IPAM Parameters

IPAM Parameters - Overview

IPAM Lists Management is access from the Admin section of ProVision, under the **IPAM Admin** tab.

Through this area, admin users can update IPAM tags, IPAM Regions, IPv4 / IPv6 subnets, IPAM Rules, and IPAM Columns.

IPAM Lists Management:

Edit IPAM Tags
Edit IPAM Regions
Edit IPv4 Subnets Dropdown
Edit IPv6 Subnets Dropdown
Edit IPAM Rules
Edit Columns

- Add / Edit IPAM Tags
- Add / Edit Regions
  - Applying a Google Geocoding API Key:
  - Managing Regions
  - Valid / Invalid Regions
- Add / Edit IPv4 / IPv6 Subnet Dropdowns
- Edit IPAM Columns
- Edit IPAM Rules
- Additional Information

Add / Edit IPAM Tags

When you are applying properties to IP blocks, you have the option to edit tags. IPAM Tags are used in a number of areas in ProVision and can be added or edited from this screen.

To add a new IPAM tag, click on "Add Tag" at the top of the Edit IPAM Tags page.

Then, type in the desired name value for the new tag, and hit "Add Tag".

To **edit** a tag, simply type your changes in to the text box with the tag name. Tags with unsaved changes will be highlighted until saved.

To **reorder** the tag list, click and hold on the "list" icon (three lines) to the left of the tag name, then drag to the desired location in the list and release.

To **delete** a tag, click on the red "delete" symbol to the right of the tag name.

When complete, be sure to click on the "Save" button to save your changes.

Add / Edit Regions

⚠ **Google Geocode API Key Requirement**

Due to changes in Google's licensing and Geocoding API, the previous geolocation method used in ProVision is no longer supported. IPAM Regions now requires a Google Geocode API Key in order for IPAM Maps to properly determine a Region's location.

6connect is exploring adding additional map integration options for ProVision.

Any customers who require an alternative geocode option supported apart from Google Geocode API key, please contact us at feedback@6connect.com.

Edit Regions list

You are editing the **Region** dropdown.

Reorder list alphabetically

Apply google geocode api key

Provision needs Google Geocode API Key in order to determine the GPS location of the entered regions. You can find more information about obtaining API Key by following this guide.

| Enter API Key | Apply |

| Region Code | Name | Address | Add Element |

If enabled, Regions can function as a way to further define your network segments (regional tie-downs, etc.).This gives you flexibility for allocations and assignments beyond simply using Tags.Regions are used by the IPAM Gadget, the IPAM Manage UI, and IPAM Map View.

The Regions display includes fields for Region Code, Name, and Address.

'Region Code' is the shorthand name that will show in the IPAM Gadget and IPAM Manage screens. 'Name' is the long form name value that will be written to the database, used for API calls, and is also used for some filter selectors. The Address field is used by IPAM map view (via Google Geocode API) to geolocate aggregates with that assigned region. Address may be in the form of a City / State / Country, a full street address, a company name, or other search term that Google API can return a location for. The more accurate your address information, the more accurate map view will be with your aggregate locations.

To use regions, you will need to apply a Google Geocode API Key.

Applying a Google Geocoding API Key:

Step 1: Obtain a Google Geocoding API Key

To get a Google Geocoding API Key, follow the instructions listed here:

How to get a Google Geocoding API Key

Note: In order to obtain a Google Geocoding API Key, a company must have a subscription enabled to Google Cloud Platform Console.

Step 2: Assign the API Key to IPAM Regions

Once assigned a Google Geocoding API Key, paste the API key into the IPAM regions page under "Apply google geocode api key" and click the "Assign" button.

Apply google geocode api key

Provision needs Google Geocode API Key in order to determine the GPS location of the entered regions. You can find more information about obtaining API Key by following this guide.

| abc | Apply |

Managing Regions

To **add** a new Region item, type in a new Code, Name, and Address into the empty fields at the above the Region List. Then, click "Add Element.

To **edit** a region, simply type your changes in to the text box with the region name. Then, click on the "Update" Button.

To **delete** a region, click on the red "delete" symbol to the right of the region name.

To **reorder** the regions list, click on the "Reorder list alphabetically" button.

Valid / Invalid Regions

Valid addresses (according to Google's API) will show a green check mark next to the address field, invalid addresses (unable to be mapped) will show a yellow exclamation mark.

> ⓘ If you are getting unexpected results from the Regions validity checker, copy the address input into to ProVision into Google Search, and check out the top result(s) - sometimes, Google's API may be finding different results than you expected. For best results, be as specific as possible in

Add / Edit IPv4 / IPv6 Subnet Dropdowns

When assigning blocks using the "Smart Assign" function in the IPAM Gadget, the user has an option to assign an IP resource by allocation size. ProVision supports assignments down to a single host level (/32 for IPv4, /128 for IPv6).

> ⓘ **Note on Editing the Subnet Dropdown**
>
> Keep in mind that this is a global edit. If the values in the dropdown are changed, it will affect ALL users of the ProVision application.

To add a new Subnet item, click on "Add Item" at the top of the Edit List: IPv4 or IPv6 Subnets page.

⊕ **Add Item**

Edit List: IPv4 Subnets

Sort List Numerically

	Value		Display	
≡	20		/20	⊖
≡	24		/24	⊖
≡	25		/25	⊖
≡	26		/26	⊖
≡	27		/27	⊖
≡	28		/28	⊖
≡	29		/29	⊖
≡	30		/30	⊖
≡	31		/31	⊖
≡	32		/32	⊖

Save

Back To IPAM Admin

Then, type in the desired Value and Display value for the Subnet, and hit "Add Item".

⊗

Value	Display
22	/22

Add Item

After adding a new item, it will show at the bottom of the list highlighted in yellow. Hit "Save" to save your changes.

≡	31		/31	⊖
≡	32		/32	⊖
≡	22		/22	⊖

Save

Back To IPAM Admin

To **edit** a subnet, simply type your changes in to the text box. Entries with unsaved changes will be highlighted until saved.

To **reorder** the subnet list, click and hold on the "list" icon (three lines) to the left of the subet, then drag to the desired location in the list and release.

After adding or editing a subnet, you may wish to clean up the list order by hitting "Sort List Numerically" at the top of the page to reset the list order including the new entry.

To **delete** a subnet, click on the red "delete" symbol to the right of the subnet entry.

When complete, be sure to click on the "Save" button to save your changes.

Edit IPAM Columns

The Edit IPAM Columns page lets you change the order, column name, and visibility of IPAM columns globally for IPAM areas in ProVision.

Eleven default ProVision fields and ten user-defined "Metadata" fields are available for customization.

Edit IPAM Columns
Drag to change order.

	Field Name	Column Name	Enabled?
≡	cidr	Address	☑
≡	mask	Mask	☑
≡	resourceHolderName	Assigned to	☑
≡	region	Region	☑

ⓘ Keep in mind that "Edit Columns" is a global edit. If the values for order, header, or visibility are changed, it will affect ALL users of the ProVision application!

To **edit** a column name, simply type your changes in to the text box. and click the "Update" button.

To **reorder** the columns, click and hold on the "list" icon (three lines) to the left of the subet, then drag to the desired location in the list and release.

To **toggle visibility** for a column, click in the checkmark field to the right of the column name to enable / disable visibility.

This shows or hides the column in both IPAM Manage and the IPAM Gadget, and affects all users.

When complete, be sure to click on the "Update" button to save your changes.

Edit IPAM Rules

IPAM Rules allow for certain address positions within an IP Block to be reserved when utilizing Direct Assign and Smart Assign.

These rulesets may be managed in the "Edit IPAM Rules" section of IPAM Admin.

IPAM rules

IPAM Rules allow users to exclude IP addresses from being assigned by Smart Assign or Direct Assign, based on the IP address position in the block. Admin users may view all existing IP Rules, the blocks affected by each rule, create new rules, and delete rules from this page. Changing the positions in a ruleset applies that change to all blocks using that rule - ensure that changes are desired universally when updating a rule.

Add new rule   Search for a rule

Rule name	Creation date	Positions	Actions	
reserve 1st	2017-06-20T11:32:06-0700	1	View Affected IP Blocks	Delete rule
reserve last three	2017-06-20T11:32:54-0700	3	View Affected IP Blocks	Delete rule
Gateway - First two, last two	2018-03-07T11:21:12-0800	4	View Affected IP Blocks	Delete rule
1025th	2018-03-07T11:22:20-0800	1	View Affected IP Blocks	Delete rule

For additional details, see IPAM Rules.

Additional Information

Continue on to the following pages for additional information on IPAM Admin tasks in ProVision:

- IPAM Rules
- Holding Tank Management
- LIR Management and Use

For additional information on non-admin IPAM areas, see:

- IPAM Tab