

IPAM Gadgets

IPAM Gadgets

The following gadgets are available to support IPAM.

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IPAMv2 Gadget

The IPAMv2 Gadget is used on the Resource Holder section type, and allows you to view, assign, and manage blocks for that resource.

IPAMv2

Direct Assign

Smart Assign

IP Blocks

Options

export to CSV

Search...

filter >

Address	Mask	Tags	LIR	ASN	Region	VLAN	Updated	ID Code	Host Count
50.100.0.16/28	28	BB,WEBHOST	ARIN Test LIR	1234	Cairo, Egypt	VLAN 5	2023-12-11	12345	16
50.100.0.32/28	28	BB,WEBHOST	-	-	-	-	2023-12-11	-	16
50.100.0.48/28	28	BB,WEBHOST	-	-	-	-	2023-12-11	-	16
208.123.96.96/27	27		-	-	-	-	2023-06-09	-	32
2001:102::1/128	128		-	-	Rio de Janeiro, ...	Test VL...	2024-01-12	-	1
2405.D800::32	32		-	-	Reykjavik, Iceland	-	2023-12-12	-	2^96
2600.450::2/128	128	Another QA Tag,DH...	-	-	Saskatoon, Sask...	-	2023-12-12	-	1
2604.5680.100::/41	41		-	-	Boston, MA	-	2023-12-12	-	2^87
2604.5680.3002::/48	48		-	-	-	-	2023-12-12	-	2^80
2607.FAE0.4000::/48	48	Another QA Tag	ARIN Test LIR	1234	Hebbronville	2	2023-12-11	-	2^80

Displaying 1 to 10 of 10 blocks

The IPAMv2 Gadget provides pagination, advanced filters, sortable columns, reverse zone generation, customized column order/names, and custom data fields.

Using this gadget, you can assign blocks via Direct Assign, Smart Assign, or Smart Browse, as well as edit and manage blocks assigned to the resource.

The IPAM Gadget may also be used as a reference for other gadgets. The "DNS Autogenerator" and "Linked IP Blocks" gadgets use the IPAM Gadget - Blocks List to generate content and perform operations associated with those gadgets.

A basic overview of the gadget is covered in this section, however, more detail on specific tasks may be available under [IPAM Tab](#) and [Working with IP Blocks](#).

Direct Assign

Direct Assign blocks with a CIDR address, with or without additional filtering options. In cases where duplicate blocks exist, using the filter options with Direct Assign allows you to specifically control which of the duplicate blocks is assigned.

To assign a sub-assignable block, select the resource under which the block is allocated. Section and category filters are available to further filter the resource selector. If the provided CIDR / filter criteria do not match any available blocks, but do match one or more sub-assignable blocks, a list of sub-assignable block suggestions will notify the user of suitable resources to select.

To open the Direct Assign section of the gadget, click the expansion caret in the upper right section. Clicking "Advanced Options" next to the caret will show/hide optional additional filter criteria to apply to direct assign. Enter the desired CIDR and filter criteria, then click "Assign".

IPAMv2

Direct Assign

Hide Advanced Options -

CIDR

x.x.x.x/yy or xxxxxxxxxxxx/yy

Enter valid address

RIR

Region

LIR

Code

Domain

Select a domain...

VLAN

Select...

Aggregates

Select an aggregate...

Assigned to

Filter by section...

Filter by category...

Select a resource...

Note: The Resource option will filter by blocks that are already assigned to the selected resource and are set to Allow Subassignments. If no resource is selected, the filter will default to Available blocks.

Assign

For additional details on working with direct assign, see: [IPAM Tab](#) and [Working with IP Blocks](#)

Smart Assign / Smart Browse

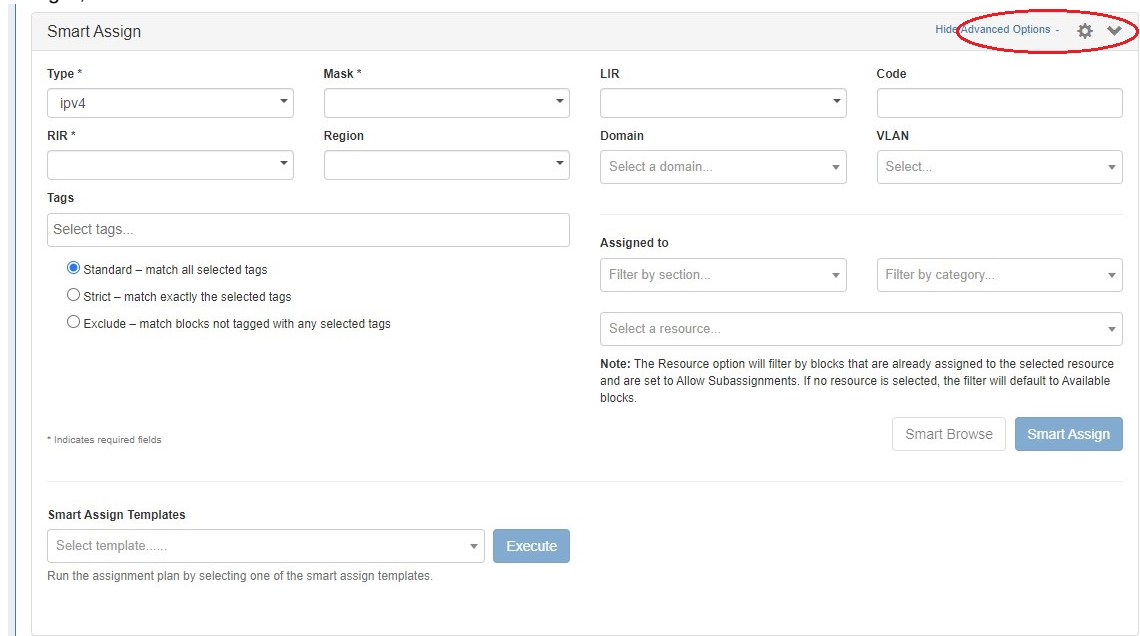
Smart Assign blocks by providing block criteria and Smart Assign will find suitable blocks and assign the first available block that matches the filter criteria.

Required fields for Smart Assign are: "Type", "RIR", and "Mask". Additional fields, such as "Region", "VLAN", "LIR", "Resource" (for blocks that allow subassignments), custom code, and "Tag" information are optional but may help narrow results.

To assign a sub-assignable block, select the resource under which the block is allocated. Section and category filters are available to filter the resource selector. If the provided filter criteria do not match any available blocks, but do match one or more sub-assignable blocks, a list of sub-assignable block suggestions will notify the user of suitable resources to select.

Smart Browse using the filter options to bring up a browsable list of blocks meeting that criteria, from which you may review results and select blocks to assign / assign out of. If the provided filter criteria do not match any available blocks, but do match one or more sub-assignable blocks, a list of sub-assignable block suggestions will notify the user of suitable resources to select.

To open the Smart Assign section of the gadget, click the expansion caret in the upper right section. Clicking "Advanced Options" next to the caret will show/hide optional additional filter criteria to apply to Smart Assign / Smart Browse. Enter the desired filter criteria, then click "Smart Assign", or Smart Browse.

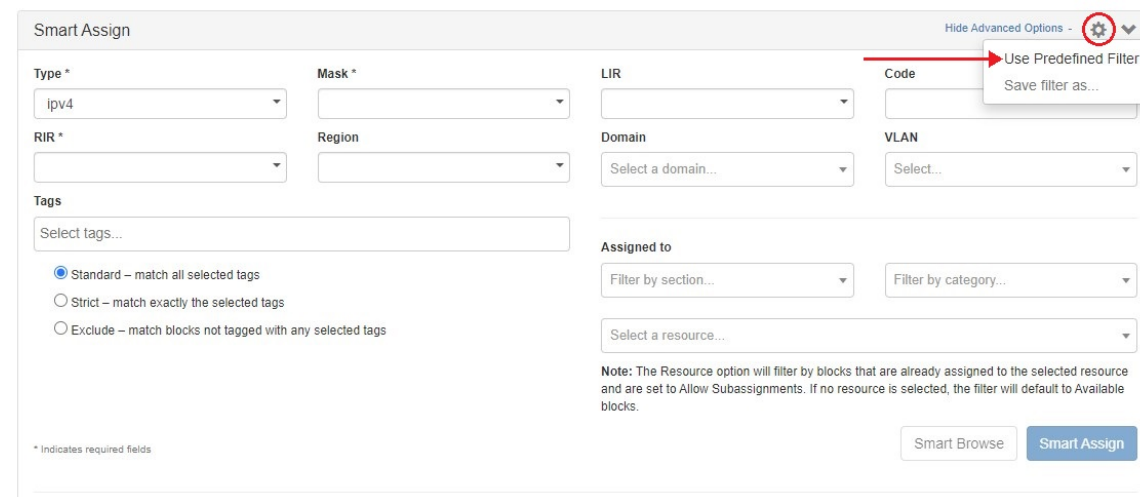


The screenshot shows the 'Smart Assign' form. At the top right, there is a 'Hide Advanced Options' link, a gear icon (circled in red), and a dropdown arrow. The form contains several input fields: 'Type *' (set to 'ipv4'), 'Mask *', 'LIR', 'Code', 'RIR *', 'Region', 'Domain' (with a 'Select a domain...' dropdown), and 'VLAN' (with a 'Select...' dropdown). There is a 'Tags' section with a 'Select tags...' input and three radio buttons: 'Standard - match all selected tags' (selected), 'Strict - match exactly the selected tags', and 'Exclude - match blocks not tagged with any selected tags'. Below this is an 'Assigned to' section with 'Filter by section...' and 'Filter by category...' dropdowns, and a 'Select a resource...' dropdown. A note states: 'Note: The Resource option will filter by blocks that are already assigned to the selected resource and are set to Allow Subassignments. If no resource is selected, the filter will default to Available blocks.' At the bottom right are 'Smart Browse' and 'Smart Assign' buttons. At the bottom left is a 'Smart Assign Templates' section with a 'Select template.....' dropdown and an 'Execute' button. A small note says 'Run the assignment plan by selecting one of the smart assign templates.'

For additional details on working with Smart Assign / Smart Browse, see: [IPAM Tab](#) and [Working with IP Blocks](#).

Predefined Filters

Commonly applied Smart Assign / Smart Browse filter criteria can be saved for repeat use as Predefined Filters, accessible through the gear menu.



This screenshot is similar to the previous one, but with a red circle around the gear icon and a tooltip that appears when it is clicked. The tooltip contains the text 'Use Predefined Filter' and 'Save filter as...'. The rest of the form is identical to the previous screenshot.

For more detail see [Working with IP Blocks - Common Tasks --> Working with Predefined Filters](#).

Smart Assign Templates

To run a smart assign template from the IPAM Gadget, expand Smart Assign and select the template from the "Smart Assign Templates" dropdown and click "Execute".

IPAMv2

Direct Assign

Smart Assign Show Advanced Options +

Type *
ipv4

Mask *

Assigned to
Filter by section...

RIR *

Location

Filter by category...

Tags
Select tags...

Select a resource...

Note: The Resource option will filter by blocks that are already assigned to the selected resource and are set to Allow Subassignments. If no resource is selected, the filter will default to Available blocks.

☒ Standard – match all selected tags
☐ Strict – match exactly the selected tags
☐ Exclude – match blocks not tagged with any selected tags

* Indicates required fields

Smart Browse Smart Assign

Smart Assign Templates

Example Template x

Execute

This is an example.

For information on setting up a smart assign template (Admin only), see [Smart Assign Templates](#).

IP Blocks List

The IP Blocks list displays the CIDR and attributes for all blocks assigned to the resource. The included columns and column order may be customized in [IPAM Lists Management](#).

From the block list, blocks may be reviewed, filtered, sorted, managed, edited, and used to autogenerate a reverse zone.

View Blocks

View, search, filter, and sort Assigned Blocks for the resource via the "IP Blocks" list:

To Search: enter a full or partial CIDR, assigned resource name, or other search term into the search box at the top of the list and click the search icon.

IP Blocks filter >

Options export to CSV

Search...

IP Address	IP Mask	IP Tags	IP LIR	IP ASN	IP Region	IP VLAN	IP Updated	IP ID Code	IP Host Count
50.100.0.16/28	28	BB,WEBHOST	ARIN Test LIR	1234	Cairo, Egypt	VLAN 5	2023-12-11	12345	16
50.100.0.32/28	28	BB,WEBHOST	-	-	-	-	2023-12-11	-	16
50.100.0.48/28	28	BB,WEBHOST	-	-	-	-	2023-12-11	-	16
208.123.96.96/27	27		-	-	-	-	2023-06-09	-	32
2001:102::1/128	128		-	-	Rio de Janeiro, ...	Test VL...	2024-01-12	-	1
2405:D800::/32	32		-	-	Reykjavik, Iceland	-	2023-12-12	-	2^96
2600:450::2/128	128	Another QA Tag,DH...	-	-	Saskatoon, Sask...	-	2023-12-12	-	1
2604:5680:100::/41	41		-	-	Boston, MA	-	2023-12-12	-	2^87
2604:5680:3002::/48	48		-	-	-	-	2023-12-12	-	2^80
2607:FAE0:4000::/48	48	Another QA Tag	ARIN Test LIR	1234	Hebbronville	2	2023-12-11	-	2^80

To Filter: click the "filter" link in the top right area of the header to open filter options. Enter your desired criteria and hit "Apply".

IP Blocks

filter <

Options

export to CSV

IP Address	IP Mask	IP Tags	IP LIR	IP ASN	IP Region
50.100.0.16/28	28	BB.WEBHOST	ARIN Test LIR	1234	Cairo
50.100.0.32/28	28	BB.WEBHOST	-	-	-
50.100.0.48/28	28	BB.WEBHOST	-	-	-
208.123.96.96/27	27	-	-	-	-
2001:102::1/128	128	-	-	-	Rio de Janeiro, ...
2405:D800::32	32	-	-	-	Reykjavik, Iceland
2600:450:2/128	128	Another QA Tag, DH...	-	-	Saskatoon, Sask...
2604:5680:100::41	41	-	-	-	Boston, MA
2604:5680:3002::48	48	-	-	-	-
2607:FAE0:4000::48	48	Another QA Tag	ARIN Test LIR	1234	Hebbronville

Filter selection:

apply

clear

☐ Show important blocks only

Sub Assignment

Select a resource...

Mask

click to select...

RIR

click to select...

LIR

click to select...

ASN

click to select...

To Sort: Click on the header name you wish to sort by, and the field will toggle between ascending and descending order.

IP Blocks

filter 2 >

Options

export to CSV

Search...

Q

IP Address	IP Mask	IP Tags	IP LIR	IP ASN	IP Region	IP VLAN	IP Updated	IP ID Code	IP Host Count
208.123.96.96/27	27	-	-	-	-	-	2023-06-09	-	32
50.100.0.16/28	28	BB.WEBHOST	ARIN Test LIR	1234	Cairo, Egypt	VLAN 5	2023-12-11	12345	16
50.100.0.32/28	28	BB.WEBHOST	-	-	-	-	2023-12-11	-	16
50.100.0.48/28	28	BB.WEBHOST	-	-	-	-	2023-12-11	-	16
2405:D800::32	32	-	-	-	Reykjavik, Iceland	-	2023-12-12	-	2^96
2604:5680:100::41	41	-	-	-	Boston, MA	-	2023-12-12	-	2^87
2604:5680:3002::48	48	-	-	-	-	-	2023-12-12	-	2^80
2607:FAE0:4000::48	48	Another QA Tag	ARIN Test LIR	1234	Hebbronville	2	2023-12-11	-	2^80
2001:102::1/128	128	-	-	-	Rio de Janeiro, ...	Test VL...	2024-01-12	-	1
2600:450:2/128	128	Another QA Tag, DH...	-	-	Saskatoon, Sask...	-	2023-12-12	-	1

To Export: Click on "export to csv" at the top of the list.

IP Blocks

filter >

Options

export to CSV

Search...

Q

IP Address	IP Mask	IP Tags	IP LIR	IP ASN	IP Region	IP VLAN	IP Updated	IP ID Code	IP Host Count
50.100.0.16/28	28	BB.WEBHOST	ARIN Test LIR	1234	Cairo, Egypt	VLAN 5	2023-12-11	12345	16
50.100.0.32/28	28	BB.WEBHOST	-	-	-	-	2023-12-11	-	16
50.100.0.48/28	28	BB.WEBHOST	-	-	-	-	2023-12-11	-	16
208.123.96.96/27	27	-	-	-	-	-	2023-06-09	-	32
2001:102::1/128	128	-	-	-	Rio de Janeiro, ...	Test VL...	2024-01-12	-	1
2405:D800::32	32	-	-	-	Reykjavik, Iceland	-	2023-12-12	-	2^96
2600:450:2/128	128	Another QA Tag, DH...	-	-	Saskatoon, Sask...	-	2023-12-12	-	1
2604:5680:100::41	41	-	-	-	Boston, MA	-	2023-12-12	-	2^87
2604:5680:3002::48	48	-	-	-	-	-	2023-12-12	-	2^80
2607:FAE0:4000::48	48	Another QA Tag	ARIN Test LIR	1234	Hebbronville	2	2023-12-11	-	2^80

Manage Assigned Blocks

Manage for the resource by going into the "IP Blocks" list, and using the Action Menu (Gear Icon) to perform actions for the selected block. All options available in IPAM Manage for a block are also available in the IPAM Gadget Action Menu, although the "Templates" option will be applicable in the IPAM Gadget.

IP Blocks

Options

export to CSV

Address	Mask	Tags	LIR
50.100.0.16/28	28		ARIN T
50.100.0.32/28	28		-
50.100.0.48/28	28		-
208.123.96.96/27	27		-
2001:102::/128	128		-
2405:D800::/32 →	32		-
2600:450::2/128	128		-
2604:5680:100::/41	41		-
2604:5680:3002::/48	48		-
2607:FAE0:4000::/48	48		ARIN T

Edit Multiple Blocks

Edit two or more blocks at a time by shift-clicking or cmd-clicking to select multiple blocks, then right click to show the multi-block Action options. Select "Edit", and the Edit Block Attributes screen will display to edit all selected blocks.

IP Blocks		
Options export to CSV		
↕ Address	↕ Mask	↕ Tags
50.100.0.16/28	28	BB,WEBHOST
50.100.0.32/28	28	BB,WEBHOST
50.100.0.48/28	28	BB,WEBHOST
208.123.96.96/27	27	
2001:102::/128	128	
2405:D800::/32 ➔	32	
2600:450::2/128	128	Another QA Tag,DH...
2604:5680:100::/41	41	
2604:5680:3002::/48	48	
2607:FAE0:4000::/48	48	Another QA Tag

Make the desired updates to the blocks, then click "Save".

For more information on assigning and managing blocks, see [Working with IP Blocks - Assigning IP Space](#).

Autogenerate Reverse Zone

Autogenerate a reverse zone from an IP Block by clicking on the CIDR link in the block list.

144.121.216.132/30	30	-	Customer	-	-	2018-07-16	-	-	NET-144-...	-
144.121.228.1	reverse zone: 144.121.216.132/30		Customer	-	-	2018-10-04	-	-	NET-144-...	-
144.121.228.128/29	29	-	Customer	-	-	2018-10-04	-	-	NET-144-...	-

The reverse zone will be created for the block, and the Zone View page will load, displaying further information.

DNSv3DNS GroupsDNS ServersDNS ZonesDNS Records

216.121.144.in-addr.arpa.

Test Group 2

Push Zone NowSchedule PushExport ZoneImport Zone

Edit the comment.

Advanced Settings

DNS Records

Add a New

A

Record

Add

Record Type	Record Data Q	Actions
SOA	ns.example.com. hostmaster.example.com. (2022081801 172801 900 3600 86400)	
NS	216.121.144.in-addr.arpa. maps to test.	DeleteCheckPerms
PTR	{132-135}.216.121.144.in-addr.arpa. maps to \$1.216.121.144.test.test.com.	DeleteCheckPerms

Attached Servers

For more information on DNS zones, see: [DNS Tab](#) and [Working with DNS Zones](#).

Resource Assignment Gadgets

Resource Assignment Gadgets are automatically added to the system ASN, VLAN, and Region sections and display all the IP blocks associated with a section resource.

☐	4918	6c-systemas	SystemAS	1	TLR	-	-	2020-08-05 01:07:31
☐	6323	6c-systemregion	SystemRegion	1	TLR	-	-	2022-09-29 02:24:36
☐	4975	6c-systemvlan	SystemVLAN	1	TLR	-	-	2020-08-27 03:13:41

The Assignment Gadgets provide pagination and sortable columns, and allow users to quickly Direct Assign an IP to an ASN, VLAN, or Region resource from the gadget.

Resource Vlan Assignment

CIDR

Type a block and assign it to VLAN VLAN 5.

Netblocks 8

Items per page 20

Info	Address	Mask	Assigned to	Tags	LIR	ASN	Region	VLAN	Updated
	8.8.3.128/27	27	QA Test Resource 2	Cable, Customer	-	-	Boston, MA	VLAN 5 (5)	2023-12-08 20:39:05
	50.100.0.16/28	28	QA Test Resource	BB, WEBHOST	-	1234	Cairo, Egypt	VLAN 5 (5)	2023-12-11 21:33:03
	192.154.135.2/32	32	QA Test Resource 2	-	-	-	-	VLAN 5 (5)	2023-11-30 18:43:39
	208.123.96.160/27	27	The Blaze	-	-	-	-	VLAN 5 (5)	2023-11-30 14:35:02
	208.123.110.124/30	30	QA Test Resource 2	-	-	-	-	VLAN 5 (5)	2014-01-21 15:34:14
	208.123.110.128/30	30	Weyland-Yutani Corporation	QA Test	-	-	-	VLAN 5 (5)	2023-12-06 16:09:16
	2604:5680:2002::/48	48	QA Test Resource 2	WEBHOST	-	-	McAllen NOC	VLAN 5 (5)	2023-04-11 16:13:08
	2607:fc28:0:306::/64	64	Weyland-Yutani Corporation	-	-	-	-	VLAN 5 (5)	2023-11-10 23:10:12

Displaying 1 to 8 of 8 items.

Resource ASN Assignment

CIDR

Type a block and assign it to 453 ASN.

Netblocks 5

Items per page 20

Info	Address	Mask	Assigned to	Tags	LIR	ASN	Region	VLAN	Updated
	172.16.64.0/19	19	available	Infra, Inhouse	-	453	-	150 (150)	2023-06-07 17:43:43
	173.209.71.160/27	27	available	-	-	453	-	-	2023-10-24 17:35:25
	198.203.2.0/26	26	Active Life Center	-	-	453	-	-	2023-10-24 17:29:49
	208.123.109.0/30	30	available	-	-	453	-	-	2023-06-16 18:50:38
	2600:108::/30	30	available	Customer, QA Test	-	453	Hidalgo	-	2023-11-10 23:13:14

Displaying 1 to 5 of 5 items.

Resource Region Assignment									
CIDR x.x.x.x/yy OR xxxx:xxxx:xxxx:xxxx:yyy Assign Type a block and assign it to .									
Netblocks 3 Items per page 20									
Info	Address	Mask	Assigned to	Tags	LIR	ASN	Region	VLAN	Updated
	64.88.200.248/30	30	Arc Automotive	-	-	-	-	-	2023-06-16 18:53:54
	172.16.64.0/19	19	available	Infra, Inhouse	-	453	-	150 (150)	2023-06-07 17:43:43
	208.123.109.4/30	30	available	-	-	-	-	-	2023-10-24 18:54:32
Displaying 1 to 3 of 3 items. Previous 1 Next									

IP Blocks List

The IP Blocks list displays the CIDR and attributes for all blocks assigned to the resource. The included columns and column order may be customized in [IPAM Lists Management](#).

To sort, click on the header name you wish to sort by, and the field will toggle between ascending and descending order. You can adjust the number of blocks displayed using the "items per page" selector.

Resource ASN Assignment									
CIDR x.x.x.x/yy OR xxxx:xxxx:xxxx:xxxx:yyy Assign Type a block and assign it to 453 ASN.									
Netblocks 5 Items per page 20									
Info	Address	Mask	Assigned to	Tags	LIR	ASN	Region	VLAN	Updated
	172.16.64.0/19	19	available	Infra, Inhouse	-	453	-	150 (150)	2023-06-07 17:43:43
	173.209.71.160/27	27	available	-	-	453	-	-	2023-10-24 17:35:25
	198.203.2.0/26	26	Active Life Rehab Center	-	-	453	-	-	2023-10-24 17:29:49
	208.123.109.0/30	30	available	-	-	453	-	-	2023-06-16 18:50:38
	2600:108::/30	30	available	Customer, QA Test	-	453	Hidalgo	-	2023-11-10 23:13:14
Displaying 1 to 5 of 5 items. Previous 1 Next									

To assign an IP block to a ASN, VLAN, or Region resource, select the block from the dropdown and click "Assign".

Resource ASN Assignment

CIDR

173.209.67.40/29

X

▼

Assign

Type a block and assign it to 453 ASN.

Netblocks 5

items per page 20 ▼

Info	Address	Mask	Assigned to	Tags	LIR	ASN	Region	VLAN	Updated
	172.16.64.0/19	19	available	Infra, Inhouse	-	453	-	150 (150)	2023-06-07 17:43:43

For more information on auto created resources see [Working with IP Blocks - Common Tasks](#).

Additional Information

See the following pages for additional information on working with IPAM and blocks:

[Expand all](#) [Collapse all](#)