

Smart Assign Templates

Smart Assign Templates

Smart Assign Templates provide the ability to define complex assignment scenarios, including those with multiple steps or multiple filter conditions.

IPAM Admin

Smart Assign Templates

Templates

items per page 20 Search by name...

<input type="checkbox"/>	ID	Name	Description	Updated	Options
<input type="checkbox"/>	2	Test1	Test1	2022-04-14 20:12:31	Delete Edit
<input type="checkbox"/>	3	Test2	Test2	2022-08-18 19:57:14	Delete Edit
<input type="checkbox"/>	18	Test3	Test3	2022-09-30 13:56:23	Delete Edit
<input type="checkbox"/>	28	IPv6 Test	-	2022-08-15 20:47:21	Delete Edit
<input type="checkbox"/>	38	Splitter 1	-	2022-08-15 20:59:30	Delete Edit
<input type="checkbox"/>	42	Tag Distribution Template	-	2022-09-12 21:10:13	Delete Edit
<input type="checkbox"/>	43	Example Template	This is an example.	2022-10-11 19:28:17	Delete Edit

Displaying 1 to 7 of 7 items.

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Smart Assign Templates are accessed from the Admin -> IPAM Admin dropdown menu.

Like Smart Assign, Smart Assign Templates allow you to enter criteria such as IP type, size, RIR, region, and tag information to automatically assign a block meeting that criteria, if any exist. But Smart Assign Templates allows users to breakdown IP space even further through multiple levels of conditions for more complex assignments. For example, if you need a /24 from Resource A with Tag B, then want to take the first /28 of it and sub-assign that to Resource C, and then take the last /30 of it and assign it to Resource D - you can create a template to do just that.

Once created, a Smart Assign Template is available to select and execute from either IPAM Admin Smart Assign Templates or directly from the Smart Assign module in the IPAM Gadget.

- Smart Assign Template List
 - Search
 - Sort
- View or Edit a Template
- Create a Template
 - Add Template Information
 - Add Assignment
 - Breakdown IP Address Space
 - Set an IPAM Alert
- Execute a Template
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 - From IPAM Gadget
- Delete a Template
- Additional Information

Smart Assign Template List

The Smart Assign Template List displays all existing templates, and is where you can view, edit, and delete existing templates.

The template list displays the template ID, Name, user-provided description, and the last updated time.

Smart Assign Templates					
Templates					
			items per page	20	Search by name...
<input type="checkbox"/>	ID	Name	Description	Updated	Options
<input type="checkbox"/>	2	Test1	Test1	2022-04-14 20:12:31	Delete Edit
<input type="checkbox"/>	3	Test2	Test2	2022-08-18 19:57:14	Delete Edit
<input type="checkbox"/>	18	Test3	test	2022-09-30 13:56:23	Delete Edit
<input type="checkbox"/>	28	IPv6 Test	-	2022-08-15 20:47:21	Delete Edit
<input type="checkbox"/>	38	Splitter 1	-	2022-08-15 20:59:30	Delete Edit
<input type="checkbox"/>	42	Tag Distribution Template	-	2022-09-12 21:10:13	Delete Edit
<input type="checkbox"/>	43	Example Template	This is an example.	2022-09-27 17:27:19	Delete Edit

Displaying 1 to 7 of 7 items.

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Search

Filter the list for a specific template name by typing all or part of the name in the search box.

Smart Assign Templates					
Templates					
			items per page	20	ex ← × Q
<input type="checkbox"/>	ID	Name	Description	Updated	Options
<input type="checkbox"/>	43	Example Template	This is an example.	2022-09-30 14:36:20	Delete Edit

Displaying 1 to 1 of 1 items.

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Sort

Sort columns into ascending/descending order by clicking on the column header for any column with an up/down arrow (↓).

Smart Assign Templates				
Templates				
		items per page	20	Search by name...
<input type="checkbox"/>	ID	Name	Description	Updated
<input type="checkbox"/>	2	Test1	Test1	2022-04-14 20:12:31
<input type="checkbox"/>	3	Test2	Test2	2022-08-18 19:57:14
<input type="checkbox"/>	18	Test3	test	2022-09-30 13:56:23
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<input type="checkbox"/>	43	Example Template	This is an example.	2022-09-30 14:36:20
Displaying 1 to 7 of 7 items. <div> Previous 1 Next </div>				

View or Edit a Template


To edit an existing template, go to the Admin Smart Assign Templates list, then click the "Edit" button in the "Options" column.

Smart Assign Templates				
Templates				
		items per page	20	Search by name...
<input type="checkbox"/>	ID	Name	Description	Updated
<input type="checkbox"/>	2	Test1	Test1	2022-04-14 20:12:31
<input type="checkbox"/>	3	Test2	Test2	2022-08-18 19:57:14
<input type="checkbox"/>	18	Test3	test	2022-09-30 13:56:23
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<input type="checkbox"/>	43	Example Template	This is an example.	2022-09-27 17:27:19
Displaying 1 to 7 of 7 items. <div> Previous 1 Next </div>				

From the edit screen you can add another assignment, edit or delete the current assignment, edit or delete IP address space configuration, and set an IPAM alert. Click "Update" to save your changes.

Assignment Plan [Add Assignment](#)

Click on *add assignment* to add one or more smart assign and configure filtering options. Later the you can breakdown the IP space and search for another block. Right click on any block for options.

Smart assign 1 

Find a /27, ipv4, ARIN, [San Francisco, CA](#)

[Example](#)

Selected blocks with mask /29. Edit or remove [collapse](#)

xxx.xxx.xxx.0/29

1st /29, Empty filter

xxx.xxx.xxx.16/29

Breakdown IP Address Space
Edit
Manage Alerts
Remove

Note: On save assignment template, empty blocks will be ignored.


[Execute](#) [Update](#) [Back](#)

Create a Template

To create a new template, click "Add Template" at the upper right side of the Smart Assign Templates page.

IPAM Admin [Add Template](#)

Smart Assign Templates

Templates items per page 20 

<input type="checkbox"/>	ID	Name	Description	Updated	Options
<input type="checkbox"/>	2	Test1	Test1	2022-04-14 20:12:31	Delete Edit
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Displaying 1 to 7 of 7 items.

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This will open a new page to add information on the template and create the assignment plan.

Add Template Information

Enter a name and description for the new template, then click "Add Assignment" to proceed to the next step, selecting Smart Assign criteria.

Create Smart Assign Template

Templates / Add

Common Settings

Set commons settings such us the name and a brief description of the purpose of this template and then create an assignment plan by settings smart assign filters.

Name

Example Template

The title of this template.

Description

This is an example.

Explain the flow of work done by this smart assign template

Assignment Plan

Add Assignment

Click on add assignment to add one or more smart assign and configure filtering options. Later the you can breakdown the IP space and search for another block. Right click on any block for options.

No Assignments...

Note: On save assignment template, empty blocks will be ignored.

Save

Back

Add Assignment

One or more assignments may be added to a template, with each assignment using the provided smart assign filter criteria. You may either manually define filter criteria, or use a predefined filter.

In the Smart Assign Filters modal, select the smart assign filter criteria to use for this assignment, or select a predefined filter from the gear menu at the upper right corner.

Smart Assign Filters

Type *

IPv4

Mask *

/27

LIR Test

Select...

Block Code

RIR *

ARIN

Location

San Francisco, CA

Domain

Select...

VLANtest

Select...

Tags

Example x

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

IP Rules

Select...

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

Close

If you would like to save manually entered filter criteria as a new filter before assigning, you may save the filter as a new Predefined Filter. Otherwise, click "Assign".

To create a Predefined Filter, select Smart Assign filter criteria. Click on the gear icon at upper right and select "Save filter as..."

Edit Smart Assign Template

Smart Assign Filters

Type * IPv4 x v	Mask * /27 x v	LIR Select... v	Code v
RIR * ARIN x v	Region San Francisco, CA x v	Domain Select... v	VLAN Select... v
Tags Example x v		IP Rules Select... v	

☒ 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... v Filter by category... v

Select a resource... v

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

Assign Close

Find a /27, IPv4, ARIN.

Enter a name and brief description for the filter and click "Save".

Save Filter

Smart Assign filters can be saved. Enter a name and a brief description.

Name

Example Filter ←

Description

This is an example. ←

Save Close

To use a saved filter, click on the gear menu and click "Use Predefined Filter".

Edit Smart Assign Template

Smart Assign Filters

Type *

Mask *

LIR

Code

RIR *

Region

Domain

VLAN

Tags

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

Assigned to

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

Assign **Close**

Find a /27, IPv4, ARIN

Select a filter from the dropdown and click "Use Filter". A saved filter may be deleted by selecting "Delete Filter".

Predefined Filters

Predefined filters will save you time by reusing Smart Assign filtering parameters. Most recently used filters are listed first.

This is an example.

Delete Filter **Use Filter** **Close**

Once the filter is applied, click "Assign".

Smart Assign Filters

Type *

Mask *

LIR Test

Block Code

RIR *

Location

Domain

VLANtest

Tags

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

Assigned to

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

Assign **Close**

From here, you may proceed with adding more assignments or breaking down IP space.

You may also save and resume editing later by clicking "Save" at lower right.

The screenshot shows the 'Assignment Plan' interface. At the top, there's a header with 'Assignment Plan' and an 'Add Assignment' button. Below it, a note says: 'Click on add assignment to add one or more smart assign and configure filtering options. Later the you can breakdown the IP space and search for another block. Right click on any block for options.' The main area contains a list item 'Smart assign 1' with a trash icon. Below this, there's a section 'Find a /27, ipv4, ARIN,' with a 'San Francisco, CA' button and an 'Example' button. A 'Breakdown IP Address Space +' button is also present. At the bottom right, there are 'Save' and 'Back' buttons, with the 'Save' button circled in red. A note at the bottom left states: 'Note: On save assignment template, empty blocks will be ignored.'

Breakdown IP Address Space

To define more complicated assignments IP address space may be broken down further.

From the template list, click "Edit" for the desired template to view the assignment plan, then click "Breakdown IP Address Space". and select a mask.

This screenshot is identical to the one above, showing the 'Assignment Plan' interface. The 'Breakdown IP Address Space +' button is circled in red.

The Block selection screen will open. Select a mask to use for the breakdown criteria, then review the available blocks.

The screenshot shows the 'IPv4 Block Selection' dialog. It has a title bar 'IPv4 Block Selection' and a subtitle 'Breakdown IP address space by selecting a mask and select those blocks you want to assign. Clicking remove will clear the current selection.' There's a dropdown menu with 'No Selection' and a downward arrow icon circled in red. Below the dropdown, a list of IP masks is shown: '/28 → 2 blocks', '/29 → 4 blocks', '/30 → 8 blocks', '/31 → 16 blocks', and '/32 → 32 blocks'. At the bottom, there are 'Remove', 'Accept', and 'Cancel' buttons. The 'Accept' button is circled in red.

Click on a block CIDR to select that position for assignment, or you may select all. A block may be deselected by clicking the delete icon. Click "Accept" when done.

IPv4 Block Selection

Breakdown IP address space by selecting a mask and select those blocks you want to assign. Clicking *remove* will clear the current selection.

/29 → 4 blocks

select all

1	xxx.xxx.xxx.0/29
2	xxx.xxx.xxx.8/29
3	xxx.xxx.xxx.16/29
4	xxx.xxx.xxx.24/29

Current Selection: 2

unselect all

xxx.xxx.xxx.0/29

xxx.xxx.xxx.16/29

Remove

Accept

Cancel

The breakdown summary will display under the template Assignment plan. You may view or hide the block details by clicking the "expand"/"collapse" toggle, or click "Edit or remove" to change or remove your selection(s).

To configure filters for a specific block, click on a block menu (three dots) to open the Action Menu, then select "Edit". The block can be further broken down by selecting "Breakdown IP Address Space" or removed by clicking "Remove".

Assignment Plan

Add Assignment

Click on *add assignment* to add one or more smart assign and configure filtering options. Later the you can breakdown the IP space and search for another block. Right click on any block for options.

Smart assign 1

Find a /27, ipv4, ARIN,

San Francisco, CA

Example

Selected blocks with mask /29. Edit or remove

collapse

xxx.xxx.xxx.0/29

1st /29, Empty filter

xxx.xxx.xxx.16/29

Breakdown IP Address Space

Edit

Manage Alerts

Remove

Note: On save assignment template, empty blocks will be ignored.

Save

Back

Select desired filters to apply to that block and click "Save".

Smart Assign: XXX.XXX.XXX.16

Assigned to

Filter by section...

Filter by category...

Select a resource...

IP Rules

Select...

Location

Chicago, IL

Tags

Example x QA Test x

Standard – match all selected tags

Strict – match exactly the selected tags

Exclude – match blocks not tagged with any selected tags

Metadata1

Metadata2

Metadata3

Test Meta4

Metadata5

Network Domain (M6)

Metadata7

Metadata8

Metadata9

Metadata10


Save

Close

Once block filters are configured, click "Save" or "Update". The assignment may be deleted by clicking the delete icon.

Assignment Plan [Add Assignment](#)

Click on *add assignment* to add one or more smart assign and configure filtering options. Later the you can breakdown the IP space and search for another block. Right click on any block for options.

Smart assign 1 

Find a /27, ipv4, ARIN,
[San Francisco, CA](#)
[Example](#)

Selected blocks with mask /29. [Edit or remove](#) [expand](#)

Note: On save assignment template, empty blocks will be ignored.

[Save](#) [Back](#)


Set an IPAM Alert

Enable or clear alert emails for an IP block by setting an email address and utilization percentage level. When the block is utilized to the set percent, an email alert will be sent to the provided address.

To set an alert, select the "Manage Alerts" option from the Action Menu.

Assignment Plan [Add Assignment](#)

Click on *add assignment* to add one or more smart assign and configure filtering options. Later the you can breakdown the IP space and search for another block. Right click on any block for options.

Smart assign 1 


Find a /27, ipv4, ARIN,
[San Francisco, CA](#)
[Example](#)

Selected blocks with mask /29. [Edit or remove](#) [collapse](#)

xxx.xxx.xxx.0/29

1st /29. Empty filter

xxx.xxx.xxx.16/29



- Breakdown IP Address Space
- Edit
- [Manage Alerts](#)
- Remove

Note: On save assignment template, empty blocks will be ignored.

[Save](#) [Back](#)

Enter an email address and utilization level for the alert.

Manage Alerts

Send an alert email when available space for falls below a specified level.

Email to

user@example.com

Enter a valid email address

Level (%)

10

Number between 0 and 100

⚠ Alert will not take effect until you save or update the smart assign template.

Clear Save Cancel

When done, click "Save". To clear an existing alert, hit "Clear", and the alert information will be removed. After adding or clearing an alert you must also save or update the entire template to retain any changes.

Execute a Template

From Smart Assign Template

To execute the template assignment plan, go to the edit screen for a template and click "Execute".

Assignment Plan Add Assignment

Click on add assignment to add one or more smart assign and configure filtering options. Later the you can breakdown the IP space and search for another block. Right click on any block for options.

Smart assign 1

Find a /27, ipv4, ARIN,

San Francisco, CA

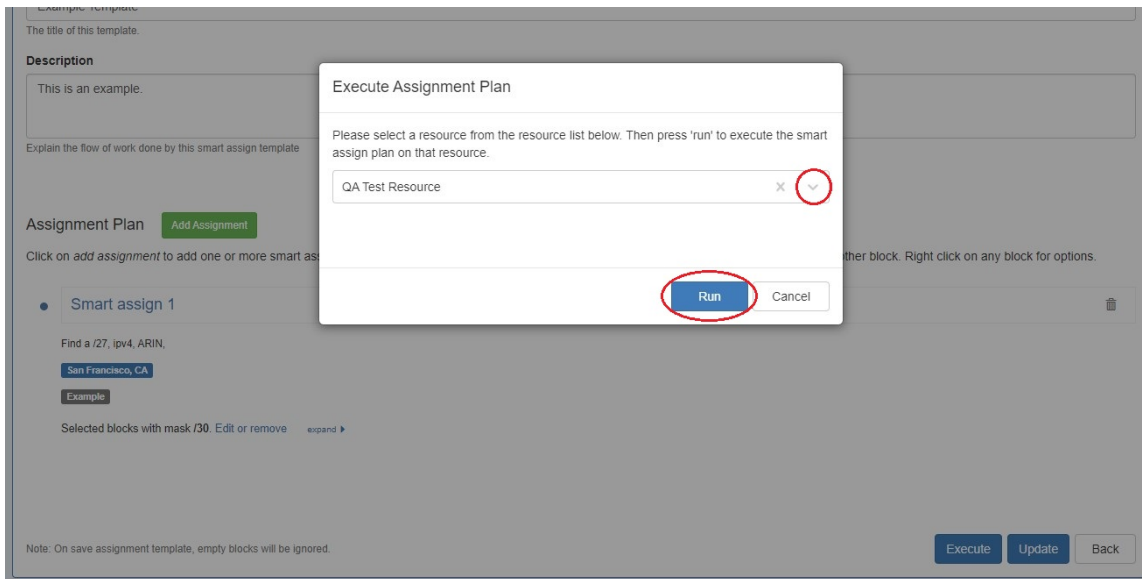
Example

Selected blocks with mask /29 Edit or remove expand

Note: On save assignment template, empty blocks will be ignored.

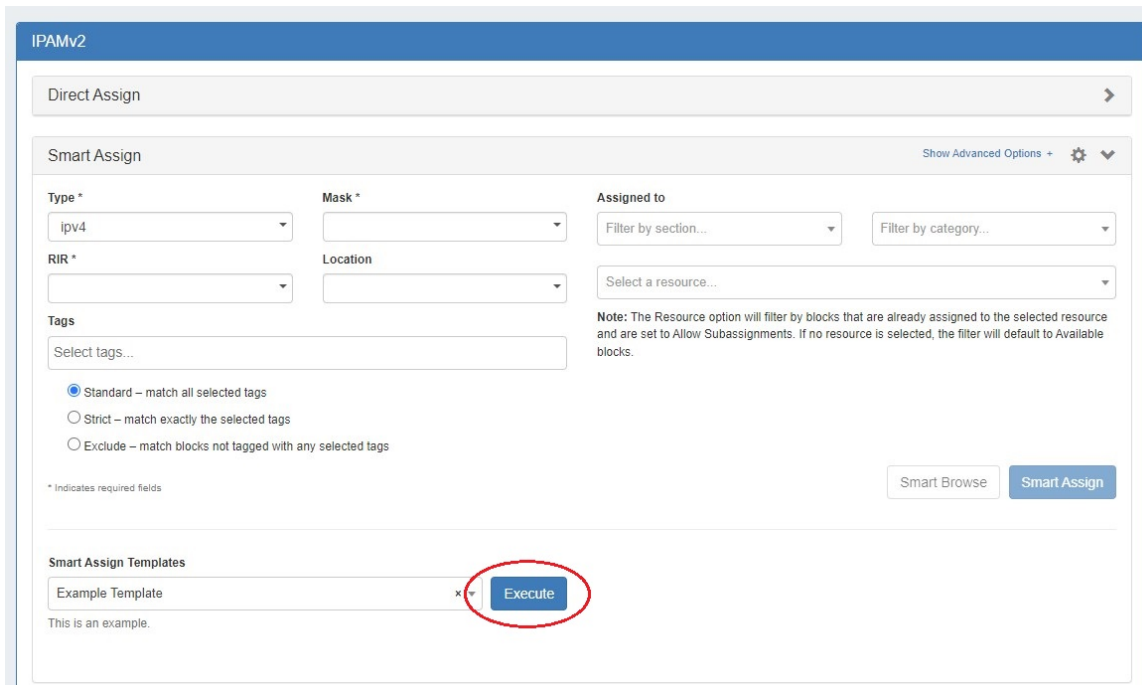
Execute Update Back

Select a Resource from the dropdown and click "Run".



From IPAM Gadget

To run the template from a Resource's IPAM Gadget, open Smart Assign and select the template from the "Smart Assign Templates" dropdown and click "Execute".



Delete a Template

To delete a template, click the "Delete" button in the "Options" column.

Smart Assign Templates					
Templates		items per page	20	Search by name...	Q
<input type="checkbox"/>	ID	Name	Description	Updated	Options
<input type="checkbox"/>	2	Test1	Test1	2022-04-14 20:12:31	Delete Edit
<input type="checkbox"/>	3	Test2	Test2	2022-08-18 19:57:14	Delete Edit
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<input type="checkbox"/>	42	Tag Distribution Template	-	2022-09-12 21:10:13	Delete Edit
<input type="checkbox"/>	43	Example Template	This is an example.	2022-09-27 17:27:19	Delete Edit

Displaying 1 to 7 of 7 items.

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You may also select more than one template to delete.

To do so, select the checkboxes for the desired templates, then under the "Actions" menu at the top of the list, select "Delete all".

Smart Assign Templates					
Templates		Selected 2 items	Actions	items per page	20
			Delete all	Search by name...	Q
<input type="checkbox"/>	ID	Name	Description	Updated	Options
<input checked="" type="checkbox"/>	2	Test1	Test1	2022-04-14 20:12:31	Delete Edit
<input checked="" type="checkbox"/>	3	Test2	Test2	2022-08-18 19:57:14	Delete Edit
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<input type="checkbox"/>	43	Example Template	This is an example.	2022-09-30 14:36:20	Delete Edit

Displaying 1 to 7 of 7 items.

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Additional Information

See the following pages for additional information:

- [IPAM Tab](#)
- [Working with IP Blocks - Common Tasks](#)
- [IPAM Gadgets](#)