

IPAM Gadgets

IPAM Gadgets

The following gadgets are available to support IPAM.

- IPAM Gadgets
 - IPAMv2 Gadget
 - Direct Assign
 - Smart Assign / Smart Browse
 - Predefined Filters
 - Smart Assign Templates
 - IP Blocks List
 - View Blocks
 - Manage Assigned Blocks
 - Edit Multiple Blocks
 - Autogenerate Reverse Zone
 - Resource Assignment Gadgets
 - IP Blocks List
- Additional Information

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.

The screenshot shows the IPAMv2 Gadget interface. At the top, there are two buttons: "Direct Assign" and "Smart Assign". Below these is the "IP Blocks" section, which includes a "filter" button and a search bar. The main part of the interface is a table with the following columns: Address, Mask, Tags, LIR, ASN, Region, VLAN, Updated, ID Code, and Host Count. The table contains 10 rows of data, with the first row highlighted in yellow. A pagination bar at the bottom indicates "Displaying 1 to 10 of 10 blocks".

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

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".

The screenshot shows the IPAMv2 Direct Assign interface. At the top right, there is a dropdown menu labeled "Hide Advanced Options" with a downward arrow. Below this, the form is organized into several sections:

- CIDR:** A text input field with a placeholder "x.x.x/yy or xxxxxxxx/yy" and a label "Enter valid address".
- RIR:** A dropdown menu.
- Region:** A dropdown menu.
- LIR:** A dropdown menu.
- Code:** A text input field.
- Domain:** A dropdown menu with the text "Select a domain...".
- VLAN:** A dropdown menu with the text "Select...".
- Aggregates:** A dropdown menu with the text "Select an aggregate...".
- Assigned to:** Two dropdown menus: "Filter by section..." and "Filter by category...".
- Select a resource...:** A dropdown menu.

At the bottom of the form, there is a note: "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." An "Assign" button is located at the bottom right of the form.

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 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.

Smart Assign

Hide Advanced Options - [gear icon] [down arrow]

Type *
ipv4

Mask *
[dropdown]

LIR
[dropdown]

Code
[input]

RIR *
[dropdown]

Region
[dropdown]

Domain
Select a domain...

VLAN
Select...

Tags
Select tags...

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

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.

* Indicates required fields

Smart Browse Smart Assign

Smart Assign Templates
Select template..... Execute

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.

Smart Assign

Hide Advanced Options - [gear icon] [down arrow]

Type *
ipv4

Mask *
[dropdown]

LIR
[dropdown]

Code
[input]

RIR *
[dropdown]

Region
[dropdown]

Domain
Select a domain...

VLAN
Select...

Tags
Select tags...

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

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.

* Indicates required fields

Smart Browse Smart Assign

Use Predefined Filter
Save filter as...

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 * Mask *

RIR * Location

Assigned to

Tags

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 **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

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".

The screenshot shows the IP Blocks interface with a filter dialog open. The 'filter' link in the top right is circled in red. The dialog has 'Filter selection:' with 'apply' and 'clear' buttons. Below are several sections with 'click to select...' options:

- 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.

The screenshot shows the IP Blocks interface with the 'IP Mask' header circled in red. The table has the following columns: IP Address, IP Mask, IP Tags, IP LIR, IP ASN, IP Region, IP VLAN, IP Updated, IP ID Code, and IP Host Count. The data rows are as follows:

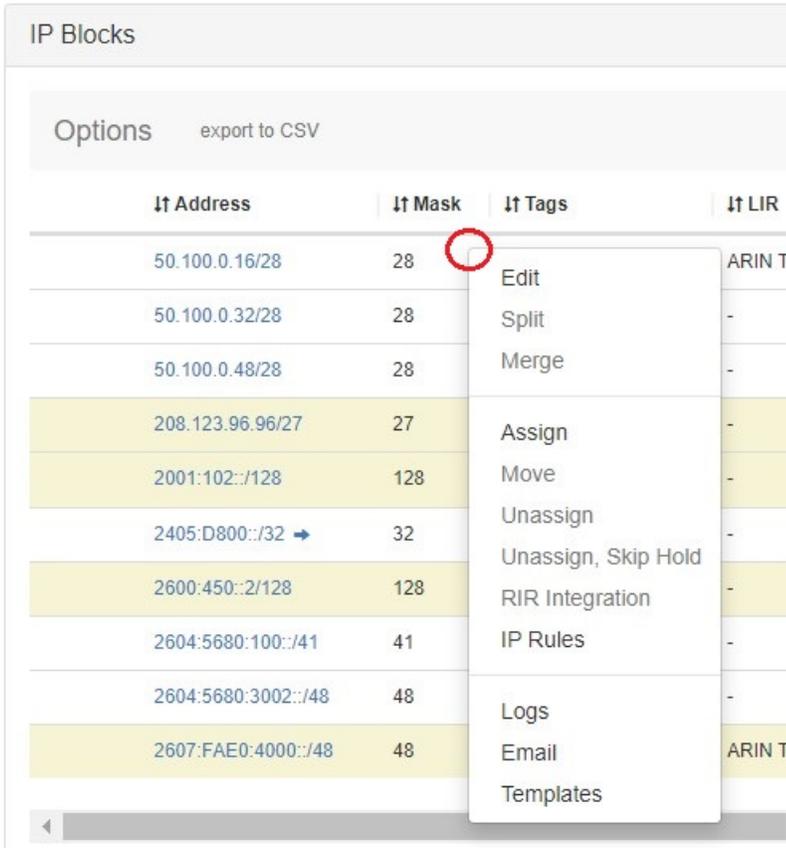
IP Address	IP Mask	IP Tags	IP LIR	IP ASN	IP Region	IP VLAN	IP Updated	IP ID Code	IP Host Count
208.123.96.96/27	27		-	-	-	-	2023-06-09	-	32
50.100.0.16/28	28	BB.WEBHOST	ARIN Test LIR	1234	Cairo, Egypt	VLAN 5	2023-12-11	12345	16
50.100.0.32/28	28	BB.WEBHOST	-	-	-	-	2023-12-11	-	16
50.100.0.48/28	28	BB.WEBHOST	-	-	-	-	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::/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.

The screenshot shows the IP Blocks interface with the 'export to CSV' link circled in red. The table data is identical to the previous screenshot.

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.



The screenshot shows a table titled "IP Blocks" with columns for "Address", "Mask", "Tags", and "LIR". A red circle highlights the gear icon in the "Tags" column of the first row. A context menu is open over this icon, listing various actions such as "Edit", "Split", "Merge", "Assign", "Move", "Unassign", "Unassign, Skip Hold", "RIR Integration", "IP Rules", "Logs", "Email", and "Templates".

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.

DNSv3 DNS Groups DNS Servers DNS Zones DNS Records

216.121.144.in-addr.arpa.

Test Group 2 

[Push Zone Now](#) [Schedule Push](#) [Export Zone](#) [Import Zone](#)

Edit the comment.

Advanced Settings 

DNS Records

Add a New Record [Add](#)

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

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.

<input type="checkbox"/>	4918	6c-systemas	SystemAS	1	TLR	-	-	2020-08-05 01:07:31
<input type="checkbox"/>	6323	6c-systemregion	SystemRegion	1	TLR	-	-	2022-09-29 02:24:36
<input type="checkbox"/>	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
i	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.

Previous **1** Next

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
i	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.

Previous **1** Next

Resource Region Assignment

CIDR

 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.

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

 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.

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

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](#)