Product Documentation

Software Defined Network Control
Application Version 3.9.x

Covering:

- **IP Address Manager**

- **DHCP Manager**

- **DNS Manager**

- **Peering Manager**

- **Asset Manager**

Table of contents

Getting Started

Getting Started

You have got 6connect IPAM and now it's time to set it up!

For setup assistance or additional information, you can contact our **Support** team at support@6connect.com.

We have broken down our **Getting Started** documents into the following steps.

1. **Application Setup**

2. **Import Aggregate IP Blocks**

3. **Importing Your Data**

4. **Getting Help**

5. **Additional Information**

Application Setup

Application Setup

Step 1 - Manage User Accounts

You are assigned an Admin level account by default to create users. We recommend creating additional user accounts for each person that will use the platform. You can create "shared" accounts if you wish, but obviously, the logging system will not provide you granular details per user.

Get to the "**Manage Users**" Tab from the Admin Button and add users from the boxes at the bottom of the screen:
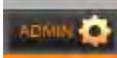
Once a user is added, you can then click on the "**Email**" button to send them login credentials to the email address on file.

***** As you set permissions for your users, be aware that they are activated immediately. They do not require the user to logout for the permissions changes to take effect.

Step 2 - Edit Dropdowns for IPAM

Go to the **Admin Button** ![ADMIN] and select the **IPAM Admin Tab** ![IPAM Admin] to customize your IPAM Settings.
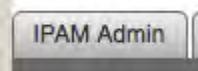
IPAM Includes Management:
Edit IPAM Tags
Edit IPAM Regions
Edit Contact Roles
Edit IPv4 Subnets Dropdown
Edit IPv6 Subnets Dropdown
Edit RIR List
Edit IPv4 Exact Filter
Edit IPv6 Exact Filter
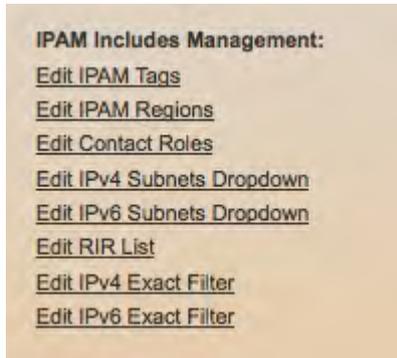
Step 3 - Confirm your DNS Settings

You can also access the **DNS Admin Tab** ![DNS Admin] to customize your DNS Settings, add DNS servers for zone pushes, etc.
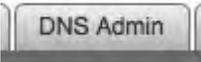
First - add the DNS Server(s) that you intent to use for pushing zones. We support multiple servers, so you can associated zones with specific DNS servers.

Manage DNS Servers

Server: Select Server ▼ **New Server**

DNS Functions

Generate Zone and named.conf files
Check Zones for errors
Increment All Zone Serial Numbers
HUP named
Edit DNS Record Types
Edit DNS Delegation
Generate all DS records for DNSSEC
Generate zip file of all zones
DynECT Zone Import
PowerDNS Zone Import

Step 4 - Confirm your DHCP server settings

Step 5 - Set your Administrative Preferences

In the section, you should set any applicable preferences that you require (ARIN/RIPE information, authentication options, logging, etc.). These functions are not necessary to do initial tool setup, but certain functions won't work unless you add your credentials to those areas.

Once you have your customizations completed - it's time to import your aggregate blocks and import your data!

Import Aggregate Blocks

The Welcome tab allows you to lookup and import your aggregate blocks.

Step 1 - Lookup from Source IP

We automatically lookup your ARIN or RIPE information based on the IP address you are connected to:
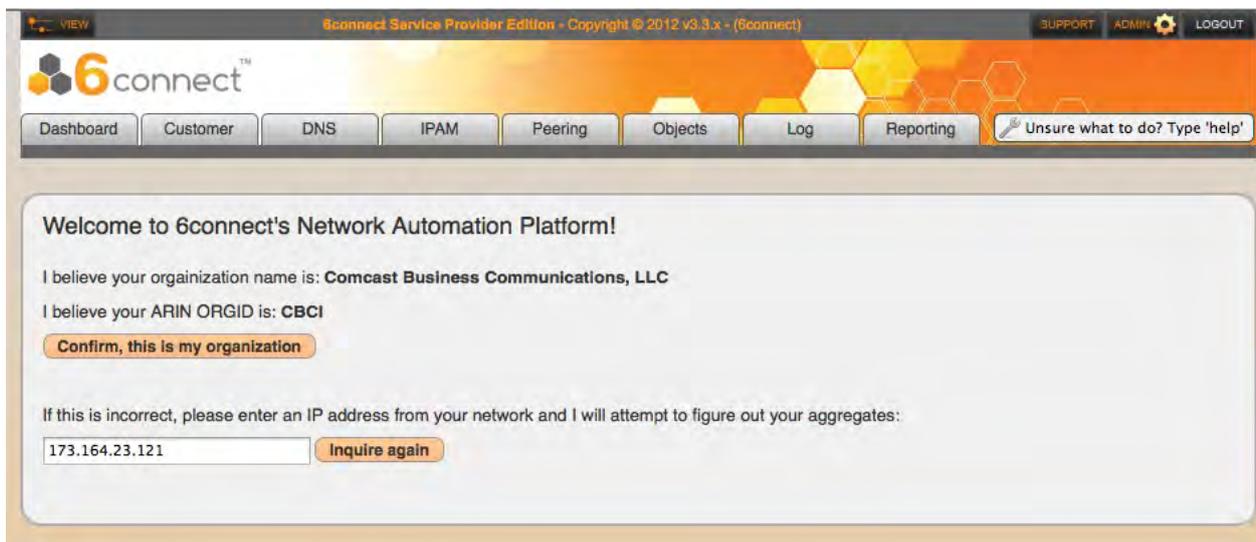
If you have another source IP that you would like to use for the lookup function, you can edit the IP and click on the "**Inquire Again**" button.

If the organization name and ORGID are correct, then click on the "**Confirm**" button to go to the next screen.

Step 2 - Import your aggregate blocks

Once we have identified the blocks assigned to your company, you can import the aggregates by pressing the "**Add Aggregate**" buttons. This page allows you to add both 1918 aggregates as well as public IP space from ARIN and RIPE.
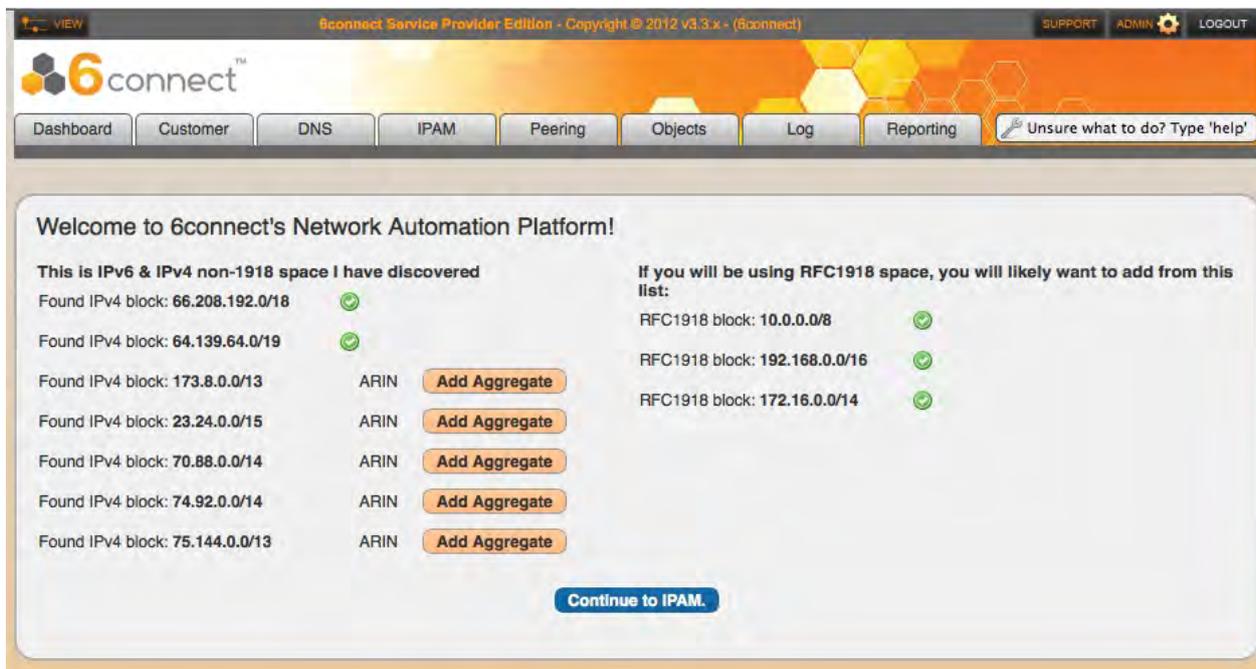
Step 3 - Customizing the Tool

With your aggregates added, you are now ready to customize the tool and import your data! Go to the **Customizing** section for details.

Importing Your Data

Import Your Data

Step 1 - Normalize your Data

Prior to importing your data, there is a key step of Data Normalization to ensure that information is accurate. If you need assistance with parsing your data prior to importing, 6connect can help with our Data Analyst service. Contact 6connect at sales@6connect.com for more information.

You can also use off the shelf tools like Microsoft Excel, MySQL, or Google Refine if you intend to take on the task of data cleanup in house.

Step 2 - Prep your Data

You can download **Data Import** templates from the **Dashboard Tab** or **Data Import Tab**. We recommend that you open the CSV import templates and get familiar with the data fields that you can import into the platform.

For Company information you can import relevant data including mailing/billing address information as well as ARIN specific SWIP fields, and specific DNS servers.

For Contact information you can import contact records assigned to a given **Company**. We support typical fields for this data including Name, multiple email fields, phone numbers as well as Timezone and Role (Roles can be customized from the **IPAM Admin Tab)**.

For IPv4 Block information you can import the following fields:

* **ID** - Unique identifier that corresponds with the Unique ID fields for a given "**Company**"
* **IP Block** - standard octets (For example, 10.1.1.5 or 173.169.43.22)
* **Subnet** - the mask of the IP block - we support values of /8 down to /32 (single hosts)
* **Notes** - This open text field is also searchable by our "**Assistant**"
* **RIR** - These values are assigned by you for your particular blocks
* **Region** - These values are assigned by you for your particular blocks
* **Tags** - Use the Tag values that you have already edited via **IPAM Admin** to organize your IP blocks by purpose (for example, tag blocks as "Customer" versus "Infrastructure"). You can tag blocks in a variety of ways. **Note:** To assign multiple tags to a block, simply separate the tags with commas.
* **Custom** - you have a custom field per block available - simply use the last entry per line for this data

Step 3 - Import your Data

Get to the **Data Import Tab** [Data Import] from the **Admin button** [ADMIN] to import your data.
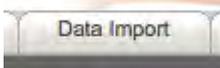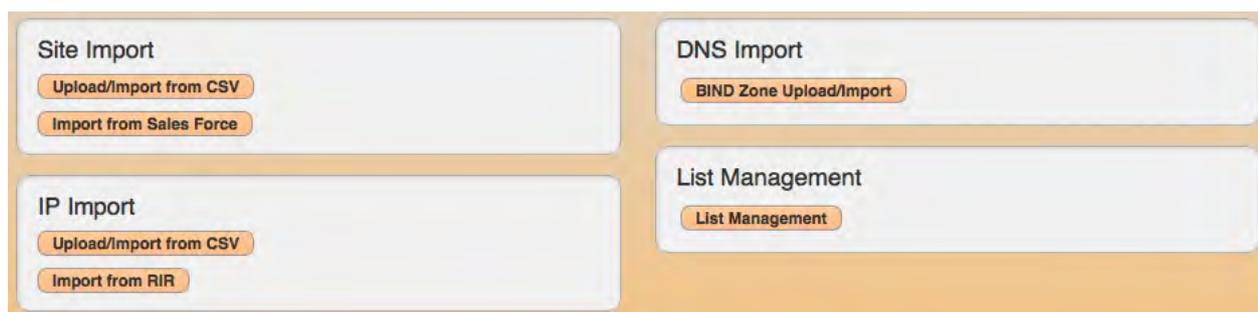
Site Import	DNS Import
Upload/Import from CSV	BIND Zone Upload/Import
Import from Sales Force	
	List Management
IP Import	List Management
Upload/Import from CSV	
Import from RIR	

For larger data import runs, feel free to contact 6connect at any time for assistance at

support@6connect.com.

BETA FEATURE - Salesforce integration

Salesforce Import Parameters

Salesforce API Username: company@6connect.com
Salesforce Password:
Salesforce Security Token:
Salesforce Custom Field Name:
Account table custom field name matching unique record ID. Example: CUSTID__c

Start Import

For Salesforce integration, we have also provided a Beta feature for testing. This Import feature allows you to import Account data from Salesforce by matching to your relevant unique identifier field name.

Getting Help

For support, feel free to contact 6connect at support@6connect.com.

For debugging information, you can try enabling debug mode by adding "?debug=1" to the URL. When reporting bugs, this can be a helpful tool to get more details on what is happening on the page "behind the scenes".

Feedback and Feature Requests

For information on future releases, click on the "Coming Soon" link on the Dashboard.

Status

Backup	✅
User Accounts	25
Version	3.9.x
Coming Soon	⭐
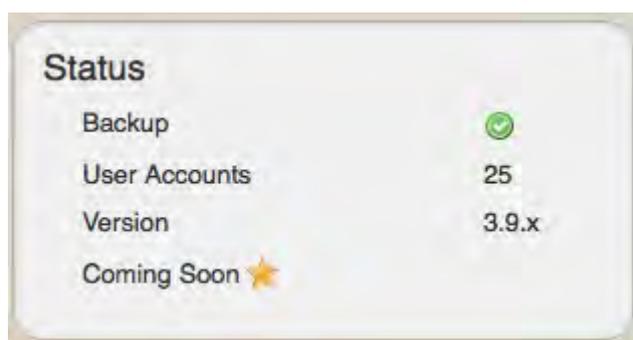
You can also submit product feedback and feature requests to support@6connect.com.

Additional Information

For additional information, here are links for insight into:

Administration

Authentication Options

System Requirements

API (new window)

Administration

Administration Walkthrough

- The Gear Icon is accessible by all IPAM users. Administrators have access to all functions via this icon. Users can change their password and update application preferences.

- **Changes to Settings are ONLY SAVED by pressing the Update button for the relevant area.**

- The Admin Tabs are as follows:

- ○ **General Settings** (default view) – these are global settings for the application

- ○ **IPAM Admin** – IPAM specific settings

- ○ **DHCP Admin** - located under IPAM Admin

- ○ **DNS Admin** – DNS specific settings

- ○ **Data Import** – Data Import templates and uploading

- ○ **Manage Users** – User/login management

- ○ **Asset Admin** - Asset specific management settings

- ○ **API** - Dedicated to API key management and API request URL generation

- ○ **Templates** - Location for setting up and managing Template actions

- **Other Parameters**
  - ○ To modify the hostname for the default reverse entries, edit the file in the DocRoot called "zone-v6-default-bottom.txt".

General Settings

General Settings

- ○ **License Info**
  - ▪ This section provides basic information on your 6connect license including the option to view the *EULA* and check your license status.*.

- ○ **Application Settings**
  - ▪ Time Zone

- Supported Time zones are listed here: http://www.php.net/manual/en/timezones.php

- Default value is ('America/Los_Angeles') and can be modified at any time via the drop down menu

- Company Name

  - Enter the preferred name for your company to be used.

- Generic Name

  - This "short" name is used in abbreviated location for the "Customer" tab label, "Customer" and "Site" are common entries.

- ## IPAM Configuration
  - Available ID

    - This is the ID Label that owns all unassigned IP resources. This is not user changeable.

  - Reverse ID

    - This is the ID Label that owns all assigned IP resources and zones not owned by a specific alternate ID. This is not user changeable.

  - Holding Tank ID

    - This is the ID Label that the Holding Tank. Upon reclaiming an IP block, the block will be assigned to the "Holding Tank ID" user for X(holding_days) time. This is not user changeable.

  - Holding Tank Days

    - This is the number of days that a block will be held in "Holding" status before being available to be moved to the Available pool, and thus ready to be assigned. By default this is initially set to 30 days.

  - Display IPv4 IPAM

    - For admins that want to disable IPv4 IPAM functionality, this toggle allows you to do so.

  - IPv4 Block Scanner Enable

    - This is a beta feature that allows a user to scan a block of IPv4 space and show host counts of responding addresses.

  - Display IPv6 IPAM

    - For admins that want to disable IPv6 IPAM functionality, this toggle allows you to do so.

  - Display Billing Address

    - Check the box to display billing address in detail view as well as allow for editing of billing address information.

  - Regions Enable

- Check the box to enable "Region" tags for IP blocks. This will add an additional column to the default IPAM screen. It is treated similarly to a standard tag. You can set the values from the "Edit Tags" function and modify the values list in the IPAM Admin screen "Edit Regions".

- Generic Code Per ID Enable

  - Check this box to enable this function. This will enable an additional field per ID.

- Generic Code Per ID Display

  - Check this box to display this field.

- Generic Code Per ID Name

  - This is the label for the Generic Code to be displayed.

- Generic Code Per Block Enable

  - Check this box to enable this function. This will enable an additional field per IP Block.

- Generic Code Per Block Display

  - Check this box to display this field.

- Generic Code Per Block Name

  - This is the label for the Generic Code to be displayed.

- Enable VLAN per Block

  - This toggle allows users to specify VLANs via the "Edit Tag" function. With this feature enabled, you can filter by VLAN tag in the primary IPAM interface.

- RIR Specific Information

  - RIPE Origin ASN

  - RIPE Maintainer Object (mnt-by)

  - RIPE Maintainer Password

  - RIPE Tech Contact (tech-c)

  - RIPE Admin Contact (admin-c)

  - ARIN SWIP Origin ASN

  - ARIN SWIP Public Comments

  - ARIN SWIP NET Name Prefix

  - ARIN SWIP ORG POC Handle

  - ARIN SWIP NET POC Handle

- ARIN SWIP Abuse POC Handle

- ARIN SWIP API Key

- ## Peering Parameters
  - ASN

    - Enter the ASN that will be used

- ## Backup Parameters

  - Enable mysql offsite backup

    - This is enabled by default. Go to the Backup section for details on this feature.

  - Location of mysqldump

    - This is the location of the mysqldump directory.

- ## Logging Options

  - Log table size
    - This is the maximum number of records to store in the log table. Default value is 50,000,000.

  - Rows to remove at limit
    - When the value for log_table_max is reached, the number of rows to be cut from the table is the number assigned to this variable. Default value is 10,000 rows.

  - Local Syslog Enable
    - Check the box to enable syslog functionality or for local logging to the database only

  - Remote Log IP
    - Target IP address that we will send log information to
  - Remote Log Port
    - Port number for the syslog server you will send log information to
  - Remote Log Method
    - Select TCP, UDP, SSL from the dropdown for the log delivery method
  - Remote Log Backup IP
    - Target IP address for the Backup syslog server you will send log information to
  - Remote Log Backup Port
    - Port number for the Backup syslog server you will send log information to
  - Remote Log Backup Method
    - Select TCP, UDP, SSL from the dropdown for the log delivery method
  - Remote Log Type
    - Select SysLog format or JSON output
  - Remote Log Facility
    - Select the Facility - applies to syslog only

- ## DNS Configuration
  - Default TTL – in seconds, default value is 3600

- Default Refresh – in seconds, default value is 14400

- Default Retry - in seconds, default value is 3600

- Default Expire - in seconds, default value is 604800

- Default Minimum - in seconds, default value is 3600

- Default SOA

  - Server Of Authority and hostmaster contact. E.g. ns1.domain.com. hostmaster.domain.com.

- Master nameservers

  - Set to IP Address(es) of master DNS server(s) to be added as masters {} in named.conf (IPv4 or IPv6) or Mix of IPv4 and IPv6 addresses.

- $GENERATE IPv4 by default

  - Set to '1' to generate reverse IPv4 DNS hostnames for non specific PTRs. This is similar to $GENERATE in standard bind.

- $GENERATE IPv4 Suffix

  - Set to forward suffix to append to PTR for $GENERATE Example: .available.domain.com.

- File to prepend to master named.conf

  - Set this to the name of the file to prepend to named.conf. This is useful if the primary nameserver is on an alternate host or 6connect-SP DNS module contains only a partial DNS zone set. Default file is named.conf.top.txt

- File to prepend to slave named.conf

  - Same as namedtop for named.conf to be pushed to slave DNS servers. Default file is named-slave.conf.top.txt

- Named.conf has view

  - Check the box to enable this function – it is used if the named.conf contains a view.

- Location of checkzone – path default is /var/named/sbin/named-checkzone

  - This option will be have a RED X or GREEN checkmark when it is configured correctly

- Location of rndc – path default is /var/named/sbin/rndc

  - This option will be have a RED X or GREEN checkmark when it is configured correctly

- Location of dig – no path default specified

  - This option will be have a RED X or GREEN checkmark when it is configured correctly

- Location of zonesigner – no path default specified

  - This option will be have a RED X or GREEN checkmark when it is configured correctly

- Location of dnssec-dsfromkey – no path default specified

  - This option will be have a RED X or GREEN checkmark when it is configured correctly

- DNS Server for DNSSEC validation – required to be a non-authoritative name server.

- **Authentication Options**
  - Maximum Session Idle

    - This setting (minutes) controls how long a session can stay idle before being forced to log in again.

  - **RADIUS authentication options (local install only)**

  - Radius Enable – check this box to enable RADIUS functionality.

  - Radius Server Address

    - Set to the IP address of your radius server. If this is specified, it will force authentication over radius.

  - Radius Authentication Port

    - Set to the port for authentication. Default port is 1812

  - Radius Accounting Port

    - Set to the port for radius accounting. Default port is 1813

  - Radius Key

    - Set to the shared key of your radius server

  - **LDAP authentication**

  - LDAP Enable - check the box to enable LDAP functionality.

  - LDAP Server Address

    - Set the IP address of your LDAP server.

  - LDAP Port

    - Set the port for your LDAP server

  - LDAP Security

    - Select the security method of your LDAP server - SSL, TLS or None

  - LDAP Auth DN/Fetch DN

    - These strings are used to first authentication the 6connect user and then to retrieve their permissions. The string '%LOGIN%' should be inserted in

place of the user's common name both strings.

- ex: cn=%LOGIN%,ou=people,dc=6connect,dc=com

- Mapping Permissions to 6connect schema - To integrate 6connect permissions with your existing directory structure then you will need the 6connect schema. It should snap in with any existing LDAP structure and allow you to assign 6connect permissions to your existing users. You can download a copy of the schema from this section.

- **Templates**
  - This is where you can edit outgoing email templates for IP block assignments

    - Customer Notification (new)

    - Customer Notification (existing)

Backup and Redundancy

You have several options for backup and redundancy depending on your implementation of your 6connect platform.

Hosted Instance

Backup Schedule
6connect backs up your data every hour with a 1 month retention policy. Backups are replicated post transaction flush to a local secondary server.

Restoration
Is a phone call or email away. We can spin up a new instance with your preferred data set.

Local Installation

Backup Schedule
6connect backs up your local data to our cloud server every 48 hours with a 1 month retention policy. The backend of the application is MySQL, so it can be replicated to another server/instance or even tied into your own backup storage infrastructure.

Restoration
Is a phone or email away. We can spin up a new instance with your preferred data set, or send you a link to download your database. Optionally, we can even help you set it up and import your data to your new instance.

IPAM Admin

- The "Process Holding Tank now" link will mark any block assigned to "Holding" as "Available". This command will process ALL addresses assigned to "Holding" depending on their age. The default time for release to "Available" is 30 days. If a block has not been in the holding tank for that specified length of time, it will not be released using this feature (it can be released . The This is customizable via the **Admin** configuration file.

- The "Edit Tags" link allows you Add/Edit/Sort/Remove allowable tags in the IPAM tool.

- The "Edit Regions" link allows you Add/Edit/ Sort/Remove allowable Regions in the IPAM tool.

- o The "Edit Contact Roles" link allows you to Add/Edit/ Sort/Remove Contact Roles/Types (Abuse, Admin, Technical, etc.).

- o The "IPv4 Subnets" link allows you Add/Edit/ Sort/Remove the allowable subnets for assignment from within a record.

- o The "IPv6 Subnets" link allows you Add/Edit/ Sort/Remove the allowable subnets for assignment from within a record.

- o The "RIR List" link allows you Add/Edit/ Sort/Remove the RIR entries in the RIR drop-down menu.

- o The "IPv4 Exact Filter" link allows you to Add/Edit/Sort/Remove the Filter by Netmask entries visible on the IPAM screen dropdown.

- o The "IPv6 Exact Filter" link allows you to Add/Edit/Sort/Remove the Filter by Netmask entries visible on the IPAM screen dropdown.

DHCP Admin

Managing Server Configurations

You have the ability to store and manage multiple DHCP server configurations from this interface. The "Push All Configs" link will push out configurations for all DHCP servers.

Manage DHCP Servers	Push All Configs
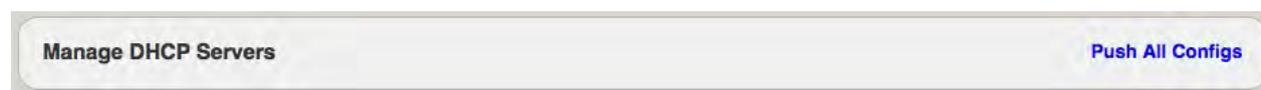
Managing DHCP Servers

This section allows you to manage the specific configuration for each DHCP server specified. We support standard commands as specified by the Server Type dropdown. To save the configuration, you need to press the "Add Server" button.

Add a New DHCP Server

Server:	SSH Port:
Username:	New Password:
Server Type: ISC	
Server Config Path:	
Server Stop Command:	Server Start Command:
Max Lease Time:	Default Lease Time:
Domain Names:	Name Servers:
Authoritative: ☐	Log Facility:

Add Server

Managing DHCP Configurations

Once the DHCP server is saved, you now have options for configuration. We provide a standard **"config builder"** as well as a **"config file"** option.

1) The **"config builder"** builds the ISC configuration file based on the parameters you select - namely the subnets and hosts to be managed by the given DHCP server.

The subnet configuration screen allows for the following parameters:
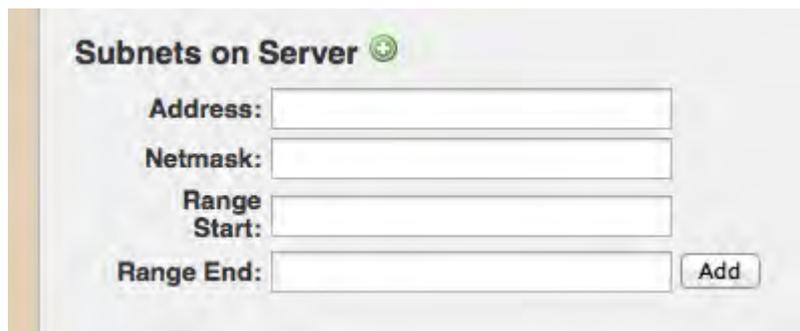
The host configuration screen allows for the following parameters:

2) The **"config file"** option allows you to paste a completely customized DHCP configuration file.

* Please note that the "config file" option will override all entered server information, including subnets and hosts, for the designated server.

DNS Admin

DNS Admin

- o This tab actually pushes your changes from your local/hosted database to your production DNS infrastructure.

- o **DNS Functions**
    - Click on "Generate Zone and named.conf files" to see updates you have made for a sanity check.

    - The "Check Zones for errors" link will run a check your generated zone files and highlight any errors.

    - The "Increment All Zone Serial Numbers" link will take action as described.

    - The "HUP named" link will reload your changes to named.conf. You will get a "Reload Complete" message. (not applicable for hosted version)

    - The "Edit DNS Record Types" link allows you to Add/Edit/Remove allowable DNS record types visible in the DNS Records dropdown menu.

    - The "Edit DNS Delegation" link allows you to Add/Edit/Remove the named.conf slaves/DNS Delegations. The required fields consist of Delegated Zone, Slave from IP, Service ID.

    - The "Generate all DS records for DNSSEC" link allows you to generate the DS

records for use in DNSSEC.

- The "Generate ZIP file of all zones" link generates a single ZIP file of all local zones. Once the ZIP has been created, you will also see a link to download the ZIP file and a timestamp of the last update.

- If a DynECT server is configured, you will have an option for "DynECT Zone Import"

- If a PowerDNS server is configured, you will have an option for "PowerDNS Zone Import"

- ## DNS Zone Transfers
  - Check the boxes and push the button to push the zones as you have configured

```
DNS Zone Transfers:

trace.bind.com          0 Zones  ☐
bind.com                1 Zones  ☐
ops.6connect.com        0 Zones  ☐
208.39.106.169          9 Zones  ☐
herpderp.               0 Zones  ☐
Legolas                 0 Zones  ☐
blah.com                6 Zones  ☐

        Push Zones to Checked Servers:  Push
```

- ## Manage DNS Servers
  - We support various methods of exporting DNS zone files from our platform, including multiple DNS servers. You can manually download a ZIP as specified above, or you can use our transfer function. From the drop down select the "Transfer Type". We support SCP and integration with Secure64 DNS Appliances, DynECT and PowerDNS. Simply set the server, login, path parameters, any additional pre/post commands and click on the "Update Server" button.

```
Manage DNS Servers

Server:            ops.6connect.com        ⬍   New Server

Default:           Do Not Add to New Zones  ▼

Transfer Type:     SCP                      ▼

Username:          brenner

Password:          ••••••••••••••

Port:              22

Remote
Directory:         /usr/local/apache2/htdocs/brenner-

Named Conf
Path:

Pre Command:

Post Command:

        Test Config   Update Server   Delete Server
```

- **Bulk DNS Changes**
  - The Bulk DNS Editor allows an Admin to perform "find and replace" functions with DNS zones

Bulk DNS changes

WARNING. This is a power user tool.

Record Host	Record Type	Record Value	☑ Strict Comparison
www2	A ⬍		**Search Records**

Zone Name	Host	Type	Value
stacy.net	www2	A	2.2.2.2
gtt.com	www2	A	1.2.3.9
gravy.com	www2	A	8.0.16.1
google.com	www2	A	1.2.3.10
mark.com	www2	A	4.3.2.1
foop.com	www2	A	1.2.5.1
one.com	www2	A	2.3.4.5
jamien.com	www2	A	1.2.3.5
jamien.com	www2	A	1.2.3.6
bind.com	www2	A	1.2.3.5

Update ALL of the above with new data:

Record Host	Record Type	Record Value	
	⬍		**Replace Records**

- **Nameserver Management**
  - This function allows the Admin to amend the list of DNS servers used for pre populating DNS records.

Nameserver Management

Server	Default	Uses	
▼ corp.goomba.com	☐	0	⊖
▲ ▼ ns2.dns.6connect.net	☑	45	
▲ ▼ ns3.dns.6connect.net	☑	45	
▲ ▼ ns1.dns.6connect.net	☐	33	
▲ ▼ ns4.dns.6connect.net	☑	12	
▲ ▼ 1.2.3.4	☐	0	⊖
▲ ns1.dns.6connect.com	☐	0	⊖

Newly-created zones are automatically added to Default Nameservers.

Add a New Nameserver

	Add Nameserver

*Note that DNS records are available for local installations in the "Zones" folder in the root directory.

Data Import

- Selecting the data type to import will allow you to download a CSV (.csv) template file to populate with your current data set. Maintain the field labels and then save as CSV. Once you review the file for data accuracy, you can import it via this interface.

- **Import Sites** – These records include a unique identifier and relevant contact information for each record. Note:

- **Import Site Contacts** – These records are matched to a unique identifier and specify specific contacts and types per Site. Note: the display parameters for the **Company_id** should be limited to 10 characters, while the **Company_name** should be limited to <40 characters.

- **Import IP Blocks** - These records are the IP block, block size and unique identifier to populate the IPAM database (currently supports IPv4 blocks only).

- **Scan for IP Blocks to import** - this runs the Welcome dialog to look up your IP space from a seed IP address.

- **Import DNS Zones** – These are the forward/reverse DNS zone records, point the tool to your named.conf records and it will normalize and import the data.

Site Import	DNS Import
Upload/Import from CSV	BIND Zone Upload/Import
Import from Sales Force	
	List Management
IP Import	List Management
Upload/Import from CSV	
Import from RIR	
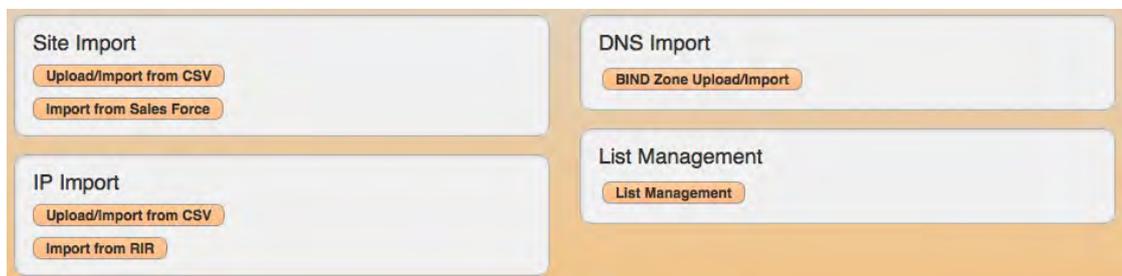
Manage Users

- Here you can manage the users that are in your system and set granular permissions as needed.

- Hover over the icons for more detail on updating permissions, changing passwords and adding/removing users as well as resetting/emailing user credentials.

Username:	First Name:	Last Name:			Admin	IPAM Blocks				SWIP	E-mail	DNS				Site				Peering				Logs	Action
					Y/N	V	C	D	M	Y/N	Y/N	V	C	D	M	V	C	D	M	V	C	D	M	Y/N	
admin	Admin	User	☑	☐	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	👥👤 ❓
aaronh@6connect.net	Aaron	Hughes	☑	☐	☐	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	👥👤👥 ❓📧
aaron@bind.com	Aaron	Hughes	☑	☐	☐	☑	☐	☐	☐	☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☐	👥👤👥 ❓📧
psclafani@6connect.net	Pete	Testing	☑	☐	☐	☑	☑	☐	☑	☐	☐	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	👥👤👥 ❓📧
aaronh@6connect.com	Aaron	Hughes	☑	☐	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	👥👤👥 ❓📧

Asset Admin

Asset Admin

This admin screen allows you a flexible view into the asset management tools built into the 6connect platform.

The screen is broken up into two sections:

1) **Asset Types** - this is where you build your preferred "asset types" - for example, server, desktop, router, VM, radio tower, etc.

2) **Custom Fields** - this is where you can specify the custom fields that you want to track for any given asset. Fields can be used in any asset, and there are multiple field types.


Common Tasks:

### Adding a new Asset Type:
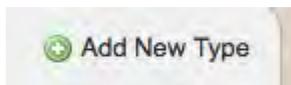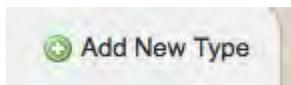
1) Click on the link in the upper right of the Asset Types area, you will then be given the chance to add a Name and Description (you can edit these at any time).

2) You will then be directed to a screen to add any custom fields to the given asset. You do this by dragging the fields from the "Unassigned" column to the "Assigned" column.

3) Click on the **"Update Asset Type"** button to save the changes.
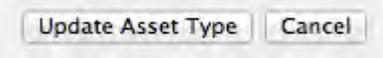
Adding a new Custom Field:

1) Click on the link in the upper right of the Custom Fields area.

2) You will then be directed to a screen to select the type of custom field you would like to create.
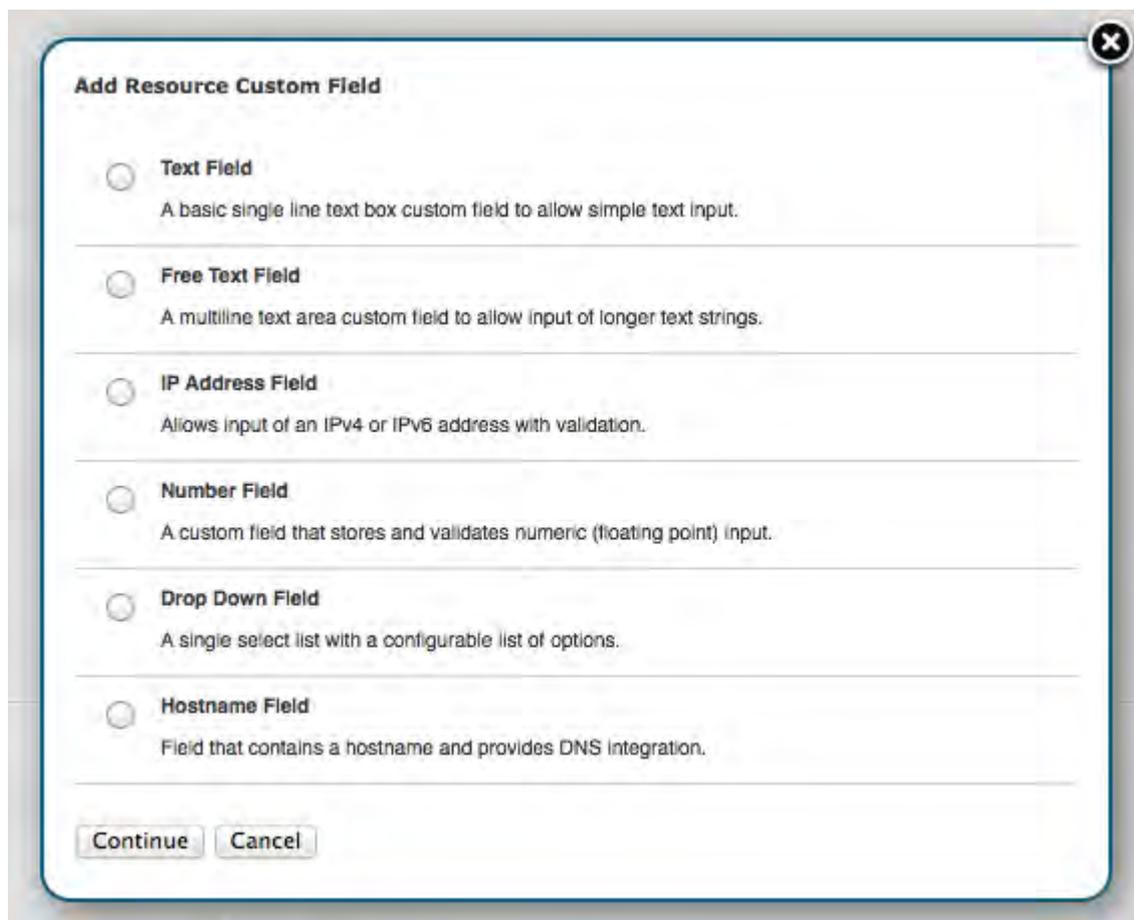
You can select from the field types and click on **"Continue"** when ready.

3) Click on the **"Update Custom Field"** [Update Asset Type] [Cancel] button to save the changes.
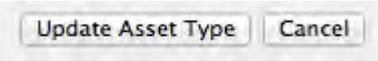
4) You will now see the field listed when editing **Asset Types**.

Templates

When generating new zones, having the ability to create zone "templates" is designed to save you time and effort. Instead of having to repeatedly enter in DNS records into zones, you can now create and store templates in our platform to make generating the zones easier.

The interface allows for storing multiple templates and editing them at any time.

Authentication

Login/Logout

Depending on the authentication method chosen by your organization, there may be a separate authentication to login or logout of the application via the drop down menu.

By default, credentials are managed via the local authentication mechanism provided by 6connect, the application administrator can change this setting at any time via the , so you will have a logout option.

For more information you can visit the User Management screen.

RADIUS/LDAP Support

6connect currently supports RADIUS authentication with our VSA library and LDAP.

For details, set the relevant RADIUS/LDAP parameters in Admin -> General Settings -> Authentication area.

System Requirements

6connect Cloud Hosted Instance

6connect makes every effort to maintain broad compatibility across browser vendors and versions.

Web Browsers Supported:
- Firefox 6+
- Safari 4+
- Chrome 11+
- Internet Explorer 9+(IE 8 works, but there may be some display issues)

6connect Locally Hosted Instance

Initial application installation is included with the purchase of a license from 6connect. If modifications need to be made, we recommend contacting 6connect prior to any changes to ensure there is no negative impact to production systems or product functionality.

Hardware Requirements:

The optimum resource mix will be based on page views/refreshes. A larger concurrent user base with constant editing may benefit from additional RAM.
The minimum recommended hardware is:
- Dual-core Xeon class processor or equivalent (Quad-core Xeon Recommended)
- 2GB RAM (4GB Recommended)
- Local SATA storage (local SAS/SSD or iSCSI/FC LUN optional)
- Rack mount server chassis with redundant power supplies

*Virtual instances are also acceptable. We have confirmed functionality with Citrix Xen Essentials, VMware, KVM, etc.

Software Requirements:

Operating System: Linux/BSD/OSX
Base Software Needed:
- Apache 2: http://httpd.apache.org/
- php 5.x: http://php.net/downloads.php
  - Plugin: Download Source Guardian extension from http://www.sourceguardian.com/ixeds/ and install to php extensions directory.
- MySQL: http://www.mysql.com/downloads/

Interface Walkthrough

This application walkthrough gives you a tour of the application interface and how to use it once you have finished the initial administrative setup.

Functionality
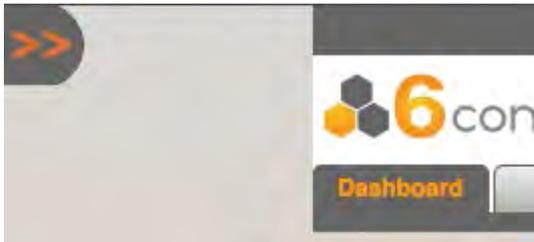
Tree View
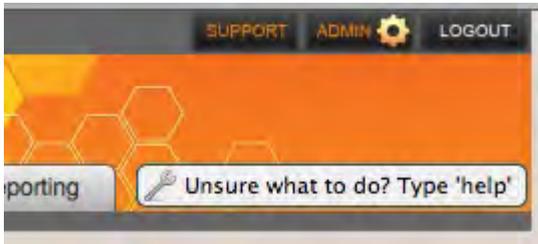
Assistant

Tabs

Dashboard

Site/Customer

DNS

IPAM

Peering

Objects

Log

Reporting

Tree View

Tree View

While using the 6connect platform, you also have an alternate way to view your data with our "Tree View" functionality. Simply press the button on the upper left of the interface to get an expanded pane into the platform (opens in a new window).
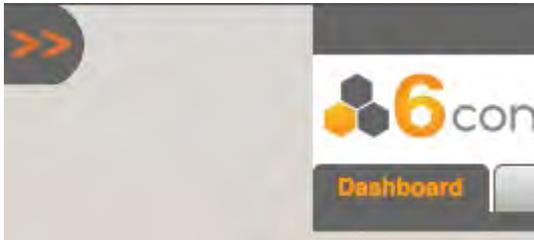
The expanded view looks like this:
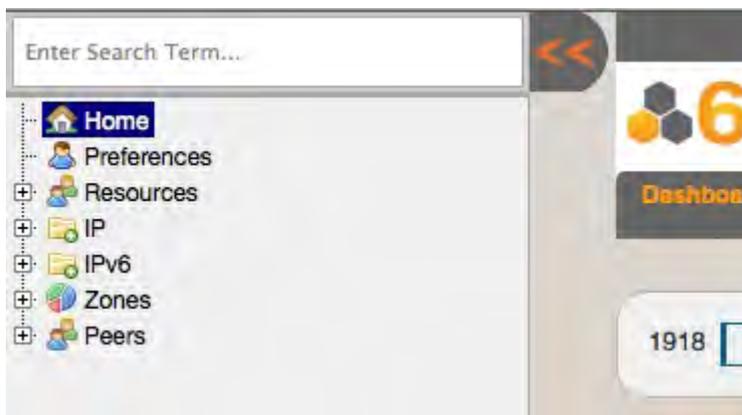
As you expand and manipulate the Tree View section, the primary pane will be modified to accommodate your selection.

Using Tree View

While you can browse elements manually by clicking the "+" button, the Search field at the top of window will provide you the ability to to real-time filtering of items that match your criteria - as you type! Use this for Ass
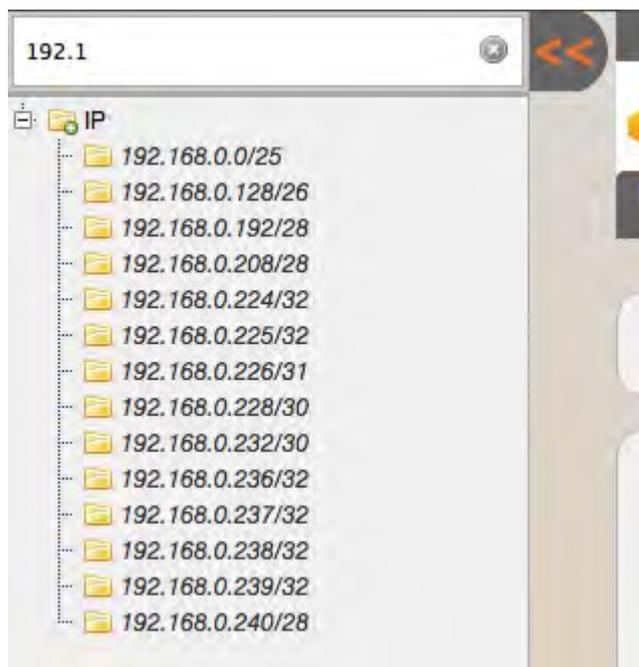
Assistant

Assistant

The Assistant provides more functionality than basic searching. Use the commands below to get more functionality from user interface. You can type "help" into the Assistant at any time to get a brief overview of these commands along with links to documentation and support.

Searching

Enter the company name or a fragment thereof. IPAM returns all records that meet your criteria. From this screen you can jump to DNS administration for the zone, edit company information, delete a company from the database, or create a new company record.

The search function supports additional search parameters:

- By Octet: If you enter in "129.168", for example, the search results will consist of the IP address ranges that begin with the octet entered. This search function works for both IPv4 and IPv6.

- By Zone: Use the prefix "@" to denote you are searching for a zone and this will limit your results accordingly. If you enter in a "." Followed by letters, zones will also be searched.

- By Email address

- If the search parameter contains "@" but no first character, a contact/company will be the primary search result.

- Notes fields (for IP blocks and DNS zones): Use the prefix "notes" with your query and you will be directed to a search results field.

Navigation

Jump to a module:

Example: "module IPAM", "log", "device", "Reporting", "ipv4", "ipv6", "admin", "DNS admin"

Jump to a VLAN:

Example: "VLAN 10"

Network Tools

ping or ping6:

Example: ping arin.net would send 5 ICMP packets to arin.net

Example: ping6 arin.net would send 5 ICMPv6 packets to arin.net

traceroute or traceroute6:

Example: traceroute arin.net traceroute to arin.net

Example: traceroute6 arin.net traceroute6 to arin.net

host:

Example: host arin.net would host arin.net

nslookup:

Example: nslookup arin.net would nslookup arin.net

dig:

Example: dig arin.net would dig arin.net

whois:

Example: whois -h whois.arin.net 192.149.252.76 would return whois information about 192.149.252.76

scan:

Example: scan 192.168.0.0/24 would ping scan 192.168.0.0/24

nmap:

Example: nmap -sn 192.168.0.0/24 would nmap -sn 192.168.0.0/24

Dashboard Tab

Dashboard Tab

The Dashboard has a variety of functionality and features embedded.

IPv4 and IPv6 Reporting

With handy graphs showing real-time utilization, you have an accurate picture of what is happening with your IP addresses. There are also handy links directly to reports for even more output options for your data.

Activity Feed

Shows you the latest activity in your instance so you can see what's going on in real-time.

IPAM Shortcuts

Provides simple ways to get to common tasks without having to change interfaces.

Resource Tab

Site Tab
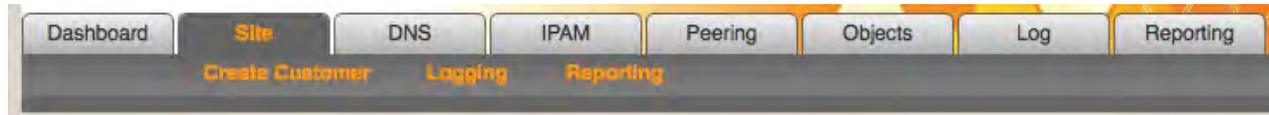
This tab lists all your site records that are assigned allocations. The default sort order is by site ID, but they can also be sorted alphabetically. As on the search from the dashboard, you can modify DNS, edit site information, delete a site, or create a new site record. From this screen, you can also see a count of the zones and IP assignments for each record.

Note: You can also sort by the Header Row by clicking on the header name. 6connect currently support sorting records by Unique ID, Name, and Custom Field.

Site Record Controls

Creating a New Site

To create a new site record, which is required before you can add zones or IP addresses, click on the

 button in the top banner.

The new dialog box will allow you specify the new Customer information and then Edit it as needed. It is very important that to understand the entity receiving resources must actually be a customer with a valid Customer ID to be assigned IP addresses or added to DNS.

Note: When a customer has records assigned to it, you will not be able to delete the record until you reclaim/reassign those resources.

Fill in the Phone, Fax, and Mailing address in the corresponding fields. Country code is not required for US companies, but is available in the Mail Country drop down list. Click "Update" to save.

Note: For non-US addresses, select the Country first, this will change the "state" dropdown to an open text field for you to enter the address information.

Working with Resources

Detail View

When you select a Resource Holder from the Tab, you will be on the "Detail View" for that record. From here, you can edit elements by clicking on the **edit** link for the respective section.

Parent/Child Accounts

You have the ability to assign Parent and Child relationships to Site records. For example, if you have a Site that has "sub accounts" associated with it and thus dedicated IP or DNS resources, you can track them in this way.

The "Plus" icon brings you to an edit screen where you can assign Child relationships. The "Unlink" link removes the relationship (it does not modify the record otherwise).
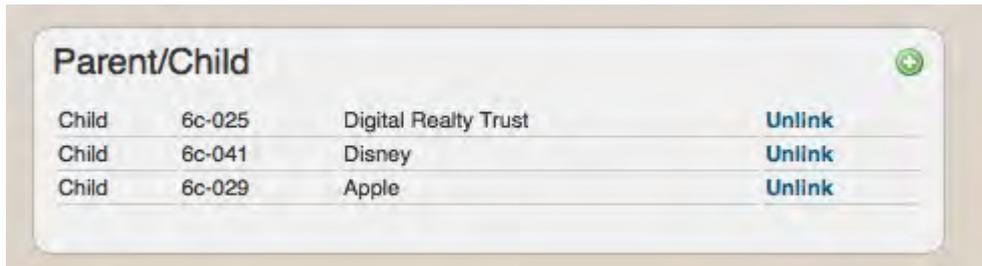
* Note: We do not limit the number of "nesting" accounts you can have, so you can have multiple layers of sub accounts depending on your business architecture

Managing Contacts

Managing Site Contacts

Use the **"Green Plus"** icon to add a new contact under the record.

User the **"Wrench"** icon to bring up the editing options for the contact. Here you can **Edit**, or **Delete** the contact.

Assigning IP Addresses
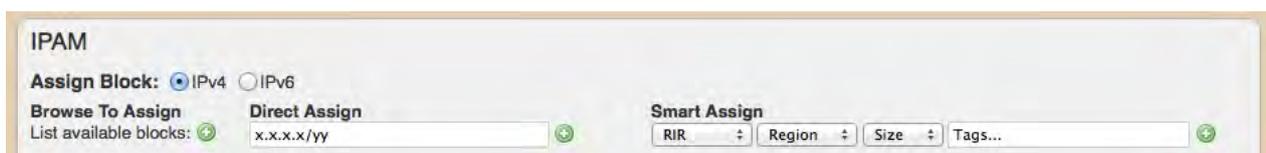
Assigning IP Addresses

IP Block Assignments can be done in three ways from this view.

1) **Browse and Assign:** Click on the "Green Plus" icon by the IPv4/IPv6 Assignments text. This will automatically bring you to the IPAM Tab. From there you can assign an IP block and the Site record will automatically be in focus in the drop down menu.

2) **Direct Assign:** Use the text field to enter the octets/mask and then click on the "Green Plus" icon. A pop-up window will appear to confirm availability of the block for assigning. You will have the option to assign the block or cancel the operation.

3) **Smart Assign:** Use the drop down menus to select the parameters for the block you wish to assign (RIR, Region, Tag, and Block Size) and then click on the "Green Plus" button.

*Note: When blocks are assigned, they will appear highlighted in the assignment listing area.

IP Allocation History

Allocations are displayed in a standard list broken out by v4 and v6. Use the filters to find the allocations you are looking for.

SWIP to RIR

How to SWIP

6connect has provided integration with the following RIR APIs for SWIP and de-SWIP functionality. We will be integrating with other RIRs in the future.

- **ARIN** Restful API

- **RIPE** RPSL API

- **APNIC** - Email template

- **LACNIC** - Email template

- **AfriNIC** - Email template

When you have assigned a block, you will then have the option to do a "Simple" or "Detailed" reassignments as well as "Reallocates" to ARIN. Please note that a "Detailed" reassign requires ARIN POC information and nameserver field(s) to be populated.

There is a time requirement for the request to be replicated to WHOIS (~5 minutes), during that time you will see a status icon. Once the block has been SWIPped, you will then have the option to perform a de-SWIP function and un-announce the space from the RIR.

*Note: If the SWIP returns an error, hover over the SWIP icon to see what the error was and then attempt it again once the issue is addressed.

Managing DNS

DNS Management

*Note: For a complete Zone Editing walk through, go to Zone Editing Tutorial.

DNS Management can be accomplished from this screen as well.
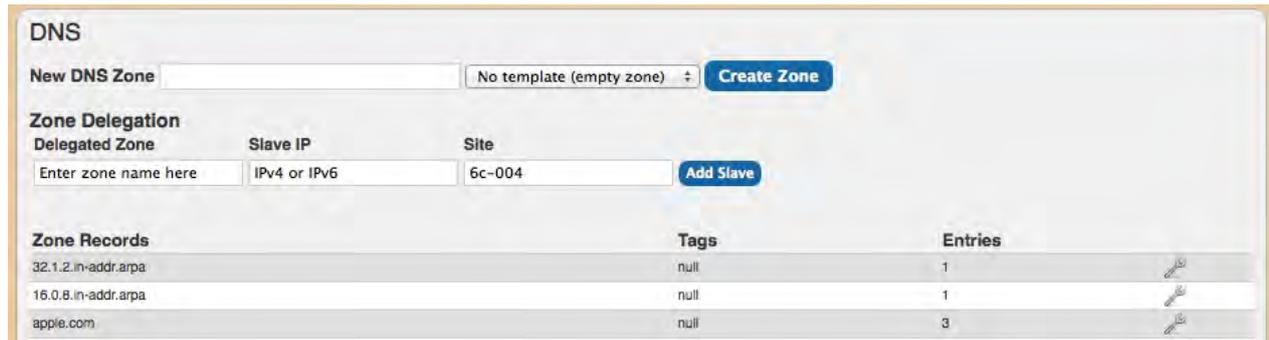
Use the **"Wrench"** icon to select items from the menu for additional actions.

Clicking on the "Cylinder" icon will allow you to add or delete NS records, the "Eye" icon allows you to view the Zone records and the "Delete" icon deletes the zone record. You can also get a count of the records in each zone listed.

Adding a New Zone

To enter a new zone name, do so, and then click "Create Zone". This will put the new zone into DNS where you can view/edit/delete using the icons documented above. You can also use the **Template** function to assign a DNS template to a particular zone.

DNS Delegation

In this section you can also set any DNS delegation for the customer record as needed.

DNS Tab

DNS Tab
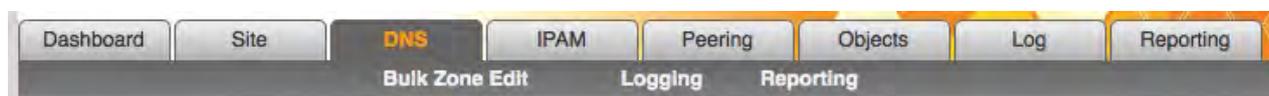
Zone Record Controls

This tab lists customers by domain name, site/customer ID, and Company name. Clicking on the domain will produce the zone file, from which you can "Edit this zone". The customer name of the zone(s) you are editing will appear in the banner under the tabs.

Clicking on the Service ID will take you back to the customer information page, likewise Company Name.

DNSSEC Status

The **DNSSEC** column shows the current condition of the zone. If it reads "DNSSEC" in RED it has been enabled, but not successfully written. If it reads "DNSSEC" in GREEN it has been enabled and written successfully.

The **DS** column shows the current condition of DS records and Authenticated Data for the zone. If it reads "AD" in RED, it has been signed locally, but no DS keys have been submitted. If it reads "AD" in GREEN, it has been both signed locally and had DS keys successfully submitted to the registrar.

Actions

The "Tag" function lets you customize specific parameters for the zone. Enter your tag, and click "Update Tags". The options are up to your company's naming convention, and again, a consistent one is recommended. You can then enter a tag in **Tag Search** and return all blocks associated with that particular tag.

The "Eyeball" allows you to view the zone file.

The "Cylinder with Pencil" again allows you to **edit** the forward DNS zone file.

The "Stop Sign" deletes a whole zone file. You will be prompted to confirm your action.

The "Black Arrow" reads in the last import of the zone directory or it replaces the existing zone in the database with a text file you place in the import directory.

The "Glove" assigns a zone to a customer.

The "Green Arrow" takes you to the logged history of the zone.

Zone Editing

Editing a Zone Record

There are two ways to edit a DNS zone:

1) Click on the "Edit Zone" icon. This will take you directly to the Zone Editing screen.

2) Click on the zone name. At the Zone Detail View screen, you can click on the "Edit this zone" hyperlink.

The Zone Editing screen has three main areas:

1) **Zone Management:** This area is at the top of the screen and provides direct access to confirm zone file changes. By clicking the "Check Zone" button, we automatically confirm that your zone is verified and highlight any problem entries. Once verified, you have the option to perform an "rndc

reload" or "rndc retransfer" of the particular zone you are editing and the server type it is associated to.

*Note: When zones are written the serial number is incremented and DNSSEC refreshed (if enabled)

**Figure 1: Normal zone with no errors**
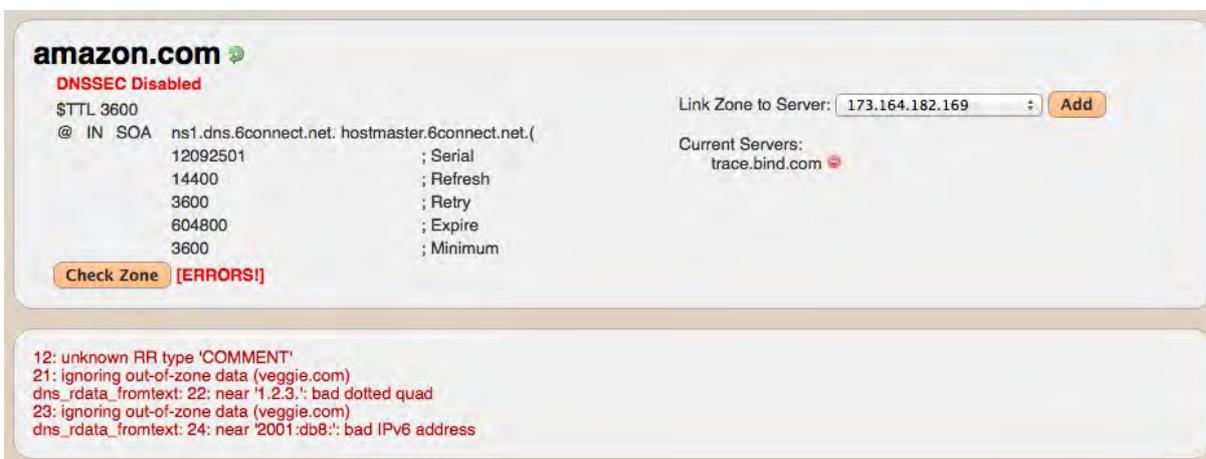
Figure 2: Zone with multiple errors of different types

If errors are detected, the relevants zone record entries will be highlighted to show the error condition.

2) DNS Zone Record Data:

You have two modes for viewing/editing Zone Record Data. he **Verbose** view and a **BIND** view allow for varying levels of comfort with DNS editing tools. The **Search** window also allows the user to filter the list by using multiple parameters.

To Edit a Zone Record, simply double-click on it the entry and make any required edits. Press the **"Cylinder and Pencil"** button to save your edits.

3) **Show DNS Zone:** This view gives you a "CLI type" view of the one file - this is a read only screen.

4) **Show DS Records:** This section displays the DS keys generated for this particular zone.

5) **Show Zone History:** The feature allows you to revert/reload previous zone versions. Note that the zone has to actually be pushed for the Zone History area to show up on the screen.

Split Horizon

Split Horizon (DNS Views)

When working with DNS zones, there are scenarios where you will want to create "Views" for a given zone file, server or record.

Creating a View using the List Manager

Before you can assign a View, you need to create a View and assign to the DNS server. To create a View, you can perform the action from the DNS Admin Tab (under the Show Views button), or you can use the Data Import tab and click on the **List Management** button.

Use the "Eye" icon to expand the view of the list and enter in relevant values.

Once the list is completed, click on the "Pencil" icon to save the list. and will then appear in the bottom pane.

Once saved - you can now generate Views using the IP list(s) from the **DNS Admin** Tab or the **Zone Editing** screens.

Creating and Assigning a View to a DNS Server from IP Lists

Under the **DNS Admin Tab**, you should see a "**Show Views**" button for server types that support this feature.

Edit the "**View Name**" field to label the view.

You will be prompted to select the **IP List(s)** that you wish to assign to the view.
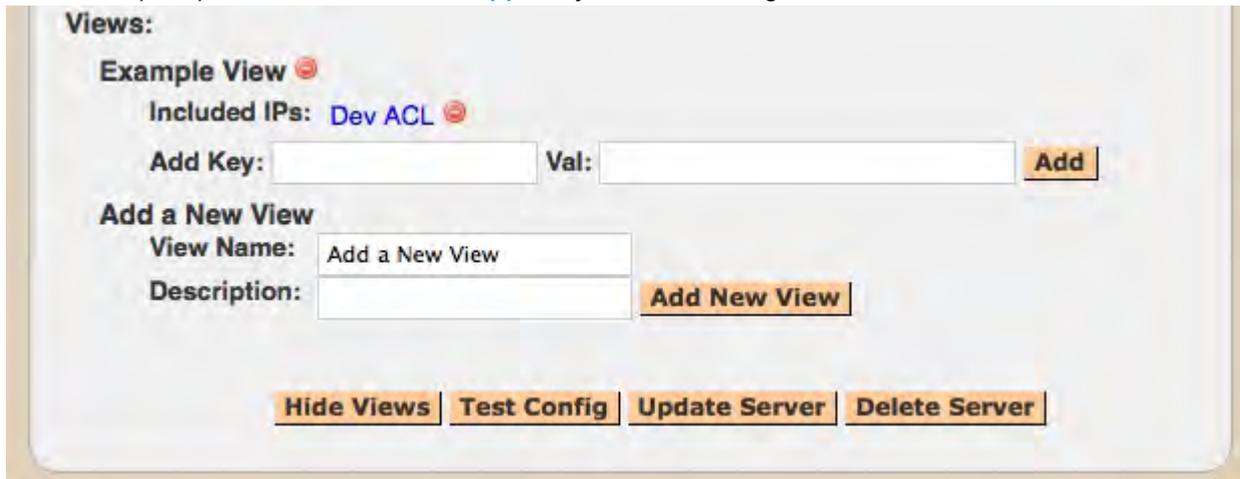
You can also assign custom key/value pairs as needed.

Assigning a View to Zone Record

To apply a View to a Zone Record, open up the Zone in the Zone Editor and double-click the record to edit it.
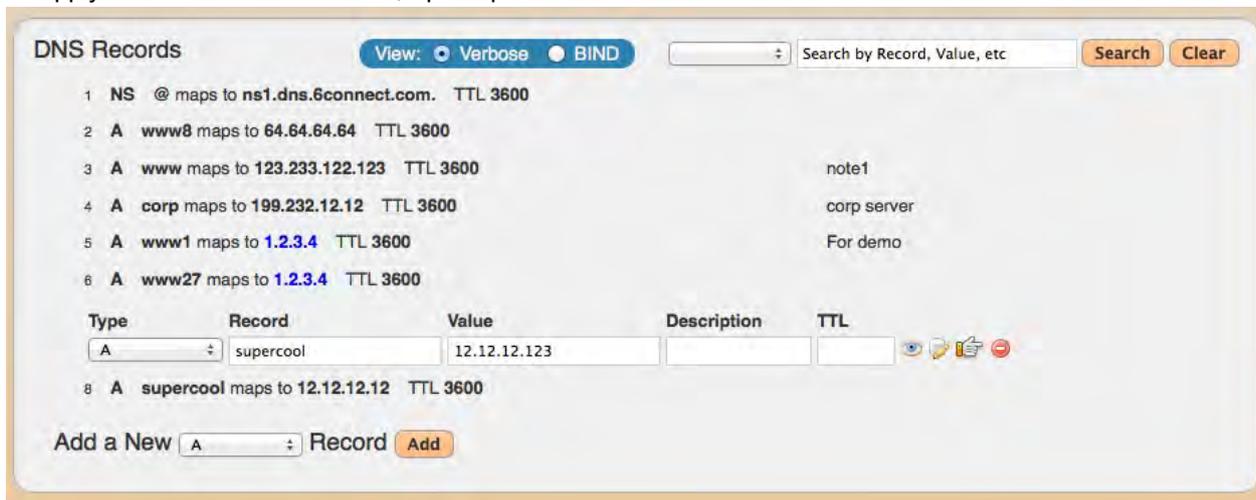
Click on the "**Gloved Hand**" to bring up the DNS Views option for the record. Select the View form the dropdown menu and click on the pencil icon to save the record.
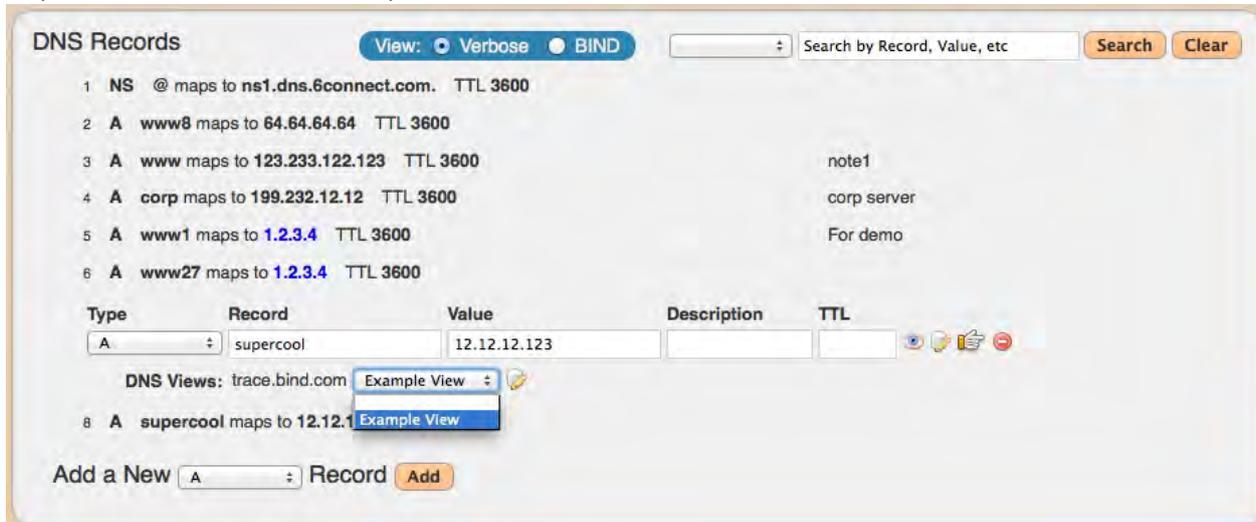
Once completed, you will the Views applied to the Zone Record on the right side of the screen.

IPAM Tab

IPAM Tab

This tab serves as the primary interface for administering IPv4 and IPv6 address ranges. The interface is broken up by aggregates and the view can be filtered by using the

Adding Aggregate Blocks

The 6connect platform takes care of your IP subnetting, so you simply need to add in your aggregate blocks. You can either use the Welcome screen or you can add top-level aggregate blocks manually with the [Add Aggregate] button.

Once expanded, you can apply various properties to the block:


Working with Templates - Auto Split/Aggregate

When you add Top Level Aggregate (TLA) blocks, you have the ability to Auto Split the block into given block sizes. You can also take these actions from the "Management" screen. If blocks have already been split and are unassigned, you will then have the option to Auto Aggregate the block.

Depending on the selection - you will be presented with a modal window to select what block size to aggregate/split to. This works for both IPv4 and IPv6 aggregate blocks.
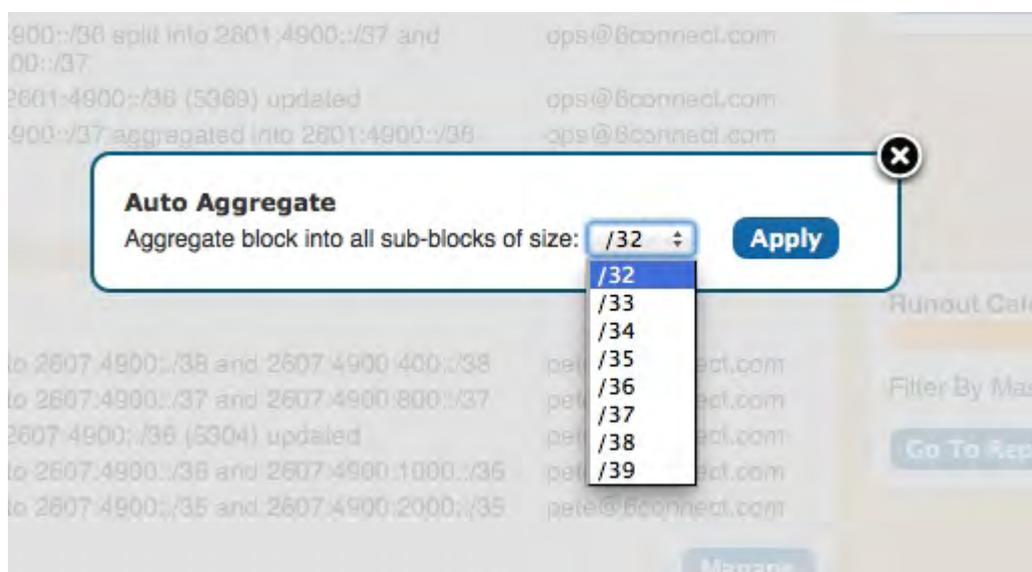

Navigation - Top
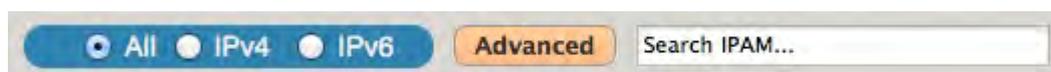
Select the aggregates that you want to view.

The Advanced view provides a global view on one screen.

You can use the Search function to "jump" to relevant results as well.

Navigation - Runout
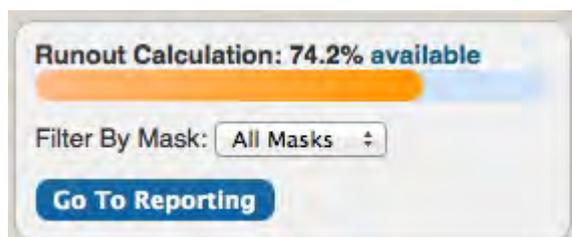
For a given aggregate, we provide utilization statistics for each block. Use the **"Filter By Mask"** dropdown to change the calculation based on the blocks of the given subnet mask available.

Managing Aggregates

## Managing Aggregates - Basic/Advanced

If you click on the button for a given aggregate, you will be directed to a dedicated interface for working with the block.

Searching

An easy way to filter your visible list is to use the search function. Simply type in the parameter you want to filter by and it will highlight and filter the list by the parameter.

Filtering

Filtering allows you to modify the view of the data you are seeing on screen. The filter options can be used in a number of combinations. Currently, we support filtering by:

1) Subnet Mask
2) RIR
3) Tag(s)
4) Region
5) Custom Code per Block
6) VLAN
7) Assigned or Available space
8) Resource Holder (who/what the blocks are assigned to)

Use the **"Clear Filter"** button to reset the parameters.

Working with Blocks
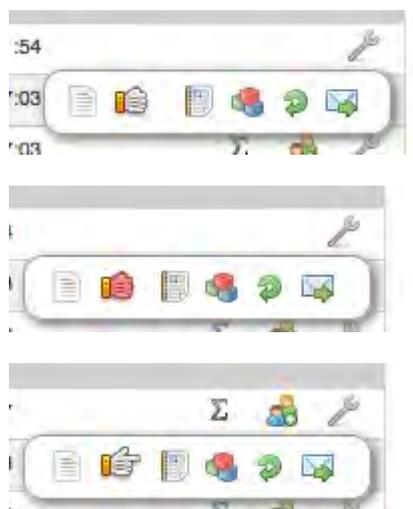
Mouse over any icon and it will describe its function, clicking on the icon will perform the action.

Assigning subnets and single IPs

"Edit Attributes" lets you customize specific parameters for the particular IP Block, including whether to allow sub-assignments for a given block ro IP address. Enter your tag, and click "Update Tags" to tag the selected block, whether or not it is assigned to a customer. The options are up to your company's naming convention, and again, a consistent one is recommended. Some examples are: VoIP block, Infrastructure, Interfaces, Loopbacks, and Geographical Region. You can then enter a tag in **Tag Search** and return all blocks associated with that particular tag.

TIP: VLANs and the "Custom Field" option are treated as tags. You can search by them and edit them from this interface.

TIP: Note that sub-assigned blocks still fall under the parent block that was initially assigned to them.

For available blocks, the green "Create Child" icon is available. By clicking this icon, the subnet will be split into two corresponding blocks. For example, if you have a /26, and you need a /27, this button will split it for you so you can assign from there. Precautions have been put in place to be sure subnetting is correct, and also that a multi-user environment is supported.

Reclaiming Space

The "Closed Glove" icon will reclaim a block from an existing customer.

When a block is reclaimed, it the "Closed Glove" icon will turn into a "Red Closed Glove" icon. At that time, the IP block will be assigned to a "Holding" account. After a specified amount of time (the default is 30 days), the block will be released to "Available" status and will be available for assigning. Should you want to release the IP block from the "Holding" account manually, you can either:

1) Click the "Red Closed Glove" icon to force the release of the IP block to "Available" status; you will have to confirm the override via a popup window.

2) From the "Admin Tab" click on the link to purge the "Holding" Account and mark the IP blocks as now "Available" for assignment.

If you reclaim an on-the-bit-boundary block, you can click the "Sigma", and re-aggregate the block.

Assigning IP Space

The "Glove" icon will assign a block to a the resource of your choice.
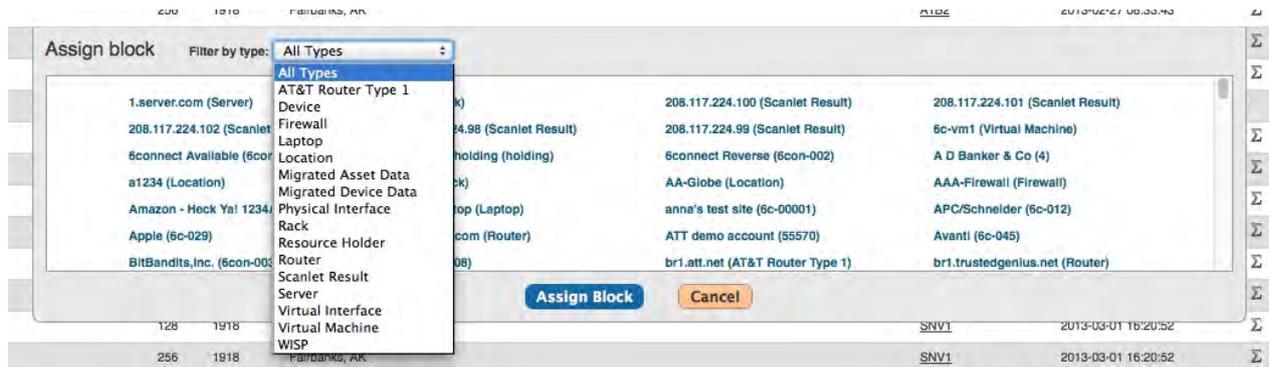
The "Envelope" icon will send the relevant IP block information to the customer on record. You will be able to choose the email template and customer contact to send the information to in the next screen. Default templates are customizable by the Administrator.

IP Templates

The "Notebook" icon will allow you to apply a template (auto split) which allows the user to automatically split the series of blocks into a given size. You will also have the option to limit the number of blocks that are created for the given selection.
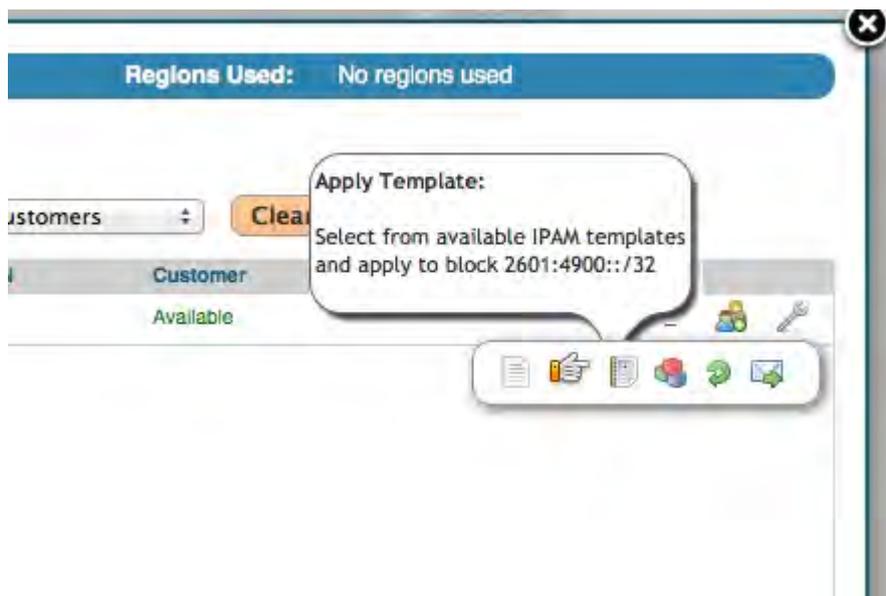
Peering Tab

Peering Tab
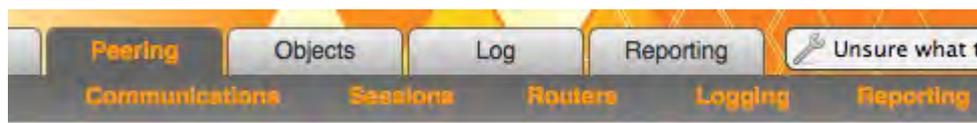
The Peering Tab consists of three functional areas:

Communication Manager

Peering Session Manager

Router Administration

Communication Manager

How it Works

The Communication Manager allows you track communications per exchange. You can mark peering status and even send out peering requests from the interface.

Selecting an Exchange
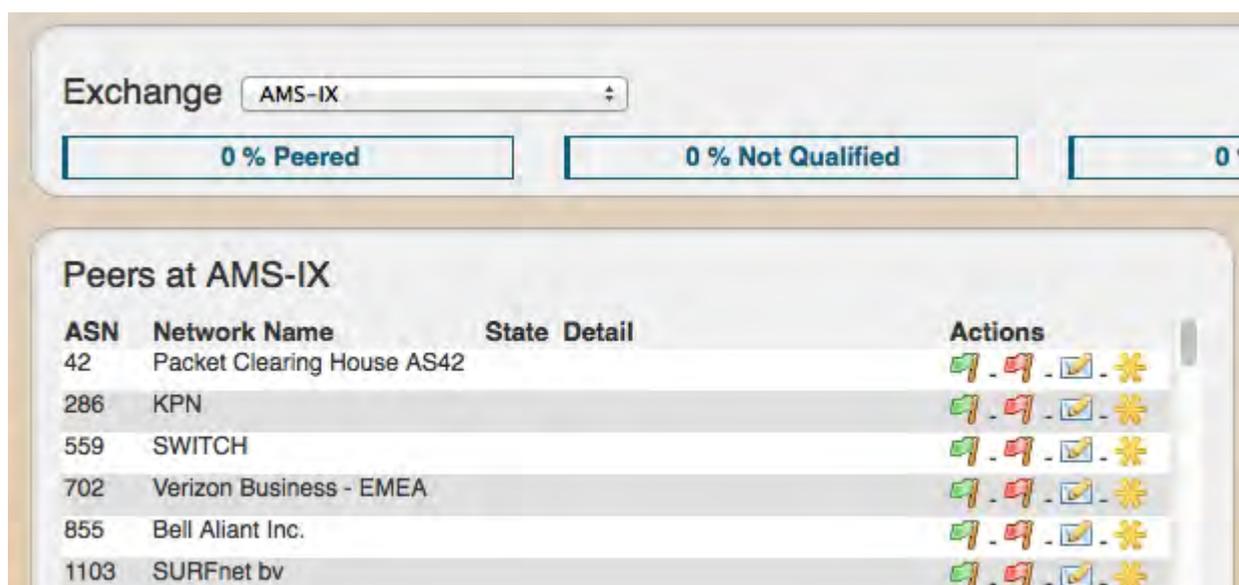
This is where you are able to select the Peering Exchange (per peeringdb entry) that you want to manage.

Setting Peer Status

Peer Status can be tracked easily from the Communication Manager. The Manager gives you three options for status tracking:

- **Existing Peer:** Marks a peer as an existing one and removes the Email icon.
- **Not Qualified to Peer:** Marks peer as "not qualified" and removes the Email icon.
- **Reset Peering Request:** Resets the status of the peer so you can select Existing or Not Qualified or Email icons.

Sending and Tracking Communications

- **Email Peer**: Brings up a screen to email the peering coordinator. The email template pre-populates data based on peeringdb data (To address, Subject line and Peering exchange information). You have the chance to edit the email prior to sending.

Peering Session Manager

Managing Peers

Filter Menu:

Filter: Peers Only | Down Sessions | IPv6 Only | IPv4 Only | List Unique Peers

The links serve as active filters for isolating relevant peering entries.

Peers only will filter the sessions to only show you existing peers that you have sessions with.

Down Sessions will filter the sessions to show only the entries that are currently down or inactive.

IPv6 Only will filter the sessions to show only the entries with an IPv6 address.

IPv4 Only will filter the sessions to show only the entries with an IPv4 address.

List Unique Peers will filter out duplicate entries of peering sessions from the same ASN then provide you a single list of unique ASNs that you are peering with.

Header Menu:

ASN	Company Name	Location (update)	IP Address	Router	Type	Prefixs	PeeringDB	State

ASN is the ASN assigned to the Company listed. This field is sortable. If you click on the ASN link, the list will sort in ascending order (this is the default view of the tool).

NOTE: If you click on the ASN number, the session data will automatically be filtered to just the entries tied to that particular ASN. At the bottom of the screen, you will then have a list of the specific sessions present in peeringDB along with their status. If you so NOT have an active peering session for a connection, it will appear in RED and you can press the "Add Session" button.

Company Name is the Company Name assigned to the ASN. This field is sortable. If you click on the Company Name link, the list will sort in ascending order.

Location is based off the Exchange Names that are entered/updated from the Admin screen. This field is sortable. If you click on the Location link, the list will sort in ascending order.

NOTE: If you click on the Location, the session data will automatically be filtered to just the entries tied to that particular Location.

IP Address is the IP Address (IPv4/IPv6) of the session. This field is sortable. If you click on the IP Address link, the list will sort in ascending order.

Router is the Router assigned to the session. This field is sortable. If you click on the Router link, the list will sort in ascending order.

Type is the Type of session as defined by the user. When entering a new peering session, the user can specify the type of session (Peer, Peer-PNI, Customer, Upstream, Unknown). This field is sortable. If you click on the Type link, the list will sort in ascending order.

Prefixes are the number of prefixes learned from public exchanges or private peering connections. This field is sortable. If you click on the Prefixes link, the list will sort in ascending order.

PeeringDB is a direct link to the ASN's entry in PeeringDB. It will open up the link in a new browser window.

State displays the state of the listed peering session (prefixes receiving, Active, Down, Admin, etc.). This field is sortable. If you click on the State link, the list will sort in ascending order.

Actions:

Mouse over any icon and it will describe its function, clicking on the icon will perform the action. From left to right:

"Stop Sign" deletes the peering sessions from the assigned peer.

"Paper with Pencil" brings you to a dedicated editing screen to modify the peering session from its initial values. The editable fields will appear below the current peering session entry. Press the "Update" button to apply your edits to the session data.

"Gear with Pencil" allows you to configure the parameters of the peering session. This will bring up the current router configuration in a text frame for review. Below this frame is the new configuration text that will be pushed to the router. If the configuration is correct, click the "Push the config" link to send the configuration to the router. You will receive a confirmation message when the process is complete.

"Unplugged" de-peers the sessions from the assigned peer.

"Closed Door" shuts down the session with the assigned peer.

"Open Door" doesn't shut down the session with the assigned peer.

Router Administration

Managing Exchange Routers

Exchange routers are updated from your peeringdb entry.

The "Edit Router" link will allow you edit relevant router information including Router Type and v4/v6 Peer groups.

Once the Routers have been added, you will see a more details on the right side table.

This Management screen also lets you Delete your ASN specific sessions from the tool, Delete "Unknown" peers from the tool, Create State Script once all routers are entered, and Update UNKNOWN Company names from whois data.

Objects Tab

Objects Tab
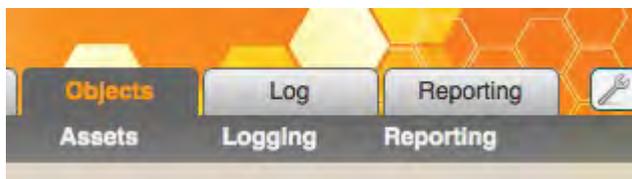
The Objects Tab gives you an easy way to track your Assets. We designed the module to be as open-ended as possible so you can customize almost every aspect to fit your business. From the **Asset Admin** screen you can create Customer Fields and Custom Asset Types. Whether you are laying out a datacenter structure or mapping out a multiple campus environment - our flexible container system means you have options.

Using Objects - Top-Level Assets

Based on the Asset Types and Custom Fields you created in the Asset Admin screen, you will be able to work with varying levels of assets within the same framework.

For example, a colocation company may need to track assets and interfaces across multiple datacenters.

The result is that they would create the following Asset Types:

1) Datacenter

2) RackID

3) Server

4) Router

5) VM (Virtual Machine)

6) Interface

And they would probably need the following Custom Fields:

1) Location Code

2) RackU

3) Server Type (Make, Model, Asset Tag, etc)

4) Router Type (Make, Model, Asset Tag, etc.)

5) Hypervisor

6) Hostname

7) Interface type

8) IPv4 address

9) IPv6 address

Using Objects - Child-Level Assets

As you create the "Top-Level Assets" - you will then be able to assign "Child-Level" Assets underneath them. This allows you to create and customize your own hierarchy based on how you track your assets in your organization.

As can example, you can see below:
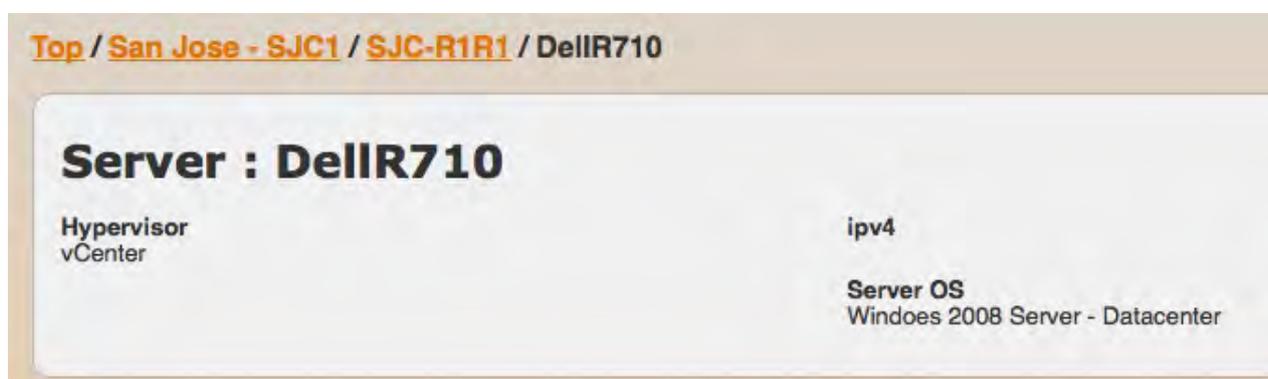
The Breadcrumb navigation allows you to see the hierarchy of your assets as you browse. In the example, the Top-Level is "San Jose-SJC1" with "SJC-R1R1" serving as a Rack identifer in a datacenter. The "Dell R710" is a server within the rack.

When you select a given Asset, you will also be able to see the Child-Level Assets underneath it:

Log Tab

Log Tab

Logging is shown and kept locally, if you would like to output to a syslog server, you can do so from the Admin Tab.

Filtering

You can filter the log view by time, user, action, source IP address, by typing the results in the white box at the upper right.

Filtering by Level

You can filter the log view by Level:

- All Levels (Default view)
- Emergency
- Alert
- Critical
- Error
- Warning
- Notice
- Info
- Debug

Filtering by Category

You can filter the list by activity type:

- All Categories (Default view)
- User
- IPAM
- Resource Holder
- DNS
- Peering
- Assistant
- API
- NTP
- Device
- Reporting

Reporting Tab

Reporting Tab

This page provides some basic reporting functionality around User Activity, Customers and Contacts and IPAM related data. You have the option to either view in the browser or generate a CSV to download.

For basic reports, you can generate data for user activity, company data and contact information. This is especially useful for exporting data.
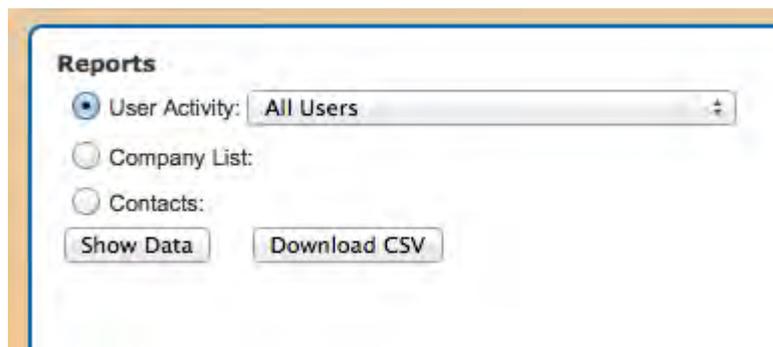
For IPAM reporting you have multiple options to display and filter your reports. You can customize using the multi-select boxes to generate your report.

IPAM

IP Type	RIR	Company
☐ IPv4	☐ 1918	☐ 2010 USA National Games
☐ IPv6	☐ 1918-SJC	☐ 6connect Available
	☐ AfriNIC	☐ 6connect Holding
	☐ APNIC	☐ 6connect Reverse

Region	Tag	DC
☐ Any Region	☐ 3G Mobile	☐ VRF2
☐ Ashburn, VA	☐ ANY	
☐ Boston, MA	☐ Anycast	
☐ Chicago, IL	☐ Anycast Group 1	

☐ Is Assigned?   ☐ Is SWIPed?

[Show Data]   [Download CSV]

There are more reports in progress and they will be added to this page. For Report suggestions or feedback, email us at support@6connect.com.

Portal Functions

Portal Functions

When you wish to open up Resource Holder records to users, 6connect has integrated a "Portal Function" that allows these actions.

When viewing a Resource Holder record, simply select the "Manage Portal Users" button on the upper left of the screen:
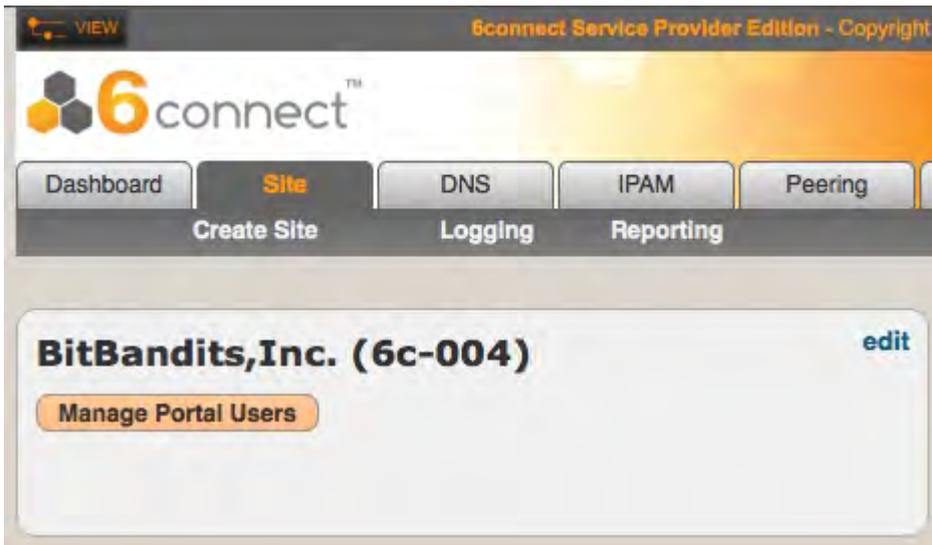
The Portal User Editing screen consists of the following sections:

Portal User List

Adding New Users

Please note that the User Name must be unique to your instance and passwords must be at least 8 characters in length.