ProVision 8.0.0

Documentation

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ProVision 8.0.0 is a major release with new features, improvements, and bug fixes.

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Contact 6connect at info@6connect.com1 to schedule a demo or get more information.



Software Requirements:

ProVision 8.0.0 includes updated software dependencies.

Please ensure that local installations can meet the following dependencies prior to upgrading to ProVision 8.0.0.

Base Software Needed (v 8.0.0 +):

¹ mailto:info@6connect.com

	Required	Link
Operating System	Ubuntu 20 or Centos 8	
Apache	Apache 2.4	http://httpd.apache.org/
РНР	PHP 8.0 / 8.1	http://php.net/downloads.php
MySQL	MySQL 8.x	http://www.mysql.com/downloads/

1 New Features

1.1 Theming

ProVision 8.0 includes a complete UI refresh with an eye towards flexibility and accessibility. GUI themes can be set on a per-user level, including the much-requested "dark mode" to help alleviate eyestrain. In addition, we now provide several methods of customizing the entire product, which will allow for additional company branding and fine control over what areas of the product are visible and what are not.

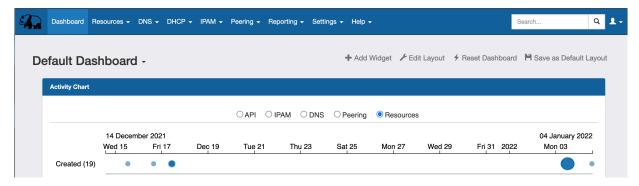
Sub-features included under Theming include:

- Redesigned Header / Navigation
- Custom Navigation Menu Tab Visibility
- Dark Theme
- Custom Themes

1.1.1 Redesigned Header

IM-3933: Redesigned header to allow for better navigation and support Theming customization

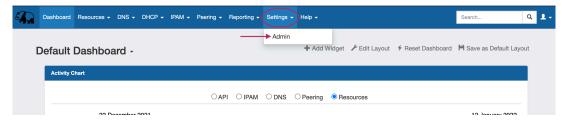
The navigation header has been updated to include new "Settings", "Help" and "User" (icon) menus, containing links to Admin areas, Documentation/Support, and User preferences, respectively. A "Settings" navigation tab has also been added to the Admin area of ProVision.



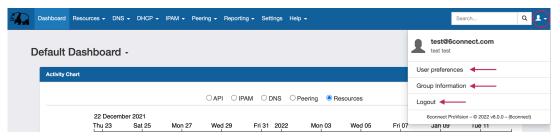
See additional details below for information on accessing the Admin area, Help options, and User menu options:

• Additional Details...

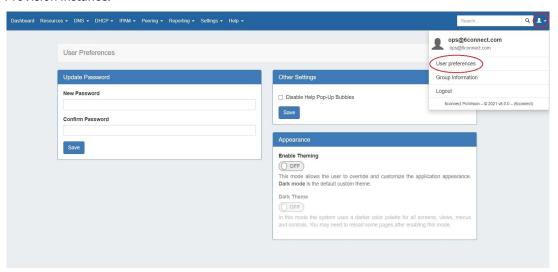
The Admin section is now accessible through the Settings tab:



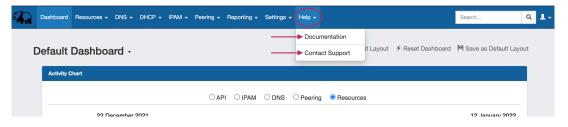
User Preferences, Group Information, and Logout are accessible from the User Icon in the upper right corner.



Enabling theming from the User Preferences page allows a user to customize the look of their ProVision instance.



Links to Documentation and Support are now contained under the "Help" Tab:



1.1.2 Custom Navigation Menu Visibility

CFR-70: Added the ability to customize the visibility of navigation menu elements.

ProVision instances can now be customized to adjust the visibility of menu tabs and sub-tabs, so that unused pages can be hidden.

1.1.2.1 How to hide a menu tab

In this example, we will hide the "IPAM" Tab from ProVision.

Note: This action requires access and write permissions to your instance's "assets" directory

• How to hide menu tabs...

1.1.2.2 Step 1: Open the Menu Customization File

Using the Command Line Interface (CLI), navigate to your instance's "assets" directory, located at: "/var/www/html/[instance name]/assets"

cd /var/www/html/[instance name]/assets

```
:/var/www/html/qa-8.0.0-obf$ cd assets
:/var/www/html/qa-8.0.0-obf/assets$ ls
rd.js logo.png menu.json panda.png topbar-logo.png
:/var/www/html/qa-8.0.0-obf/assets$
```

Open the menu customization file, "menu.json" in vi, or another text editor:

Note: Depending on available user permissions "sudo" may or may not be required.

sudo vi menu.json

```
/var/www/html/qa-8.0.0/assets$ ls
d.js logo.png menu.json topbar-logo.png
/var/www/html/qa-8.0.0/assets$ sudo vi menu.json
```

1.1.2.3 Step 2: Find the Tab in menu.json

When you view menu.json, tabs and their drop down sub-menu options are visible in a hierarchy organized by menu type.

```
"brandName":"6connect",
"brandImage":"assets/topbar-logo.png",
"brandUrl": "dashboard/",
  "showCurrentReplicaServer": false,
  "footer_menu":[
      "name": "Settings",
      "visibility": true,
      "url":"#",
      "children":[
           "name": "Admin",
           "scope": "admin",
           "visibility": true,
           "url": "admin/admin.php"
    },
{
      "name": "Help",
      "visibility": true,
      "url":"#",
      "children":[
           "name": "Documentation",
           "visibility": true,
           "url": "https://docs.6connect.com"
           "name": "Contact Support",
           "visibility": true,
           "url": "mailto:support@6connect.com"
    }
  "menubar": [
      "scope": "dashboard",
      "name": "Dashboard",
      "visibility": true,
      "url": "dashboard/"
      "scope": "resources",
"menu.json" 448L, 10200C
```

In order, the three top menu levels are:

- "footer_menu", containing settings for the Settings and Help menus
- "menubar", containing settings for the standard provision navigation tabs
- "admin_menubar", containing settings for the admin area navigation tabs

Under each menu grouping, on the second level of the hierarchy, is each main menu tab.

Each tab has properties for name, visibility, url, and tab children.

The third level, under "children" for a tab, lists the drop-down menu options available for the tab. Each child menu option has the same available properties, and can likewise be edited.

Since we are wanting to hide the "IPAM" tab in the standard area of ProVision, we need to scroll down to the "menubar" navigation grouping, and then find the second level tab with name "IPAM".

1.1.2.4 Step 3: Change the Tab Visibility

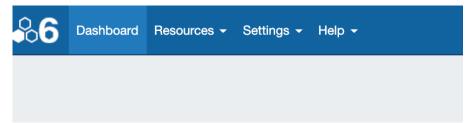
Once you find the desired tab to hide, enter edit mode, then change the "visibility" property from "true" to "false" (do not include the quotes, and be sure to retain the trailing comma).

Save/write your changes to the file and exit.

1.1.2.5 Step 4: View the Updated Navigation

Clear your browser cached image files, and log into ProVision.

The updated navigation should be apparent, in this case with "DNS", "DHCP", "IPAM", "Peering", and "Reporting" tabs no longer visible.



1.1.2.6 How to change the navigation menu logo

In this example, we will change the topbar logo from the default (topbar-logo.png) to panda.png.

Note: This action requires access and write permissions to your instance's "assets" directory

• Change the logo image...



Tip - Before You Begin

Have your logo file ready to save into ProVision (png., .jpg, etc) ahead of time, and verify that the logo design is visible at small sizes, 48px or 64px wide.

There are no set size limitations, however ProVision will set the image to 48px wide by default.

This size property can be adjusted in the custom css theme files by searching for the the css property: "--brand-image-width", and adjusting the pixel width accordingly.

1.1.2.7 Step 1: Save your desired logo into ProVision

Using the Command Line Interface (CLI), save the desired logo image file (here, "panda.png") to your instance's "assets" directory, located at: "/var/www/html/[instance name]/assets"

cd /var/www/html/[instance name]/assets

```
:/var/www/html/qa-8.0.0-obf$ cd assets
:/var/www/html/qa-8.0.0-obf/assets$ ls
rd.js logo.png menu.json panda.png topbar-logo.png
:/var/www/html/qa-8.0.0-obf/assets$ ■
```

1.1.2.8 Step 2: Open the Menu Customization File

Open the menu customization file, "menu.json" in vi, or another text editor:

Note: Depending on available user permissions "sudo" may or may not be required.

sudo vi menu.json

```
/var/www/html/qa-8.0.0/assets$ ls
d.js logo.png menu.json topbar-logo.png
/var/www/html/qa-8.0.0/assets$ sudo vi menu.json
```

1.1.2.9 Step 3: Change the brandImage Reference

At the top of the file, look for the "brandImage" attribute. By default, it should read "assets/topbar-logo.png".

Edit the menu customization file to change the "brandImage" property to the new image name, here "assets/panda.png".

If needed, you may also update the "brandName" property to reflect your company or brand to match the new logo.

```
"brandName":"6connect",
  "brandImage":"assets/panda.png",
  "brandUrl": "dashboard/",
  "showCurrentReplicaServer": false,
  "footer_menu":[
     {
```

Save/write your changes to the file and exit.

1.1.2.10 Step 4: View the New Logo

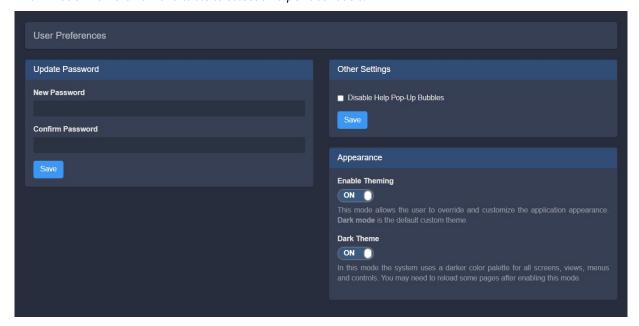
Clear your browser cached image files, and log into ProVision. The new logo image should be visible on the left side of the navigation menu.



1.1.3 Dark Theme

IM-3857: Added a "Dark Mode" ui theme as a per-user option

A Dark Mode Theme is now available to select on a per-user basis.

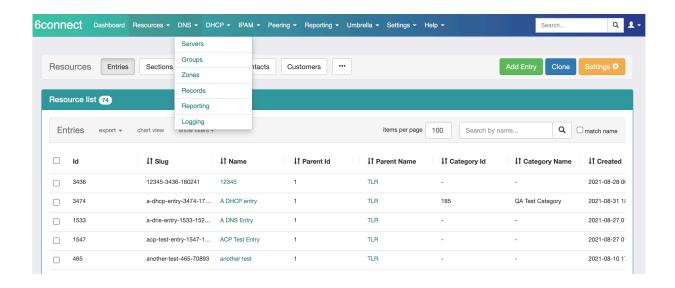


Toggle to enable dark theme is located on User Preferences page. Both "Enable Theming" and "Dark Theme" toggles must be in the "ON" position to set the user theme to Dark Mode.

1.1.4 Custom Themes

CFR-209: Added the ability to create and enable a custom style theme

ProVision now supports the ability to load a custom theme to customize colors, fonts, and sizing to reflect your company's branding.



1.1.4.1 How to enable a custom theme

Note: Creating a custom theme requires strong CSS knowledge, as well as access and write permissions to your instance's "assets" directory

· How to enable a custom theme...

1.1.4.2 Step 1: Create a Theme file

To customize the default theme and change how the application looks with CSS, you'll need to add your own stylesheets or edit an existing theme file. If you edit an existing theme file, we recommend making a copy of the existing file and keeping it as a backup file (.BKP).

The best practice is to manage your customizations in a new css file, using the information provided in the README.txt file under [your instance directory]/assets/css/custom (as seen below).

```
:/var/www/html/ /assets/css/custom$ ls
custom-theme-full.BKP custom-theme-simple.bKP custom-theme-simple.css README.txt
:/var/www/html/ /assets/css/custom$ |
```

The README.txt file provides basic instructions as well as list of all available theming variables that may be used for a custom theme.

```
CSS Theming Variables
By enabling the "Theming" preference, css variables become available for a flexi
ble look & feel customization. This is
useful if a client wants to have their own colors and typography. Provides an ea
sy way of managing the overall look & feel without writing complicated css selectors. List of all available theming variables:
/* header */
--header-height
--header-background
--header-font-family
 --header-border-color
--header-border-shadow
 --header-border-radius
--brandlogo-display
--brand-image-width
--brandname-display
--brandname-text-size
--brandname-text-weight
--brandname-text-color
--brandname-hover-text-color
 --brandname-text-padding
```

In this example, we'll create a simple teal theme using some of these variables, which focuses on color and font changes to the top navigation menu, panels, and dashboard:

```
:root {
    /* header menu */
   --header-height: 45px;
--header-background: linear-gradient(90deg, #3FC6A8 0%, #2B3B90 100%);
    --header-font-family: Roboto, Helvetica, Arial, sans-serif;
    --header-border-color: #3282ee;
    --header-border-shadow: 0px;
    --header-border-radius: 0px;
    --brandlogo-display: none;
   --brand-image-width: 48px;
--brandname-display: inline;
    --brandname-text-size: 24px;
    --brandname-text-weight: 400;
    --brandname-text-color: #ffffff;
   --brandname-text-padding: 5px;
    --menu-item-hover-background-color: #52525226;
    --menu-item-text-color: #ffffff;
    --menu-item-text-size: 13px;
    --menu-item-text-weight: 400;
    --menu-item-text-hover-color: #ffffff;
    --dropdown-text-size: 13px;
    --dropdown-text-color: #207c88;
    --dropdown-text-hover-color: #dc2870;
    --dropdown-text-background-color: #f6f6f6;
    --dropdown-text-padding: 6px 15px;
    --option-item-hover-background-color: transparent;
    /* anchors */
    --anchors-color: #207c88;
    /* panels */
    --panels-primary-border-color: #3998a0;
    --panels-primary-heading-background-color: #3998a0;
    --panels-primary-heading-border-color: #3998a0;
    /* dashboard */
    --dashboard-widget-heading-background-color: #3998a0;
                                                                         1,1
```

Once you are done, save your custom stylesheet file(s) into the assets/css/custom directory, like this:

Make sure that any files used for the intended theme use the .css extension, and any separate theme or backup theme files are changed to the .BKP extension.

In our example, we are using "custom-theme-simple.css" as our new primary theme file:

```
:/var/www/html/ /assets/css/custom$ ls
custom-theme-full.BKP custom-theme-simple.css README.txt
:/var/www/html/ /assets/css/custom$
```

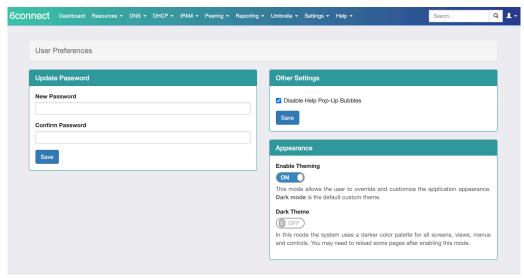
1.1.4.3 Step 2: Enable Theming in ProVision

Log into ProVision, and go to the User dropdown -> "User Preferences" → "Appearance".

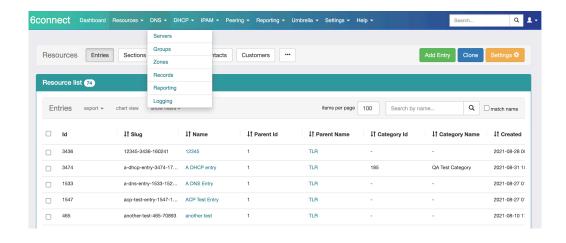


Under "Enable Theming", turn the toggle to the ON position, and verify that "Dark Theme" is turned to OFF (otherwise, Dark Mode theming will overwrite the custom theming files).

Once you're done, refresh the page and the custom theme should be visible. In some cases, you may need to empty your browser's cached images and files, and "Hard Refresh".



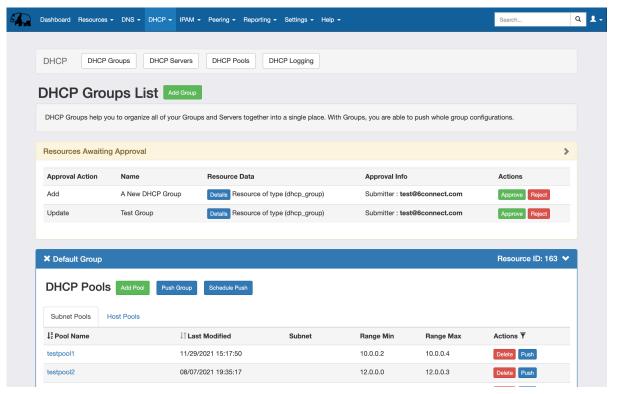
Here, we can see the new theme has changed the color and font of the top navigation menu, menu dropdowns, and panels.



1.2 DHCP Approvals

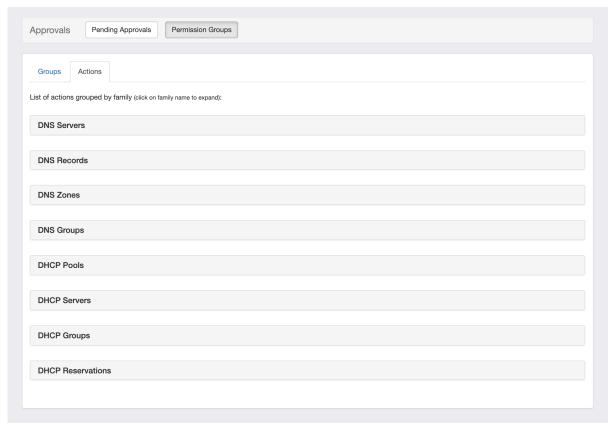
IM - 4503: Integrated DHCP actions with Approvals

Actions made to DHCP Groups, DHCP Pools, DHCP Reservations, and DHCP Servers can now be used with ProVision's Approvals systems.

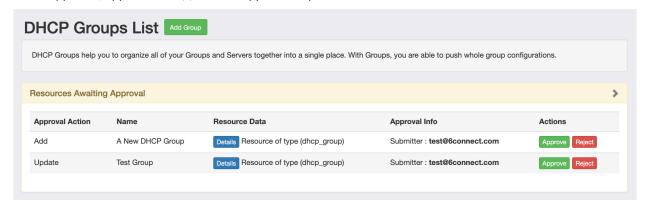


Click here for additional information...

Permission Groups and Approval Actions for DHCP Approvals may be managed from the Admin Approvals² Tab.



A "Resources Awaiting Approval" module will appear on the DHCP Groups, DHCP Servers, and DHCP Pools page(s) for the approvee/approver user(s) once an approval request has been submitted.



DHCP Approvals must have permissions / action groups set up from the Approvals tab, similarly to DNS Approvals.

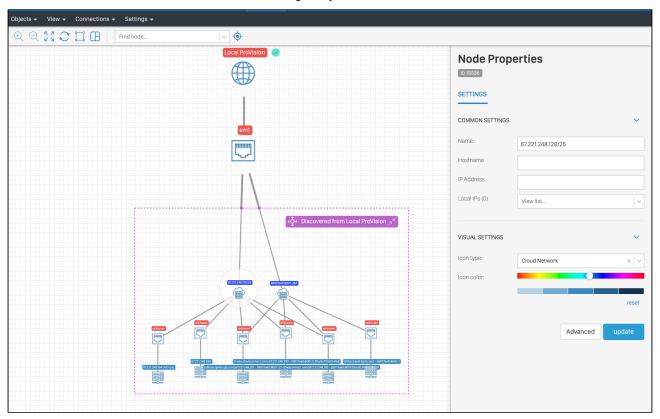
² https://docs.6connect.com/display/DOC/Approvals

See Approvals³ for detailed information on how to set up and use the Approvals system.

1.3 Scanning & Discovery

IM - 3697: Added an interactive scanner feature to drastically reduce (if not eliminate) time spent on verifying and correcting stale data

Scanning & Discovery features (accessed from Admin \rightarrow Scanning) allow users to map network critical segments using direct SSH-based scans, SNMP walks, and router config analysis.



Admins may add and group connectors, nodes, and servers to graphically visualize their network, and customize visual settings for each.

Documentation Note: Due to the scope of this feature, detailed documentation is still in progress. For immediate assistance, please contact 6connect support.

1.4 6connect Global Commander ™ (BETA)

GC-1: Integration of 6connect Global Commander ™ (IN BETA)

6connect Global Commander™ is a new add-on module for 6connect ProVision which allows a network architect to visualize the complete IP landscape across a large, decentralized, heterogeneous organization. As companies grow larger they will naturally acquire distinct IT departments which operate with their own tools and their own rules. Viability into these sub-organizations is often difficult, leading to situations where IP resources are unused by one department when they are critically needed in another.

³ https://docs.6connect.com/display/DOC/Approvals

6connect Global Commander ™ addresses this problem by utilizing a series of connectors (including Infoblox, Bluecat, Netbox, PHPIPAM, OpenStack, vCenter) to normalize the data stored in downstream IPAM systems to present a complete IP landscape in a single top-level view. This view is the first step in standardizing IP policies across business units, which will save time and support fees as well as serve as the backbone for network-wide automation initiatives. Finally, once fully synced with all daughter systems, the central Global Commander node can become a clearinghouse for IP information for the entire organization.

Documentation Note: Due to the scope of this feature, detailed documentation is still in progress. For immediate assistance, please contact 6connect support.

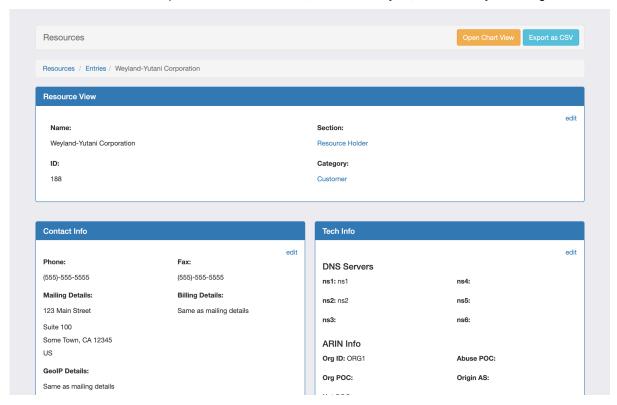
2 Additional Features / Improvements

2.1 UI Updates for Resource pages

IM - 3678, IM - 3679, IM - 3680, IM - 4410: Updated Resource Tab UI elements, including layout, gadgets, icons, and menus

IM - 4033: Replaced the "Edit Resource" page with an editable Resource View Gadget

To coordinate with 8.0.0 Theming as well as provide improved product consistency, multiple pages and gadgets under the Resource Tab have been updated with new headers, icons, menu styles, and minor layout changes.



A variety of interface and navigation updates have been added to resource pages, including:

- Theming Support
- Updated ui for the Resource Entry page and all gadgets
- Replaced the "Edit Entry" page with an editable Resource View Gadget
- Added "Open Chart View" option to the Resource Entry page
- Updated fonts, icons and menus for consistency
- Updated the layout of the View Contact page

For additional details and screenshots, expand the link below:

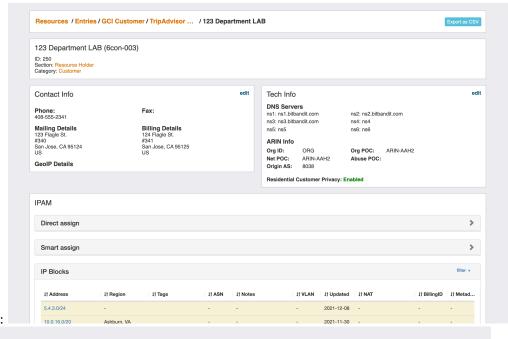
Update Highlights...

Examples include (but are not limited to):

2.1.1 Resource Entry Page

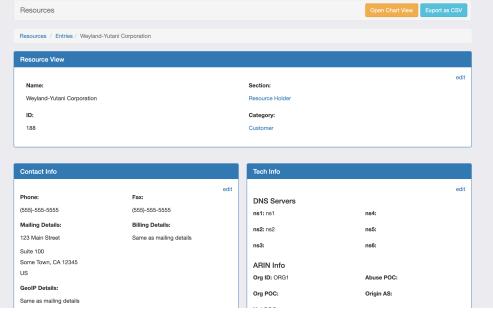
M - 3678: Updated the Resource Entry page ui and all gadgets to work with theming and provide a more consistent experience

IM - 4033: Replaced the "Edit Entry" page with an editable Resource View Gadget.



• From:

to:

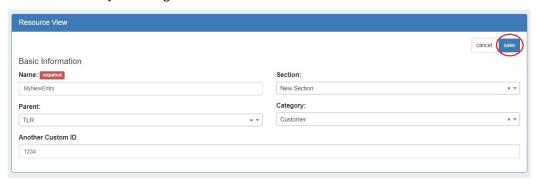


- To edit resource information, click "edit" on the Resource View gadget:
- Working with Resource Views...

Click "Edit" to change basic details for the resource.



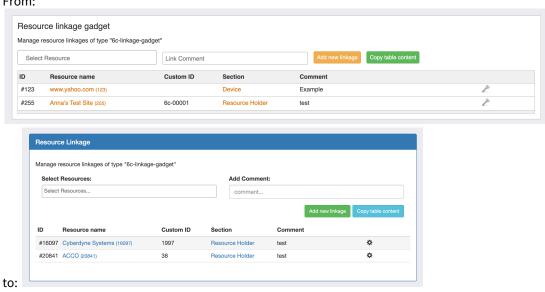
Hit "Save" to save your changes.



2.1.2 Resource Entry Page Gadgets

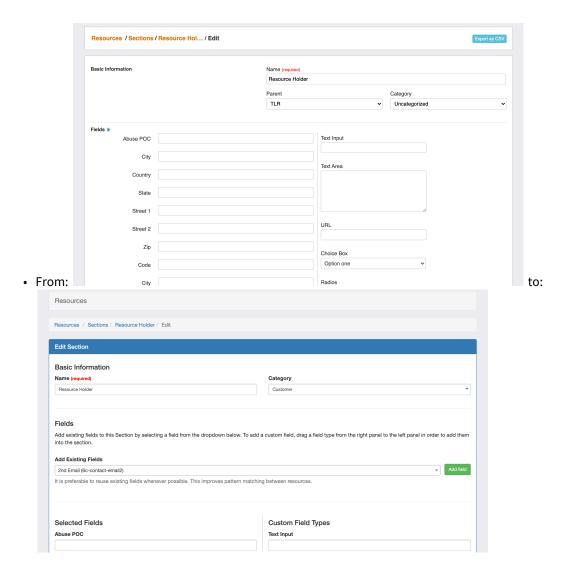
IM - 3680: Standardized panel header, fonts, and icons for gadgets.

• From:



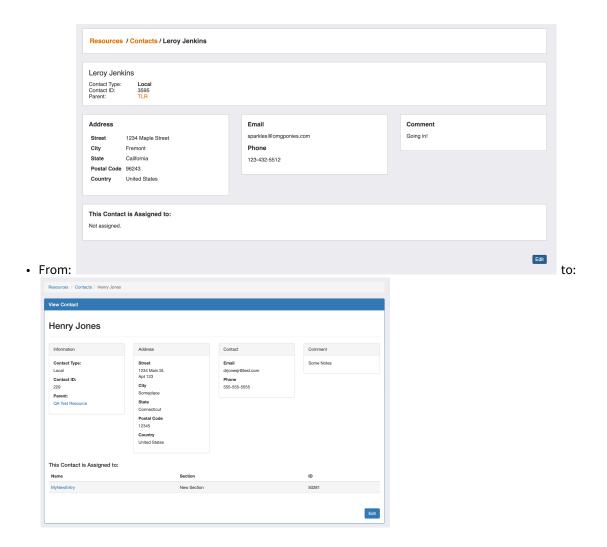
2.1.3 Edit Section Page

IM - 3679: Updated the UI and layout of the Edit Section page



2.1.4 Contacts

IM - 4410: Updated the UI and layout of View Contact

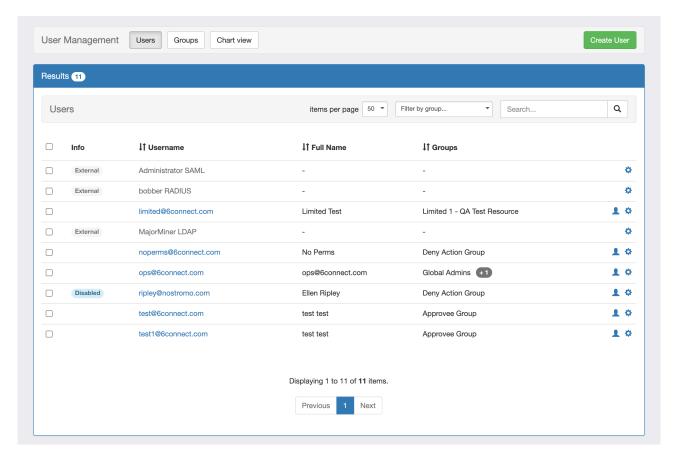


2.2 Users / Groups

IM - 1339: Full rewrite of the Users / Groups Tab

IM - 902: Added column sort and filtering to the Users Tab lists

The Users Tab has been fully rewritten in 8.0.0 with a variety of ui, backend, and navigation improvements



The Users Tab has been fully rewritten in 8.0.0, including the following updates:

- Entirely new interface, with separate pages for Users, Groups, and Permissions Chart View
- Query permissions for a user from the user details page
- Quickly navigate between users and their assigned groups
- · Improved password reset handling
- Improved speed and asynchronous handling when updating groups
- Inclusion of non-editable external Radius / LDAP / SAML users into the Users List
- Graphical indicators if a user is an external user, disabled, or a part of multiple groups
- Ability to select multiple users/groups to delete simultaneously
- New page view /search / filter options
- · Added column sort options

For details on working with Users, Groups, and permissions, see the following areas: Users & Permissions⁴, Working With Users and Groups⁵, Working with Groups⁶, and Verifying Permissions⁷.

2.3 Encrypted Data gadget

IM - 3917: Added Encrypted Data gadget to Resource Sections

⁴ https://docs.6connect.com/pages/viewpage.action?pageId=328278

⁵ https://docs.6connect.com/display/DOC/Users+and+Groups

 $^{{\}small 6\,https://docs.6connect.com/display/DOC/Working+with+Groups}\\$

⁷ https://docs.6connect.com/display/DOC/Verifying+Permissions

The Encrypted Data gadget allows users to store encrypted notes.

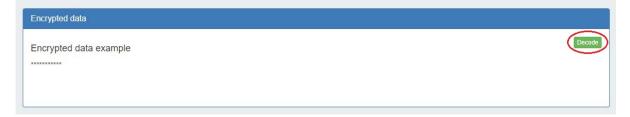




Enable gadget by adding to section from "Manage Gadgets" dropdown. Once added click "Edit" to change title and input data.



Click "Save" to save your changes.

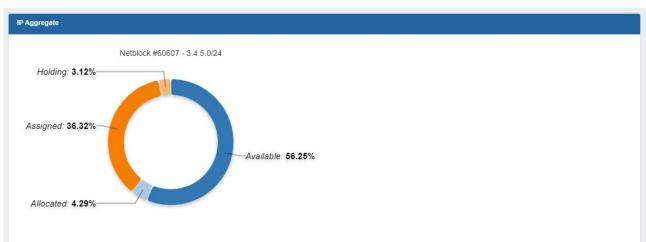


Once data is entered click "Decode" to view or edit.

2.4 Dashboard

2.4.1 IP Aggregate Utilization Widget

IM - 1210: Added an IP Aggregate utilization widget

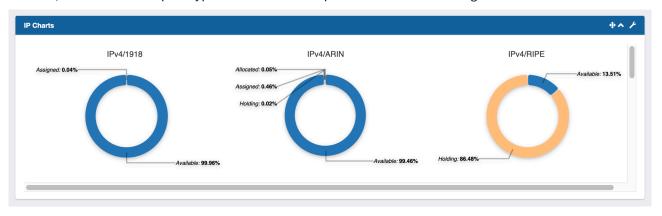


View Utilization data for a specific netblock or aggregate.

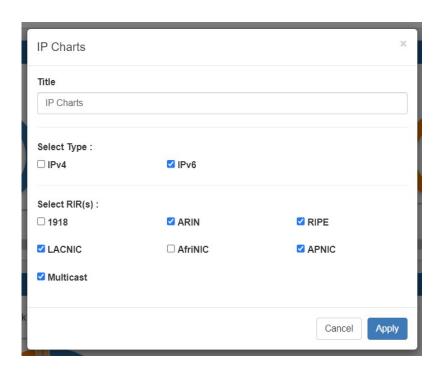
The IP Aggregate widget illustrates the percentage of assigned, unassigned, allocated, and holding tank hosts for a specific netblock.

2.4.2 Improved IP Charts

IM - 3958, IM - 3959: Added space type and RIR selection options to the IP Charts widget



Expanded the IP Charts widget to allow for customized views by IP Type and RIR.



2.5 Numbering Authority

CFR - 249: Added Meta Multi-Range and Meta IPv6 Numbering Authority range types

New Numbering Authority options "Meta Multi-range" and "Meta IPv6" provide expanded options for not only generating a number from a multi-range / IPv6 set, but also determining the selection ordering mode for the range to generate in forward/backwards/even/odd order (Meta Multi-range) or forward/backwards (Meta IPv6).



2.5.1 Meta Multi-range

The Meta Multi-range numbering type is similar to Multi-range, but includes additional options to specify the ordering sequence.

Users define individual numbers and number ranges (e.g.: 2-3,4-6, 25, 27-28) to include or exclude as available, and then may also specify a Selection name and algorithm to specify the order.

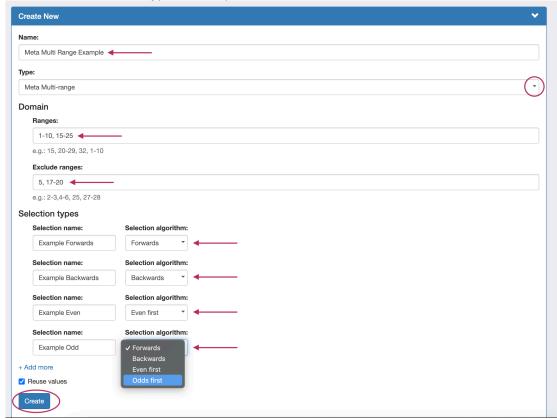
• Create a Meta Multi-range Numbering Authority...

2.5.1.1 Creating a new Meta Multi-range Numbering Authority:

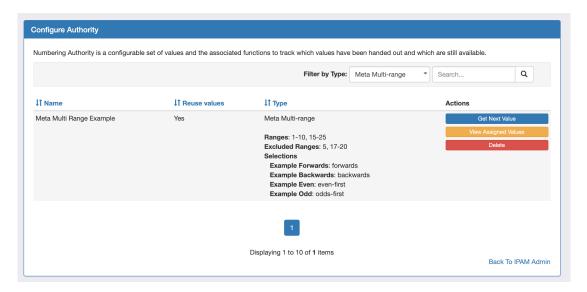
Go to Admin → IPAM Admin - Numbering Authority.

Under "Create New", enter the following:

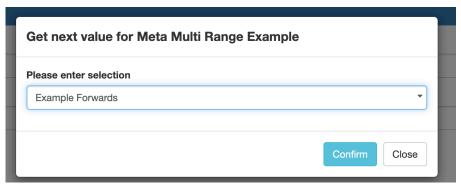
- Name: Name to give the new numbering authority range
- Type: Select "Meta Multi-range"
- Domain →
 - Ranges: Enter the numbers / number ranges to include
 - Exclude Ranges (optional): Enter any numbers / number ranges to exclude
- · Selection Types:
 - Selection Name: Enter a nickname for each desired selection order to add
 - **Selection algorithm:** Choose the number ordering method to use for each selection type added. Options are: Forwards, Backwards, Even first, or Odds First.



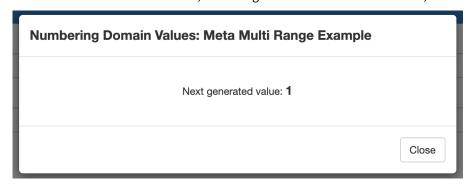
When done, click "Create". The Meta-Multi-range type will be added to the Numbering Authority List.



To Get Values, Click "Get Next Value" under "Actions", then choose the selection name to use for the number generation.



Click "Confirm". The next number, according to the chosen selection order, will be displayed.



For Additional information on using Numbering Authority, see IPAM Lists Management - Numbering Authority 8

 $^{{\}it 8 https://docs.6connect.com/display/DOC/IPAM+Parameters}$

2.5.2 Meta IPv6

The Meta IPv6 numbering type generates the next IPv6 block of the specified mask from a larger aggregate. Users may specify a Selection name and algorithm to specify the order (forwards/backwards). Optionally, new sub numbering domains may be created automatically at each number generation in order to generate assignment blocks for hierarchical IPv6 relationships.

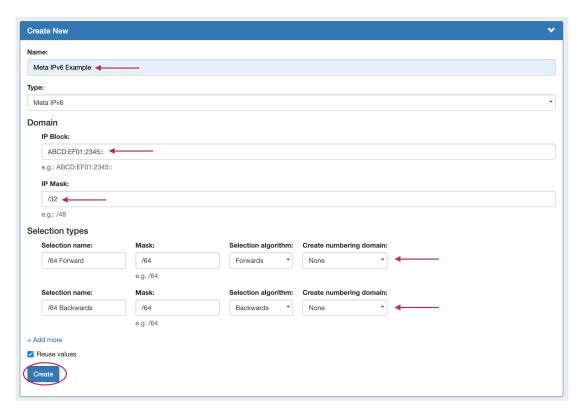
· Create a Meta IPv6 Numbering Authority...

2.5.2.1 Creating a new Meta IPv6 Numbering Authority:

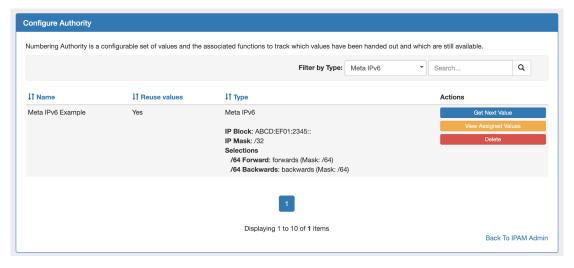
Go to Admin → IPAM Admin - Numbering Authority.

Under "Create New", enter the following:

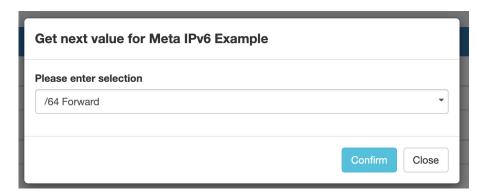
- Name: Name to give the new numbering authority range
- Type: Select "Meta Meta IPv6"
- Domain →
 - IP Block: Enter the parent IP Block from which to generate the IPv6 addresses
 - IP Mask: Enter the mask of the parent IP Block
- · Selection Types:
 - Selection Name: Enter a nickname for each desired selection type to add
 - Mask: Enter the desired mask of the child blocks to generate
 - **Selection algorithm:** Choose the number ordering method to use for each selection type added. Options are: Forwards, Backwards.
 - Create Numbering Domain: If other Meta IPv6 Numbering Authority Domains
 exist, you may opt to create a new numbering domain from an existing domain
 each time a number is generated. The automatically generated sub-domain may
 then have numbers generated independently. This may be useful in cases of
 complicated hierarchical IPv6 relationships, or which multiple levels of exclusions
 exists.



When done, click "Create". The Meta-Multi-range type will be added to the Numbering Authority List.



To Get Values, Click "Get Next Value" under "Actions", then choose the selection name to use for the number generation.



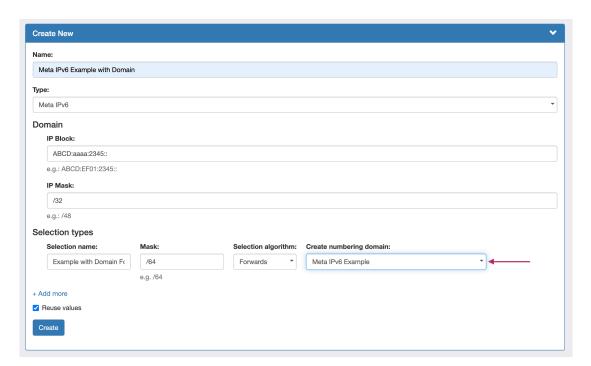
Click "Confirm". The next number, according to the chosen selection order, will be displayed.



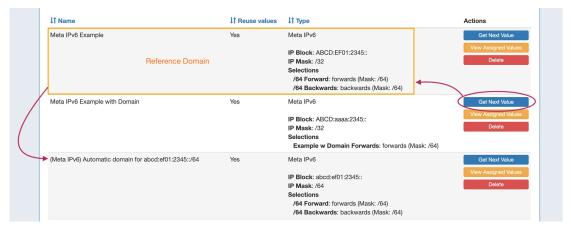
2.5.2.2 Meta Domain Creation

If "Create numbering domain" was set to create a new domain from an existing Meta IPv6 setup, then each time a number is generated a new Meta-IPv6 sub-domain item will be created using the settings from the referenced domain.

Here, we've created a new Meta IPv6 Numbering Authority "Meta IPv6 Example with Domain", where the selection creates a new domain based off "Meta IPv6 Example".



Then, after clicking "Get Next Value" on "Meta IPv6 Example with Domain", not only is the next number provided, but an entirely new numbering domain is created - ("Meta IPv6) Automatic domain for abcd:ef01:2345:1::/64" using the settings referenced from "Meta IPv6" example.



Once an Automatic domain has been created, it can have values generated and be managed independently from the original parent domain.

This allows for more complicated hierarchy assignment systems to have numbers generated at each tier separately, using different masks and/or selection ordering.

For Additional information on using Numbering Authority, see IPAM Lists Management - Numbering Authority 9

⁹ https://docs.6connect.com/display/DOC/IPAM+Parameters

2.6 Import LDAP Contact

CFR - 216: LDAP Contacts can now be searched for, imported, and added to the Contacts Gadget and Contacts List.

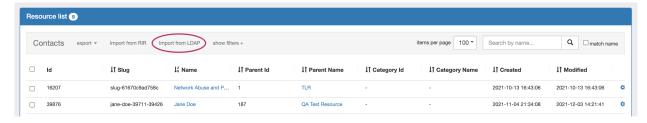
Import, update, and assign LDAP contacts in ProVision. Requires LDAP authentication server and access credentials to be provided.



See additional changes related to this improvement, below:

IM - 4135: Added "Import from LDAP" to the Contacts List options

From the Resource Tab → Contacts List, click "Import from LDAP" at the top of the list.



From there, search for the desired LDAP contact (Note: The LDAP server must be enabled and set up in Admin Settings \rightarrow Auth \rightarrow LDAP with admin credentials in order to connect and import the contact).

When done, click "Import contact". The LDAP contact will be available to assign in the Contact Gadget and will show in the Users List.



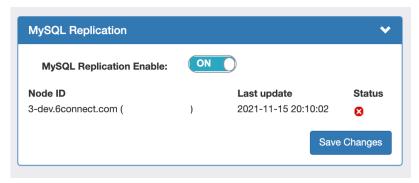
IM - 4492: Added Scheduler task "LDAP - Sync LDAP Contacts" to support LDAP Contacts.

This task updates imported LDAP users with any changes made on the LDAP server. This task must be manually created at the desired interval in order to automatically update the user based on the server information.

2.7 MySQL Replication Monitor:

IM - 3936: Added MySQL Replication monitoring to Admin Settings.

MySQL Replication Monitor displays the enabled/disabled status of replication, and periodically checks the replication state and displays the result in Admin Settings.



Note: The associated "MySQL Replication Monitor" Scheduler task must be created for the desired interval in order for the monitor to execute. See Scheduler Tab updates, below, or the the Scheduler Tab¹⁰ for details on setting up tasks.

2.8 Scheduler Tab Updates

Various improvements have been made to the Scheduler Tab:

2.8.1 New Tasks

Added new tasks to support new features:

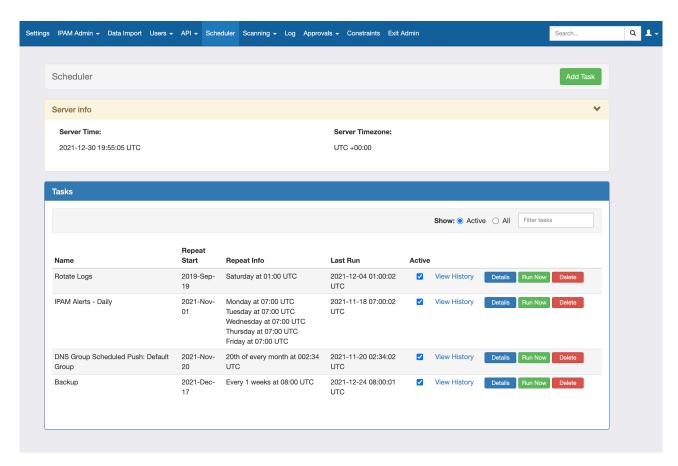
- IM 3940: <u>ACP Run Workflow:</u> Runs the selected ACP Workflow at the scheduled time. Requires an ACP license and ACP settings successfully configured under Admin → Settings → ACP Settings.
- IM 4492: <u>LDAP Sync LDAP Contacts:</u> Connects to the LDAP server set up in Admin Settings → Auth → Authentication Options -> LDAP and updates imported LDAP users with any changes.
- IM 3936: MySQL Replication Monitor: Runs the MySQL Replication Monitor and provides status information when "MySQL Replication" is enabled under Admin Settings → Application → "MySQL Replication".
- IM 3942: <u>DNS Queue Push</u>: If "Enable DNS Push Queue" is set to ON in Admin → DNS → Push Settings, this task must be created in order for the scheduler to run at the desired interval to execute the queue.

2.8.2 UI Updates

IM - 4175: Updated the Scheduler Tab UI and layout; relocated the "Add Task" button

Multiple minor improvements have been made to the Scheduler UI for ease of access and product consistency.

 $^{{\}tt 10\,https://docs.6connect.com/display/DOC/Scheduler}$



Related Scheduler improvements include:

- IM 2085: Updated scheduled task email formats
- IM 4493: Standardized task names on Scheduler task list
- IM 4557: Removed obsolete tasks from the Scheduler task list

3 API Updates

Public APIv2 documentation is located at https://cloud.6connect.com/APIv2/.

- IM 3824: Fixed POST /dns/servers/{server_id}/zones API call that mixed up server and zone IDs
- IM 3907: IPAM GET endpoint /ipam/netblocks now supports comma separated values for the "top_aggregate" field
- IM 3930: Added an APIv2 endpoint to push an entire DNS group POST /dns/groups/{id}/push
- IM 3945: Fixed a bug that resulted in some DNS calls returning the same dataset
- IM 3968: Removed unused IPAM endpoints
- IM 3998: Improved documentation for two DNS calls
- IM 4005: Added delete_from_all to the records Delete APIv2 endpoint
- IM 4363: Added dedicated APIv2 endpoints to allow deletion of multiple users and multiple groups

API-Related changes also include:

- IM 3988: Removed deprecated APIv1 section from Admin \rightarrow API tab
- IM 4049: Removed Reverse API page from the Admin API tab and related documentation
- IM 4438: Removed Reverse API Console Gadget from edit section gadget menu and related documentation

4 Bug Fixes/Minor Improvements

CFR - 153: Updated Permissions Groups to allow non-admin users to view (with 'read' permissions) and work with DNS/DHCP servers if appropriate per-server permissions are set (via "Perms" button).

CFR - 194: Added UI notification to IPAM Manage when default filters are enabled for an aggregate

CFR - 195: Added the ability to add a resource from chart view

CFR - 206: Added "Go to Resource" to chart view action menu

CFR - 210: Added ability to prominently display which host the user is talking to in order to aid debugging in a replicated environment

CFR - 216: Added LDAP contact import to Contacts Gadget

CFR - 219: Added "Load Children" filter option to Resource Report

CFR - 222: Updated the login token on the edit user page and set to hidden by default

IM - 992: Added link to Chart View on resource entry page

IM - 1521: Expanded IP Import job list information to include description and initial upload date

IM - 1668: Improved sorting of resource list in Resource Import Tool "Resource Browser" modal

IM - 1837: Fixed progress bar for BIND Zone import that overshot boundary box by a couple pixels

IM - 2085: Updated scheduled task email formats

IM - 2482: Added ability to bulk move DNS zones from one group to another

IM - 2536: Improved mobile theme and size responsiveness for all pages

IM - 2911: Resolved various console parsing errors on DHCP server settings page

IM - 3108: Added ability to click on tile in Log graph view to view details modal

IM - 3151: Removed deprecated IPAMv1 Gadget

IM - 3273: Fixed IPAM map "Recent Assignments" view that displayed the same aggregate utilization graph as in aggregate view

IM - 3604: Fixed overlapping elements in VLAN Utilization Direct Assign

IM - 3605: Improved handling of layout responsiveness in VLAN Utilization when resizing

IM - 3709: Changed Resource Import Tool parent resource selection step to a modal interface

IM - 3710: Added delete confirmation when deleting IPAM tags

IM - 3716: Added link to parent aggregate in IPAM global search results and IPAM action menu

IM - 3718: Added search box to IPAM Advanced settings page

IM - 3724: Resolved issue that prevented the sections dropdown from populating for a limited permissions user when attempting to create a new resource to assign to an IP block

IM - 3774: Added "Add View" modal to allow for naming a new view instead of adding automatically untitled new view

IM - 3797: Improved logging to include user name instead of "unknown" in User column after a failed authentication attempt

- IM 3806: Optimized Resource Tree for better loading and searchability
- IM 3839: Fixed IPAM Manage Aggregate search box for IPv6 to return results if user includes leading zero that ProVision truncates
- IM 3851: Resolved inability to select first option in "Edit Attributes" dropdown selector on a resource that has no attributes set
- IM 3852: Added LIR filter to IPAM aggregate list
- IM 3859: Corrected issue with ACP password not saving and displaying inaccurate success message
- IM 3860: Fixed overlapping fields in the Resource Fields Gadget.
- IM 3861: Removed "Parent resource" selector from "Add Section" modal
- IM 3862: Added chart view action menu option to add a child resource to a resource
- IM 3869: Added slug after resource name in "Add Entry" parent resource selector menu in order to differentiate between similarly named resources
- IM 3874: Moved DNS server "Test Connection" button from center of page to bottom right to be consistent with DHCP server settings
- IM 3878: Fixed Add Resource modal that was partially obscured when viewed on smaller resolution screens
- IM 3880: Fixed ACL delete button that was not deleting ACLs
- IM 3882: Resolved multiple issues with DHCP Pool assignments and edits failing in the DHCP Management Gadget, which would occasionally produce duplicate pools
 - Note: The fix does not remove any existing duplicate pool assignments created due to this bug. Affected users will need to manually unassign any duplicate pool assignments from IPAM Manage/Advanced, and then reassign the correct block to the pool.
- IM 3884: Fixed IPAM sparse allocate modal that was partially obscured when viewed on smaller resolution screens
- IM 3886: Fixed VLAN Manage Advanced Global edit menu that did not open
- IM 3892: Fixed Approvals details modal that was partially obscured when viewed on smaller resolution screens
- IM 3893: Resolved issue that created multiple resources for approval when a "must be approved" user attempted to add a new resource
- IM 3906: Added ability to select multiple aggregates to view at a time in the IPAM Utilization reports filter
- IM 3908: Added ASN column to the Peering Session health check default report
- IM 3909: Improved speed of search results in resources
- IM 3919: Corrected behavior of IPAM manage multi-select that highlighted all blocks when extending original selection
- IM 3922: Added option to clear error state of child records when clearing DNS zone errors
- IM 3925: Removed "Advanced" button from VLAN "Add Domain" and "Add VLAN" pages
- IM 3928: Added "Directory permissions are not set! Please run configDir.sh!" message to main Admin page when configDir.sh has not been run
- IM 3937: Improvements to Dynamic Updates autogenerated records handling
- IM 3942: Added more customizable push settings to DNS Global Settings and related task to Scheduler tab
- IM 3943: Improved handling of the DNS status_id attribute to ensure unique id generation during simultaneous pushes

- IM 3947: Fixed issue with testing connection to remote log servers that returned "No Configuration" message no matter what location or port was entered
- IM 3957: Corrected issue with Section edit page that jumbled checkboxes and radio button fields when added from "existing fields" dropdown
- IM 3965: Resolved issue with Contacts gadget that did not display search box for users associated with multiple user groups
- IM 3966: Corrected misspelling in VLAN manage edit modal
- IM 3969: Fixed dashboard Clock widget that no longer respected daylight savings time
- IM 3971: Fixed Report Settings description field that could not be cleared
- IM 3972: Resolved a problem with Scheduled Report Settings that resulted in monthly settings not being saved
- IM 3973: Corrected IPAM Runout report view that did not display IPv6 charts
- IM 3974: Corrected DHCP pool report issue that did not filter by pool type
- IM 3975: Fixed Add Child and Edit Section issue where trailing whitespace in the resource name was not trimmed
- IM 3977: Improved message on template record dynamic updates
- IM 3979: Fixed the Dynamic Updates via nsupdate tool selector in Global DNS settings that was not de-selectable
- IM 3982: Corrected IPAM edit "Propagate to Children" function to only affect fields edited in current session
- IM 3984: Expanded push options for Dynamic Updates in DNS Global Settings
- IM 3986: Corrected style issues in Report View that resulted in crowded and overlapping text
- IM 3989: Resolved inability to add a regex constraint
- IM 3992: Corrected issues with the full screen view of resources chart, which displayed as crowded and overlapping headers
- IM 3996: Fixed design/spacing issues on IP "Import from RIR" page
- IM 3997: Fixed error that omitted column data from CSV export from Resources tab
- IM 3999: Removed extraneous per page log messaging for users without "user" permissions
- IM 4001: Corrected issue with multi editing resources that resulted in a blank screen
- IM 4003: Fixed namespace error with constraints that resulted in an error on constrained fields in the IPAM gadget
- IM 4004: Fixed IPAM Configuration "Show /32 or /128" option that could not be disabled
- IM 4007: Expanded IPAM aggregate list search to work with any number of characters
- IM 4008: Fixed IPAM aggregate list quicknay when search results are active
- IM 4039: Changed "Back to IPAM Admin" link on Manage License page to "Back to Admin Settings" link
- IM 4046: Added ability to filter by IP to IPAM Gadget
- IM 4054: Added validation error message to dashboard Links widget when a user enters an invalid URL
- IM 4063: Minor usability improvements to IP Import from CSV page
- IM 4069: Fixed inability to clear "Custom ID" field when editing a contact
- IM 4084: Fixed issue with "Add Resource" modal that prevented creation of resource after using the "clear" button
- IM 4085: Removed Parent Resource selector when creating Sections
- IM 4087: Fixed IPAM Gadget Direct Assign "Region" filter that was not correctly limiting block results

- IM 4093: Improved screen responsiveness handling when adding a new LIR
- IM 4099: Fixed unresponsive IPAM Gadget "GRT" filter field
- IM 4106: Corrected Resource list items per page selector that was not retaining its setting between lists
- IM 4116: Corrected Section link for resources linked through the Resource Linkage gadget that redirected to old style page
- IM 4117: Fixed Resource Linkage gadget selector that did not clear after selection and allowed duplicate linkages
- IM 4122: Updated Notes gadget non-clearable success message to standard closable message bubble
- IM 4136: Fixed LIR filter in VLAN Smart Browse that was not loading
- IM 4140: Fixed "Add Zone" processing indicator that was too big for modal
- IM 4143: Resolved issue with DNS show current zone export that resulted in error
- IM 4148: Fixed DHCP Push modal error box to disallow user resizing of text box area
- IM 4151: Fixed DHCP server "TLR" parent resource link that redirected to old style resource list
- IM 4171: Added multi-delete option to IPAM Admin pages Manage LIRs and Manage Regions
- IM 4168: Resolved scrolling/size issues with IPAM sparse allocate modal in some browsers
- IM 4192: Improved error response for Numbering Authority when attempting to add a duplicate range
- IM 4207: Made Constraints multi-select delete behavior consistent with other areas of ProVision
- IM 4208: Added "IPAM Management" as option under main IPAM tab in header
- IM 4211: Fixed VLAN sidebar right click action menu "Remove Domain" option that failed to remove domain
- IM 4215: Resolved issue with DNS Import Settings and Server statistics selectors appearing to turn off when saved in "on" position
- IM 4224: Fixed remote authentication test returning a success message when incorrect data entered
- IM 4234: Updated "Peering Admin Settings" link on Peering IX settings page
- IM 4239: Corrected issue where deleting a resource entry redirected to old style resource list
- IM 4250: Fixed issue that allowed single use gadgets to be added to a section multiple times
- IM 4257: Fixed Reporting success/fail messages that could not be cleared
- IM 4258: Added new DNS Record Report to DNS Reporting section
- IM 4261: Updated Reporting "Edit" and "Copy" modal action button alignment
- IM 4262: Corrected IPAM Utilization Report export to csv/pdf that displayed incorrect headers for some columns
- IM 4265: Fixed IPAM Utilization report "Address" filter that was nonfunctioning
- IM 4267: Improved IPAM Utilization reports UI by adding swipped/non-swipped label and Y axis label to bar charts
- IM 4268: Corrected DNS Zone report "Record Type" filter that failed without user notice if a record type that did not exist was applied
- IM 4274: Added mask selector and "Show leaf nodes only" option to IPAM Utilization reports filters
- IM 4282: Improved handling of the "Load Children" Resource Report filter option
- IM 4283: Fixed Resource Report attribute filter field that could not be cleared or changed after it was applied
- IM 4284: Resolved issue with Resource report "Resources per page" filter field that resulted in errors when deselected

- IM 4288: Corrected scheduled report settings that did not allow a weekly report to be scheduled on a Sunday
- IM 4289: Fixed DHCP pool report that was not retaining applied filters when saved
- IM 4290: Relabeled DHCP Server report "Domain" filter to the correct label "Server IP/Hostname"
- IM 4303: User now receives an alert before deleting the currently logged in user
- IM 4306: Removed misleading success message from Radius and LDAP authentication settings
- IM 4321: Added success messages to DHCP Management gadget "Add Pool" and "Save Configuration" actions
- IM 4330: Fixed Fields gadget "Text Area" field that could be resized and pulled outside the gadget area
- IM 4339: Improved DNS push speed
- IM 4341: General minor UI improvements: updated icons, standardized button colors and alignment, added pagination to several pages, standardized success messages, standardized multi-select behavior
- IM 4343: Fixed Resource list parent resource column "TLR" link that redirected to old style resource list
- IM 4378: Added dropdown menu to "Users" tab in Admin section
- IM 4381: Corrected behavior of Resource Linkage Gadget action menu that allowed multiple menus to open on top of each other
- IM 4387: Improved router "Test Connection" response messaging
- IM 4398: Improved responsiveness handling of DNS record list
- IM 4406: Added confirmation message when changing password in User Preferences
- IM 4412: Fixed dashboard activity chart IPAM links that redirected to old style resource list when resource ID was not found
- IM 4413: Corrected dashboard activity chart IPAM links that were not applying the log id filter correctly to view the action on the log page
- IM 4418: Updated Chart View "Edit" and "Clone" action menu interfaces to match Resource List
- IM 4420: Fixed "Cancel and return to index" link on Import from RIR page that redirected to old style contact list
- IM 4434: Changed remote log server "Test Connection" fail message from green to red
- IM 4437: Resolved an issue in the IPAM Blocks tree view where SWIP'ed block data displayed as undefined
- IM 4443: Added "Back to Peering Settings" link to Peering Templates page
- IM 4461: Removed "Make Default" option from IPAM Advanced filter
- IM 4468: Updated delete icons on "Import from CSV" Admin pages
- IM 4474: Corrected VLAN "Logging" button link that went to IPAM filtered logs instead of VLAN filtered logs
- IM 4475: Resolved issue with "Add Aggregate" that failed to set an assign time for a new aggregate when assigned to a resource at creation
- IM 4479: Fixed issue with Logs search box that cleared results when user hit "enter" key
- IM 4482: Updated ASN "delete" icons on Peering Settings page
- IM 4491: Updated Peering "Add Router" page action button colors and alignment
- IM 4493: Standardized task names on Scheduler task list
- IM 4495: Improved Reporting Settings and Scheduled Report Settings response messages
- IM 4498: Corrected IPAM Utilization scheduled reports that contained misaligned columns

- IM 4506: Removed redundant "Name" attribute filter from Resource reports
- IM 4508: Corrected inconsistent naming of DNS servers in Approvals action filter dropdowns
- IM 4511: Corrected time display format for DNS scheduled tasks "Last Run" field
- IM 4519: Fixed typo in IPAM Gadget action menu option "Move" modal
- IM 4520: Updated task names of scheduled push tasks to differentiate between DNS and DHCP
- IM 4531: Fixed "custom_id" attribute that was not updating on the resource list
- IM 4532: Fixed permissions issue with Chart View action menu that disallowed actions for certain users under multiple permission groups
- IM 4533: Removed invalid time zones from Admin Application Settings
- IM 4534: Removed "Export to CSV" button from edit section page
- IM 4537: Updated the UI of "Import from RIR" confirmation and results messages in Contacts
- IM 4550: Fixed issue with DHCP Customer Configuration gadget that did not allow user to select new server if server associated with gadget was deleted
- IM 4552: Improved DHCP response messages regarding subassignment status
- IM 4557: Removed obsolete tasks from the Scheduler task list
- IM 4575: Fixed missing "sent for approval" message for "must be approved" user when editing a DNS group name
- IM 4591: Fixed DNS TXT monitor issue with records that had a space at the end