

Working with the VLAN Manager

Working with VLANs

The screenshot displays the VLAN Manager interface. On the left, a sidebar titled 'VLANs' lists active VLANs: Test 1 QA, Test 2, An Extended Domain 1, Default, and QA2 Domain. The main area, titled 'VLAN Utilization', shows two panels. The first panel, '1 - QA Test 1', features a pie chart with the following data: available 69.48%, allocated 7.63%, assigned 21.93%, and holding 0.96%. To the right of the chart are 'Resources' (60.52% Available, 7.63% subnettest3, 7.63% Direct assign test, 7.63% subnettest5) and 'Recent Assignments' (2.3.12.0/22 AfrNICsubnetdirect 2021-11-09, 2.3.10.0/23 Multisubnetdirect 2021-11-09, 2.3.8.0/23 LACNICsubnetdirect 2021-11-09, 2.3.6.0/23 RIPESubnetdirect 2021-11-09, 2.3.4.0/23 APNICsubnetdirect 2021-11-09). The second panel, '2', shows a pie chart with: available 5.27%, allocated 0%, assigned 99.99%, and holding 0%. Its 'Resources' include 84.19% Amazo, 10.52% Ace Worldwide, 5.26% Available, and 0.01% Ace Worldwide. 'Recent Assignments' for panel 2 include 0.0.0.5/32 SplitTestPool (2021-12-15) and 0.0.0.6/31 Direct assign test (2021-12-15).

This page provides detailed instructions on performing specific tasks in the VLAN Manager. Before reading this section, please ensure that you are familiar with navigating to the VLAN areas, including the VLAN Sidebar, VLAN Utilization area, VLAN Manage, and VLAN Advanced. For a broader overview of the VLAN system, its workflow, and basic navigation through the available VLAN pages, please refer to the [VLAN](#) page. For domain level tasks, see [Working with Domains](#).

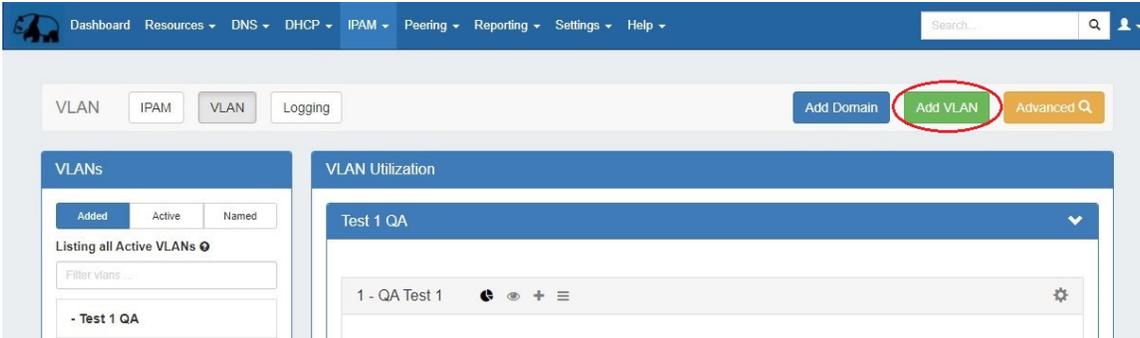
- Working with VLANs
 - Add VLANs to a Domain
 - Remove VLANs
 - Edit VLAN (Edit VLAN Panel)
 - Add Blocks to VLANs
 - Using the "Assign Blocks" Panel
 - Assign Blocks to VLAN
 - Direct Assign to VLAN
 - Smart Browse to VLAN
 - Assigning from Smart Browse
 - Add / Update VLAN to Blocks from IPAM Manage or VLAN Manage:
 - Add / Update VLAN to Blocks from IPAM Gadget:
 - Remove Blocks from a VLAN
 - Quickview
 - Working with VLAN Metadata
 - Enable / Disable VLAN Metadata Fields
 - View / Edit Metadata Field Information
 - Additional Information

Working with VLANs

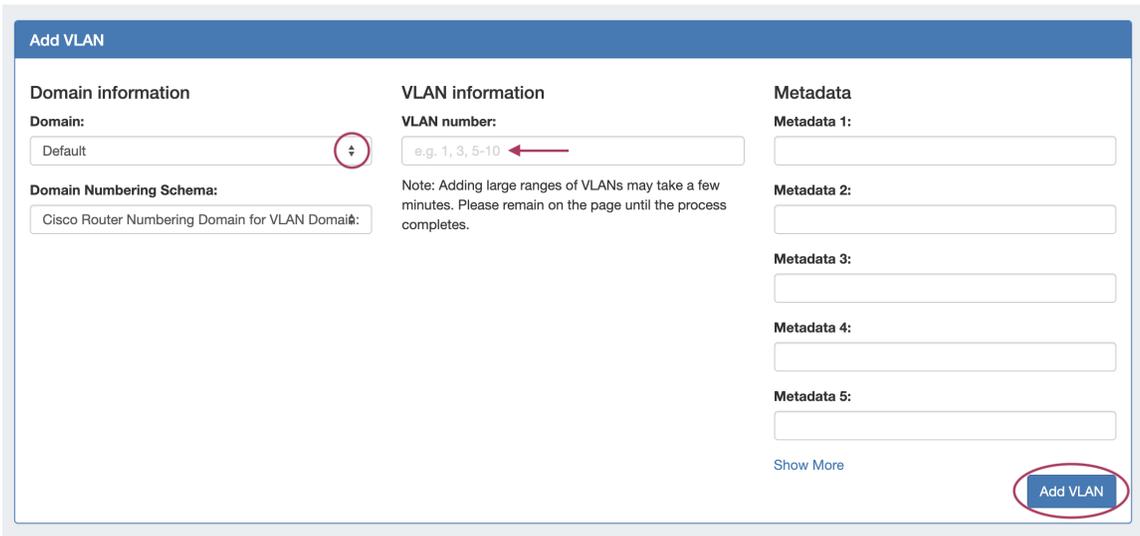
Add VLANs to a Domain

After creating domains, VLANs need to be added for that domain out of the pool of available VLANs.

From the VLAN Home page, click Add VLAN.



Select the domain, and then enter the individual or range of VLANs to add. Optionally, you may enter VLAN metadata field values, if metadata fields are enabled.

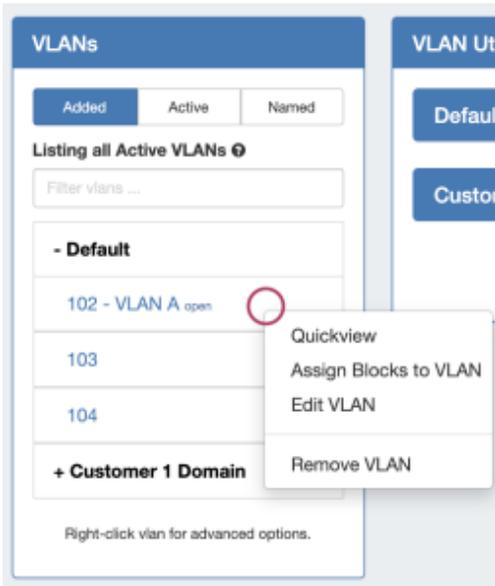


When done, click Add VLAN.

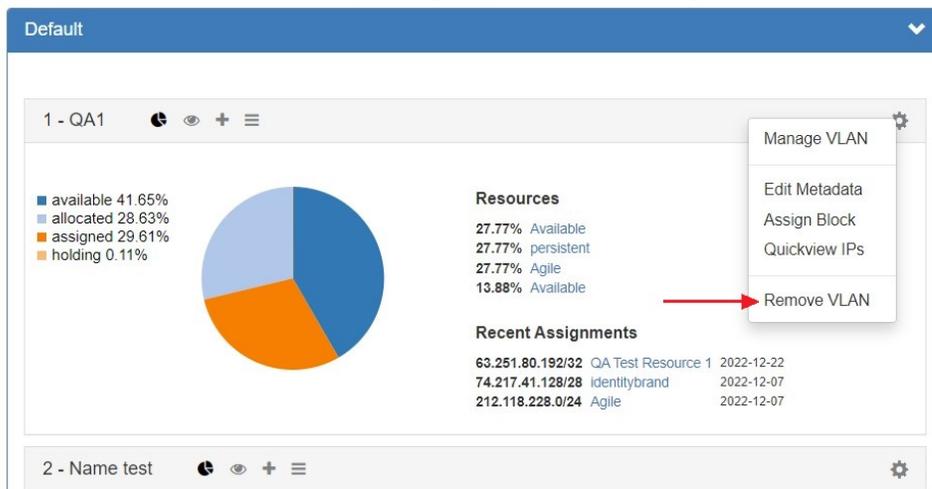
Remove VLANs

Removing VLANs may be performed from multiple areas:

- On the VLAN Home page sidebar, by right clicking on the VLAN and selecting Remove VLAN from the menu



- From the VLAN Utilization Box for the VLAN, by clicking the gear icon and selecting Remove VLAN



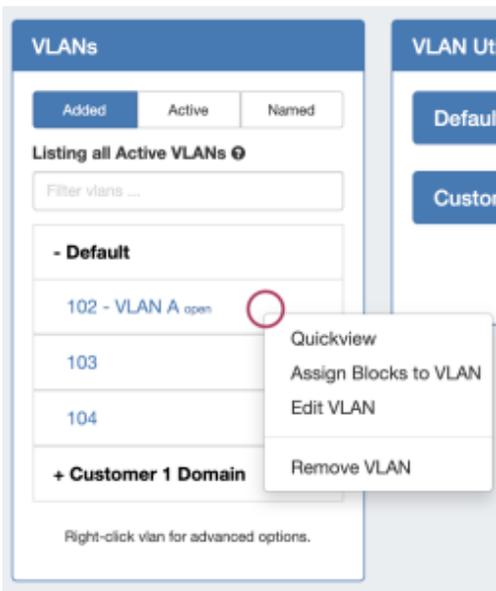
- From VLAN Advanced, by right clicking on the desired VLAN in the list, and selecting Remove VLAN



Deleting a VLAN permanently removes the VLAN from the domain, and removes the VLAN association from any blocks assigned to that VLAN, and permanently deletes the VLAN's metadata.

Edit VLAN (Edit VLAN Panel)

You can edit a VLAN by clicking on the VLAN in the VLAN List sidebar, then selecting Edit VLAN.



This opens the Edit VLAN panel for the selected VLAN. You may also click on the "List" icon in the VLAN Utilization box or in VLAN Manage to open the Edit VLAN panel.

The Edit VLAN panel allows you to view and edit the data associated with the VLAN (Note: not all VLAN fields may be editable).

Typically, editable VLAN fields include the VLAN Name and any enabled VLAN metadata fields enabled in [VLAN Columns](#). To change the information in these fields, click inside the relevant box, type your change, and then click Save Changes. The information provided in these fields will also display in the VLAN Advanced Global View.

You cannot change the domain of the VLAN, but you may add a descriptive name or edit VLAN Metadata (if enabled).

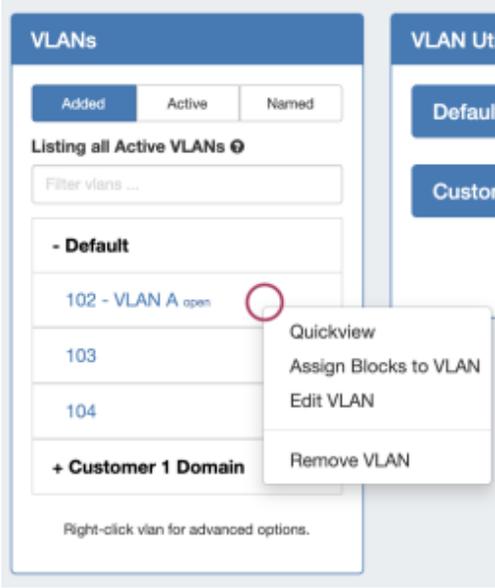
After making your changes, click Save Changes. The named VLAN will now show both VLAN number and name when viewing domain / VLAN lists or when working with blocks.

[Add Blocks to VLANs](#)

After VLANs have been enabled for domains, you can associate those VLANs with IP blocks.

Using the "Assign Blocks" Panel

While on the VLAN Home Page, expand the desired domain in the sidebar and right click on a VLAN. Then select Assign Blocks to VLAN.

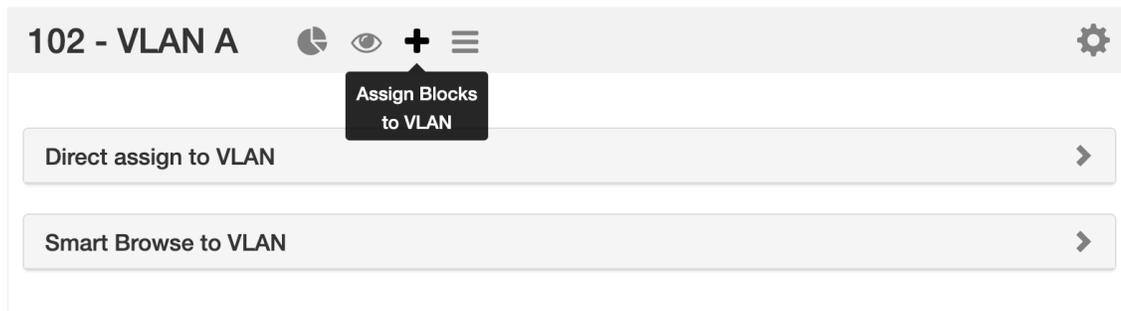


This navigates to the VLAN's Utilization Box, and opens the Assign Blocks panel. You may also access the panel directly from the Utilization Box or VLAN Manage by clicking on the plus-sign icon.

From the Assign Blocks panel, you can choose to Direct Assign a block to the VLAN, or use filter criteria to user Smart Browse to assign blocks.

Assign Blocks to VLAN

Blocks may be assigned to the VLAN from the Assign Blocks panel, opened or closed by clicking on the plus-sign icon. Two assignment options are available: Direct Assign to VLAN, if you know the specific block to assign, and Smart Browse to VLAN, where you can specify filter conditions and select one of more blocks meeting those conditions.



To open either option, click on the appropriate header bar to expand the module.

Expand the area below for more details on Direct Assign to VLAN and Smart Browse to VLAN:

Direct Assign to VLAN

To Direct Assign a specific block to the VLAN, expand the Direct Assign to VLAN module, then enter the CIDR to assign into the CIDR" box, and click Add IP Block .

102 - VLAN A     

Direct assign to VLAN Advanced Options - 

CIDR: Add IP Block RIR: LIR: Region: GRT:

Resource:

Note: Advanced options assist in specifying a unique block to assign in cases where duplicate blocks exist. The Resource option will filter by blocks that are already assigned to the selected resource.

If blocks exist with the same CIDR (such as in duplicate 1918 space), you may differentiate between the two by clicking on Advanced Options, and providing additional filter criteria to use to assign a specific block.

Smart Browse to VLAN

Smart Browse to VLAN is used to search for a general list of blocks available to assign to the VLAN that meets certain criteria.

Expand the Smart Browse module by clicking on the header bar .

Then, enter your filter criteria. At minimum, block type, size, and RIR must be provided; region and tags are optional.

102 - VLAN A     

Direct assign to VLAN 

Smart Browse to VLAN Advanced Options - 

Type: Size: LIR: GRT:

RIR: Region: Resource:

Tags: Standard – match all selected tags
 Strict – match exactly the selected tags
 Exclude – match blocks not tagged with any selected tags

Smart Browse

If further filtering is needed, click Advanced Options to open the LIR, Custom Code (here: as "GRT"), and assigned resource fields to use.

Once you have entered your filter criteria, click Smart Browse to display your results.

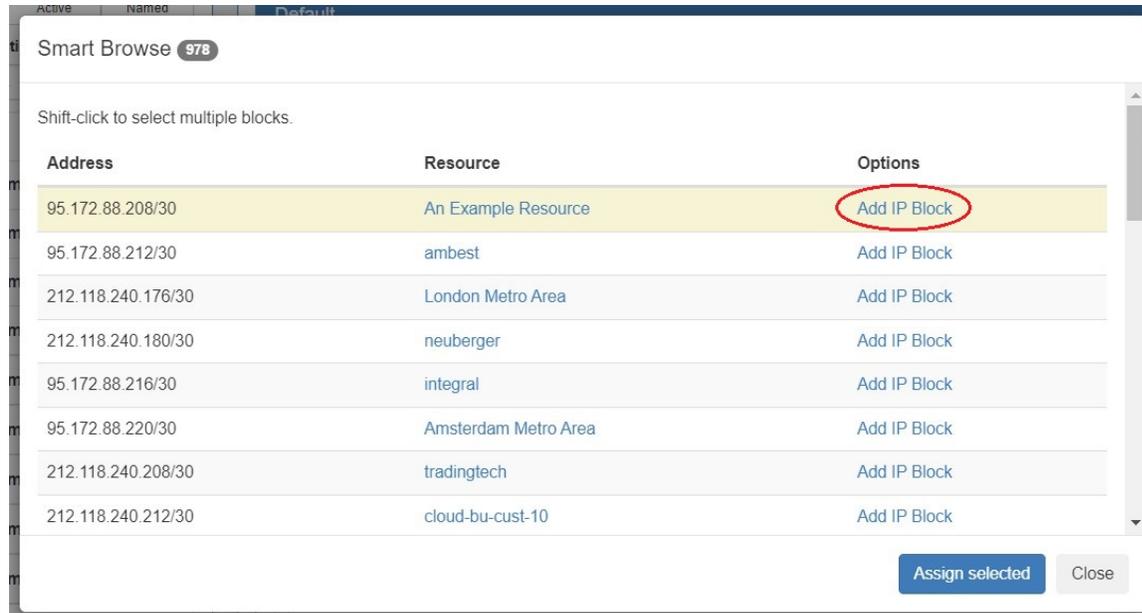
Assigning from Smart Browse

The Smart Browse results list will display a list of blocks that a) meet your filter criteria, and b) do not already have a VLAN assigned.

You may assign individual blocks immediately (Add IP Block), or select multiple blocks and delay assignment until after your final selections are complete (Assign Selected).

Immediate Assignment:

To assign an individual block immediately from the list to the VLAN, click Add IP Block for the desired block.



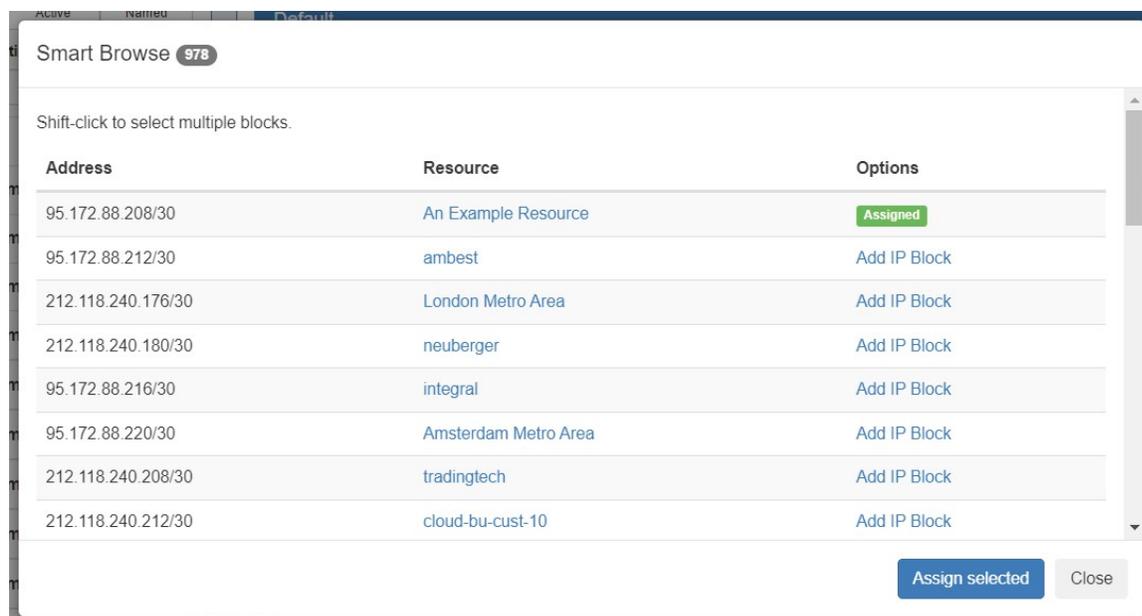
Smart Browse 978

Shift-click to select multiple blocks.

Address	Resource	Options
95.172.88.208/30	An Example Resource	Add IP Block
95.172.88.212/30	ambest	Add IP Block
212.118.240.176/30	London Metro Area	Add IP Block
212.118.240.180/30	neuberger	Add IP Block
95.172.88.216/30	integral	Add IP Block
95.172.88.220/30	Amsterdam Metro Area	Add IP Block
212.118.240.208/30	tradingtech	Add IP Block
212.118.240.212/30	cloud-bu-cust-10	Add IP Block

Assign selected Close

After clicking Add IP Block, the block will immediately be assigned to the VLAN, and an "Assigned" status will display for the block in the Smart Browse list.



Smart Browse 978

Shift-click to select multiple blocks.

Address	Resource	Options
95.172.88.208/30	An Example Resource	Assigned
95.172.88.212/30	ambest	Add IP Block
212.118.240.176/30	London Metro Area	Add IP Block
212.118.240.180/30	neuberger	Add IP Block
95.172.88.216/30	integral	Add IP Block
95.172.88.220/30	Amsterdam Metro Area	Add IP Block
212.118.240.208/30	tradingtech	Add IP Block
212.118.240.212/30	cloud-bu-cust-10	Add IP Block

Assign selected Close

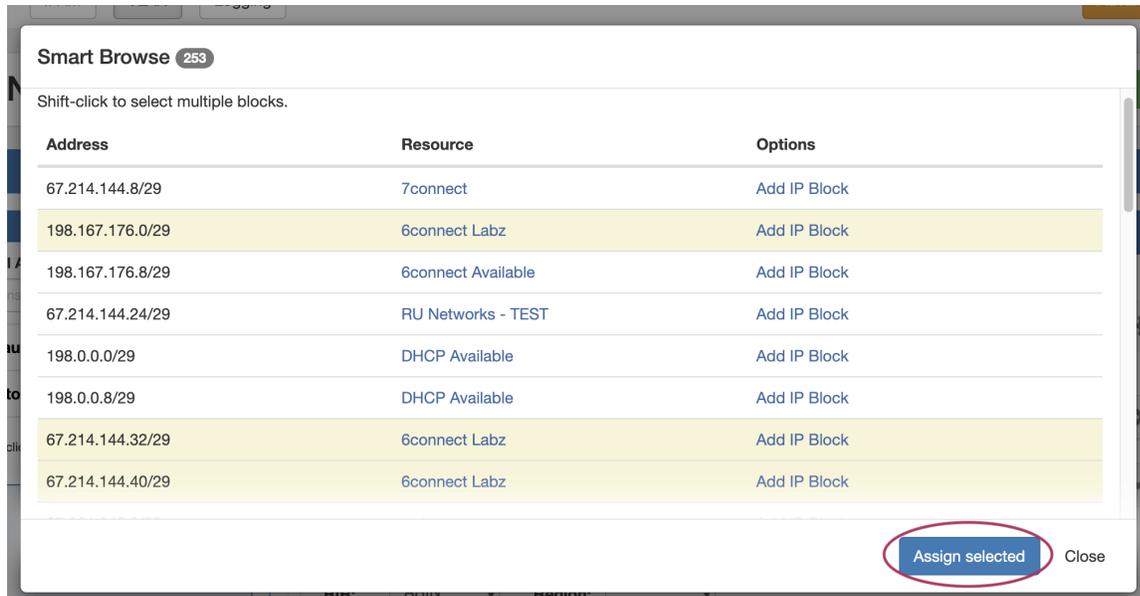
From here, you may assign additional blocks. Click Close to exit when complete.

If the "Assigned" status displays for all blocks you intend to assign, then you may skip clicking Assign Selected - as nothing else remains to assign - and instead click Close to exit.

Delayed Assignment / Selecting Multiple Blocks:

If you wish to assign multiple blocks to the VLAN at the same time, or mark a single block to assign later while continuing to browse the list, you may select a block to mark for later assignment and then assign all selected blocks at once.

To select a single block, left click on row for the block (taking care not to accidentally click on a blue link). Note that the row will have a yellow highlight indicating it is selected:



Smart Browse 253

Shift-click to select multiple blocks.

Address	Resource	Options
67.214.144.8/29	7connect	Add IP Block
198.167.176.0/29	6connect Labz	Add IP Block
198.167.176.8/29	6connect Available	Add IP Block
67.214.144.24/29	RU Networks - TEST	Add IP Block
198.0.0.0/29	DHCP Available	Add IP Block
198.0.0.8/29	DHCP Available	Add IP Block
67.214.144.32/29	6connect Labz	Add IP Block
67.214.144.40/29	6connect Labz	Add IP Block

Assign selected Close

To select additional blocks, shift-click on each row you wish to mark for assignment. You may freely scroll through the results to review your selection.

When done, click Assign Selected. All highlighted blocks will be assigned to the VLAN at the same time, and the Smart Browse window will close.

Add / Update VLAN to Blocks from IPAM Manage or VLAN Manage:

When editing a block in either IP Manage (IPAM Tab -> Action Menu (wrench) -> Manage), or VLAN Manage (IPAM Tab - VLAN -> Action Menu (wrench)), you can select an existing domain and VLAN to associate to the block.

VLAN Manage:

From the VLAN Manage page, click on the Action Menu (gear icon) for the desired block, then select Edit. You may also double-click on the block to open the same screen.

In the Edit Attributes dialog for the block, change the domain to the desired item, then select the VLAN. Click Save when done.

IPAM Manage:

From the IPAM Manage page, right click on the Action Menu (gear icon) for the desired block, then select Edit"

Manage aggregate

1.3.0.0/24 - 1918 export to CSV actions +

Search within this aggregate Q clear filter >

II Address	II Mask	II Assigned to	II Region	II Tags	II LIR	II ASN	II VLAN	II Generic	II Updated	II Notes	II Metadat...
1.3.0.0/28	16	available	Donna	Cable,Customer	-	-	8	-	2018-03-23	Test	-
1.3.0.16/28	16	aNewTestIPAMR...	Donna	Cable,Customer	-	-	8	-	2018-03-23	Test	-
1.3.0.32/28	16	aNewTestIPAMR...	Donna	Cable,Customer	-	-	8	-	2018-03-22	Test	-
1.3.0.48/28	16	aNewTestIPAMR...	Donna	Cable,Customer	-	-	8	-	2018-03-22	Test	-

To select multiple blocks to edit, hold down the shift key and click on the blocks you wish to edit - the selected blocks will be highlighted. Right-click anywhere in the blue highlighted area, and select Edit Selected Blocks.

Manage aggregate

1.3.0.0/24 - 1918 export to CSV actions +

Search within this aggregate Q clear filter >

II Address	II Mask	II Assigned to	II Region	II Tags	II LIR	II ASN	II VLAN	II Generic	II Updated	II Notes	II Metadat...
1.3.0.0/28	16	available	Donna	Cable,Customer	-	-	8	-	2018-03-23	Test	-
1.3.0.16/28	16	aNewTestIPAMR...	Donna	Cable,Customer	-	-	8	-	2018-03-23	Test	-
1.3.0.32/28	16	aNewTestIPAMR...	Donna	Cable,Customer	-	-	8	-	2018-03-22	Test	-
1.3.0.48/28	16	aNewTestIPAMR...	Donna	Cable,Customer	-	-	8	-	2018-03-22	Test	-
1.3.0.64/28	16	aNewTestIPAMR...	Donna	Cable,Customer	-	-	8	-	2018-03-22	Test	-

The Edit Block dialog will pop up for the selected block(s). Edit the domain by clicking in or typing in the domain search box, and select the desired domain.

Then, select the VLAN for the blocks from the enabled VLAN list. When done, click Save.

Updating information for 3 blocks

RIR: [dropdown] LIR: [dropdown] Resource: [assign a resource...]

Domain: [Test Extended Domain123] VLAN: [6 - [dropdown]] Tags: [radio buttons]

GRT: [input] ASN: [input]

Region: [dropdown]

Notes: [input]

Metadata1: [input]

Close Save

VLANs and Child Blocks

NOTE: Child blocks whose Parent blocks already have an assigned domain / VLAN, may not have domains and VLANs changed to be different than the Parent Block's values. If you attempt to save domain / VLAN changes to a child block under this situation, an error will occur.

i.e., Parent and Child IP Blocks must have matching domain / VLAN values.

Add / Update VLAN to Blocks from IPAM Gadget:

You may also add / edit domain /VLAN information when editing a block in the IPAM Gadget. From the IP block's Action Menu (gear icon), select Edit.

IPAMv2

Direct assign >

Smart assign >

IP Blocks filter +

Search...

IP Address	IP Mask	IP Region	IP Tags	IP ASN	IP Updated	IP LIR	IP Notes	IP VLAN
10.0.0.48/28	28	-	1918,QA	-	2021-12-20	-	-	Test 1
10.34.0.3/32	32	Berlin	ARIN,BugFixTest	-	2021-12-20	-	-	other ...
24.216.31.160/27	27	Denver, CO	Customer	8038	2021-11-08	ARIN Default LIR	-	other ...
24.216.31.192/26	26	Denver, CO	Customer	8038	2021-11-09	ARIN Default LIR	-	other ...
24.216.37.0/32	32	-	-	-	2021-12-20	-	-	other ...
127.0.0.1/32	32	-	-	-	2021-10-27	-	-	other ...
198.1.0.0/20	20	-	-	-	2021-10-27	-	-	other ...
2600:477::1/28	128	Seattle, WA	-	-	2021-10-22	-	-	other ...
2600:477::2/128	128	Seattle, WA	-	8038	2021-11-08	-	-	other ...
aaaa:bbbb:cccc::1/27	127	Chicago, IL	Customer	-	2021-11-09	-	-	other ...
aaaa:bbbb:cccc::2/128	128	Chicago, IL	Customer	-	2021-11-09	-	-	other ...

Context menu for 10.34.0.3/32:

- Edit
- Split
- Merge
- Assign
- Move
- Unassign
- Unassign, Skip Hold
- RIR Integration
- IP Rules
- Logs
- Email
- Templates

Then, in the Edit Attributes dialog, search for or type the desired domain, select VLAN information, and click Save.

Weyland-Yutani ... 2021-11-16 01:35 Boston, MA QA

Edit Attributes: **10.34.0.3/32** (10.34.0.3 - 10.34.0.3)

Assigned to: QA Test Resource

RIR: ARIN LIR: NAT: xxxxyy or xxxxxxxxyy

Domain: Test 1 QA * VLAN: 1 - QA Test 1 Meta1:

ASN: Meta2:

Region: Berlin Meta3:

Tags: *ARIN *BugFixTest Meta4:

Notes: Meta5:

Propagate attributes to all children: OFF

Mark this block as important: ON

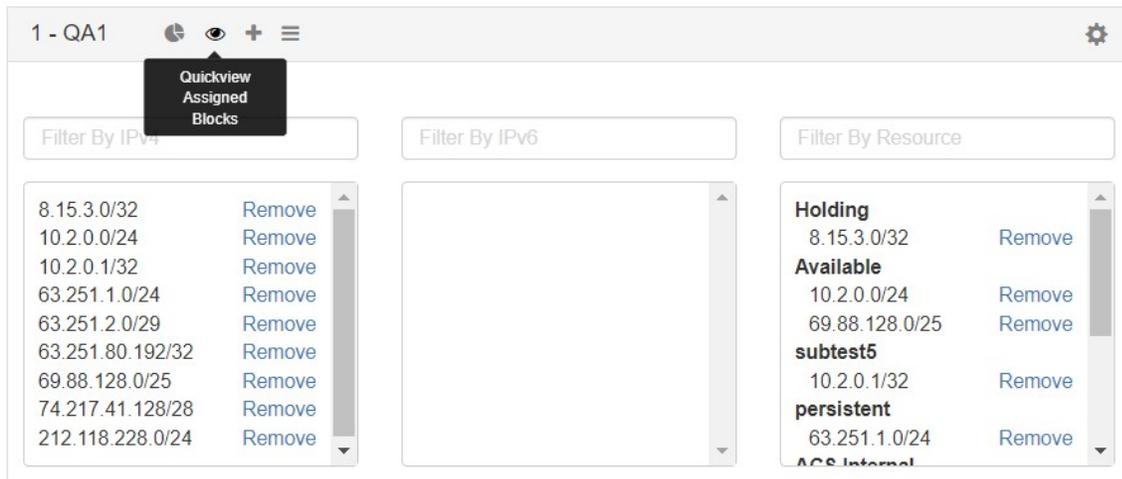
Close Save

Remove Blocks from a VLAN

Quickview

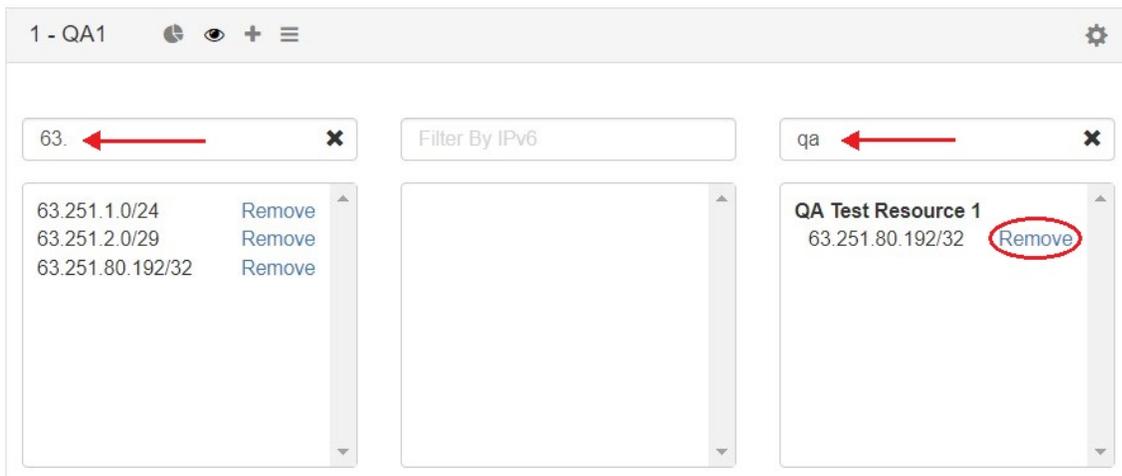
The Quickview panel provides a condensed, filterable list of all blocks assigned to that VLAN, separated into three columns - IPv4 blocks, IPv6 blocks, and grouped by resource.

To open or close the Utilization panel, click on the "Eye" icon in the grey header bar.



While in the Quickview panel, you may easily search for a block by typing the all or part of the CIDR into the IPv4 or IPv6 Filter boxes - useful for verifying an assignment or quickly scanning ranges.

You may also remove a block from the VLAN with a single click of the Remove button.



Working with VLAN Metadata

VLAN IPAM VLAN Logging Add Domain Add VLAN Advanced Q

VLAN Manage - Domain: Test 1 QA VLAN: 1

Active VLANs - Switch to Parent view export to CSV Search within this aggregate clear filter >

IT VLAN	IT Address	IT Host	IT ASN	IT Assigned to	IT Updated	IT Region	IT Notes	IT Tags	IT LIR	IT NAT	IT Meta1
QA Test 1	2.3.0.0/23	512	-	available	2021-11-23 16:47	Dallas, TX	-	1918	-	-	-
QA Test 1	2.3.2.0/23	512	-	available	2021-12-23 12:34	Dallas, TX	-	ARIN	-	-	-
QA Test 1	2.3.4.0/23	512	-	holding	2022-01-03 15:17	Dallas, TX	-	APNIC	-	-	-
QA Test 1	2.3.6.0/23	512	-	holding	2022-01-03 15:17	Dallas, TX	-	RIPE	-	-	-
QA Test 1	2.3.8.0/23	512	-	holding	2022-01-03 15:17	Dallas, TX	-	LACNIC	-	-	-
QA Test 1	2.3.10.0/23	512	-	holding	2022-01-03 15:17	Dallas, TX	-	Multicast	-	-	-
QA Test 1	2.3.12.0/22	1024	-	holding	2022-01-03 15:17	Dallas, TX	-	AfrNIC	-	-	-
QA Test 1	8.7.6.0/24	256	-	Weyland-Yuta...	2021-11-16 01:35	Boston, MA	-	QA	-	-	-
QA Test 1	10.0.0.16/28	16	8038	available	2021-12-15 13:37	San Francisco, CA	Test Aggregate	-	-	-	-
QA Test 1	10.34.0.0/31	2	-	ACCO	2021-11-15 14:10	Berlin	-	ARIN_BugFixTest	-	-	-

Customizable metadata fields are available to hold VLAN-specific information such as Location, Client, Firewall, Gateway, and more.

These fields can be enabled and disabled in [IPAM Admin Edit VLAN Columns](#), and viewed / edited under Edit VLAN in the [VLAN](#) Tab and in VLAN Manage.

Enable / Disable VLAN Metadata Fields

VLAN metadata fields can be enabled and disabled under the IPAM Admin VLAN Columns area.

Field Name	Column Name	Visibility
cidr	Address	Visible
mask	Host	Visible
asn	ASN	Visible
region	Region	Visible
notes	Notes	Visible
tags	Tags	Visible
resourceHolderName	Assigned to	Visible
vlan	VLAN	Visible
last_update_time	Updated	Visible
lir	LIR	Visible
nat	NAT	Disabled
meta1	Meta1	Disabled
meta2	Meta2	Disabled

Here, you may edit the order of columns, rename columns, and enable/disable column visibility.

Any columns that are disabled will hide the column from VLAN Manage, as well as hide the applicable field from any VLAN filters or Edit VLAN actions.

View / Edit Metadata Field Information

VLAN metadata may be viewed and edited from VLAN Home, VLAN Manage, and VLAN Advanced.

While in the [IPAM](#) Tab -> [VLAN Home](#) page, expand the desired domain from the left sidebar and right click on a VLAN. Then open the Edit VLAN panel.

102 - VLAN A



Domain:	<input type="text" value="Default"/>	Meta1:	<input type="text"/>
Domain Numbering Schema:	<input type="text" value="Cisco Router Numbering Domain for VLAN Domain: 102"/>	Meta2:	<input type="text"/>
VLAN number:	<input type="text" value="102"/>		
VLAN name:	<input type="text" value="VLAN A"/>		

[Save Changes](#)

The Edit VLAN panel may also be opened from VLAN Manage (click on the List icon), or from VLAN Advanced (right-click on the desired VLAN and select Edit VLAN).

[Additional Information](#)

For information on working with domains, see:

- [Working with Domains](#)

For a higher level overview of the VLAN Manager, see:

- [VLAN](#)