them.

Permissions for Managing Carrier Ethernet

Carrier Ethernet—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Adding Elements to a Map					
Add associated VLANs to a map	—	—	X	X	X
Add EFP cross-connects	—	—	X	X	X
Add Ethernet services to a map	—	—	X	X	X
Add pseudowires to a map	—	—	X	X	X
Add unassociated bridges	—	—	X	X	X
Add VLANs to a map	—	—	X	X	X
Add VPLS instances to a map	—	—	X	X	X
Viewing Element Properties					
View access gateway properties	X	X	X	X	X
View associated network VLAN service links and VLAN mapping properties	X	X	X	X	X
View CDP properties	X	X	X	X	X
View EFD properties	X	X	X	X	X
View EFP cross-connect properties	X	X	X	X	X
View EFP properties	X	X	X	X	X
View Ethernet flow domains	X	X	X	X	X
View Ethernet LAG properties	X	X	X	X	X
View Ethernet service properties	X	X	X	X	X
View EVC service properties	X	X	X	X	X
View IP SLA responder service properties	X	X	X	X	X
View IS-IS properties	X	X	X	X	X
View Link Layer Discovery Protocol (LLDP) properties	X	X	X	X	X
View mLACP properties	X	X	X	X	X
View OSPF properties	X	X	X	X	X
View Provider Backbone Bridge (PBB) properties	X	X	X	X	X
View pseudowire properties	X	X	X	X	X
View pseudowire redundancy service properties	X	X	X	X	X
Viewing the PW-HE configuration	X	X	X	X	X
View REP properties	X	X	X	X	X
View REP properties for VLAN service links	X	X	X	X	X
View HSRP properties	X	X	X	X	X
View STP properties	X	X	X	X	X
View STP properties for VLAN service links	X	X	X	X	X
View VLAN bridge properties	X	X	X	X	X
View VLAN links between VLAN elements and devices	X	X	X	X	X

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View VLAN mappings	X	X	X	X	X
View VLAN service link properties	X	X	X	X	X
View VLAN trunk group properties	X	X	X	X	X
View VPLS access EFP properties	X	X	X	X	X
View VPLS core or access pseudowire endpoint properties	X	X	X	X	X
View VPLS instance properties	X	X	X	X	X
View VSI properties	X	X	X	X	X
Working with Overlays					
Apply overlays	X	X	X	X	X
Display or hide overlays	X	X	X	X	X
Remove overlays	X	X	X	X	X
View pseudowire tunnel links in VPLS overlays	X	X	X	X	X
View REP information in VLAN domain views and VLAN overlays	X	X	X	X	X
View STP information in VLAN domain views and VLAN overlays	X	X	X	X	X
Other Tasks					
Display pseudowire information	—	—	—	X	X
Ping a pseudowire	—	—	—	X	X
Remove VLANs from a map	—	—	X	X	X
Rename Ethernet flow domains	X	X	X	X	X
Using REP and mLACP Show Commands	—	—	—	X	X
Using Pseudowire Ping and Show Commands	—	—	—	X	X

Carrier Ethernet—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Adding Elements to Maps					
Add associated VLANs to a map	—	—	X	X	X
Add EFP cross-connects	—	—	X	X	X
Add Ethernet services to a map	—	—	X	X	X
Add pseudowires to a map	—	—	X	X	X
Add unassociated bridges	—	—	X	X	X
Add VLANs to a map	—	—	X	X	X
Add VPLS instances to a map	—	—	X	X	X
Viewing Element Properties					
View access gateway properties	—	—	—	—	X

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View associated network VLAN service links and VLAN mapping properties	—	—	—	—	X
View CDP properties	—	—	—	—	X
View EFD properties	—	—	—	—	X
View EFP cross-connect properties	Partial[1]	Partial[1]	Partial[1]	Partial[1]	X
View EFP properties	Partial[1]	Partial[1]	Partial[1]	Partial[1]	X
View Ethernet flow domains	X	X	X	X	X
View Ethernet LAG properties	—	—	—	—	X
View Ethernet service properties	X	X	X	X	X
View EVC service properties	—	—	—	—	X
View IP SLA responder service properties	—	—	—	—	X
View IS-IS properties	—	—	—	—	X
View Link Layer Discovery Protocol (LLDP) properties	—	—	—	—	X
View mLACP properties	—	—	—	—	X
View OSPF properties	—	—	—	—	X
View Provider Backbone Bridge (PBB) properties	—	—	—	—	X
View pseudowire properties	Partial[1]	Partial[1]	Partial[1]	Partial[1]	X
View pseudowire redundancy service properties	Partial[2]	Partial[2]	Partial[2]	Partial[2]	
Viewing the PW-HE configuration	—	—	—	—	X
View REP properties	—	—	—	—	X
View REP properties for VLAN service links	—	—	—	—	X
View STP properties	—	—	—	—	X
View STP properties for VLAN service links	—	—	—	—	X
View HSRP properties	—	—	—	—	X
View virtual service instance properties	—	—	—	—	X
View VLAN bridge properties	—	—	—	—	X
View VLAN links between VLAN elements and devices	Partial[3]	Partial[3]	Partial[3]	Partial[3]	X
View VLAN mappings	—	—	—	—	X
View VLAN service link properties	—	—	—	—	X
View VLAN trunk group properties	—	—	—	—	X
View VPLS access EFP properties	—	—	—	—	X
View VPLS core or access pseudowire endpoint properties	—	—	—	—	X
View VPLS instance properties	X	X	X	X	X
Working with Overlays					
Apply overlays	X	X	X	X	X
Display or hide overlays	X	X	X	X	X
Remove overlays	X	X	X	X	X

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View pseudowire tunnel links in VPLS overlays	—	—	—	—	X
View REP information in VLAN domain views and VLAN overlays	—	—	—	—	X
View STP information in VLAN domain views and VLAN overlays	—	—	—	—	X
Other Tasks					
Display pseudowire information	—	—	—	—	X
Ping a pseudowire	—	—	—	—	X
Remove VLANs from a map	—	—	X	X	X
Rename Ethernet flow domains	X	X	X	X	X
Using REP and mLACP Show Commands	—	—	—	X	X
Using Pseudowire Ping and Show Commands	—	—	—	X	X

1. The user can view properties available via **Node > Properties** but not those available via the right-click Properties option or in logical inventory.

2. The user can view the pseudowire redundancy icon in the navigation and map panes, but not the inventory or properties window.

3. The user can view links, but the links are dimmed and do not indicate their status.

Permissions for Managing Carrier Grade NAT

Carrier Grade NAT—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View Carrier Grade NAT properties	X	X	X	X	X
Using CG NAT Configure, Delete, and Show Commands	—	—	—	X	X

Carrier Grade NAT—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View Carrier Grade NAT properties	—	—	—	—	X
Using CG NAT Configure, Delete, and Show Commands	—	—	—	X	X

Permissions for Managing DWDM

DWDM—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View DWDM properties	X	X	X	X	X
View G.709 properties	X	X	X	X	X
View performance monitoring configuration information	X	X	X	X	X
Using IPoDWDM Configuration and Show Commands	—	—	—	X	X

DWDM—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View DWDM properties	—	—	—	—	X
View G.709 properties	—	—	—	—	X
View performance monitoring configuration information	—	—	—	—	X
Using IPoDWDM Configuration and Show Commands	—	—	—	X	X

Permissions for Using Ethernet OAM Tools

Ethernet OAM Tools—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View CFM properties	X	X	X	X	X
View Ethernet LMI properties	X	X	X	X	X
Use CFM, E-LMI, and L-OAM commands	—	—	—	X	X

Ethernet OAM Tools—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View CFM, E-LMI, L-OAM properties	—	—	—	—	X
Use CFM, E-LMI, and L-OAM commands	—	—	—	X	X

Permissions for Managing Y.1731 IPSLA

Y.1731 IPSLA—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View the Y.1731 probe properties	X	X	X	X	X
Configure Y.1731 probes	—	—	—	X	X

Y.1731 IPSLA—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View the Y.1731 probe properties	X	X	X	X	X
Configure Y.1731 probes	—	—	—	X	X

Permissions for Managing MPLS Services

MPLS Services—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
VPNs and VRFs					
Add tunnels to VPNs	—	X	X	X	X
Add VPNs to a map	—	—	X	X	X
Create VPNs	—	—	X	X	X
Display VRF egress and ingress adjacents	—	—	—	—	X
Move virtual routers between VPNs	—	X	X	X	X
Remove tunnels from VPNs	X	X	X	X	X
Remove VPNs from a map	—	—	X	X	X
View IPv6 properties	X	X	X	X	X
View VPN properties	X	X	X	X	X
View VPNs	X	X	X	X	X
View VRF properties	—	—	—	—	X
VPN Overlays					
Add VPN overlays	X	X	X	X	X
Display or hide VPN overlays	X	X	X	X	X
Remove VPN overlays	X	X	X	X	X
Routing Entities					
View the ARP table	X	X	X	X	X
View the NDP table	X	X	X	X	X
View rate limit information	X	X	X	X	X
Other					
View 6RD properties	X	X	X	X	X
View BFD properties	X	X	X	X	X
View cross-VRF routing entries	X	X	X	X	X
View LSE properties	X	X	X	X	X
View MP-BGP information	X	X	X	X	X
View MPLS TE tunnel information	X	X	X	X	X

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View MPLS-TP information	X	X	X	X	X
View port configurations	X	X	X	X	X
View pseudowire end-to-end emulation tunnels	X	X	X	X	X

MPLS Services—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Working with Elements					
View IPv6 properties	—	—	—	—	X
Add tunnels to VPNs	—	X	X	X	X
Add VPNs to a map	—	—	X	X	X
Create VPNs	—	—	X	X	X
Move virtual routers between VPNs	—	X	X	X	X
Remove tunnels from VPNs	X	X	X	X	X
Remove VPNs from a map	—	—	X	X	X
Viewing Element Properties					
View 6RD properties	—	—	—	—	X
View BFD properties	—	—	—	—	X
View cross-VRF routing entries	—	—	—	—	X
View LSE properties	—	—	—	—	X
View MP-BGP information	—	—	—	—	X
View MPLS TE tunnel information	—	—	—	—	X
View MPLS-TP information	—	—	—	—	X
View port configurations	—	—	—	—	X
View pseudowire end-to-end emulation tunnels	—	—	—	—	X
View rate limit information	—	—	—	—	X
View the ARP table	—	—	—	—	X
View the NDP table	—	—	—	—	X
View VPN properties	X	X	X	X	X
View VPNs	X	X	X	X	X
View VRF egress and ingress adjacents	—	—	—	—	X
View VRF properties	—	—	—	—	X
Working with Overlays					
Add VPN overlays	X	X	X	X	X
Display or hide VPN overlays	X	X	X	X	X
Remove VPN overlays	X	X	X	X	X

Permissions for Managing IP and MPLS Multicast

IP and MPLS Multicast—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View multicast configuration details	X	X	X	X	X
View Multicast Label Switch details	X	X	X	X	X
View Routing entities	X	X	X	X	X
View VRF Properties	X	X	X	X	X

IP and MPLS Multicast—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View multicast configuration details	X	X	X	X	X
View Multicast Label Switch details	X	X	X	X	X
View Routing entities	X	X	X	X	X
View VRF Properties	X	X	X	X	X

Permissions for Managing MToP

MToP—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View MToP properties	X	X	X	X	X
Using SONET Configure, Clear, and Show Commands	—	—	—	X	X

MToP—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View MToP properties	—	—	—	—	X
Using SONET Configure, Clear, and Show Commands	—	—	—	X	X

Permissions for Managing SBCs

SBC—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing SBC properties	X	X	X	X	X
Using SBC Configuration and Monitoring Commands	—	—	—	X	X
Using SBC Show Commands	—	—	—	X	X

SBC—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing SBC properties	—	—	—	—	X
Using SBC Configuration and Monitoring Commands	—	—	—	X	X
Using SBC Show Commands	—	—	—	X	X

Permissions for Managing AAA

AAA—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View AAA group profile	X	X	X	X	X
View dynamic authorization profile	X	X	X	X	X
View RADIUS global configuration details	X	X	X	X	X
View diameter configuration details for AAA group	X	X	X	X	X
View RADIUS configuration details for AAA group	X	X	X	X	X
View RADIUS keepalive and dtect dead server for AAA group	X	X	X	X	X
View RADIUS authentication configuration details for AAA group	X	X	X	X	X
View charging configuration details for AAA group	X	X	X	X	X
View charging trigger configuration details for AAA group	X	X	X	X	X
Use AAA configuration commands	—	—	—	X	X

AAA—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View AAA group profile					
View dynamic authorization profile					
View RADIUS global configuration details					

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View diameter configuration details for AAA group					
View RADIUS configuration details for AAA group					
View RADIUS keepalive and detect dead server for AAA group					
View RADIUS authentication configuration details for AAA group					
View charging configuration details for AAA group					
View charging trigger configuration details for AAA group					
Use AAA configuration commands					

Permissions for Managing IP Pools

IP Pools—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View IP pool properties	X	X	X	X	X
Use IP pool configuration commands	X	X	X	X	X

IP Pools—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View IP pool properties					
Use IP pool configuration commands					

Permissions for Managing BNG

BNG—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View BBA profiles	X	X	X	X	X
View Subscriber Access Points	X	X	X	X	X
Diagnose Subscriber Access Points	—	—	—	X	X
View DHCP Service Profile	X	X	X	X	X
View IP Subscriber Template	X	X	X	X	X
View PPP Templates	X	X	X	X	X
View Service Templates	X	X	X	X	X
View policy details	X	X	X	X	X

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View QoS profile	X	X	X	X	X
View AAA Group profile	X	X	X	X	X
View Dynamic Authorization profile	X	X	X	X	X
View Radius Global Configuration details	X	X	X	X	X

BNG—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
View BBA profiles					
View Subscriber Access Points					
Diagnose Subscriber Access Points					
View DHCP Service Profile					
View IP Subscriber Template					
View PPP Templates					
View Service Templates					
View policy details					
View QoS profile					
View AAA Group profile					
View Dynamic Authorization profile					
View Radius Global Configuration details					

Permissions for Managing Mobile Technologies

Mobile Technologies—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing GGSN properties	X	X	X	X	X
Viewing additional characteristics of a GGSN	X	X	X	X	X
Working with GGSN commands	—	—	—	X	X
Viewing the SGSN Configuration Details	X	X	X	X	X
Working with SGSN commands	—	—	—	X	X
Viewing the MME Configuration Details	X	X	X	X	X
Working with MME commands	—	—	—	X	X
Viewing GTPU properties	X	X	X	X	X
Working with GTPU commands	—	—	—	X	X
Viewing APN properties	X	X	X	X	X

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing additional characteristics of an APN	X	X	X	X	X
Working with APN commands	—	—	—	X	X
Viewing SAE-GW properties	X	X	X	X	X
Viewing P-GW properties	X	X	X	X	X
Working with P-GW commands	—	—	—	X	X
Viewing S-GW properties	X	X	X	X	X
Working with S-GW commands	—	—	—	X	X
Viewing SaMOG properties	X	X	X	X	X
Working with SaMOG commands	—	—	—	X	X
Viewing CGW properties	X	X	X	X	X
Working with CGW commands	—	—	—	X	X
Viewing MRME properties	X	X	X	X	X
Working with MRME commands	—	—	—	X	X
Viewing GTPP properties	X	X	X	X	X
Viewing additional characteristics of a GTPP	X	X	X	X	X
Working with GTPP commands	—	—	—	X	X
Viewing EGTP properties	X	X	X	X	X
Working with EGTP commands	—	—	—	X	X
Viewing operator policies	X	X	X	X	X
Viewing APN remaps	X	X	X	X	X
Viewing APN profiles	X	X	X	X	X
Viewing additional characteristics of an APN profiles	X	X	X	X	X
Viewing active charging services (ACS)	X	X	X	X	X
Working with ACS commands	—	—	—	X	X
Viewing QCI-QoS mapping	X	X	X	X	X
Viewing the Layer 2 Tunnel Access Concentrator Configurations	X	X	X	X	X
Viewing the HSGW configuration	X	X	X	X	X
Viewing the Home Agent configuration	X	X	X	X	X
Viewing the Foreign Agent configuration details	X	X	X	X	X
Viewing the ePDG configuration details	X	X	X	X	X
Viewing the PDSN configuration details	X	X	X	X	X
Viewing the Local Mobility Anchor configuration	X	X	X	X	X

Mobile Technologies—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing GGSN properties	—	—	—	—	X
Viewing additional characteristics of a GGSN	—	—	—	—	X
Working with GGSN commands	—	—	—	—	X
Viewing the SGSN Configuration Details	—	—	—	—	X
Working with SGSN commands	—	—	—	—	X
Viewing the MME Configuration Details	—	—	—	—	X
Working with MME commands	—	—	—	—	X
Viewing GTPU properties	—	—	—	—	X
Working with GTPU commands	—	—	—	—	X
Viewing APN properties	—	—	—	—	X
Viewing additional characteristics of an APN	—	—	—	—	X
Working with APN commands	—	—	—	—	X
Viewing SAE-GW properties	—	—	—	—	X
Viewing P-GW properties	—	—	—	—	X
Working with P-GW commands	—	—	—	—	X
Viewing S-GW properties	—	—	—	—	X
Working with S-GW commands	—	—	—	—	X
Viewing SaMOG properties	—	—	—	—	X
Working with SaMOG commands	—	—	—	—	X
Viewing CGW properties	—	—	—	—	X
Working with CGW commands	—	—	—	—	X
Viewing MRME properties	—	—	—	—	X
Working with MRME commands	—	—	—	—	X
Viewing GTPP properties	—	—	—	—	X
Viewing additional characteristics of a GTPP	—	—	—	—	X
Working with GTPP commands	—	—	—	—	X
Viewing EGTP properties	—	—	—	—	X
Working with EGTP commands	—	—	—	—	X
Viewing operator policies	—	—	—	—	X
Viewing APN remaps	—	—	—	—	X
Viewing APN profiles	—	—	—	—	X
Viewing additional characteristics of an APN profiles	—	—	—	—	X
Viewing active charging services (ACS)	—	—	—	—	X
Working with ACS commands	—	—	—	—	X
Viewing QCI-QoS mapping	—	—	—	—	X

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing the Layer 2 Tunnel Access Concentrator Configurations	—	—	—	—	X
Viewing the HSGW configuration	—	—	—	—	X
Viewing the Home Agent configuration	—	—	—	—	X
Viewing the Foreign Agent configuration details	—	—	—	—	X
Viewing the ePDG configuration details	—	—	—	—	X
Viewing the PDSN configuration details	—	—	—	—	X
Viewing the Local Mobility Anchor configuration	—	—	—	—	X

Permissions for Managing Data Center Networks

Data Center—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing Virtual Port Channel Configuration	X	X	X	X	X
Viewing vPC Configuration	X	X	X	X	X
Viewing Cisco FabricPath Configuration	X	X	X	X	X
Monitoring Cisco FabricPath Configuration	X	X	X	X	X
Viewing Virtual Data Centers	X	X	X	X	X
Viewing the Data Stores of a Data Center	X	X	X	X	X
Viewing the Host Servers of a Data Center	X[1]	X[1]	X[1]	X[1]	X[1]
Viewing the Virtual Machines of a Data Center	X[1]	X[1]	X[1]	X[1]	X[1]
Viewing Host Cluster Details	X[1]	X[1]	X[1]	X[1]	X[1]
Viewing Resource Pool Details	X[1]	X[1]	X[1]	X[1]	X[1]
Viewing the Map Node for an UCS Network Element	X	X	X	X	X
Viewing the Virtual Network Devices of a Data Center	X[1]	X[1]	X[1]	X[1]	X[1]
Viewing the Compute Server Support Details	X[1]	X[1]	X[1]	X[1]	X[1]
Viewing the Storage Area Network Support Details	X[1]	X[1]	X[1]	X[1]	X[1]
Monitoring the Compute Services Search Capability	X	X	X	X	X

1. For users to be able to view VMs and hypervisors, a user's device scope must include all relevant vCenter VNEs.

Data Center—NEs Not IN User's Device Scope (Or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing Virtual Port Channel Configuration					
Viewing vPC Configuration					

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing Cisco FabricPath Configuration					
Monitoring Cisco FabricPath Configuration					
Viewing Virtual Data Centers					
Viewing the Data Stores of a Data Center					
Viewing the Host Servers of a Data Center					
Viewing the Virtual Machines of a Data Center					
Viewing Host Cluster Details					
Viewing Resource Pool Details					
Viewing the Map Node for an UCS Network Element					
Viewing the Virtual Network Devices of a Data Center					
Viewing the Compute Server Support Details					
Viewing the Storage Area Network Support Details					
Monitoring the Compute Services Search Capability					

Permissions for Managing Cable Technologies

Cable Technologies—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing the Cable Broadband Configuration Details	X	X	X	X	X
Viewing the DTI Configuration Details	X	X	X	X	X
Viewing the QAM Domain Configuration Details	X	X	X	X	X
Viewing the MAC Domain Configuration Details	X	X	X	X	X
Viewing the Narrowband Channels Configuration Details	X	X	X	X	X
Viewing the Wideband Channels Configuration Details	X	X	X	X	X
Viewing the Fiber Node Configuration Details	X	X	X	X	X

Cable Technologies—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing the Cable Broadband Configuration Details					
Viewing the DTI Configuration Details					
Viewing the QAM Domain Configuration Details					
Viewing the MAC Domain Configuration Details					
Viewing the Narrowband Channels Configuration Details					

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing the Wideband Channels Configuration Details					
Viewing the Fiber Node Configuration Details					

Permissions for Managing DSL2+ and VDSL2

ADSL2+ and VDSL2—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing the ADSL2+/VDSL2 configuration details	X	X	X	X	X
Viewing the ADSL/ADSL2+ physical inventory details for a device	X	X	X	X	X
Viewing the DSL Bonding Group configuration details	X	X	X	X	X

ADSL2+ and VDSL2—NEs Not in User's Device Scope (or Actions Not Related to NEs)

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing the ADSL2+/VDSL2 configuration details					
Viewing the ADSL/ADSL2+ physical inventory details for a device					
Viewing the DSL Bonding Group configuration details					

Permissions for Managing GPON Technology

GPON Technology—NEs in User's Device Scope

Task	Viewer	Operator	OperatorPlus	Configurator	Administrator
Viewing the Profile Configurations	X	X	X	X	X
Viewing the Class of Service Configuration	X	X	X	X	X
Viewing the Link Aggregation Group Configuration	X	X	X	X	X
Viewing the Firmware Configuration	X	X	X	X	X
Viewing the OLT Services and Bridges Configuration	X	X	X	X	X
Viewing the Physical Inventory of the ONU and OLT	X	X	X	X	X
Viewing the DHCP Relay Agent Configuration for OLT	X	X	X	X	X
Viewing the Routing Entities Configuration for OLT	X	X	X	X	X