E911MANAGER®

RedSky E911 Manager® Administration Guide Version 6.11.X

Corporate Headquarters 333 N Michigan Ave Chicago, Illinois 60601
1-877-REDSKY1 | Tel. 312-432-4300 | Fax 312-432-4320

info@redskytech.com | sales@redskytech.com

Table of Contents

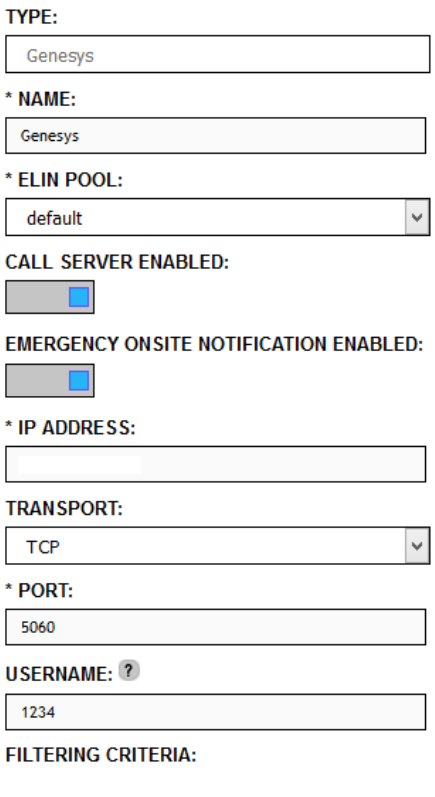
Revision Summary

This information below details the release schedule of versions of E911 Manager®v6.x and the features included in each release.

1.1 E911 Manager® Version 6.9.0 (July 2018)

Configurable Username 302 Response - Genesys Integration

Description – You now have the ability to specify the username used in Manager's 302 Response. By default, 911 will be the username sent back. Blank or empty usernames will also default to 911.



.

1.2 E911 Manager® Version 6.8.0 (March 2018)

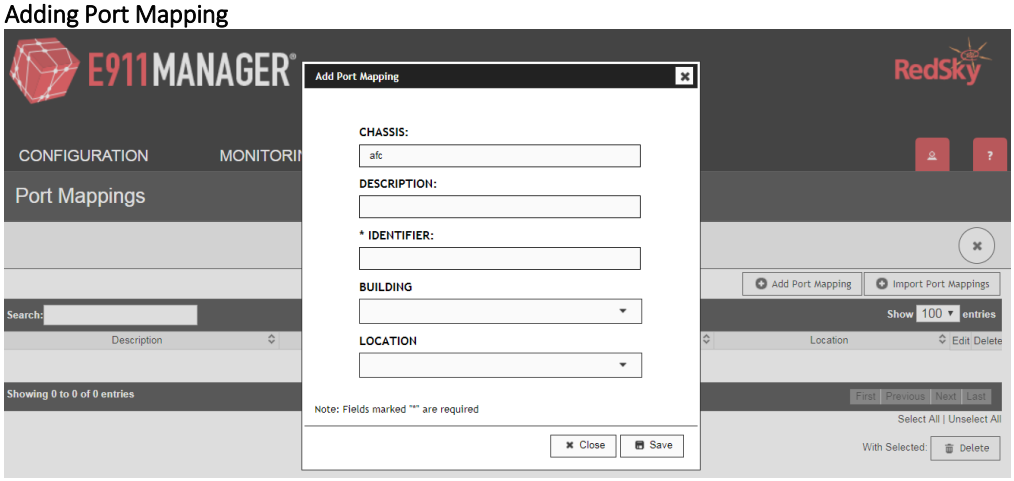
Last Known Location - Avaya Integration

Description – You now have the ability to exclude 'last known location' as a possible end point status in our Avaya integration. (ACM + AES) Last known location will be a configuration that you can either enable or disable.

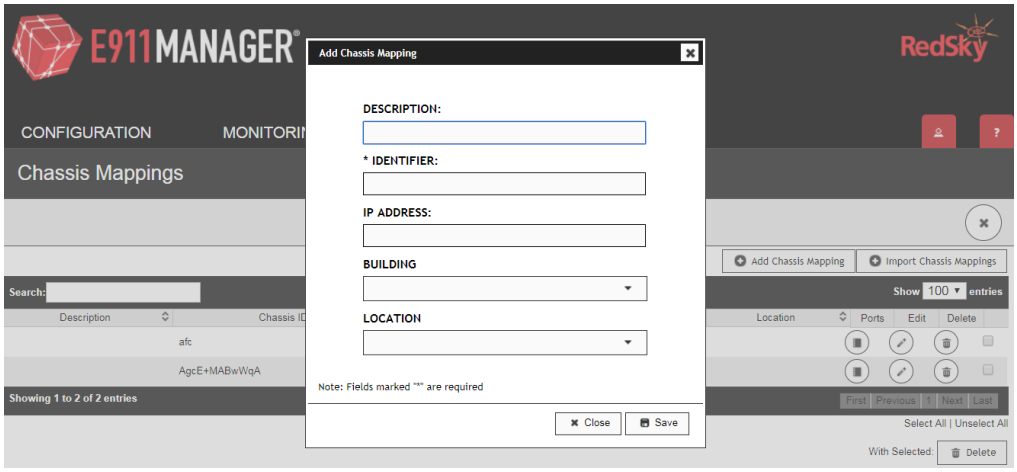
Added Support for LLDP Tags Chassis ID and Port ID

Description – coming HELD requests may contain LLDP information pertaining to the switch and port that a device is currently connected to. We can configure and store the LLDP data to help us better locate a device at the time of Network Discovery.

Adding Port Mapping



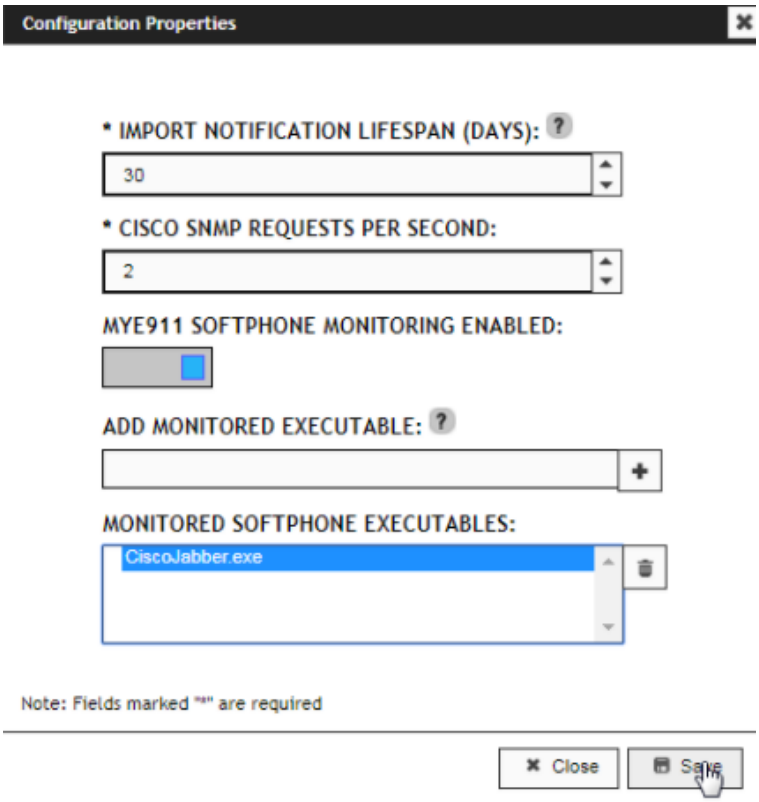
Adding Chassis Mapping



1.3 E911 Manager® Version 6.7.0 (October 2017)

Configuration Properties UI Update

Description – the UI page for Configuration Properties has been updated to make interaction more streamlined.



1.4 E911 Manager® Version 6.6.1 (August 2017)

Cisco LAN Controller Integration for E911 Manager

Background

As functionality exists today there is an integration between Manager and Cisco MSE. As it turns out much of the functionality that MSE contains is functionality that Manager does not interact with. We wanted to streamline this process and make it quicker.

New Functionality

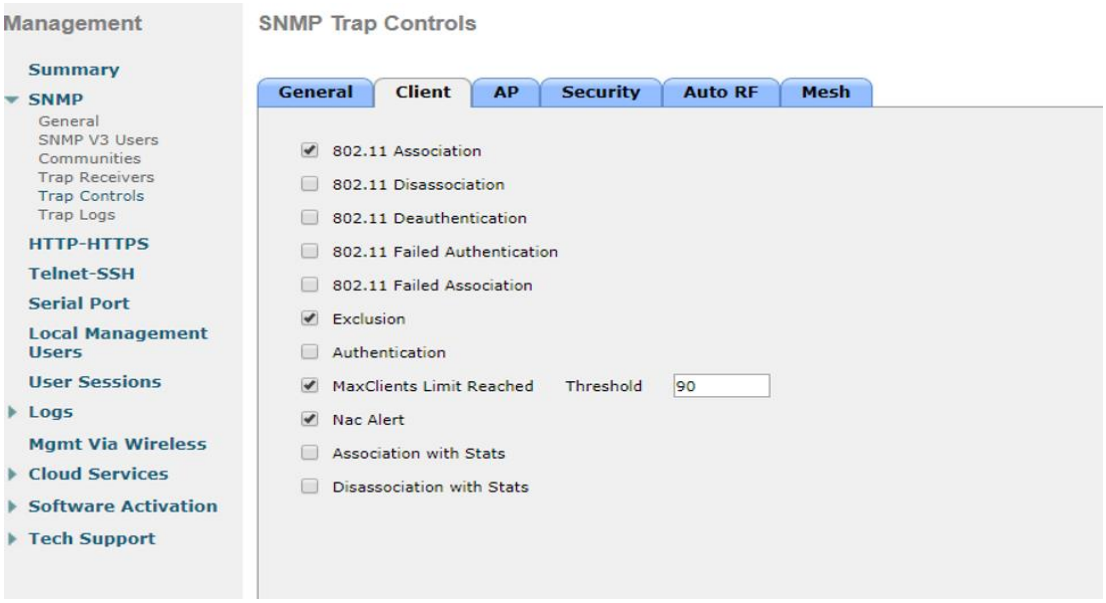
We now skip MSE and integrate directly with the Cisco LAN Controllers. We have effectively removed a piece of integration that was playing as an intermediary for no reason. We have not removed any functionality with this update. The Controller will be sending traps.

Existing MSE Customers – Upgrading

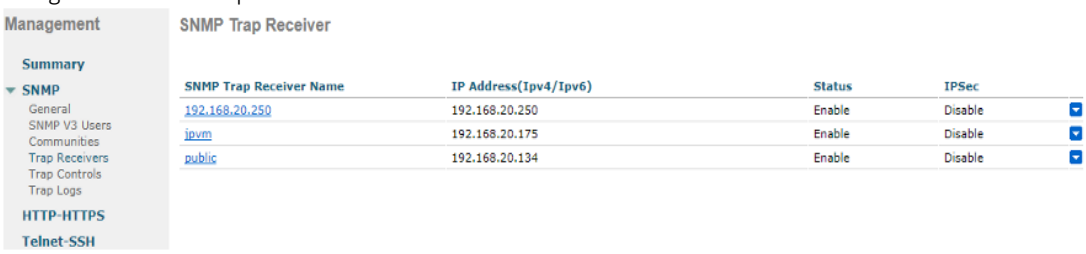
If you are an existing customer that leverages our MSE integration there are a few configuration changes you will be **required to make prior to upgrading Manager 6.6.1**. The steps are outlined below in the Cisco WLC UI.

Login to the Cisco UI for Wireless LAN Controllers > Advanced > Management tab

Navigate to SNMP > Trap Controls > Select 802.11 Association > Save



Navigate to SNMP Trap Receiver



Add New SNMP Trap Receiver > Enter the IP Address of the E911 Manager Server > Save

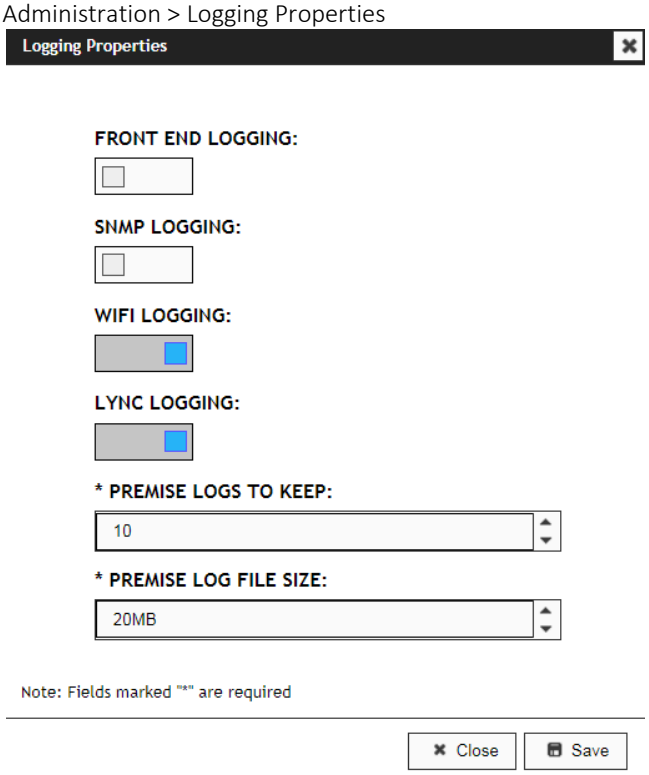
Lync/S4B + E911M - Automated Device Removal

Description – A system level property (skype.device.expiration.in.days) was added. This property is the configuration for determining what deems a stale device. The default is set to '7' days. The cleanup tasks runs once per night.

1.5 E911 Manager® Version 6.6.0 (July 2017)

New UI Page for Logging Configuration

- Description – On the logging configuration page you have the ability to toggle on/off for Front End Logging, SNMP Logging, Wi-Fi Logging, and Lync Logging. A restart of services is not required in order to have the on/off take effect.
- Navigation – Administration > Logging Properties

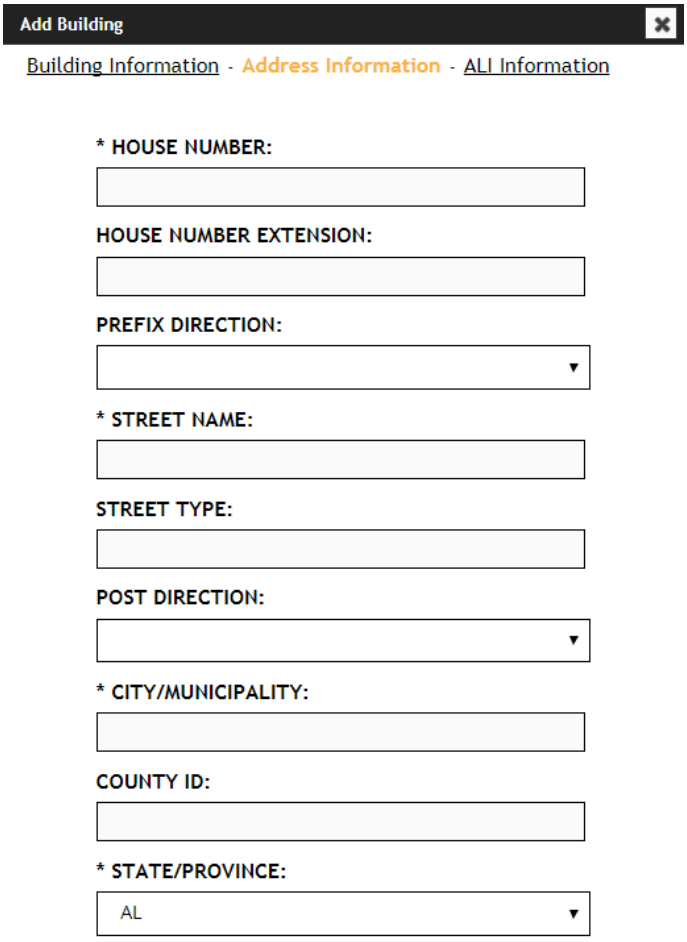


Add EMCC Enabled option for Cisco PBX

- Description - During a Cisco download, for any devices that don't show up on the current PBX, we treat them as potential EMCC devices, and send requests to all other Cisco PBXes to try to get the proper device information. This doesn't really cause a problem, but it can greatly slow the download, especially if they're not even using EMCC. There is a toggle to enable EMCC, such that if it's not enabled, we don't try to make those requests at all. If it is enabled, we send requests only to other PBXes where EMCC is also enabled.

UI Enhancements

- Description – ELIN Pool, Civic Addresses, and Logging Properties pages have been updated to make the user experience more seamless. When there are large amounts of input fields we separate this out into different sections. You can navigate back and forth while all data is maintained.



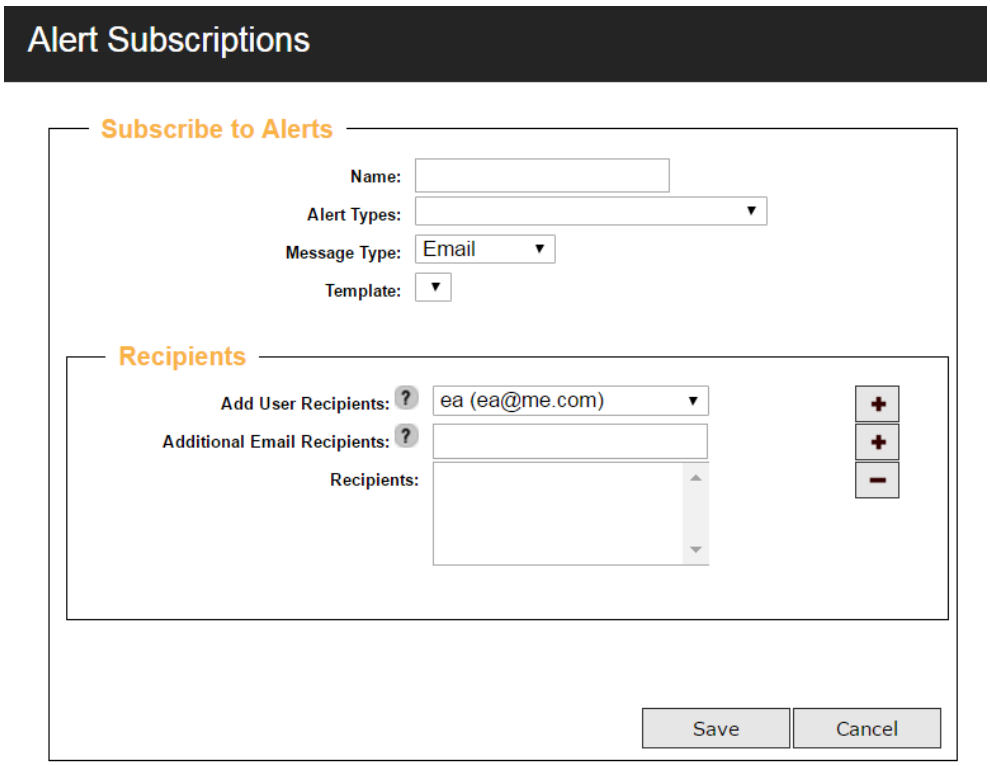
1.6 E911 Manager® Version 6.5.11 (May 2017)

Failover CTI Route Point

Description – Available in E911 Manager 6.5.11 and higher, a secondary, failover route point may be configured for Active/Active configurations. For step by step instructions on how to configure this please refer to ICD-CUCM-6.5.11 on the Customer Forum.

Improve filtering UI on Add/Edit alert subscriptions and Reports

Description – The look and feel of adding/editing alert subscriptions and reports has changed to be easier to interact with.



BSSID Location Mapping (Basic Service Set Identifier) and Auto Detection

BSSID Defined

- BSSID is a MAC Address of a Wi-Fi access point

BSSID is Used to Auto Discover Locations

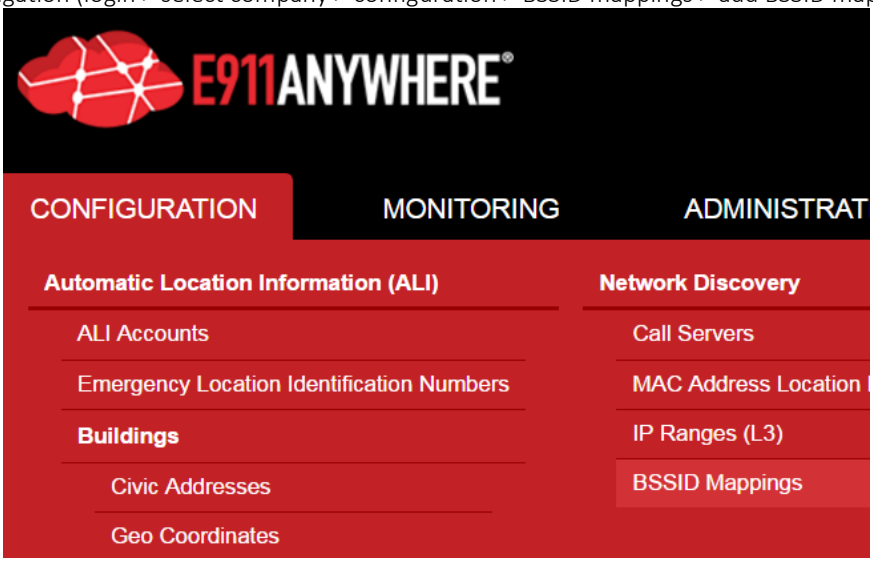
- This feature enables the user to be auto discovered when they are found on a Wi-Fi access point that has a BSSID mapping defined. The way a BSSID can be defined is through Corporate or Personal BSSID's.
- A user will only be prompted for their location on any single BSSID the first time they connect to that access point. Any future connections to this same Wi-Fi access point / BSSID will result in the user be automatically discovered and therefore not prompted to enter their location.

Types of BSSID Mappings

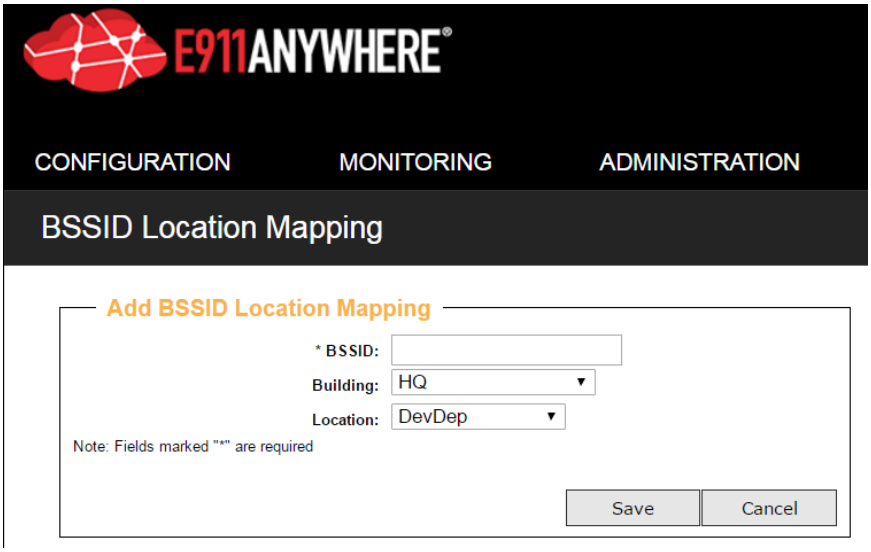
- Corporate BSSID Mapping – These are enterprise level locations and can be mapped to existing ERLs. These locations are viewable by any MyE911 User and defined by an admin in the Web UI.
- Personal BSSID Mapping – These locations are only viewable to the user that created it and an Admin in the Web UI. These are added automatically by remote users connecting to access points and locations off premise. They will be stored automatically without a user needing to do anything different in the MyE911 client.

How to Add BSSID Mappings

- To add a corporate mapping you will need to navigate to the BSSID Mappings page in the Web UI. Navigation (login > select company > configuration > BSSID mappings > add BSSID mapping)



How to Add BSSID Mappings (cont'd)



- The user also has the ability to import BSSID Location Mappings by navigating to the BSSID Location Mappings Page and clicking 'Import BSSID Location Mapping'.

Who Can Use BSSID Auto Detection

The following integrations are supported for use with auto detection.

- Skype
- Broadsoft
- MyE911

Our auto detection capabilities can be leveraged for Skype and Broadsoft devices with or without the MyE911 client. All MyE911 users can make use of auto detection regardless of PBX integration.

How to Locate your BSSIDs for your Corporate Network

BSSID can often be located within your wireless controller. Also, in our Beta phase customers reported another easy method to discover their BSSIDs of their Wi-Fi access points was through the use of a number of free tools available on the web.

1.7 E911 Manager® Version 6.5.10 (April 2017)

Add Fields to Clients to Support Profile Editing

Description – First name, Last Name, and Email fields on the settings page of the clients can be updated when you save settings.

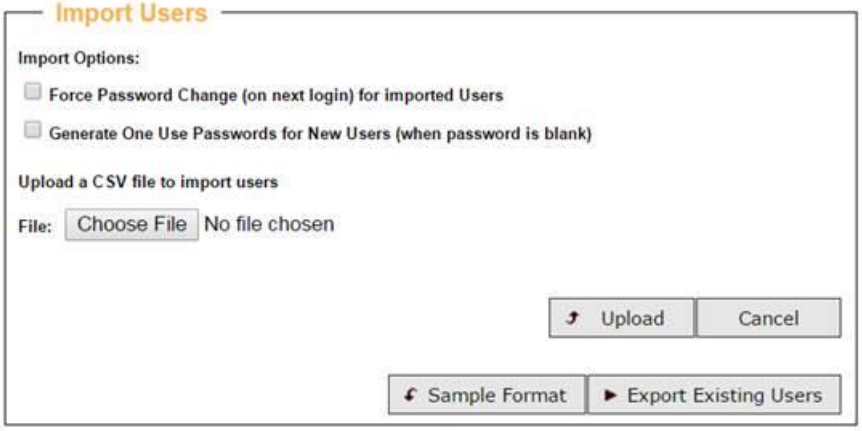
1.8 E911 Manager® Version 6.5.9 (March 2017)

Ability to Force a User to Reset Password upon login

Description - Functionality has been added that allows for the following:

- Admin have the ability to force a new user to have to set a password upon first login
- Admin have the ability to force an existing user to have to change their password on next login
- Passwords can be auto generated and emailed to the user if they are imported and no password is defined
    - Email's must be enabled
    - Email addresses must be defined for the user
- Added on Anywhere, Manager, EON, MyE911 and can be accomplished via User Page in the UI or via User Import
- A user can now be edited too. The only field that cannot be edited for a user is Username.
- Screenshots cont'd on next page

Ability to Force a User to Reset Password upon login (cont'd)



1.9 E911 Manager® Version 6.5.8 (February 2017)

One Email Address to Receive Multiple Alert Subscriptions for the Same Alert Type

Description – Users can subscribe to multiple email alerts and then filter on a specific target. Example: filtering on a building.

Schedule Task Improvement

Description – The scheduled task page now has 'last run time' as a new column. Any scheduled task will display a timestamp in that column when it was kicked off last. Please note this does not indicate a success/fail status but rather that the task did begin.

Alert Template and Alert Subscriptions Cleanup

Description – Only applicable alert templates and subscriptions will show up. Please see the chart below.
Alert Templates

No new templates added. We deprecated a few templates that have no functionality behind them any longer.

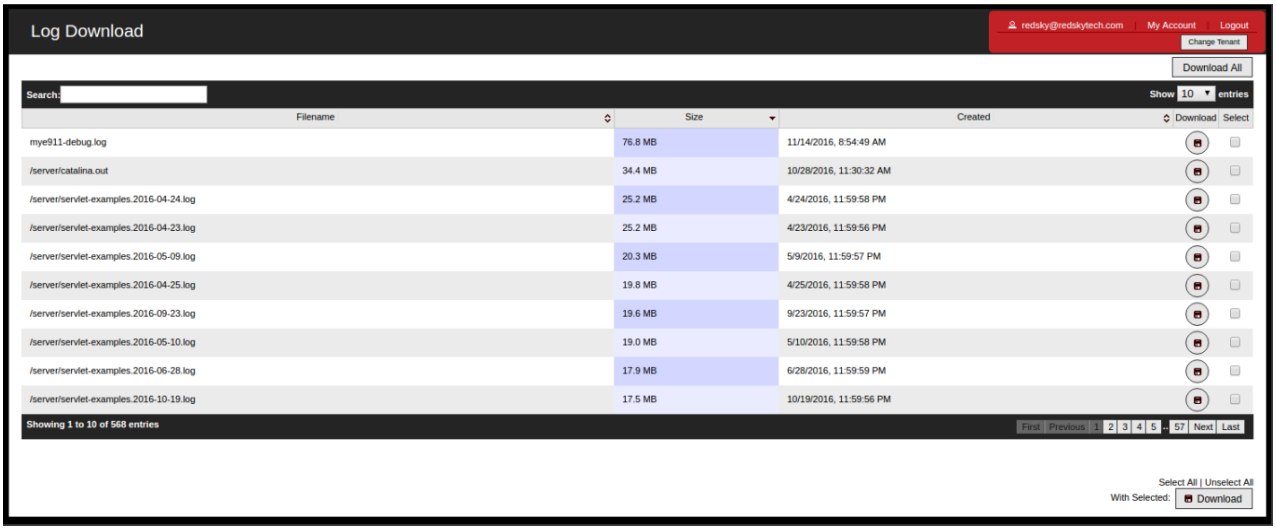
Alert Subscriptions

	Manager	System/Tenant/Both
ALI Update: Error	X	T
ALI Update: Warning	X	T
Anywhere Data Sync Error	X	S
Cluster Member Status	X	S
EON: Emergency Call Received	X	T
EON: Error	X	B
EON: Non-Emergency Call Received	X	T
Premise Services: PBX Error	X	T
Premise Services: PBX Warning	X	T
ECRC: Emergency Call Received		T
Emergency Call Bridging		T
Level of Service Scan Failure	X	S
PGPool: Database Node Failure	X	S
PGPool: Disconnected Nodes	X	S
Campus Alert	X	T

1.10E911 Manager® Version 6.5.7 (December 2016)

Improve Log Download page

Description – The log download page has been updated to look like the image below. The theme now matches other pages in the app.



Session Manager filtering UI changes for Cisco and AES

Description – We have cleaned up the filtering functionality for Cisco and AES. We added options for the most commonly used filters and then also added 'other' in case there is another filter that is required outside of our pre-populated list.

AES / ACM

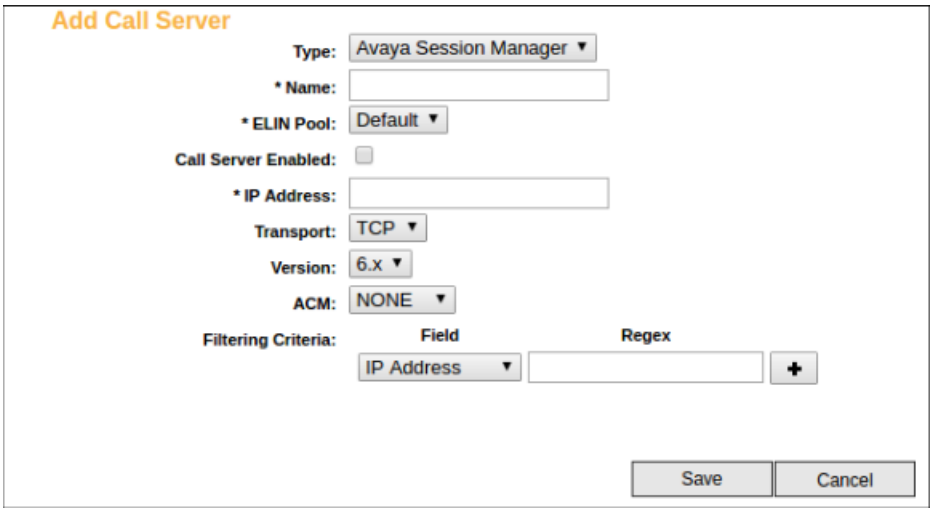
- IP_Signaling_Set_End_IP_Address
- Extension
- Type
- Name
- Building
- Floor
- Room
- Jack
- Cable
- Set_Color

AES/ACM (cont'd)

- Other (free text field)

CS1000

- Extension
- Type
- Port
- Name
- Other (free text field)



1.11E911 Manager® Version 6.5.6 (November 2016)

SNMP Throttling for CUCM

Introduced a configuration property to limit SNMP requests to prevent timeout issues

1.12E911 Manager® Version 6.5.5 (October 2016)

Keystore now allows special characters for passwords

Upgrade PGPool to version 3.5.x

'Calling Party Number' Field - Tag Added

When creating a template you now can add 'calling party number' to the template

Add Option to filter devices for Session Manager

Filtering options have been added for Session Manager. The filter options are as follows:

SIP Username
IP Address
MAC Address

1.13E911 Manager® Version 6.5.4 (September 2016)

License Generator should Export a File for Licensing

You now have the ability to export a CSV file for the license generator and the ability to import into Manager. Previously this had to be copied and pasted from the tables in the license generator.

In Network Switch Report, add Device Count as an Available Column
A 'device count' for switches is now available in custom reports

All Alerts to Reference Source Machine
Alerts will reference the source machine at the bottom of the message with IP Address

Delete Scheduled Tasks when Deleting ALI Provider Site
If a user deletes the ALI Provider Site the corresponding scheduled tasks will also be deleted.

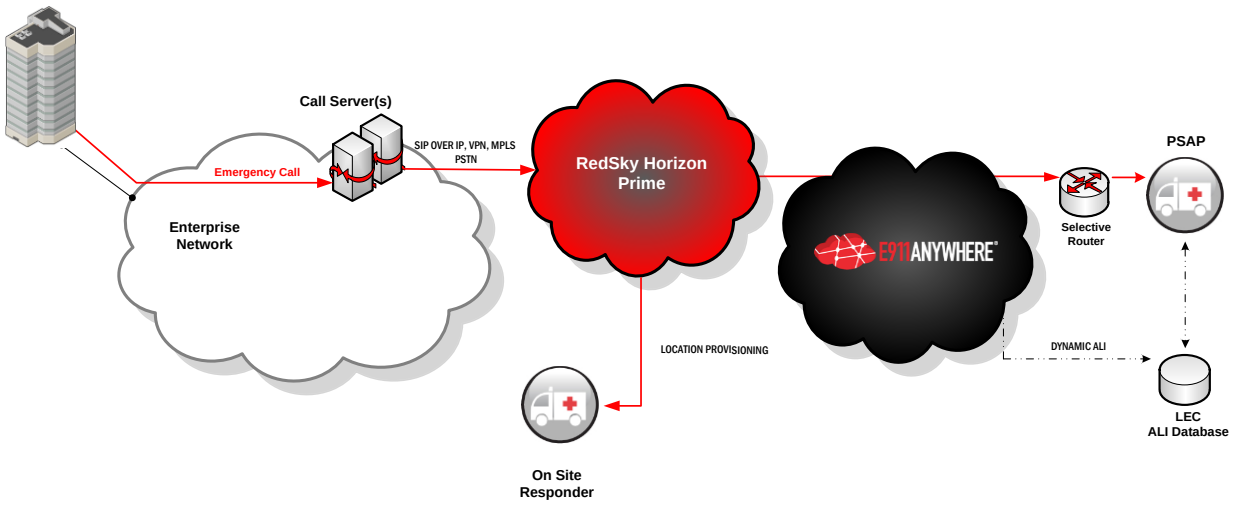
Add Last Modified Date and Time Stamp to Log Downloads Page
On the log download page in the UI there is a new column that shows the date and time that the log was last modified.

1.14E911 Manager® Version 6.5.3 (April 2016)

Horizon Prime

RedSky Horizon® Prime is the first cloud-based NextGen 9-1-1 product for Enterprise customers from RedSky. RedSky Horizon® Prime features our Dynamic Routing Service (DRS) that routes a 9-1-1 call to the proper emergency responders based on the geographic boundaries of the caller's location. For example, if you are college campus, you can draw a boundary around the campus and all 9-1-1 calls from within the boundary will be routed to the campus police, but all calls outside the boundary will be routed to the municipal police department.

RedSky Horizon® Prime works seamlessly with RedSky's E911 Anywhere® cloud service giving you access to over 5000 municipal and county PSAPs in the USA and Canada. E911 Anywhere® is a must for highly distributed enterprises that have dozens or hundreds of locations or support a highly mobile workforce on their enterprise voice network. E911 Anywhere® simplifies your 9-1-1 calling strategy. You send all your 9-1-1 calls to E911 Anywhere® and calls are routed to the right PSAP that has geographic responsibility for the caller's location. This strategy eliminates complicated routing tables, hardware gateways, local 9-1-1 trunks, PS/ALI accounts, etc. E911 Anywhere® also features optional call recording, call monitoring and barge-in as well as 9-1-1 call notifications including email, SMS and screen pop notifications.



Password Reset Functionality

Customers now have the ability to reset their password from the main E911 Manager and E911 Anywhere pages along with the EON and MyE911 clients.

Upon requesting a password reset you will be given an email that guides you along the rest of the process. This can be done in lieu of calling support for password resets.

MyE911 Location Enhancements

The MyE911 for PC and MAC now automatically saves your Emergency Response location. When a customer enters the enterprise location that has Wireless Controllers and Access Points assigned in Manager.

More information on the E911 Manager 6.5.3 features can be found in the Release Notes documented which can be downloaded from the Customer Forum http://forum.redskye911.com

1.15E911 Manager® Version 6.5.2 (May 2016)

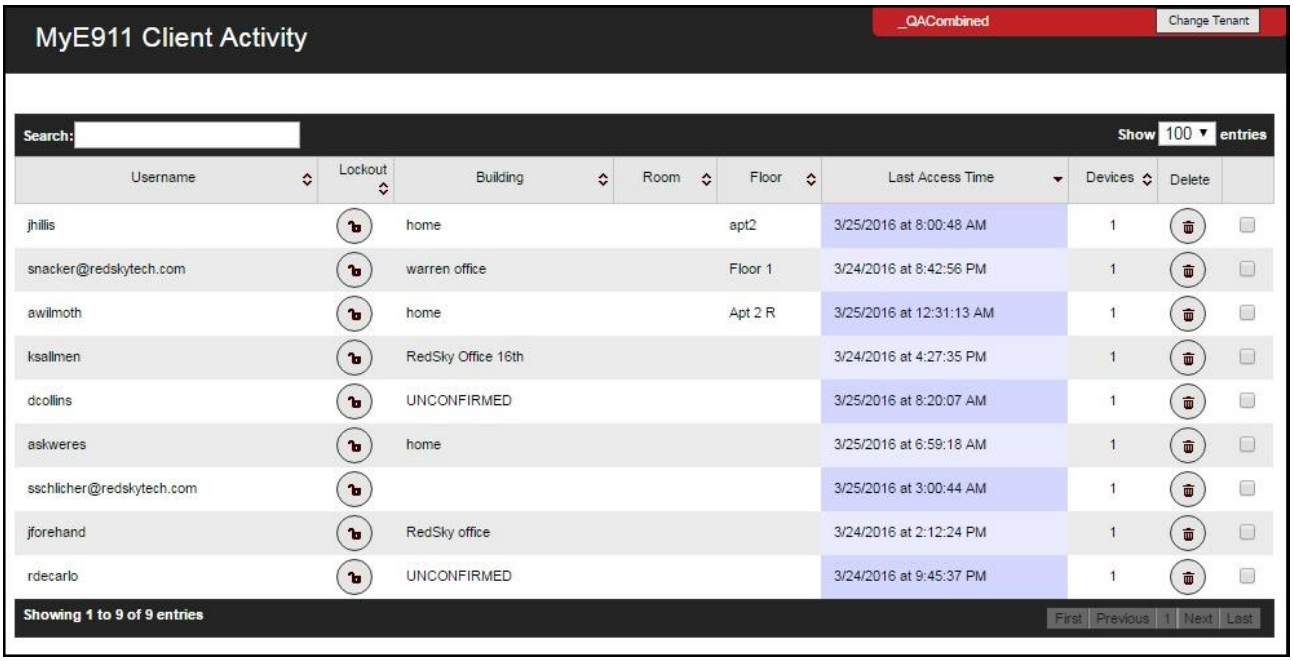
Added Support for ACM 3.1

We now have full support for ACM version 3.1 within E911 Manager 6.5.2 The option to select this version is available when adding or editing a Call Server under the Configuration menu.

1.16E911 Manager® Version 6.5.1 (April 2016)

MyE911 Client Connection Page

With the introduction of MyE911 for Mobile we have improved the MyE911 Client Activity page to account for overseeing the movement of the users. Whether you are using the PC version of the MyE911 client or mobile all activity and location changes will be captured in this page.



More information on the E911 Manager 6.5.1 features can be found in the Release Notes documented which can be downloaded from the Customer Forum http://forum.redskye911.com

1.17E911 Manager® Version 6.5 (March 2016)

HTML URL ERL Links

RedSky introduced the ability to include HTML links within the EON Alerts in a previous release and this feature builds on that functionality. This new addition allows for the HTML link to be displayed differently depending on the associated ERL that placed the emergency call.

See Section 4.7 and also 6.9 for a full walkthrough

Also, more information on the E911 Manager 6.5 features can be found in the Release Notes documented which can be downloaded from the Customer Forum http://forum.redskye911.com

1.18E911 Manager® Version 6.4.12 (January 2016)

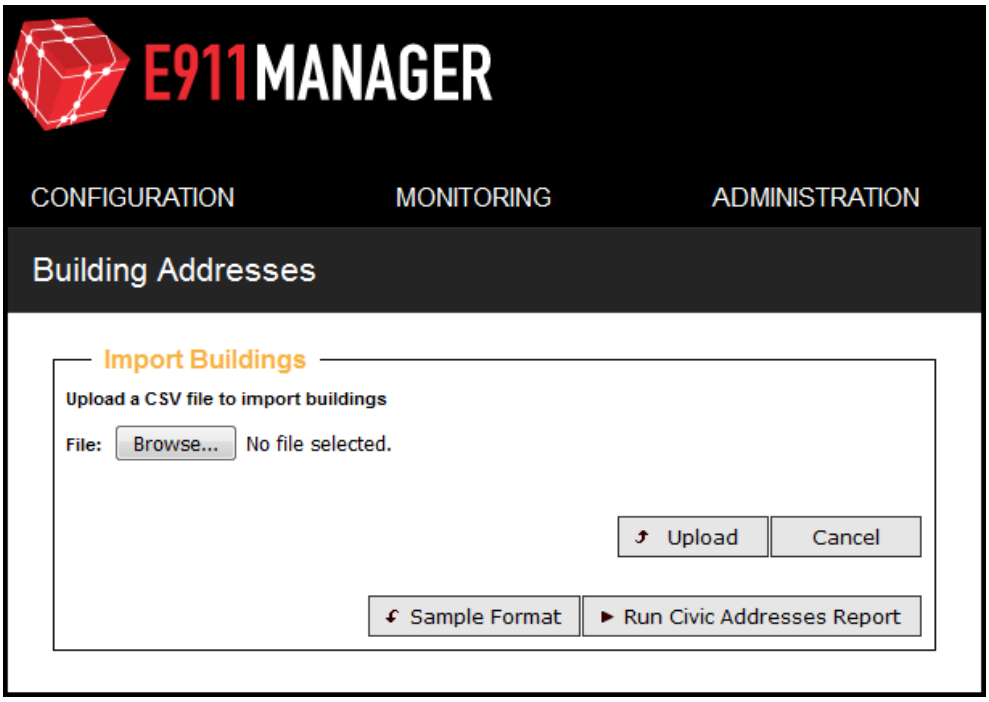
This release will be issue resolutions only. For more details see the release notes for 6.4.12

1.19E911 Manager® Version 6.4.11 (November 2015)

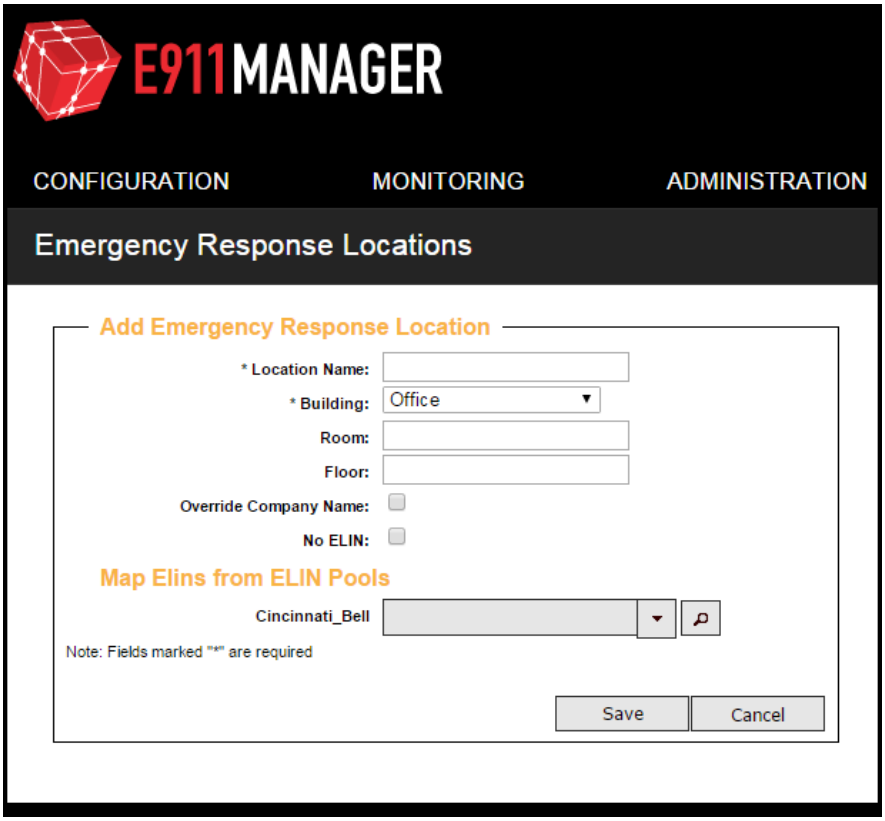
UI Refreshments

We included a number of modernization changes in this release including refreshed formatting and easier navigation and input mechanisms.

Import Page Changes – You'll notice within the import pages we guide you along the process with a sample format and a sample report. By selecting Help -> Help on the Page you will see the format needed for the import.



New ELIN Selector – In order to provide a quicker and more efficient way to select ELINS we have revamped the ELIN selector tool. This new method will allow you to type in numbers and youll be given subsequent matches for the numbers you specify. There is also an advanced search window that will guide you in selecting the right ELIN for the ERL.



More information on the E911 Manager 6.4.11 features can be found in the Release Notes documented which can be downloaded from the Customer Forum http://forum.redskye911.com

1.20E911 Manager® Version 6.4.10 (October 2015)

Customizable Reports

RedSky is proud to deliver a robust overhaul to the reporting options which gives you the ability to customize default reports and create new ones. We have included new columns to use within all of the report types that were previously unavailable.

The way you create these new reports is very similar to the method we use for configuring customized alerts. By reusing this method we provide a familiar workflow within the solution. In this document, along with the admin guide we will walk you through the new functionality of the feature.

Improved Address Validation Messaging

Improved location address validation status messaging to now include four options. (No Validation, MSAG, CSZ, GEO)

Improved Installation & Updating Process

In our constant quest to provide a better product and user experience we have enhanced the way the application is installed and updated. Please see separate installation guide located on the customer forum for further details.

Highlights of this new process include:

- Provides seamless installation process for both CentOS and RedHat.
- Provides configuration of system options (installation paths (w/defaults), db version, etc)
- Provides user friendly interface for application installation.
- Provides an option to user to use RedSky firewall rules or use manual rules
- Standardize process for handling online installs vs. offline installs

More information on the E911 Manager 6.4.10 features can be found in the Release Notes documented which can be downloaded from the Customer Forum http://forum.redskye911.com

1.21E911 Manager® Version 6.4.9 (September 2015)

The 6.4.9 Release contains issues resolutions only and no new features.

1.22E911 Manager® Version 6.4.8 (August 2015)

The 6.4.8 Release contains issues resolutions only and no new features.

1.23E911 Manager® Version 6.4.7 (July 2015)

Support for Adding GEO Coordinate Buildings

In order to provide the customer with more options for submitting the Emergency Response Locations we have added the ability to submit the building as an X,Y Coordinate.

This new feature is enabled within the company profile page. The instructions on how to add a Geo Building can be found in section 4.6.4 in this administration guide.

1.24E911 Manager® Version 6.4.6 (May 2015)

HTML Support within the EON Client

We've enhanced the functionality within EON templates by allowing for the inclusion of HTML links. This opens the door for more possibilities within the alerting application by giving the users options to link to internal or external sites and pages.

Within the Alert Template page the EON Default Template has an additional tag named "Clickable EON Client Link" as seen below which can be inserted into the template.

1.25E911 Manager® Version 6.4.5 (May 2015)

More information on the E911 Manager 6.4.5 features and resolved issues within can be found in the Release Notes.

1.26E911 Manager® Version 6.4.4 (April 2015)

Emergency Call Alerts for Microsoft Lync & E911 Manager

Emergency calls originating from Microsoft Lync can now trigger RedSky Technologies Emergency Call Alerts. The setup instructions for this new feature are also included in the admin guide section Alert Subscriptions.

1.27E911 Manager® Version 6.4.2 (March 2015)

More information on the E911 Manager 6.4.2 features and resolved issues within can be found in the Release Notes.

Context Sensitive Help Menu

An addition to the Embedded User Manual consists of a new context sensitive option when you are on a given page, the option for “Help on this Page” within the Help menu is now displayed. Based on the page you have navigated to, you will see the help information for that page when making the selection.

PSAP Display Name

A new option for displaying a customized company name to the PSAP is given within the company profile page. If you desire a different name to be displayed to the PSAP upon an emergency call that is separate from the company name the option is now possible.

1.28E911 Manager® Version 6.4.1 (February 2015)

Embedded User Manual

The administration guide is now available on within the help menu inside of the E911 Manager application. There are now two options for viewing the Admin Guide. The first option “Admin Guide” will display a Help Display Tool which is indexed and searchable. The second option allows you to download the full PDF version of the admin guide for reference.

OSX Support for EON and MyE911 Client

The EON and MyE911 clients now have support for the Mac OSX Operating System. This includes support for Mac OS 10.9 and higher.

Support for Multiple AES Servers

With multiple AES server setups the application now has the ability to use alternate nodes for larger environments. This includes an active/active setup along with additional N+1

Dynamic ERL PSAP Updates

Upon device moves, adds, and changes within the Environment the ability to update the PSAP location record of the ELIN is now possible. When a user moves to new locations within the enterprise the location assigned to the ELIN will change and the new ERL will be updated to the corresponding PSAP.

1.29E911 Manager® Version 6.4 (November 2014)

Active / Active Redundancy & Load Balancing – E911 Manager® now supports Active / Active Redundancy for more efficient server communication. This updated method will allow seamless transferring and sharing of information between the primary and secondary application and database servers. These requests will be load balanced across all available processing active servers to maximize system performance and resource utilization.

Tighter integration with E911 Manager and E911 Anywhere – ***ECRC Notification for E911 Manager® and E911 Anywhere® Customers:***

Customers will now receive a real-time notification when a 9-1-1 emergency call is a Failed User call. This occurs when a 9-1-1 call arrives at the ECRC (Emergency Call Relay Center) without a valid location address associated with it. Since each ECRC call incurs a charge to the customer, the notification feature provides a tool for addressing and managing Failed User call instances. Failed calls can occur when voice connectivity between the customer PBX/call server and the ECRC is interrupted, when the address is unknown, or when the ECRC is unable to re-route a Failed User emergency 9-1-1 call to the appropriate PSAP.

MAC Address Mapping – Further customization has been introduced which allows you to create location ranges based on the device's MAC Address. This is otherwise known as Layer 2 when Layer 3 would be the IP address on the network. This will enable the grouping of devices based on the hardware address on the second layer rather than then IP address. This will be useful if the device will not travel and will remain in the same location.

Updated UI Navigational Menu – Based on customer feedback, we made it easier to setup, configure, and use the system by redesigning the navigation menu. More specifically the "Configuration" menu has been

expanded to allow easier access to the main ALI Information, Network Discovery, and Call Server menu items. Other menus such as “Monitoring” give you quick access to oversee all aspects of your system.

Roles Based Access Controls – E911 Manager® 6.4.0 has enhanced its roles-based access control system, which further ensures that only authorized users who have been assigned specific permissions can access certain areas of application.

Sub-tenant Support – The new Sub-tenant feature makes it easier manage large numbers of E911 Manager users. Instead of administering a single master list of users, you can now segment users into groups, or sub-tenants. For example, if your company has five buildings in a campus setting, you can designate each building as a sub-tenant, each with its own list of users. You can assign each sub-tenant its own administrator to further streamline and simplify E911 Manager® administration.

1.30E911 Manager® Version 6.3.5 (February 2014)

Aruba RAP-3 Remote Access Point Support – E911 Manager® v6.3.5 now supports Aruba RAP-3 Remote Access Points, enabling E911 support for remote WiFi users connected to the enterprise voice network.

HELD Protocol Support - E911 Manager® v6.3.5 now supports ALI location queries using HELD, a Next Generation 9-1-1 protocol, allowing E911 Manager® to function as a high performance ALI database supporting HELD and traditional serial queries from PSAP workstations.

Editable EON Alerts - E911 Manager® v6.3.5 now lets users edit EON Alerts. This gives enterprises the flexibility to customize EON Alerts as their business needs evolve, without needing to delete existing EON alerts.

OA&M Upgrades- Airwave Controller Tracking- E911 Manager® Version 6.3.5 provides a "Resync" button for each Aruba Airwave Controller, which queries the controller for changes in the number of VPN gateways or any relevant information, like the name.

OA&M Upgrades- "Call History" User Role - E911 Manager® Version 6.3.5 provides administrators with the option to assign the role of "Call History User" when adding or managing users. This role has one purpose: It gives that user access to a table of all emergency calls made from within an enterprise.

OA&M Upgrades- Auditing Reports - E911 Manager® Version 6.3.5 can now produce a report of all user-based activity. This includes, but is not limited to, login times property edits and executing reports/scheduled tasks.

OA&M Upgrades- EON Client ACK Reports - E911 Manager® Version 6.3.5 can now produce a report of all 9-1-1 calls acknowledged by EON client users.

OA&M Upgrades- Endpoint "Discover" Option - E911 Manager® automatically searches for and acquires endpoint information from the phone switches in your organization. Version 6.3.5 users can now manually

click a "Discover" button for a particular endpoint to sync devices from the PBX.

1.31E911 Manager® Version 6.3.4 (2013)

Aruba WiFi Support – E911 Manager® version 6.3.4 will be integrated with Aruba WiFi access points and controllers. This adds to E911 Manager's existing WiFi support of Cisco MSE to provide E911 support for those enterprises with BYOD strategy.

Customizable EON messages – Version 6.3.4 will enable the customers to tailor Emergency Notification messages. This will benefit those enterprises that want add additional information to EON messages that are unique to their corporate configuration or to those that need to limit the message to certain lengths (e.g. SMS text).

Drop Down Menu UI Flow enhancements – Version 6.3.4 has reconfigured Drop Down menus for better workflow and usability.

OA&M Upgrades Version 6.3.4 will provide a numerous enhancements and capabilities in OA&M that will enable administrators to be alerted of issues in real time, create reports for IP ranges and Switch ports, monitor stations that are in queue for discovery, view CSV import status, and monitor relevant processes.

OA&M Upgrade - Enhanced System Monitoring & Alerting – Version 6.3.4 will provide active monitoring and alerting of application / system processes for errors (e.g. PBX status, EON status, ALI update, etc.) In addition, in case of error conditions, appropriate personnel can be alerted via email and the alert can now be integrated with enterprises' existing management system via SNMP.

OA&M Upgrade – Create reports for IP ranges and Switch ports – Version 6.3.4 will add to its reporting capabilities by enabling reporting for IP ranges and Switches.

OA&M Upgrade – Monitor stations that are in queue for discovery – Version 6.3.4 will provide an up-to-date information on the stations that are in queue for discovery for accurate and real time information.

OA&M Upgrade – View CSV file import status – Version 6.3.4 will allow the viewing of CSV file import status providing a real time feedback to the administrator.

1.32E911 Manager® Version 6.3.3 (October 2012)

MyE911® (new Softphone support application) – MyE911® Java application replaces the SLDA application to support soft phones users who are working off network. MyE911® boasts brand new UI that is intuitive and user friendly. In addition, the company administrator can easily manage the upgrades to the application by enabling or disabling the auto-update feature.

EON with new UI and Auto-update – EON screen pop application is updated with a brand new UI and also with auto-update capability to allow the administrator to more easily manage changes to the client software by enabling or disabling the auto-update feature.

Canada call routing support – E911 Anywhere version 6.3.3 will now support routing of emergency calls to PSAPs anywhere in Canada. This will not only serve enterprises locate in Canada, but also the enterprises based in US that has remote offices in Canada.

Improved network discovery performance – Administrator is now able to configure the throttling of the network discovery that can be tailored to the enterprises network configuration. The end result is that the network discovery can take substantially shorter duration than in the past.

Analog phone support for Cisco Gateways from UI – The support for analog phone for Cisco Gateways can now be provisioned directly from E911 Manager® user interface, streamlining the management process.

Station filtering for Cisco – Administrator is now able to filter stations for Cisco and thus allowing selective E911 protection for particular Cisco end points.

Enhance scheduled task management from CRON based to Calendar UI based – The scheduled task management now becomes much simpler through the use of calendar based UI.

AT&T SNET – Additional ALI Account support – Additional ALI Account, AT&T SNET, is now supported by E911 Manager®.

1.33E911 Manager® Version 6.3.2 (July 2012)

JITC Compliant/Enhanced Application Security – Version 6.3.2 is Joint Interoperability Test Command's (JITC) compliant which meets and exceeds the most stringent security requirements of our customers. RedSky's E911 Manager® is a Defense Information Systems Agency (DISA) approved product and is listed on the Unified Capabilities Approved Product List (UCAPL).

ALI database in E911 Manager® - Version 6.3.2 allows PSAP equipment to connect to E911 Manager® and allows E911 Manager® to act as an ALI database.

Softphone support with E911 Manager® - Version 6.3.2 provides soft phone support with E911 Manager® through the SLDA (Soft Phone Location Determination) application.

Provides Support with SNMP v.3 – RedSky's support of SNMP v.3 provides improved additional security features inherent in SNMP v.3.

Cisco CER support with E911 Anywhere® - Version 6.3.2 provides a complete automated solution when CER is combined with E911 Anywhere®. Phone locations are automatically tracked when a phone is added or moved while E911 Anywhere® can deliver a 9-1-1 call to any of the over 6,000 PSAPs.

Cloud based deployment option – Version 6.3.2 allows customers the option to be deployed in RedSky's Managed Private Cloud. Through the private cloud, E911 Manager® will continue to integrate with major call servers/PBXs to track the detailed location of all types of phones on the enterprise network and will then automatically update the location information used by call takers in public safety answering points (PSAPs) throughout the country.

RPM based installations and upgrades – Allows for more seamless upgrading to current versions.

1.34E911 Manager® Version 6.3 (January 2012)

Reliability - Version 6.3 utilizes CentOS, which is derived from sources freely provided to the public by a prominent North American Enterprise Linux vendor. CentOS is an enterprise-class operating system that is widely used in a variety of production environments including over thirty percent of publicly accessible web servers.

Fail-over capability – Version 6.3 utilizes a combination of block level hard disk replication along with heartbeats to guarantee uptime. E911 Manager® can detect a system problem automatically and seamlessly fail over to a redundant node with no user interaction.

IPV6 Support – Version 6.3 supports IPV6 to help future proof our customers' eventual migrations.

Integration to UC voice platforms – Allows for integration with every major voice platform without changes to the core code base of Version 6.3. Allows customers to keep current with new voice server upgrades and maintain flexibility to change to new voice servers or use multi-vendor voice servers.

Virtual Environments – Version 6 supports Virtual Environments including VMware ESX 3.5 or higher and Citrix XenServer 4.0 or higher.

Enhanced Integration to Cloud-Based E911 Network Services – Version 6.3 integrates seamlessly to RedSky's E911 Anywhere®, a cloud-based 9-1-1 call routing and location management service.

Improved Manageability – Version 6.3 has enhanced its interaction with call servers using APIs to increase accuracy in administering data updates and reduce time required to trouble shoot errors.

Runs on Linux – E911 Manager® Version 6 has been built to run under the Linux operating system using Java. This architecture enables enhanced application security, improved scalability, advanced fail-over capability while enabling easier integration to UC voice platforms. Additionally, this architecture enables simplified installation in virtual environments

2 Introduction

This guide gives an overview of the E911 Manager® application. System administrators should refer to this guide for questions about basic management tasks and troubleshooting of the application.

2.1 About RedSky

RedSky is the leading provider of E911 software solutions to the enterprise market with more customers, more technology, and more experience than any other provider. Hundreds of customers, including 50 Fortune 500® companies, use RedSky's software to automate their E911 processes.

2.2 Glossary of Terms

ALI Database Provider	The organization that maintains the database for enhanced 911 in a given locality.
Automatic Location Identification (ALI)	Working with ANI, the use of a database to associate a physical location with a telephone number.
Automatic Number Identification (ANI)	The 10-digit telephone number that is used to retrieve ALI from a database at the PSAP.
Emergency Location Identification Number (ELIN)	See ANI.
Emergency Onsite Notification (EON)	An optional add-on to the E911 Manager application that provides visual and audible notification of a 911 call in progress, including the calling number and location to subscriber workstations.
Emergency Response Location (ERL)	See ALI.

Enhanced 911 (E911)	An advanced form of 911 services. The telephone number out-pulsed with a 911 call is cross-referenced with the local enhanced 911 database resulting in the address and exact location within the building being displayed to the PSAP.
Network Discovery	An optional E911 Manager feature which automatically detects changes in VoIP phone set locations based upon a detailed map of the client network.
Public Safety Answering Point (PSAP)	The institution that answers 911 calls and dispatches the appropriate emergency care providers.
Public Switched Telephone Network (PSTN)	The concentration of the world's public circuit-switched telephone networks, in much the same way that the Internet is the concentration of the world's public IP-based packet-switched networks. Originally a network of fixed-line analog telephone systems, the PSTN is now almost entirely digital, and now includes mobile as well as fixed telephones.
Regional Subnetting	The practice of identifying a particular range of IP addresses with a specific physical location.
Voice over Internet Protocol (VoIP)	The routing of voice conversations over the Internet or any other IP-based network. The voice data flows over a general-purpose packet-switched network, instead of traditional dedicated, circuit-switched voice transmission lines.

2.3 Requirements

2.3.1 Hardware Requirements(Suggested)

- Processor: Dual Core 2.4 GHz x86 64-bit
- RAM: 8GB
- HDD: 100 GB RAID5
- DVD-ROM
- Network Adapter: 100MB Full Duplex

2.3.2 Operating System and Database Specifications

- Operating System: CentOS or RedHat Enterprise Linux

2.3.3 Virtual Environment Requirements

- Platform: VMware vSphere Hypervisor (ESX or ESX(i)) v3.5 or higher; XenServer 4.0 or higher
- Processor: Dual Core 2.4GHz x86 64-bit
- RAM: 8GB
- HDD: 100GB

2.3.4 E911 Anywhere®

- A RedSky subscription service for national 9-1-1 call routing

2.3.5 Network

9-1-1 Call connectivity to E911 Anywhere® requires SIP signaling over either (a) a public Internet connection which may utilize an IPSec tunnel, or, (b) a dedicated private line supplied by the customer. A PSTN line can be used for redundant back up or for “capacity limited” primary 9-1-1 call delivery. The provisioning interface from E911 Manager® to E911 Anywhere® is SSL over the Internet.

2.3.6 Compatibility

- Avaya – ACM v4.x ~ 6.x with AES 5.2 and later
- Avaya – ASM 6.1 and later
- Nortel – CS1000 v6.0 and later
- Cisco – CUCM 6.x ~ 9.x and later
- Cisco Mobility Services Engine
- Siemens – OpenScape Voice (OSV) v6.0 and later
- Microsoft Lync
- AS5300 – Release 3 later

2.4 What is E911 Manager®

E911 is an important issue for businesses, government agencies and educational institutions. Many states now require E911, which can significantly improve emergency response time while protecting the enterprise from liability. RedSky's E911 Manager® is an automated software application that integrates with the enterprise communications system to capture, manage and deliver real-time location information for all voice clients on the network.

2.4.1 History

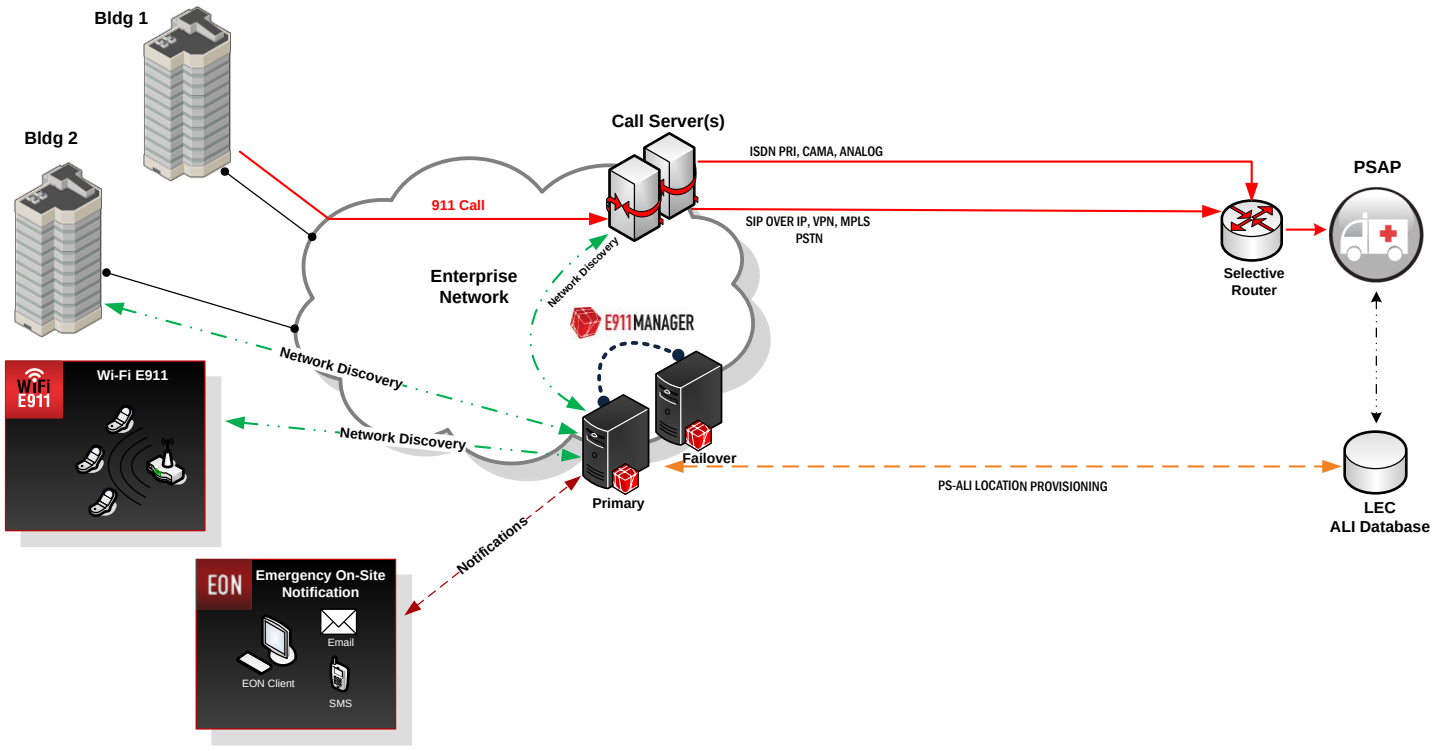
RedSky has been in the enhanced 911 business since 1999 when we developed and patented E911 Manager®, the first automated solution to manage 911 location data. E911 Manager® has been protecting enterprise employees with the most comprehensive E911 location protection for over twelve years. As voice technology has evolved from digital phones to IP phones to WiFi phones, RedSky has continually updated our solutions to keep pace with emerging technology and meet the requirements of modern enterprises. Previous versions of E911 Manager® were built on a .NET architecture; however, in 2011 RedSky released version 6.x of the application, which is based on the Linux operating system.

2.4.2 E911 Manager® Overview

E911 Manager® automates every aspect of the E911 process, making it easy for administrators to stay on top of 911 emergency management using automated notification, alerts and reports. It is a full-featured software application that manages every aspect of E911 for the enterprise. When E911 Manager® is installed in the enterprise, E911 management happens automatically, without having to be constantly monitored, saving valuable administration hours. Administrators receive daily system updates and notifications via email or SMS, updating them on the status of their E911 network.

A single E911 Manager® server scales to connect up to up to fifty call servers/PBXs throughout the enterprise. E911 Manager® is built on a proven Linux-based architecture and is designed to meet the scalability, security and uptime requirements of modern enterprise applications. E911 Manager® makes extensive use of web services for emergency notifications and reports—all of which can be administered from any browser-based PC on the network. A full suite of reports, alert notifications and scheduled tasks provide easy, automated administration to support the entire enterprise.

2.4.3 E911 Manager® Architecture



3 Starting E911 Manager®

E911 Manager® software resides on customer-provided servers, RedSky-provided servers, or a VM. The administrative tasks described in this manual begin after the application has been successfully implemented, configured and tested and all relevant employees have been trained. Administration of the application is transferred, and the customer is responsible for managing, updating and maintaining the information in the application.

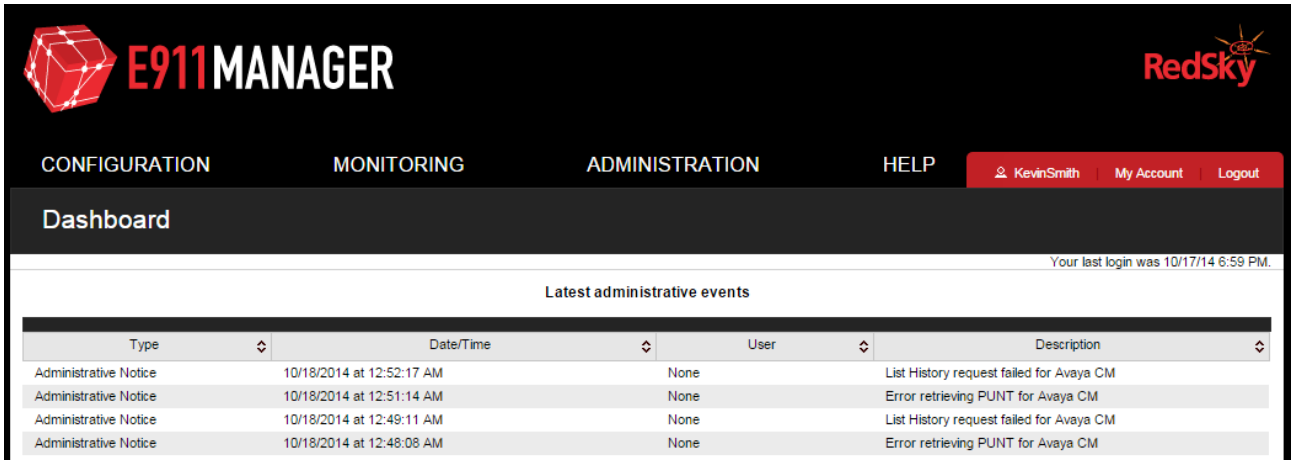
The E911 Manager® implementation is complete when the application has been configured to gather all ELIN data from customer's PBX/call server(s) or files and that data has been successfully updated at the regional ALI Database and test calls have been performed. This configuration includes the following items:

Task Description	Maintenance and Updates
ALI DB Providers	The application is configured with your specific account information for each of the regional E911 Database Providers. Updates to the configuration will be necessary when account information changes, dial-tone provider(s) change, or to add additional providers.
Building Information	The application is configured with specific Building information, including each building within a customer environment. Updates to the configuration will be necessary to change the 10-digit building ID, the street address, ALI DB Provider, or the station location format for a particular building.
Company Information	The application is configured with specific Company information. Updates would be necessary to change the Company Name or Acronym or to add additional companies.
PBX/Call Server	The application is configured with specific PBX connection information for each of the phone switches in your environment. Updates will be necessary if IP address, port, or login information changes for a particular PBX/call server.
PBX/Call Server Parameters	The application is configured with specific translations for each PBX/call server. Updates to the configuration will be necessary to change the types of station records being read, the type of trunk 911 calls are routing through and which trunk group is set.
Station Filters	The application is configured to filter out any device or phone type.

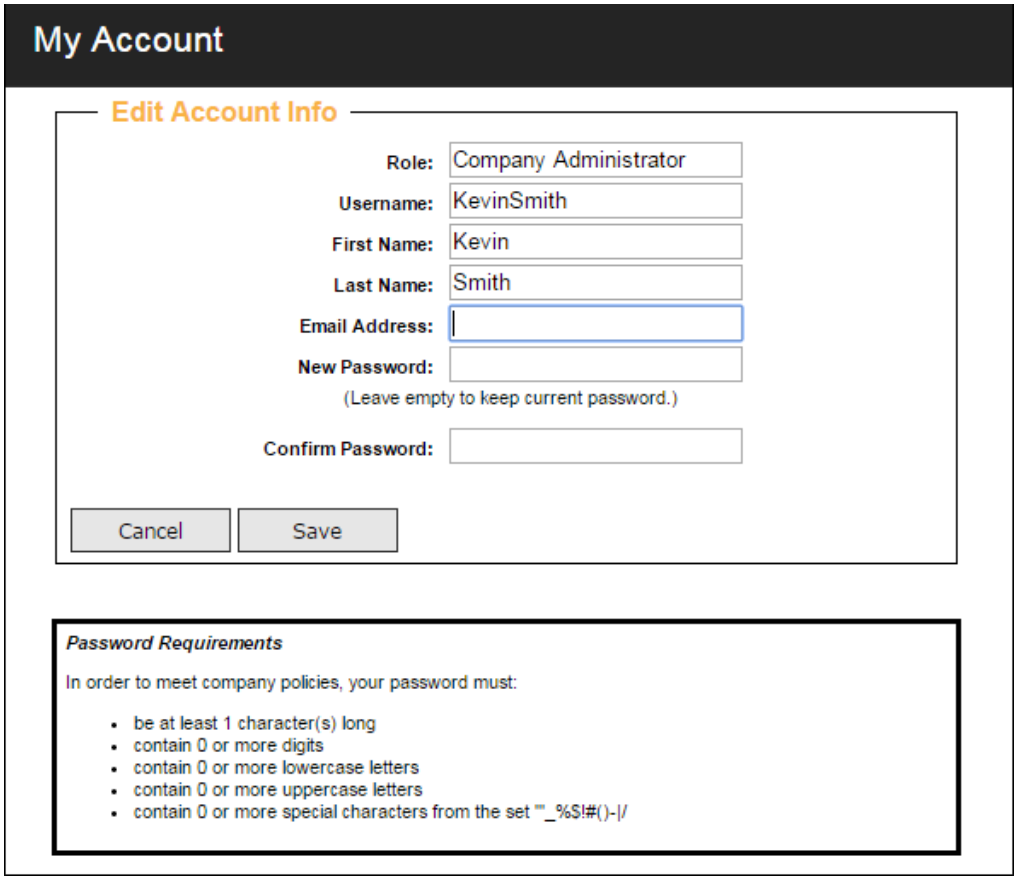
At this point, regular system administrative processes that have been established by the customer begin. This may be the responsibility of one or many users, and each user will access the application via the customer Intranet.

3.1 Edit Account Information

To change your account information or password, click **My Account** on the upper right of the page.



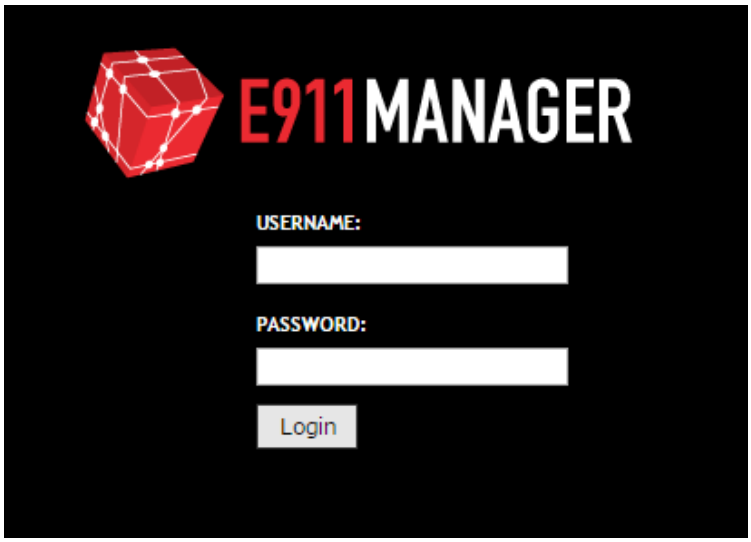
Edit your information in the Update Account screen, as shown in the example below. Click **Save** when finished. **Note:** Your new password will not save if it does not meet the password requirements.



3.2 Launch Application

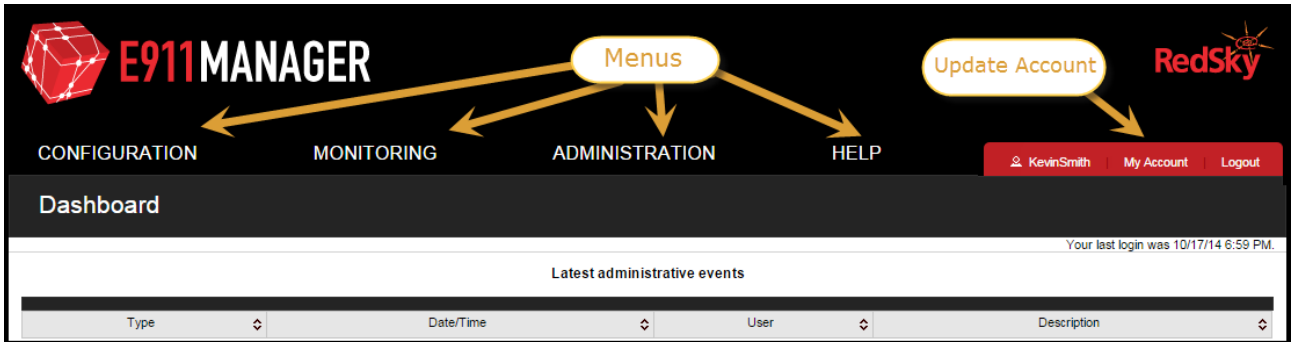
Follow the steps below to login:

1. Open your Internet browser.
2. Direct the browser to the E911 Manager® Server IP Address.
3. Enter **Username** and **Password** in the login screen, as shown below.



After logging in, the E911 Manager® interface appears in your browser, as shown below. Notice the menus, which allow you to configure E911 Manager®, view statuses and create reports, and perform a range of important administrative tasks. The dashboard also lists the latest administrative events. However, E911 Manager® records and logs all administrative events.

Note: Clicking the **RedSky logo** or **E911Manager** in the upper left returns you to the dashboard view.



4 Configuration

4.1 Configuring E911 Manager®

E911 Manager® supports location management for SIP, H323, and digital and analog phones. In all cases, a location record, ALI, is associated with a 10-digit phone number. In the case of SIP and H323 phones, the 10-digit number is an ELIN (Emergency Location Information Number) that is associated with a network region, a network port or a specific location. In the case of digital and analog phones, and ELIN or the DID number of the phone is associated with a specific location record.

E911 Manager® allows you to create location records and describe them in a way that makes sense for emergency responders. Location records most commonly include the building address, the floor and the room where the phone is located. IP Network regions typically describe the region that the network serves, i.e., the building address, the floor and perhaps the Northwest quadrant. Layer 2 network discovery allows you to establish a location for every port on a layer 2 switch, so the location may be the building address, the floor and the room where the cable of the port is terminated.

Below is a description of how SIP, H323 and Digital and analog phones are supported within various PBX/Call Server platforms.

4.2 Location Management for SIP and H323 Phones

E911 Manager® supports location management for SIP and H323 phones using three methods. The most common method is to assign locations to network regions or subnets. The second method is called Layer 2 Network Discovery, where each port on a Layer 2 switch is assigned a location. Lastly, SIP and H323 phones can be managed as static devices, like digital and analog phones.

4.2.1 Avaya

Avaya Communication Manager v4.x and later – The integration with Avaya Communication Manager *requires* AES 5.2 or later. The most common method to support SIP and H323 phones on ACM is to create network regions in E911 Manager® with associated IP address ranges and locations. You can also construct a Layer 2 map in E911 Manager® and do port level Layer 2 Network discovery. You can also support H323 and SIP phones as static devices using the station screens (see digital and analog phones below).

Avaya Session Manager v6.1 and later – The most common method to support SIP phones on ASM is to create network regions in E911 Manager® with associated IP address ranges and locations. You can also construct a Layer 2 map in E911 Manager® and do port level Layer 2 Network discovery. You can also support SIP phones as static devices using the station screens (see digital and analog phones below).

4.2.2 Avaya/Nortel

CS1000 v6.x and later – The most common method to support SIP and H323 phones on CS1000 is to create a network regions map in E911 Manager® with associated IP address ranges and locations. You can also construct a Layer 2 map in E911 Manager and do port level Layer 2 Network discovery. You can also support H323 and SIP phones as static devices using the station screens (see Nortel digital and analog phones below).

4.2.3 Cisco

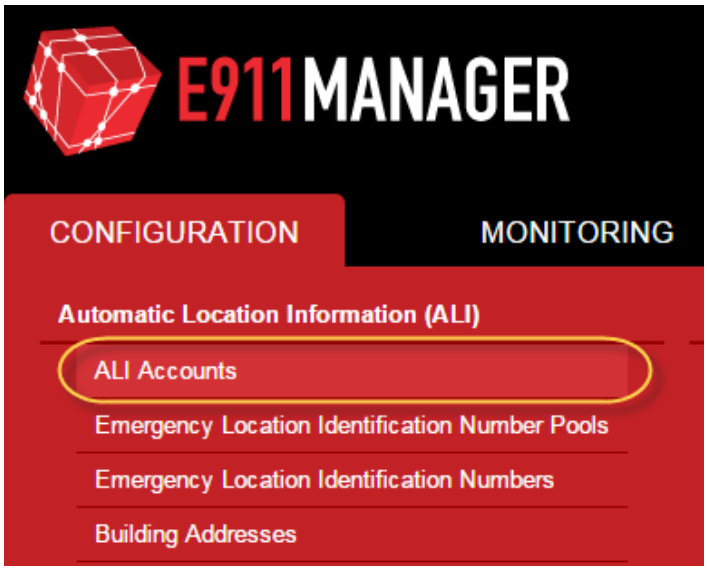
Cisco Call Manager (v 6.x, v7.x, v8.x, v9.x, v10.x) – The most common method to support SIP and H323 phones on Cisco call servers is to create a network regions map in E911 Manager® with associated IP address ranges and locations. You can also construct a Layer 2 map in E911 Manager and do port level Layer 2 Network discovery. You can also support H323 and SIP phones as static devices using the method describe below for Cisco digital and analog phones.

4.3 Configure ALI Accounts Sites

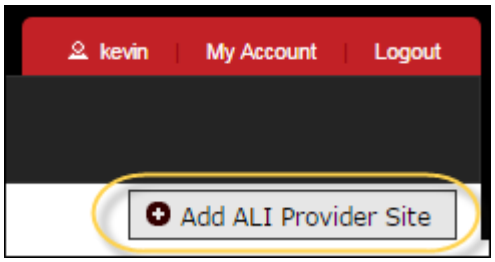
It can be difficult for emergency responders to locate 911 callers within organizations spread out across different floors or buildings. E911 Manager allows enterprises to populate Automatic Location Identification (ALI) databases with specific location information. These databases store telephone and location information, and are managed by local carriers. If your ALI Account site information changes, you will need to reconfigure this information in E911 Manager®.

To add ALI Account Site information, follow the steps below:

1. Select **CONFIGURATION > ALI Accounts** from the main menu.

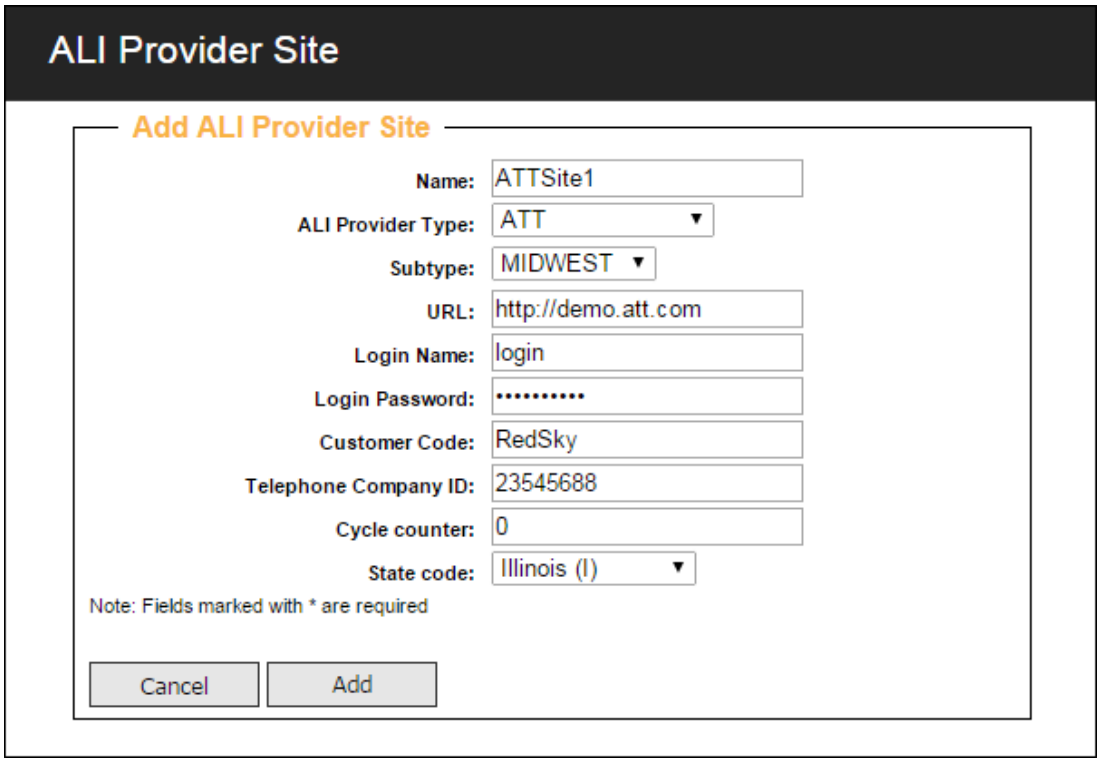


2. Click the **Add ALI Accounts** button on the right of the screen.



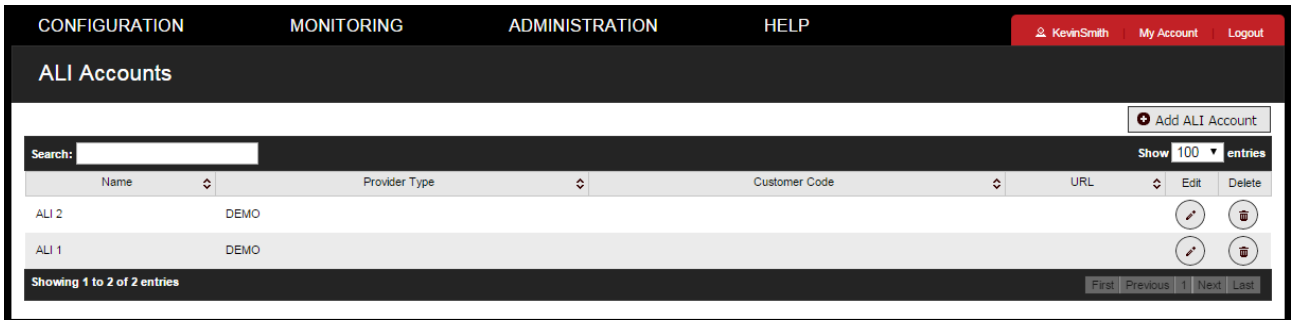
3. Enter the ALI Account Site information on the screen, as shown in the example below. Also, select an **ALI Account Type** from the drop-down menu.

Note: All fields on this screen are required.



4. Click **Add** when finished.

The ALI Account will be added to the table, as shown in the example below. You can access this table at any time by selecting **CONFIGURATION > ALI Accounts** from the main menu.

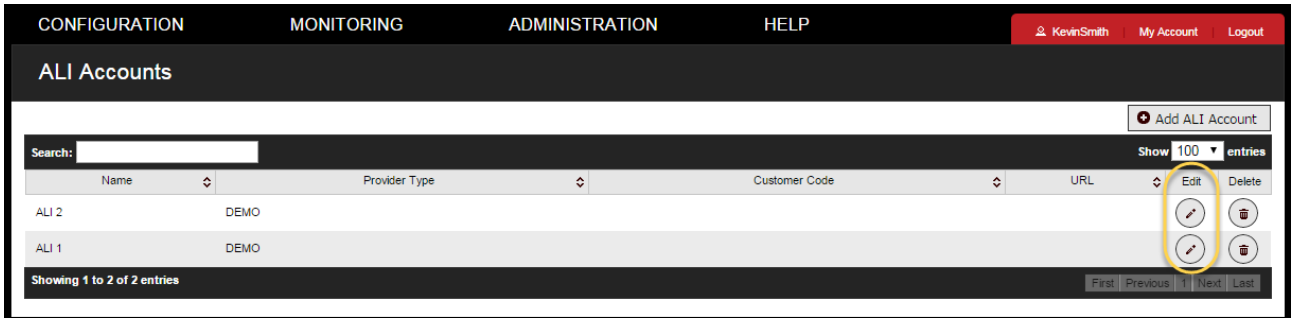


4.3.1 Edit/Delete ALI Accounts Sites

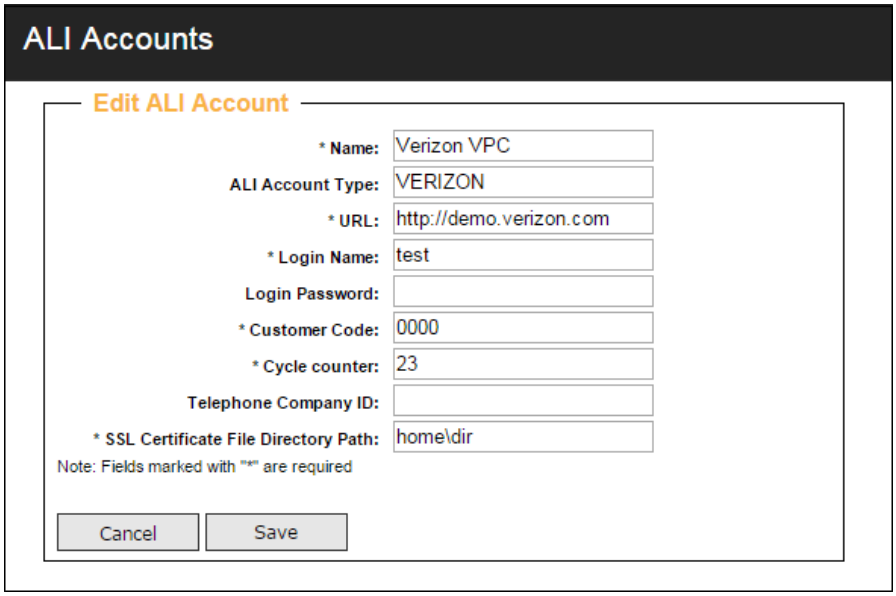
To manage ALI Account information, select **CONFIGURATION > ALI Accounts** from the main menu. **Edit** or **Delete** icons are provided for each site in the table. Instructions for editing and deleting are provide below.

Edit ALI Account Sites

1. Click the **Edit** icon  associated with a particular site.



2. Make edits on the Edit Ali Accounts Site Information screen, as shown in the example below.



3. Click **Save** when finished.

ALI Account Field Selection Table

Depending on the ALI Account Type selected you will receive different field selections. This is reflected in the table below.

Field	Description	NENA Field Mapping
ALI Account Type *Drop down selection*	The Automatic Location Identification Provider Type allows you to setup the network used to route the call to the appropriate PSAP. From the drop-down list box, chose an ALI Account Type	
	ATT Selected ALI Account Fields	
Name *50 characters maximum*	In this field you will provide an internal label to represent the ALI Account selected.	

Subtype (ALI Account)	This option will allow you to choose the individual implementation within the ALI Account selected.	
URL *255 characters maximum* *Numbers & Characters & Special Characters Allowed*	The ALI Account link needs to be provided in this field in order to connect to its service and make changes within your account.	
Login Name *Allowable characters defined by ALI Account*	The username given by your ALI Account	
Login Password *Allowable characters defined by ALI Account*	The password given by your ALI Account	
Customer Code *5 characters max* *Numbers Only*	The customer code provided by your ALI Account	*Columns 287-289*
Telephone Company ID *10 characters max* *Numbers Only*	The telephone company ID given by your ALI Account	
Cycle Counter *10 characters max* *Numbers Only*	The cycle counter given by your ALI Account	
State Code	Select the State representing your ALI Accounts location here.	

Drop Down Selection		
	ATT Selected ALI Account Fields (w/ Subnet SNET/SWBT Selected)	
Unix ID *Allowable characters defined by ALI Account*	The UNIX ID given by your ALI Account. Used as part of the NENA file naming convention.	
	PACKBELL Selected ALI Account Fields	
URL *255 characters maximum* *Numbers & Characters & Special Characters Allowed*	The ALI Account link needs to be provided in this field in order to connect to its service and make changes within your account.	
Login Name *Allowable characters defined by ALI Account*	Insert the username provided by your ALI Account in this field	
Login Password *Allowable characters defined by ALI Account*	Insert the password provided by your ALI Account in this field	
Customer Code *3 characters min 5 characters max* *Numbers Only*	The customer code provided by your ALI Account	
Telephone Company ID *4 characters min 10 characters max*	The telephone company ID given by your ALI Account	

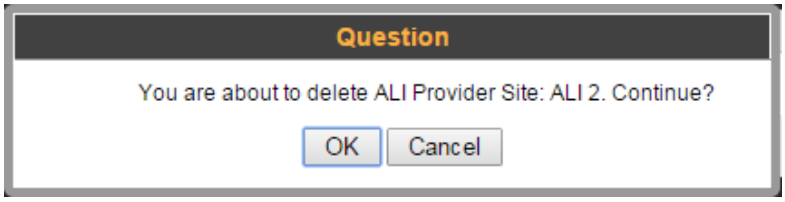
Numbers Only		
Cycle Counter *Numbers Only*	The cycle counter given by your ALI Account	
State Code *Drop Down Selection*	Select the State representing your ALI Account's location here.	
Unix ID *Allowable characters defined by ALI Account*	The Unix ID associated to your ALI Account.	
	VERIZON Selected ALI Account Fields	
URL *255 characters maximum*	The ALI Account link needs to be provided in this field in order to connect to its service and make changes within your account.	
Login Name *Allowable characters defined by ALI Account*	Insert the username provided by your ALI Account in this field	
Login Password *Allowable characters defined by ALI Account*	Insert the username provided by your ALI Account in this field	
Customer Code *3 characters min 5 characters max* *Numbers Only*	The customer code provided by your ALI Account	
Telephone Company ID *4 characters min 10 characters max* *Numbers Only*	The telephone company ID given by your ILEC. This is an optional field, but may be required. Contact ALI provider for more details.	

SSL Certificate Filename Path	Place in the directory path of where the SSL cert exists for mapping within this field.	
Cycle Counter *Numbers Only*	The cycle counter given by your ALI Account based on the number or iterations.	
	SFTP Selected ALI Account Fields	
Subtype (ALI Account)	This option will allow you to choose the individual implementation within the ALI Account selected.	
URL *255 characters maximum*	The ALI Account link needs to be provided in this field in order to connect to its service and make changes within your account.	
Login Name *Allowable characters defined by ALI Account*	Insert the username provided by your ALI Account in this field	
Login Password *Allowable characters defined by ALI Account*	Insert the username provided by your ALI Account in this field	
Customer Code *3 characters min 5 characters max* *Numbers Only*	The customer code provided by your ALI Account	
Telephone Company ID *4 characters min 10 characters max* *Numbers Only*	The telephone company ID given by your ALI Account	
File Name Prefix	If the name requires a prefix include it in this field.	

Cycle Counter *Numeric Values Only*	This is the counter given by your ALI which is a numerical value of your service tally.	
Port	Place the port of the server in this field	
Fixed Upload File Name / Upload File	Select the fixed upload file name to upload.	
Private Key File	Select the Private Key file to Upload	

Delete ALI Account Site Information

Click the **Delete** icon  for a particular site to remove it from the table. Next, click **OK** to confirm the deletion.

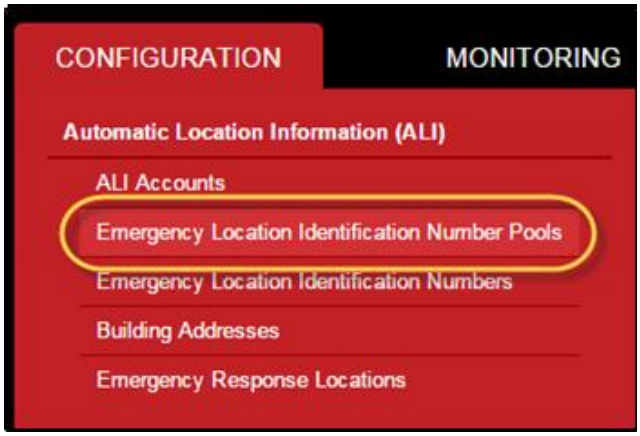


4.4 Configure Emergency Location Identification Number Pools

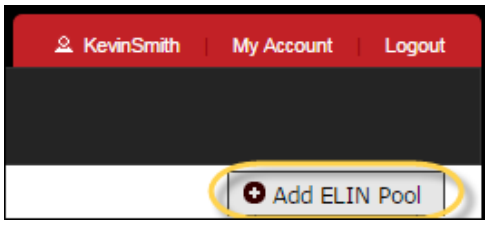
ELINs are 10-digit DID numbers that reference specific locations (building, floor, room and name information). When someone dials 9-1-1, the server uses the ELIN as the caller ID. PSAPs, or Public Safety Answering Points, also use ELINs to query ALI databases for specific location information. ELINs may be grouped into ELIN pools, which may include a range of ELINs. You can also assign call servers to specific ELIN pools.

Follow the steps below to add ELIN pools to E911 Manager®:

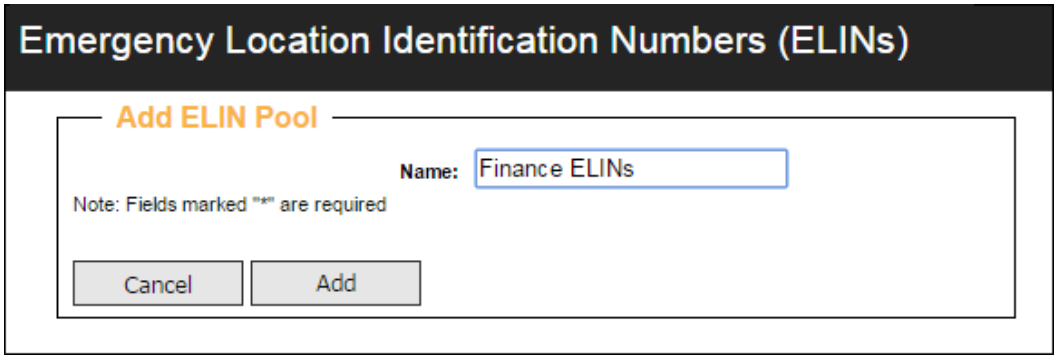
1. Select **CONFIGURATION > Emergency Location Identification Number Pools** from the main menu.



2. Click the **Add Emergency Location Identification Number Pools** button on the right of the screen.

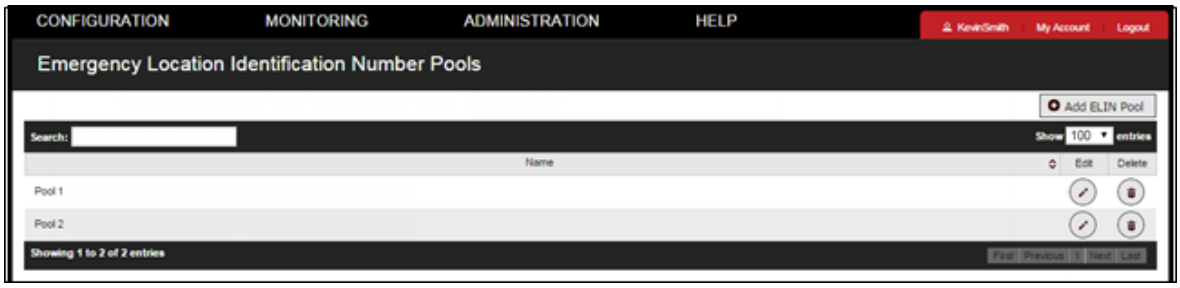


3. Type in a meaningful and descriptive name in the field.



4. Click **Add** to save your ELIN pool.

The ELIN pool will be added to the table, as shown in the example below. You can access this table at any time by selecting **CONFIGURATION > Emergency Location Identification Number Pools** from the main menu.

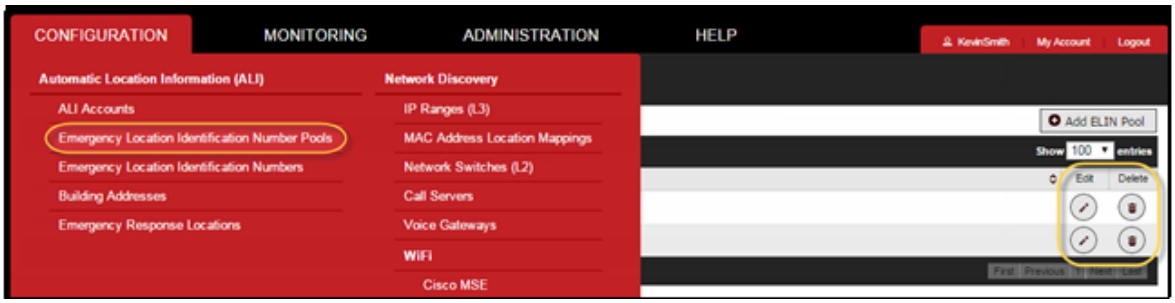


4.4.1 Edit/Delete Emergency Location Identification Number Pools

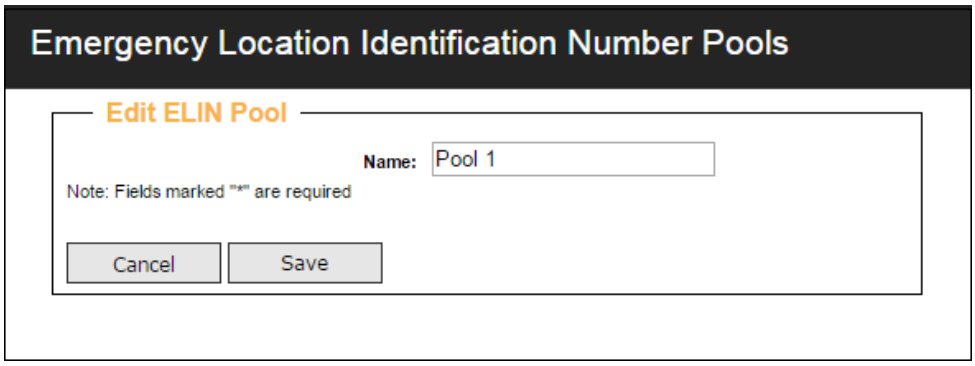
To manage ELIN pools, select **CONFIGURATION > Emergency Location Identification Number Pools** from the main menu. **Edit** and **Delete** icons are provided for each ELIN pool in the table. Instructions for editing and deleting are provide below.

Edit Emergency Location Identification Number Pools

1. Click the **Edit** icon  associated with a particular ELIN pool.



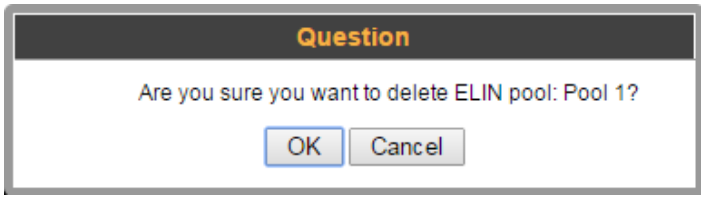
2. Edit the Emergency Location Identification Number Pool name, as shown in the example below.



3. Click **Save** when finished.

Delete Emergency Location Identification Number Pools

Click the **Delete** icon for a particular ELIN Pool to remove it from the table. Next, click **OK** to confirm the deletion.

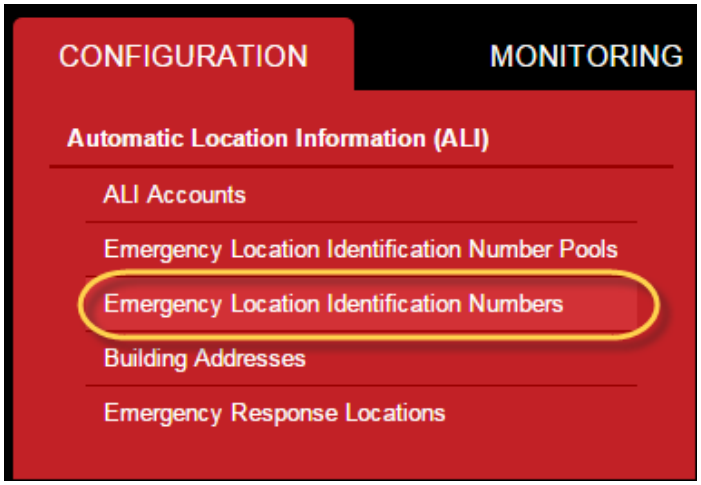


4.5 Configure Emergency Location Identification Numbers

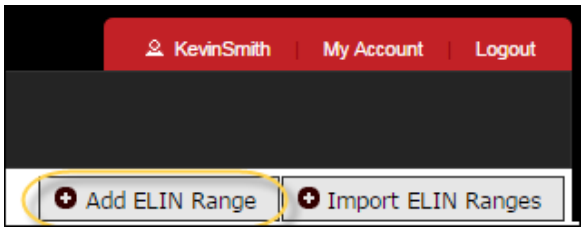
Emergency Location Identification Numbers (ELINs) are 10-digit DID numbers that reference specific locations (building, floor, room and name information). When someone dials 9-1-1, the server uses the ELIN as the caller ID. PSAPs, or Public Safety Answering Points, also use ELINs to query ALI databases for specific location information. ELINs may need to be added, edited or deleted if the network configuration changes, or if building or location information for an ELIN changes.

4.5.1 Add Emergency Location Identification Numbers

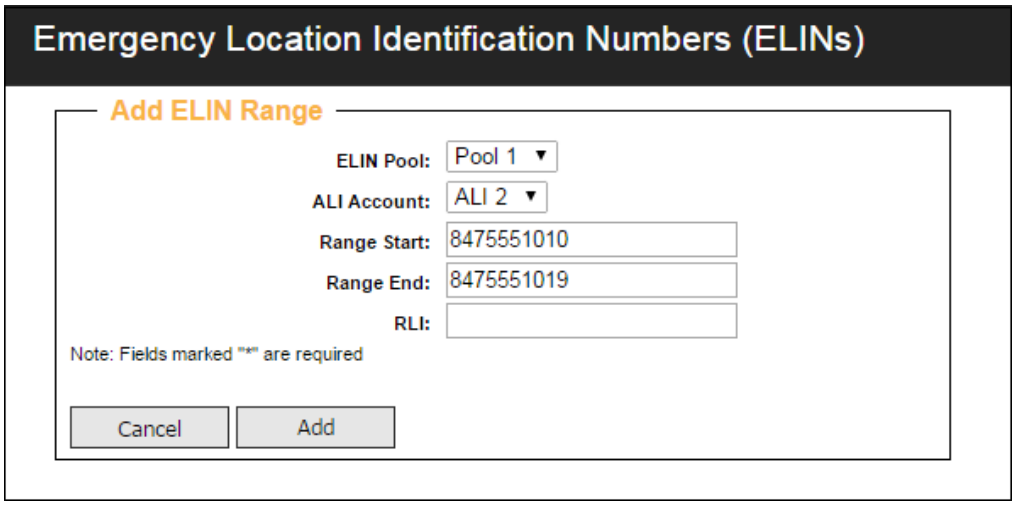
1. Select **CONFIGURATION > Emergency Location Identification Numbers** from the main menu.



2. Click **Add ELIN Range** on the right of the screen.



3. Select the **ELIN Pool** and **ALI Account Site** from the drop-down menus.



Note: ELIN Pools and ALI Account sites must be configured before adding an associated ELIN range. See the sections titled Configure Emergency Location Identification Number Pools and Configure ALI Accounts Sites for more information.

4. Type in the appropriate range of 10-digit phone numbers in the Add ELIN Range screen. No dashes are required.

Note: You can also add only one number for a range. Type in the same number for the **Range Start** and **Range End** fields.

5. Type in **RLI** information in the field, if available. This is an optional field that may be used by certain carriers.

6. Click **Add** when finished.

The new ELIN Range appears in the table, as shown in the example below. Notice that each ELIN displays a Validation Status. Also, some ELINs may be "Locked." The section titled Validation Status provides more information on this topic.

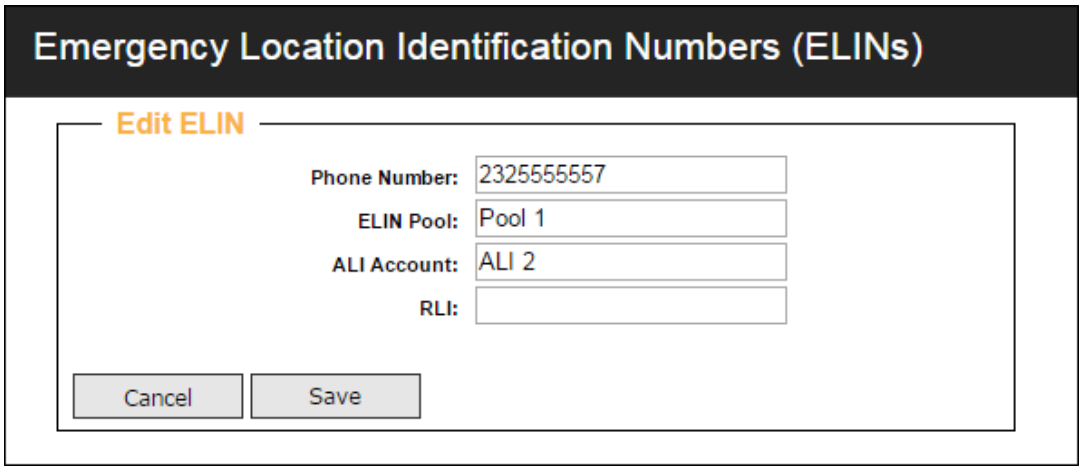
4.5.2 Edit/Delete Emergency Location Identification Numbers

To manage ELINS and ELIN Ranges, select **CONFIGURATION > Emergency Location Identification Numbers** from the main menu. **Edit** and **Delete** icons are provide for each ELIN Range in the table. Instructions for editing and deleting are provided below.

Edit Emergency Location Identification Numbers

1. Click the **Edit** icon  associated with a particular ELIN.

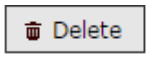
2. Make edits on the Edit ELIN screen, as shown in the example below.

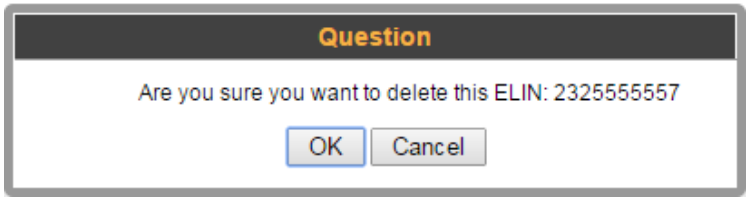


Note: ELIN Pools and ALI Account sites must be configured before editing an associated ELIN range. See the sections titled Configure Emergency Location Identification Number Pools and Configure ALI Accounts Sites for more information. You can also add only one number for a range. Just type in the same number for the **Range Start** and **Range End** fields. **RLI** is an optional field that may be used by certain carriers.

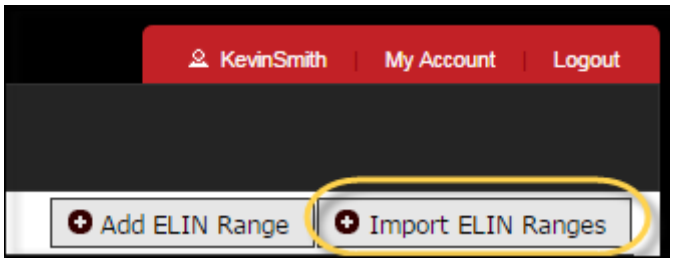
3. Click **Save** when finished.

Delete ELINs

Click the **Delete** icon  associated with a particular ELIN. Or, click the checkboxes to select multiple ELINs, then click the **Delete**  button. Next, click **OK** to confirm the deletion. The ELIN will be deleted from the table.



4.5.3 Import Emergency Location Identification Ranges



When importing ELIN Ranges a predefined format must be used. See below for format guidelines. This is also instructed on the individual import page.

CVS Row Format (ELIN Pool*,ALI Account*, ELIN*,RLI)

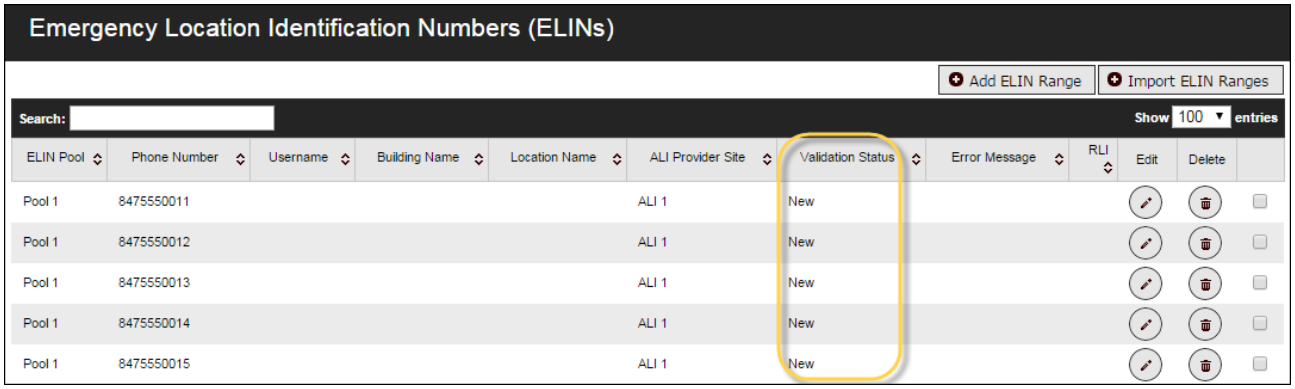
* Required Fields

A Sample Format is available which will show you the column variable layout.

The ELIN Report is also accessible from the Import page which will provide a list of ELINs within your company which matches the importing format.

4.5.4 Validation Status

E911 Locations (ELINs) are 10-digit DID numbers that reference specific building, floor, room and name information. These 10-digit numbers are created using the extension mapping present in the PBX/Switch. Notice that each ELIN displays a Validation Status, as shown in the example below.



There are 11 statuses that E911 Locations can have inside of RedSky E911 Manager®. These are listed below, and each status categorizes where that E911 Location is in the E911 reconciliation process:

- **0 - New** - An Elin not assigned to a location, either newly created or unassigned with a successful update to the Provider.
- **1 - Unassigned** - An existing Elin was unassigned from its location, but this info has not yet been sent to the ALI Account.
- **2 - Ready for Insert** - New Elin data ready to be inserted into ALI Account.
- **3 - Ready for Change** - Elin data was altered since last ALI update, ready to send change.
- **4 - Ready for Delete** - Elin was deleted, ready to send deletion to ALI Account.
- **5 - Valid -** Elin data was successfully received by ALI Account and has not been altered since.
- **6 - Invalid** - Provider returned an error message for this Elin at last update. Manual revision by the user will be necessary based on the error code specified in the Elin table in the DB.
- **7 - In Transfer** - In Transfer INSERT: This Elin is in the process of being inserted. An update was sent to ALI Account, now awaiting response. Used when the Elin was previously "Ready for Insert."
- **8 - In Transfer** - In Transfer CHANGE: This Elin is in the process of being changed. Used when the Elin was previously "Ready for Change."
- **9 - In Transfer** - In Transfer DELETE: This Elin is in the process of being deleted. Used when the Elin was previously "Ready for Delete." If Provider receives update successfully, the record will be removed from the database.
- **10 - In Transfer** - In Transfer UNASSIGN: This Elin is in the process of being unassigned. Used when the Elin was previously "Unassigned." If Provider receives update successfully, the record will be changed to "New."

4.5.5 Unlock Emergency Location Identification Numbers

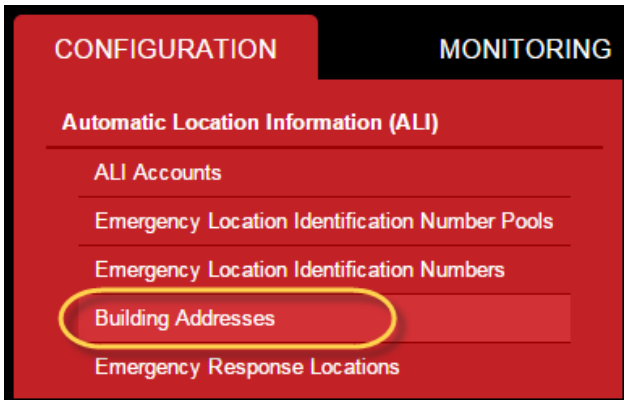
If an ELIN is sent out for validation and the transfer is not successful, the ELIN may show as "Locked" in the table. Simply click the **Edit** icon for that ELIN to change the status back to "New."

4.6 Configure Building Addresses

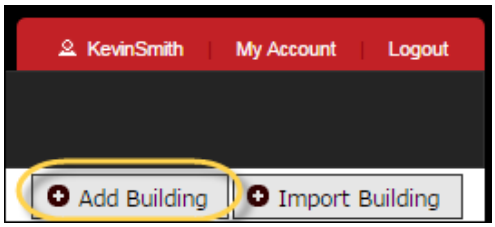
The application is configured with specific building information, including each building within a customer environment. Updates to the configuration will be necessary if building information is no longer accurate.

4.6.1 Add Buildings

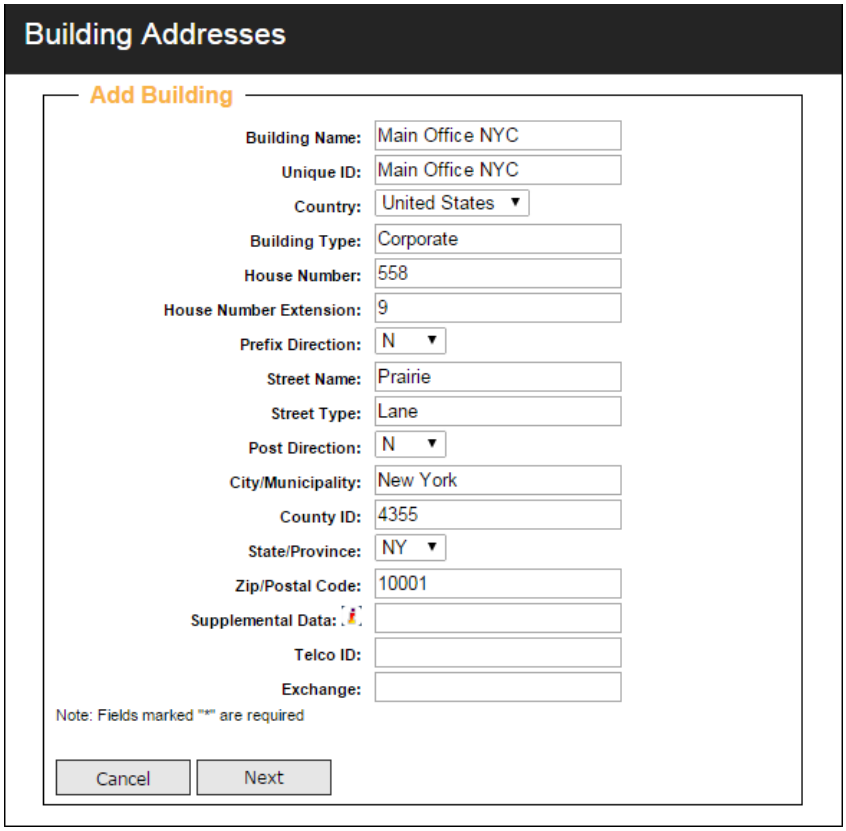
1. Select **CONFIGURATION > Building Addresses** from the main menu.



2. Click **Add Building** on the right of the screen.



3. Type in your building information in the appropriate fields. Fields marked with an asterisk (*) are required.



Add Building Field Selections Table

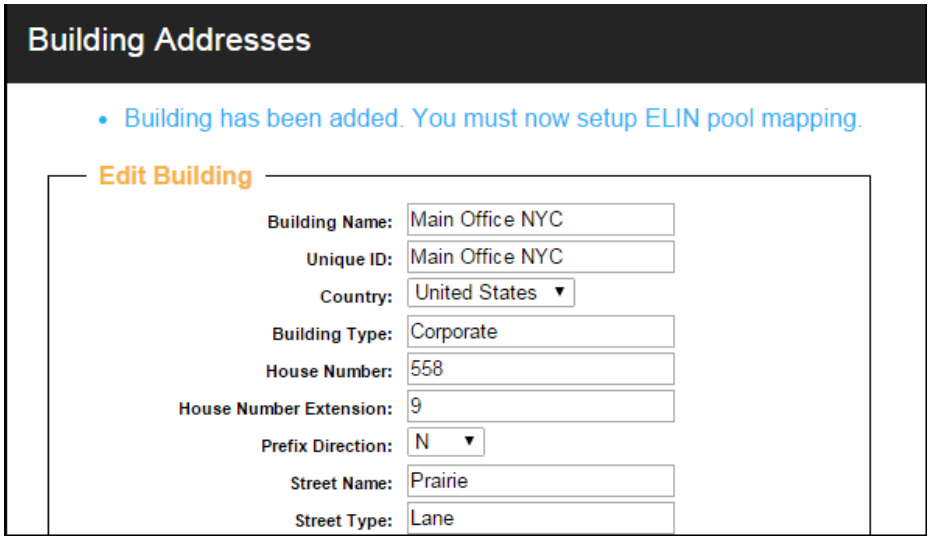
Field	Description	NENA Field Mapping
Building Name *30 characters maximum* *Numbers & Characters & Special Characters Allowed*	Place in the name of the building in this field.	
Unique ID *64 characters maximum* *Numbers & Characters & Special Characters Allowed*	This field needs to have a unique name for the building placed within.	

Country *Only USA & Canada are supported*	This field is a drop down selection indicating Country you are located in.	
Building Type	The building type will be automatically populated as “Corporate” or “Personal” based on the type of user.	
House Number *10 characters maximum* *Numbers & Characters & Special Characters Allowed*	Place in the street number of the building within this field. Demonstrate	*Columns 12-21*
House Number Extension *5 characters maximum* *Numbers & Characters & Special Characters Allowed*	If your building has additional information required place it within this field.	*Columns 22-25*
Prefix Direction	This drop down selection allows you to specify the direction of the building that could be the beginning of the address specified.	*Columns 26-27*
Street Name *50 characters maximum* *Numbers & Characters & Special Characters Allowed*	Provide the street name of the building in this field.	*Columns 28-87*
Street Type *4 characters maximum* *Numbers & Characters & Special Characters Allowed*	Place in the type of street assigned to the building within this field.	*Columns 88-91*
Post Direction	This Drop Down Selection allows you to place a direction location after the street name.	*Columns 92-93*

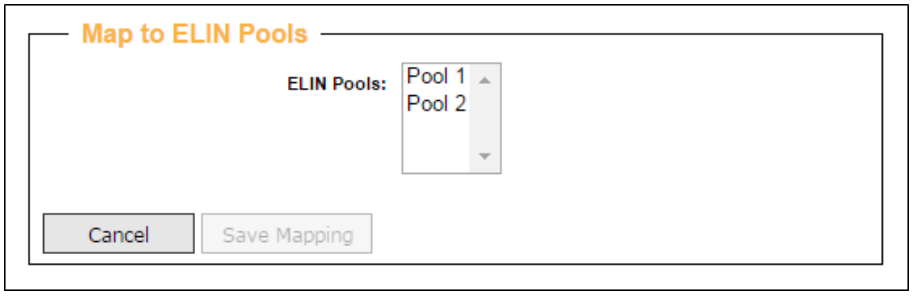
City / Municipality *50 characters maximum* *Numbers & Characters & Special Characters Allowed*	Place in the city name of the building's location in this field.	*Columns 94-125*
County ID *20 characters maximum* *Numbers & Characters & Special Characters Allowed*	If your building location has a County ID place it in this field.	
State / Providence	This Drop Down Selection will have your selectable state or providence that will be assigned to your building location	*Columns 126-127*
Zip/Postal Code *IF USA : 10 characters maximum* *Numbers & Characters & Special Characters Allowed* *IF CANADA : 10 characters maximum* *Numbers & Characters & Special Characters Allowed*	Depending on the country location of the building, the application will verify the zip/postal code is in the correct format. Please follow the guidelines on the left that will ensure it is valid.	*ZipCode - Columns 267-275* *ZipCode + 4* *Columns 272-275*
Supplemental Data *30 characters maximum* *Numbers & Characters & Special Characters Allowed*	Place in additional information pertaining to your building location in this field.	*Columns 290-319*

Telco ID *5 characters maximum* *Numbers & Characters & Special Characters*	Place in the Telco or Circuit ID of the building location in this field.	*Columns 261-265*
Exchange *4 characters maximum* *Numbers & Characters & Special Characters*	If your building location has Exchange information place it in this field.	

4. Click **Next** to add the building. E911 Manager displays a message that the building has been added and that you must setup ELIN pool mapping.

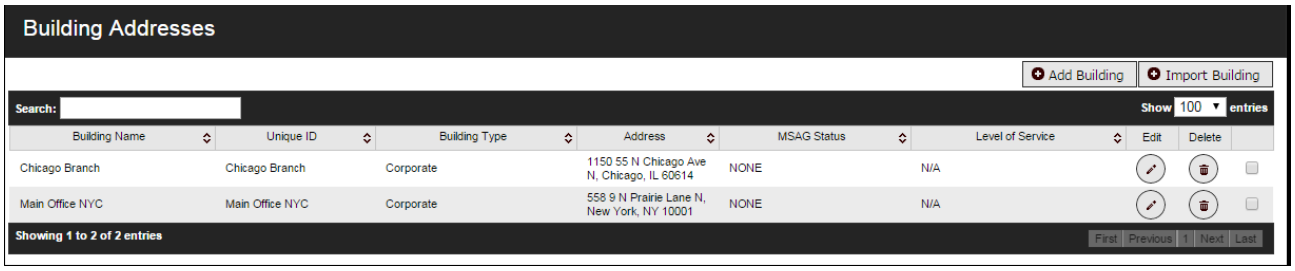


5. Scroll down the page to the Map to ELIN Pools section. It displays a list of ELIN pools that have already been configured. See the section titled Configure Emergency Location Identification Number Pools for more information.



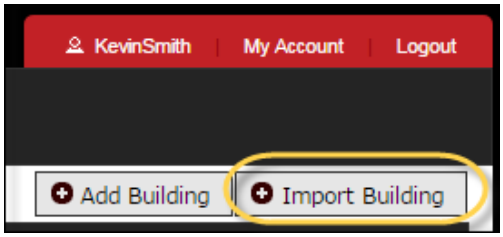
6. Select an ELIN Pool from the list, and then click **Save Mapping**.

The new building will appear in the table, as shown in the example below.



Note: Each building will display one of two values under the Levels of Service heading, 'Basic' and 'Enhanced'. These values are based on the capability of the PSAP serving your particular location. If a building displays 'NoCoverage', please contact support.

4.6.2 Import Building Addresses



When importing Building Addresses a predefined format must be used. See below for format guidelines. This is also instructed on the individual import page.

CVS Row Format (Building Name, Building UID*, Personal Username (If applicable), House number, House Number Extension, Pre Directional, Street Name, Street Type, Post Directional, City, County ID, State, Zip, Country, Telco ID, Supplemental Data, ELIN Pools**)

*Building UID must match an existing building in order to update address.

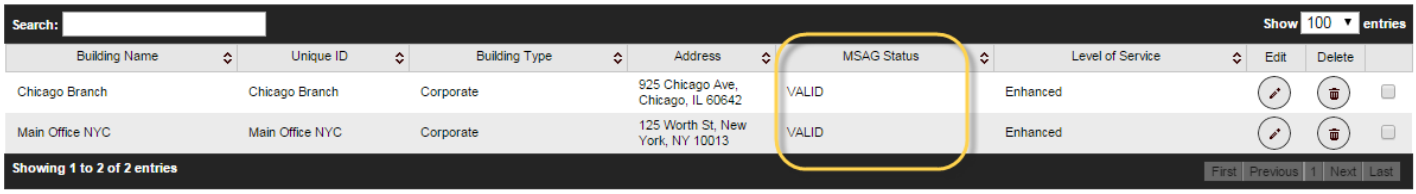
**Multiple ELIN Pools can be listed comma separated inside quotes: ie. "Pool1, Pool2"

A Sample Format is available which will show you the column variable layout.

The ELIN Building is also accessible from the Import page which will provide a list of Buildings within your company which matches the importing format.

4.6.3 MSAG Status

E911 Manager® validates building addresses against the MSAG, or Master Street Address Guide. The guide contains exact street, number range and other address data. If the address information for a building correctly matches, its MSAG Status will show as "Valid" in E911 Manager®.



If there is an error message when attempting to save a building, try checking the spelling of the address; a simple difference, such as "AV" instead of "AVE", for example, may cause an error. If the problem persists, contact RedSky support for address validation help.

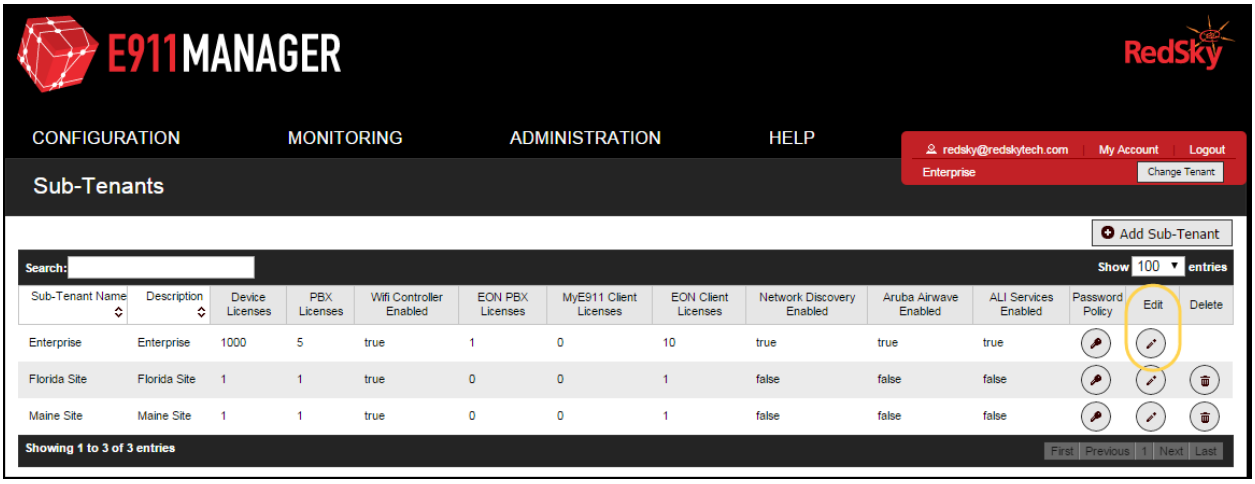
4.6.4 Adding Geo Coordinate Buildings

In order to give the user more options for submitting the Emergency Response Locations we have added the ability to submit the building as an X,Y Coordinate.

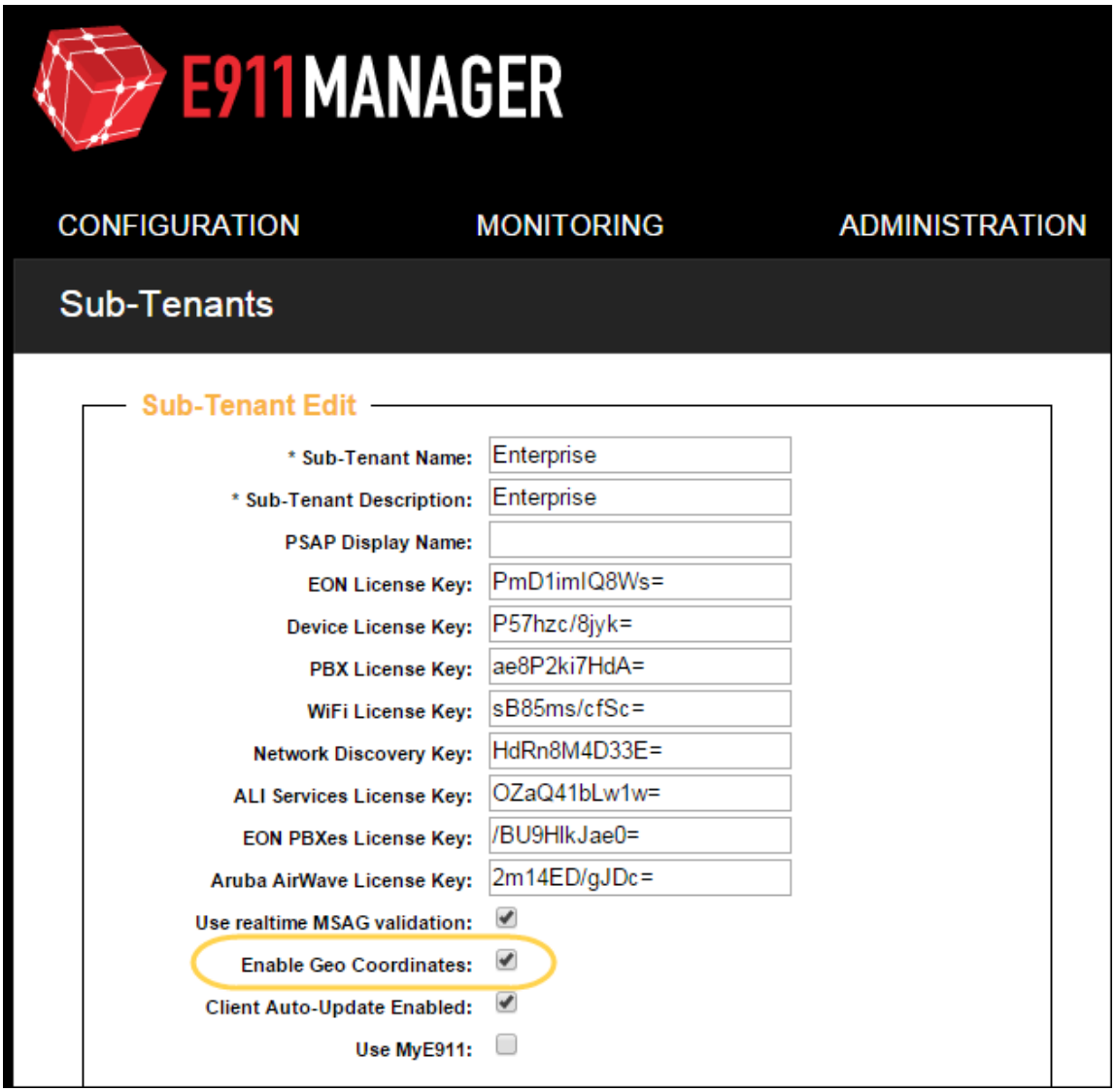
This feature is enabled within the company profile page. Here are the instructions on how to enable and use the feature.

Within the sub-tenant page click Edit to see the new features toggle button.

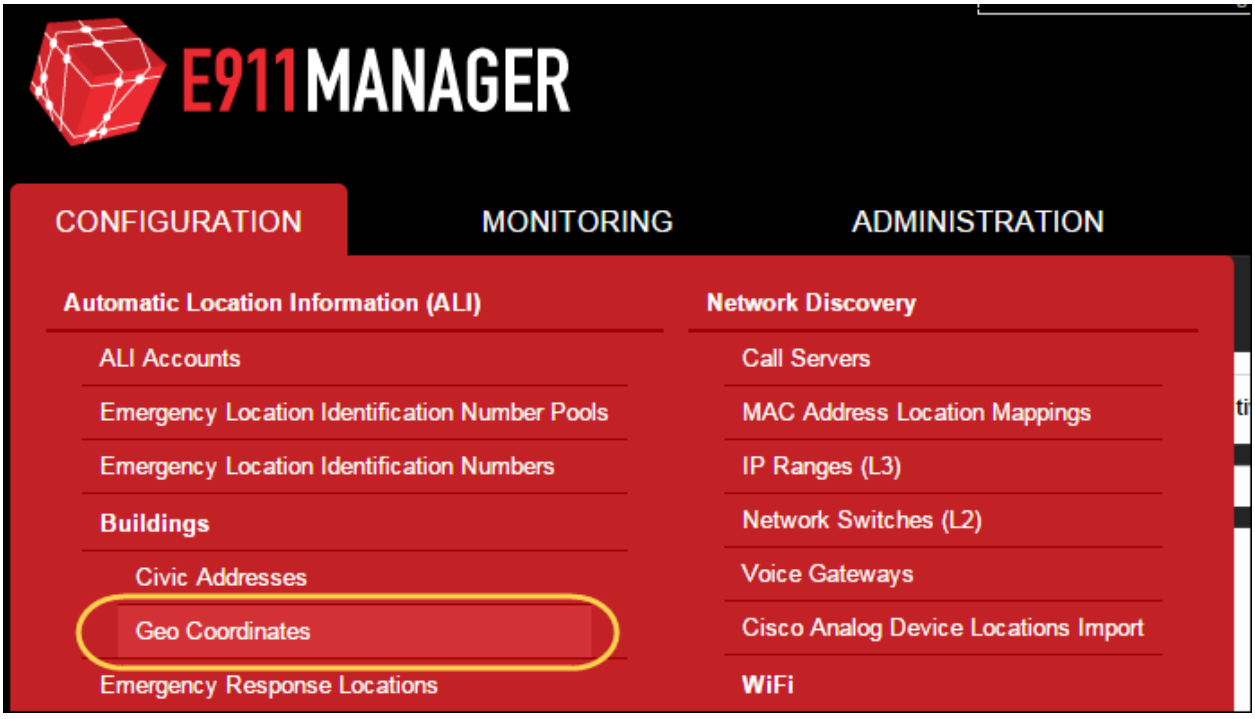
Note: *E911 Anywhere is required for this feature to function.*



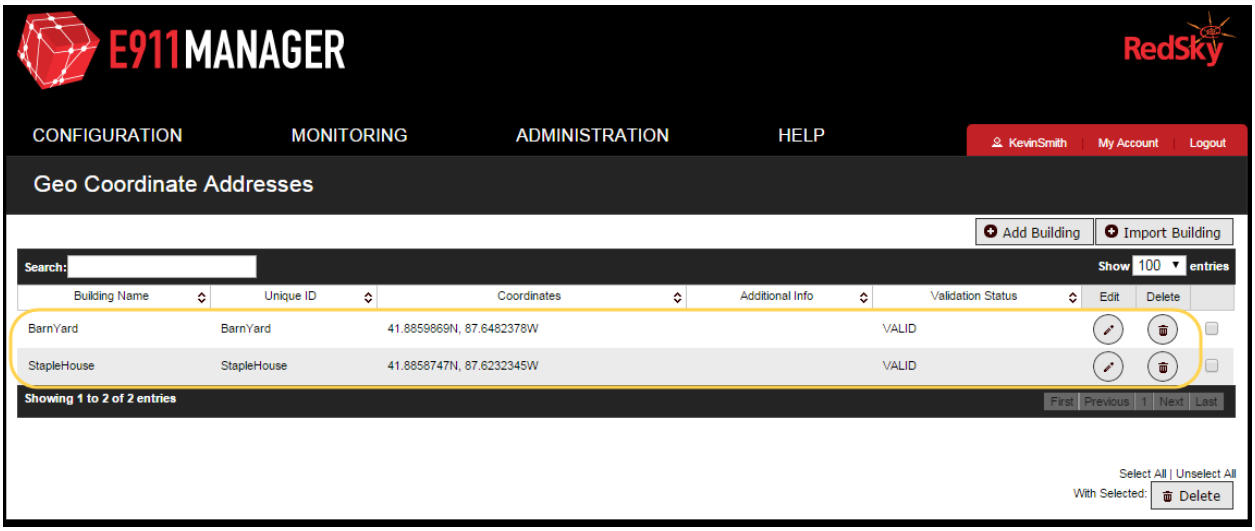
Upon the Edit Sub-tenant screen you will now see the option for enabling the Geo Coordinates.



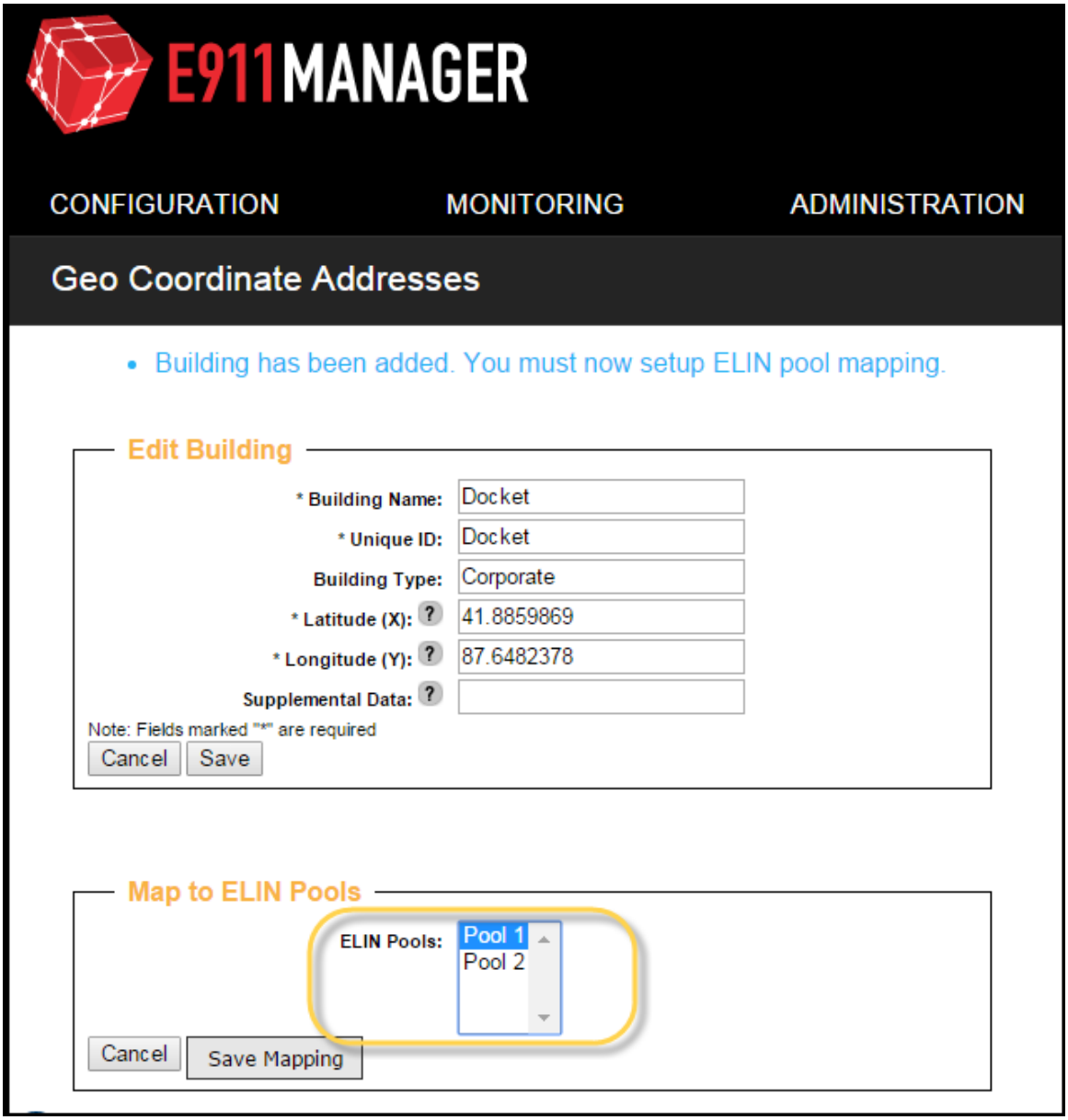
Once enabled you'll now see the option for adding a Geo Located Building in the Configuration -> Buildings -> Geo Coordinates



Upon clicking the Geo Coordinates page you'll see the listing of all Geo buildings placed in previously.



When adding a new Geo Building you are required to name the Building along with placing in the X,Y coordinates. You will then be required to map an ELIN pool to the GEO Building.



Note: Please enter the X,Y Coordinates without the (-) or (N,W). Those will be automatically added by the E911 Manager/E911 Anywhere upon submission.

4.6.5 Import GEO Addresses

When importing GEO Addresses a predefined format must be used. See below for format guidelines. This is also instructed on the individual import page.

CVS Row Format (Building Name, Building UID*, Latitude, Longitude, State, Location Description, Supplemental Data, ELIN Pools**)

*Building UID must match an existing building in order to update address.

**Multiple ELIN Pools can be listed comma separated inside quotes: ie. "Pool1, Pool2"

A Sample Format is available which will show you the column variable layout.

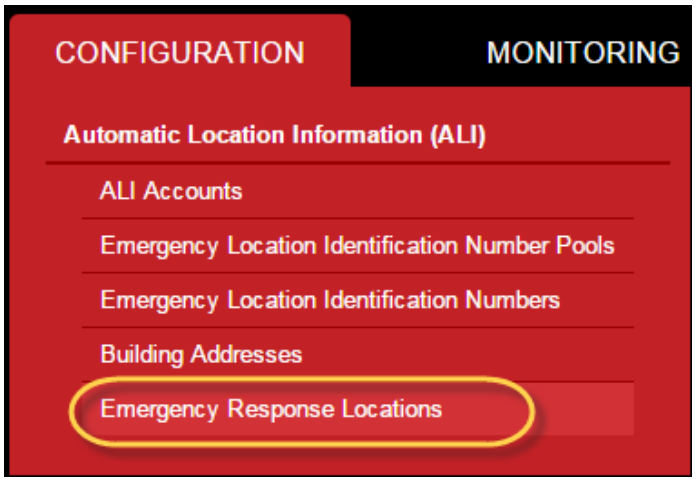
The GEO Address Report is also accessible from the Import page which will provide a list of GEO Addresses within your company which matches the importing format.

4.7 Configure Emergency Response Locations (ERLs)

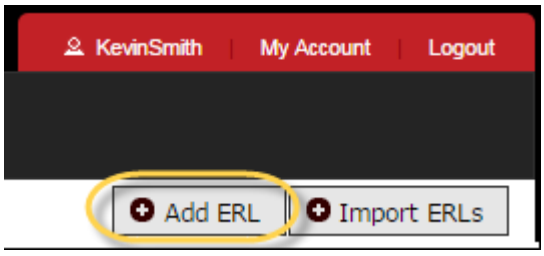
An emergency response location (ERL) is a specific area from where a 911 call is made. Emergency responders use this information to locate the caller. These can be buildings, rooms, or outdoor areas that can be designated as a single location. Each ERL may have multiple phone lines or extensions. A building or campus may be broken down into multiple ERLs, which allows dispatchers to provide more precise caller location information. Cities, states or other local governing bodies may have specific statutes that specify the maximum size or area of an ERL. Contact your carrier or RedSky if you have any questions about laws or statutes in your area.

4.7.1 Add ERLs

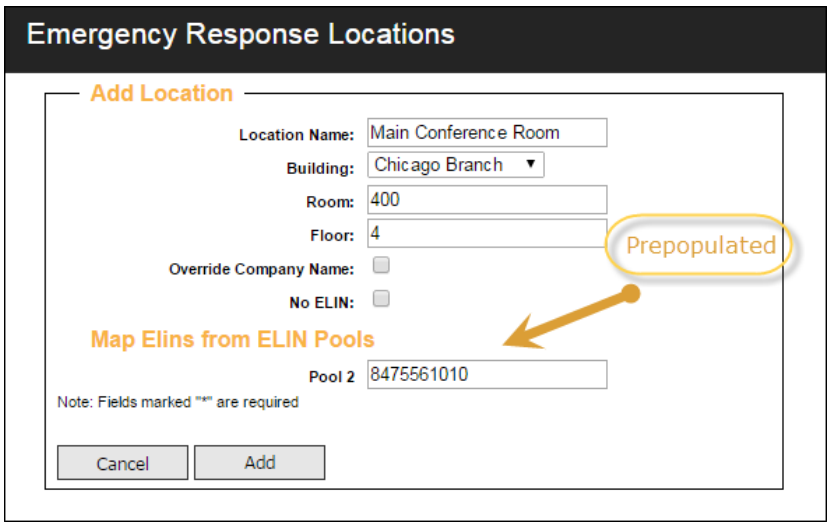
1. Select **CONFIGURATION > Configure Emergency Response Locations** from the main menu.



2. Click the **Add ERL** button on the right of the screen.



3. Add specific location information in the fields, including a name, building, room and floor. The **Location Name** field is required.

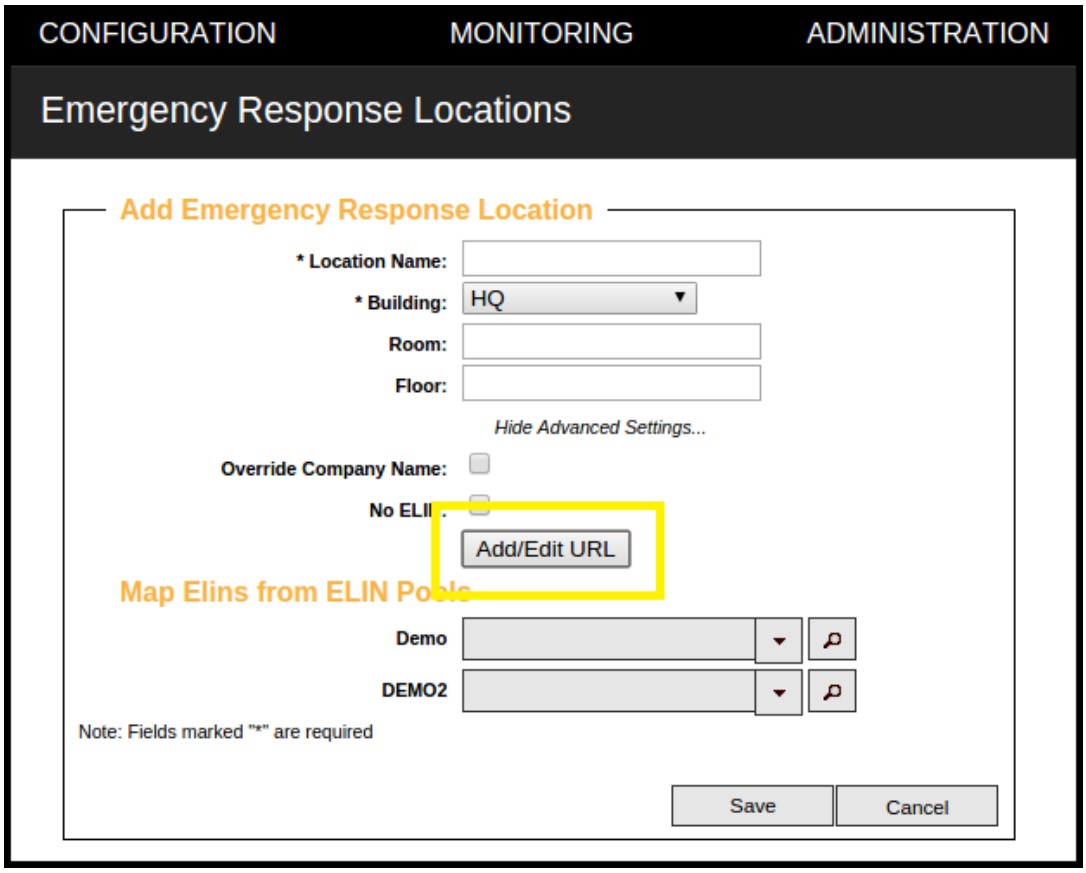


Note: Building information must be preconfigured to show up in the list. See the section titled Configure Building for more information. Also, the ELIN pool you mapped the building to will automatically show up in

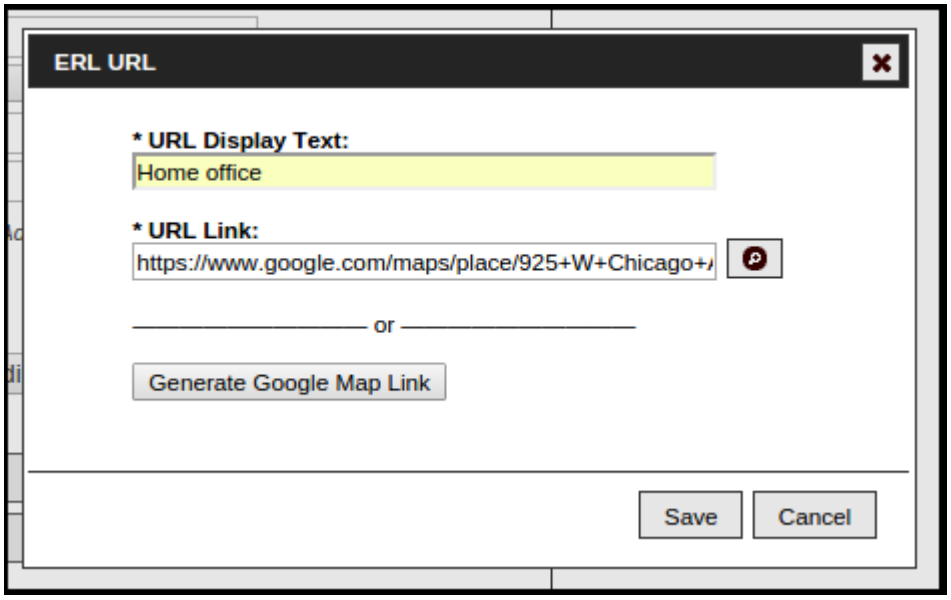
the "Map Elins from ELIN Pools" section. If you did not map the building to an ELIN pool, the message shown below will appear. You will not be able to save the location until an ELIN pool is assigned to the building.

HTML ERL Level Links

Upon the ERL Add or Edit pages you'll notice an additional option in the Advanced Settings section for mapping the HTML link to the ERL.



Upon selecting the Add / Edit URL Button, a new window will come up and will give you options for placing in your HTML URL.



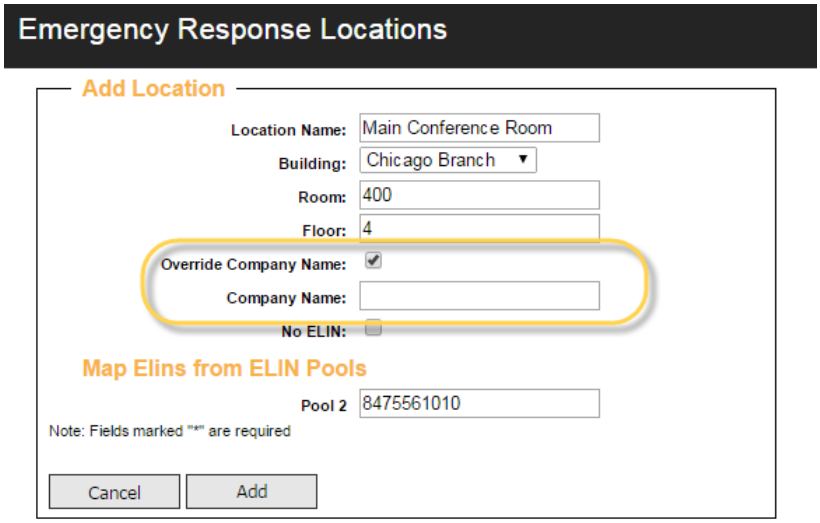
There are two options for created these HTML Links.

1. **Google Generated URL Link** – Upon clicking this button a generated google map URL will be populated into the URL Link on behalf of the user. This is generated based on the Building Address used with the ERL. **NOTE: Upon editing the Building Address information, the Google Maps link will be automatically updated for the user.**
2. **Custom URL Link** – This is a user defined link that is placed in by the user. This can be a URL pointing to an internal or external address. **NOTE: Upon editing the Building Address information the link will NOT be changed automatically.**

Add ERLS Field Selections Table

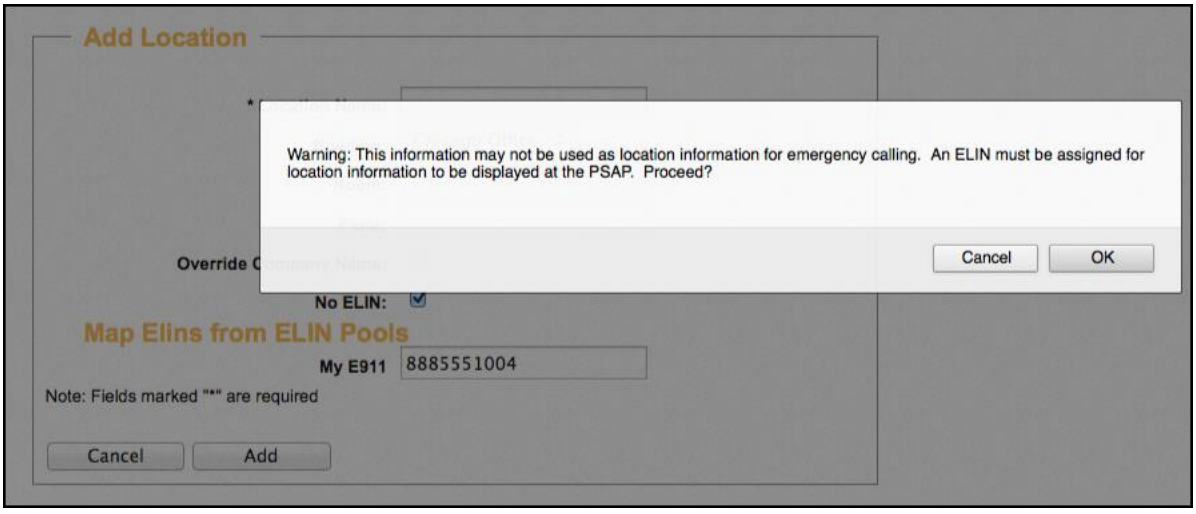
Field	Description	NENA Field Mapping
Location Name *100 characters maximum* *Numbers & Characters & Special Characters Allowed*	Place in the name of the location in this field.	
Building	This will be auto populated with pre-defined building locations to choose from.	
Room *10 characters maximum* *Numbers & Characters & Special Characters Allowed*	Place in the name or number of the room in this field.	*Columns 128-187*
Override Company Name *50 characters maximum* *Numbers & Characters & Special Characters Allowed*	If this variable is populated the name provided will override the name of the company.	
No ELIN *Check Box Selection*	By selecting this box you're allowing this location to not have an ELIN assigned. The following warning will be presented upon checking this box. *"Warning: This information may not be used as location information for emergency calling. An ELIN must be assigned for location information to be displayed at the PSAP. Proceed?"*	
Map ELINs from ELIN Pools	This field will be pre-populated with an available ELIN from the given pool. Other ELINs will be selectable from the drop down menu.	

4. Optional: Click the **Override Company Name** checkbox, then type in a company name in the field. This option will replace the company name in the request sent to the PSAP when an emergency call is made. This feature may be useful if your company is a E911 Manager® reseller.



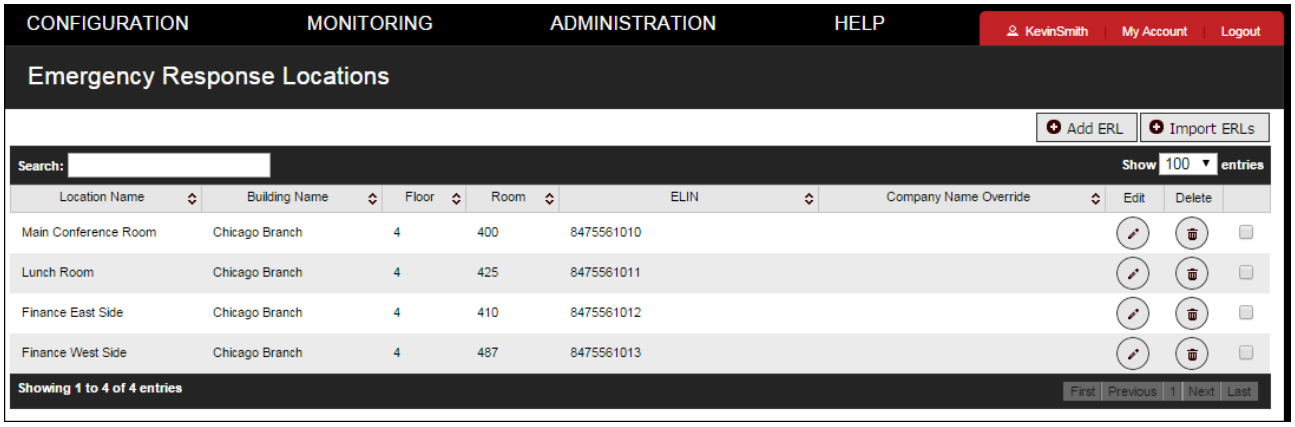
5. Optional: Click the **No ELIN** checkbox if the location information will not be used for emergency calling. There are two main reasons for this feature: first, locations can be created and set up before purchasing and assigning ELINs; secondly, an ELIN can be unassigned from a location when things move or change, allowing the user to delete the location.

WARNING: An ELIN must be assigned for location information to be displayed at the PSAP.



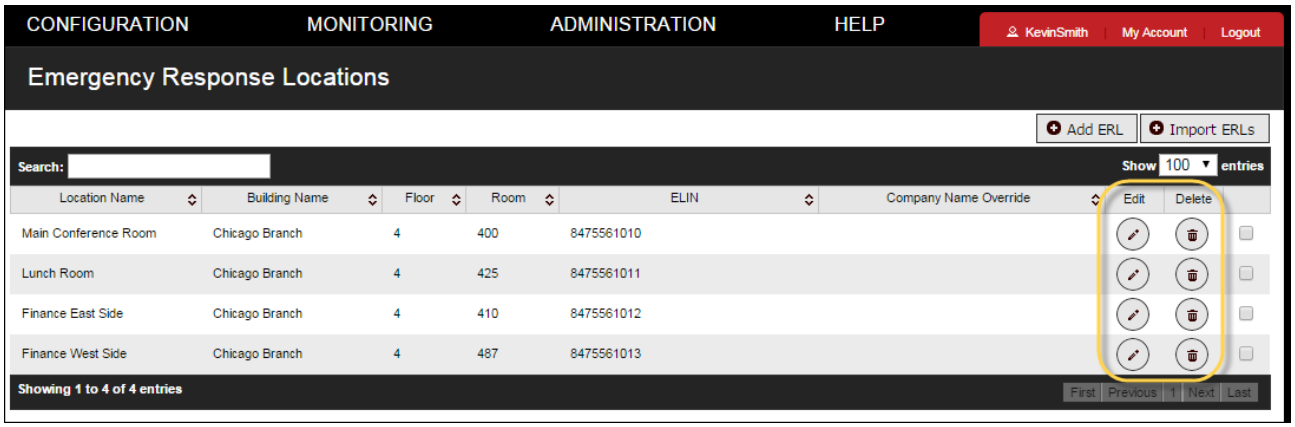
6. Click **Add** to save the location.

The new location will appear in the ERLs table, as shown in the example below.



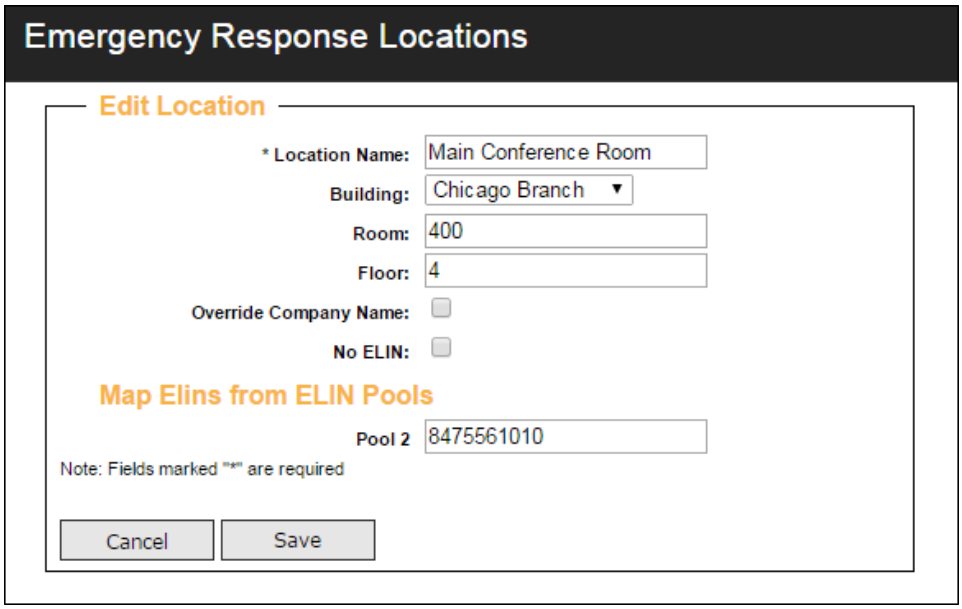
4.7.2 Edit/Delete ERLs

To manage ERLs, select **CONFIGURATION > Emergency Response Locations** from the main menu. **Edit** and **Delete** icons are provided for each IP range in the table. Instructions for editing or deleting are provide below.



Edit ERLs

1. Click the **Edit** icon  associated with a particular ERL.
2. Make edits on the Edit Location screen, as shown in the example below.

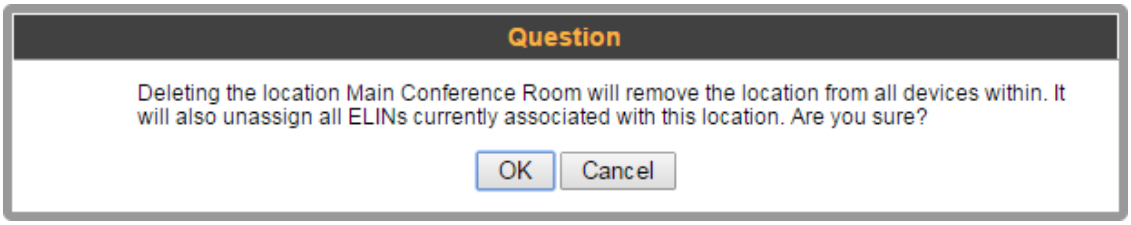


Note: Building information must be preconfigured to show up in the list. See the section titled Configure Building Addresses for more information. Also, the ELIN pool you mapped the building to will automatically show up in the "Map Elins from ELIN Pools" section. If you did not map the building to an ELIN pool, the message shown below will appear. You will not be able to save the location until an ELIN pool is assigned to the building.

3. Click **Save** when finished.

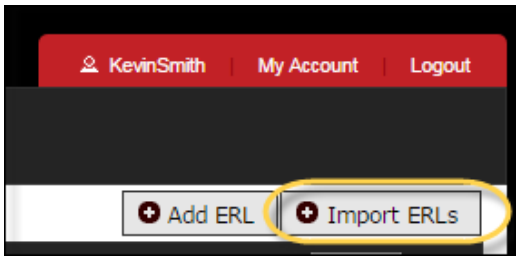
Delete ERLs

Click the **Delete** icon  associated with a ERL. Or, click the checkboxes to select multiple ERLs, then click the **Delete**  button. Next, click **OK** to confirm the deletion.



Note: Deleting an ERL, or location, will also remove it from associated devices and un-assign it from associated ELINs.

4.7.3 Import Emergency Response Locations



When importing Emergency Response Locations a predefined format must be used. See below for format guidelines. This is also instructed on the individual import page.

CVS Row Format (*Building UID, *Location Name, *Floor, *Room, **ELIN, Override Company Name)

* Required fields. Building UID must match an existing building.
** List of ELINs to add/update. Use special value **none** to remove all ELINs for an ERL.
Uploaded locations are matched to existing locations by matching Building UID and Name. If importing via ELIN key, only one ELIN is allows per line.

A Sample Format is available which will show you the column variable layout.

The ERL Report is also accessible from the Import page which will provide a list of ERLs within your company which matches the importing format.

4.8 Configure IP Ranges

E911 Manager® supports two methods of location determination for IP phones, Network Regions and Layer 2/Port Level Discovery. Both of these methods provide real-time tracking and location determination of IP phones without admin intervention. Phones can move anywhere in the enterprise and their location is automatically discovered and the call server is updated to provide the correct outbound emergency number (ELIN). Although RedSky configured your network information in E911 Manager® during implementation, any changes to IP Ranges or Network Switches must be reflected in E911 Manager®.

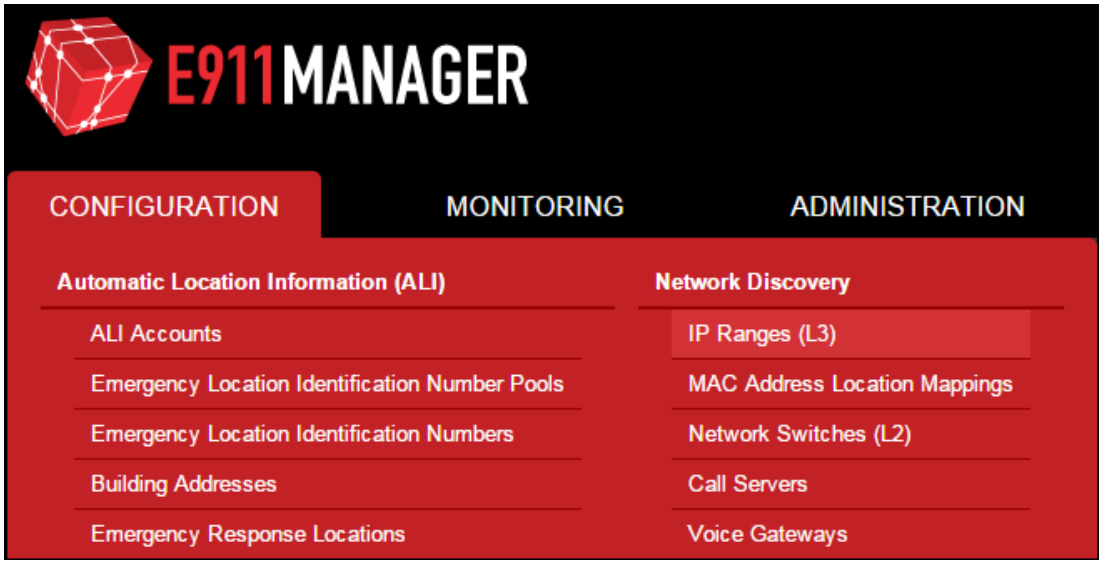
E911 Manager® maintains a detailed table of all network regions/IP address ranges which mirrors those held in the DHCP server. When a phone registers with its respective IP-PBX platform, E911 Manager® receives an event with the IP address and the MAC address of the registering phone, reviews the IP address and identifies the network region and corresponding location of the phone. E911 Manager® then, in the case of Avaya and Nortel, writes the correct ELIN to tables in the Avaya or Nortel IP-PBX. If the phone dials 9-1-1,

the correct ELIN is sent out. In the case of Cisco, a 9-1-1 call is held at a Cisco route point and E911 Manager® dynamically provides the ELIN to the route point.

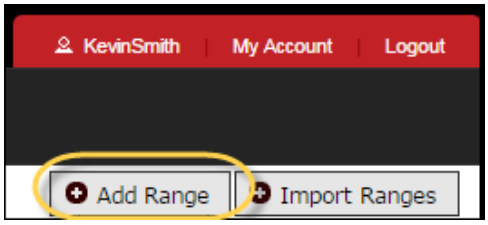
4.8.1 Add IP Ranges

Follow the instructions below to add an IP range to E911 Manager®:

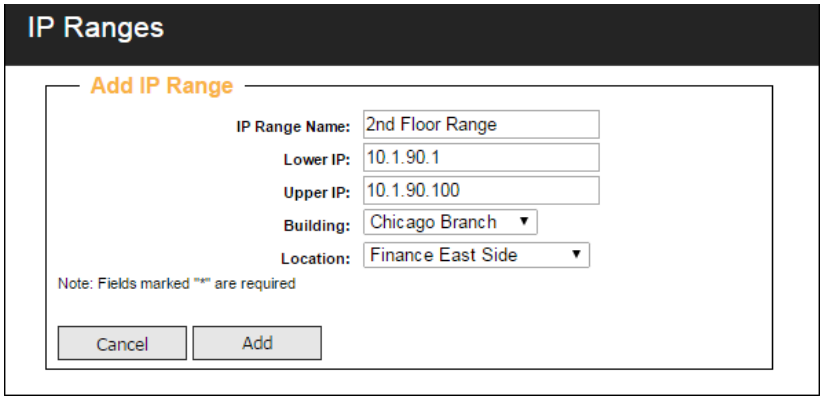
1. Select **CONFIGURATION > IP Ranges** from the main menu.



2. Click the **Add Range** button on the right of the screen.



3. Type in an **IP Range Name**, **Lower IP** and **Upper IP** on the Add IP Range screen.



Note: Buildings and locations, or ERLs, must be configured before adding an associated IP range. See the sections titled Configure Building and Configure Emergency Response Locations (ERLs for more information.

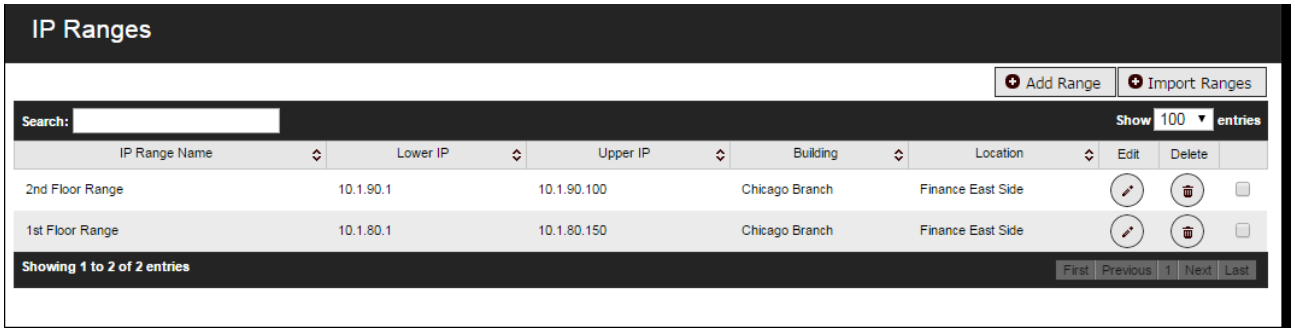
Click **Add** when finished.

Add IP Ranges Field Selections Table

Field	Description	NENA Field Mapping
IP Range Name *30 characters maximum* *Numbers & Characters & Special Characters Allowed*	Place in the name of the building in this field.	
Lower IP *64 characters maximum* *Numbers & Characters & Special Characters Allowed*	This field needs to have a unique name for the building placed within.	

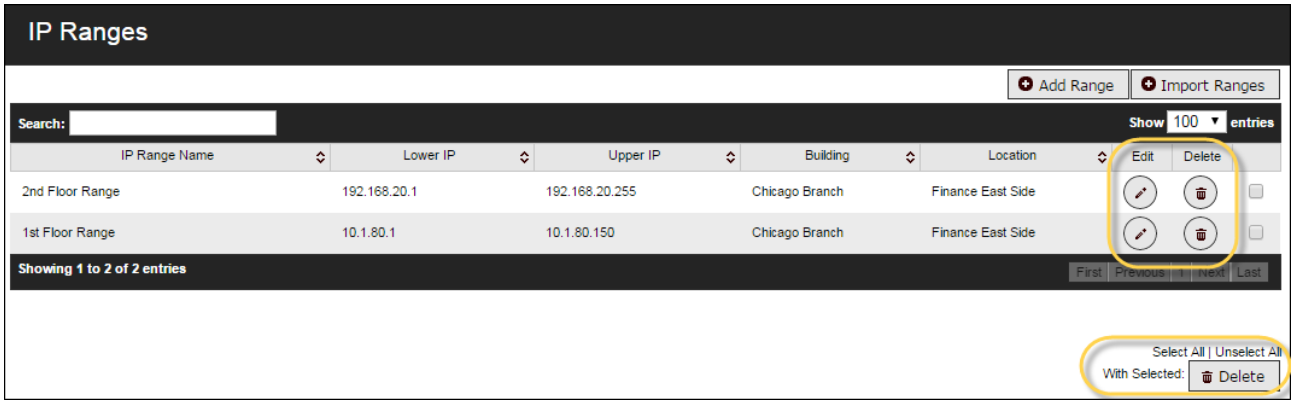
Upper IP *Only USA & Canada are supported*	This field is a drop down selection indicating Country you are located in.	
Building	The building type will be automatically populated as “Corporate” or “Personal” based on the type of user.	
Location *10 characters maximum* *Numbers & Characters & Special Characters Allowed*	Place in the street number of the building within this field.	
House Number Extension *5 characters maximum* *Numbers & Characters & Special Characters Allowed*	If your building has additional information required place it within this field.	

The new IP range will appear in the table, as shown below.



4.8.2 Edit/Delete IP Ranges

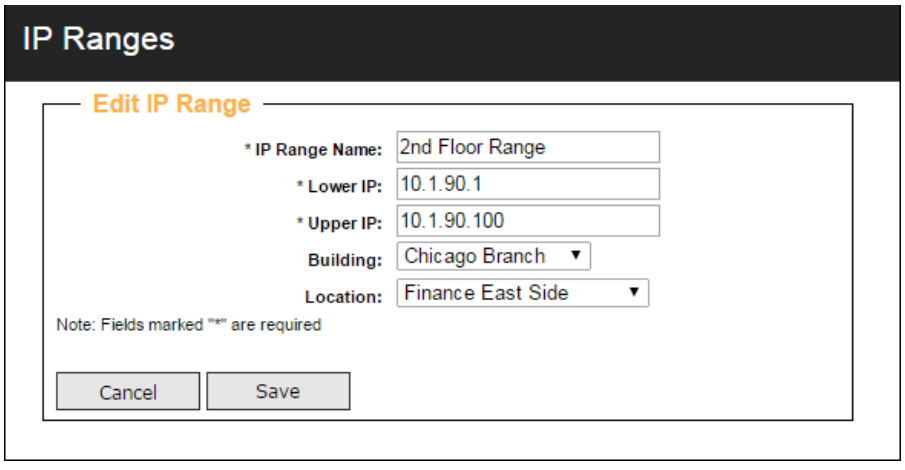
To manage IP range information, select **CONFIGURATION > IP Ranges** from the main menu. **Edit** and **Delete** icons are provided for each IP range in the table. Instructions for editing or deleting are provide below.



Edit IP Range

1. Click the **Edit** icon  associated with a particular IP range.

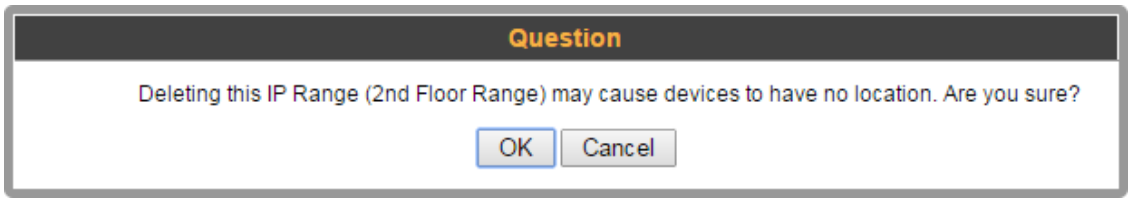
2. Make edits on the Edit IP Range screen, as shown in the example below.



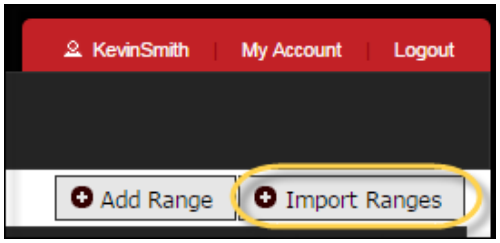
3. Click **Save** when finished.

Delete IP Range

Click the **Delete** icon  associated with a specific IP range. Or, click the checkboxes to select multiple IP Ranges, and then click the **Delete**  button. Next, click **OK** to confirm the deletion.



4.8.3 Import IP Ranges



When importing IP Ranges a predefined format must be used. See below for format guidelines. This is also instructed on the individual import page.

CVS Row Format (range name, start IP address, end IP address, building UID, location name)

*All fields are required. Building UID and location name must resolve to an existing location

A Sample Format is available which will show you the column variable layout.

The IP Range Report is also accessible from the Import page which will provide a list of IP Ranges within your company which matches the importing format.

4.9 Configure Network Switches

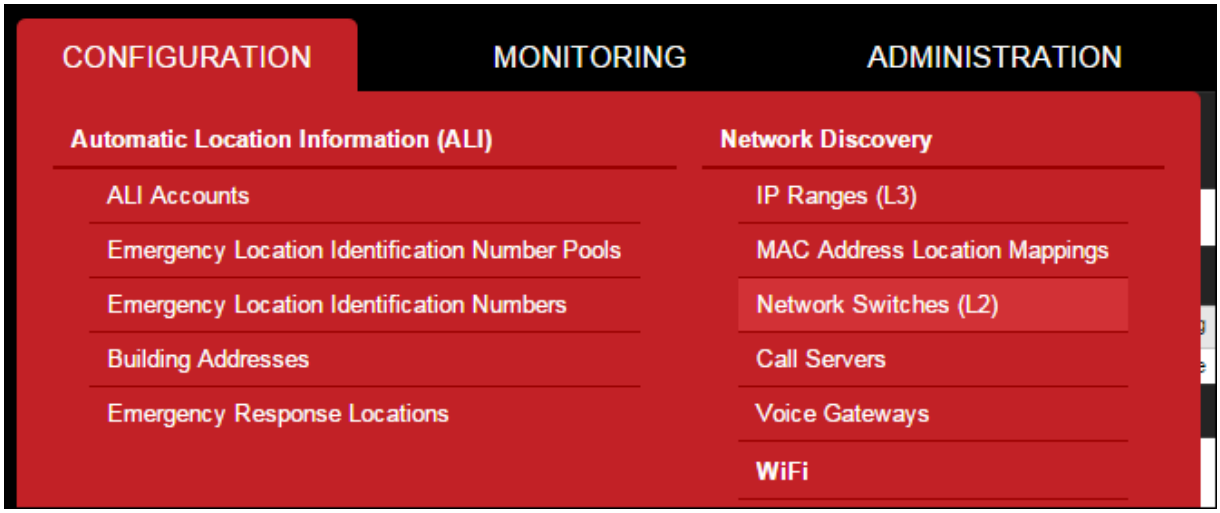
E911 Manager® supports two methods of location determination for IP phones, Network Regions and Layer 2/Port Level Discovery. Both of these methods provide real-time tracking and location determination of IP phones without admin intervention. Phones can move anywhere in the enterprise and their location is automatically discovered and the call server is updated to provide the correct outbound emergency number (ELIN). Although RedSky configured your network information in E911 Manager® during implementation, any changes to IP Ranges or Network Switches must be reflected in E911 Manager®. E911 Manager® maintains

a detailed table of all network switches in your enterprise. If your network is reconfigured or a switch is repurposed, you'll need to update network switch information in E911 Manager®.

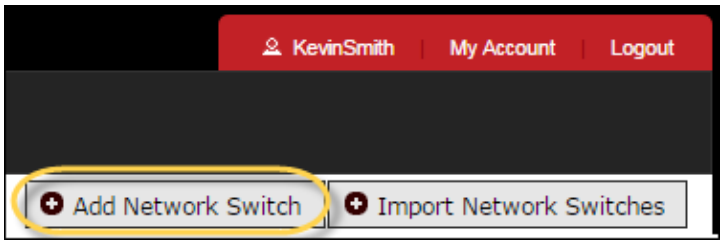
4.9.1 Add Network Switch

Follow the instructions below to add a network switch.

1. Select CONFIGURATION > Network Switches from the main menu.

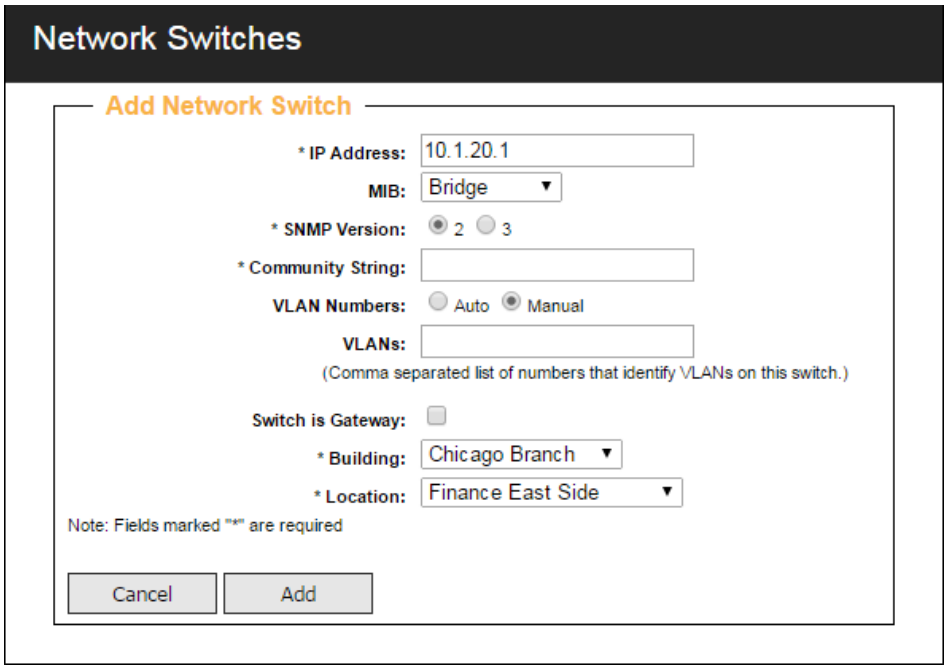


2. Click the **Add Network Switch** button.



3. Type in your network switch information.

Note: Buildings and locations must be configured before adding an associated network switch. See the sections titled Configure Building and Configure Emergency Response Locations (ERLs for more information.



4. Click **Add** when finished.

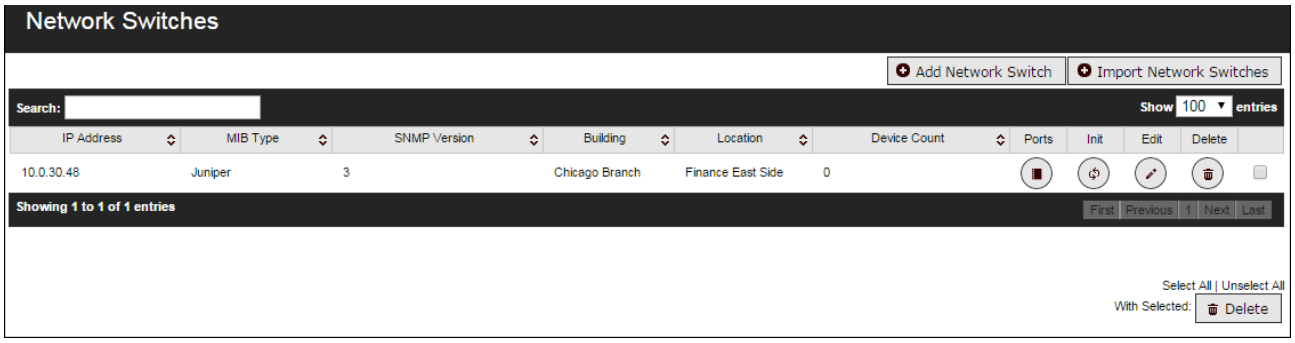
5. Add Network Switch Field Selections

Field	Description	NENA Field Mapping
IP Address *100 characters maximum* *Numbers & Characters & Special Characters Allowed*	Place in the name of the location in this field.	
MIB	This will be auto populated with pre-defined building locations to choose from.	
SNMP Version *10 characters maximum*	Select the version of SNMP the switch is using.	

Numbers & Characters & Special Characters Allowed		
Community String	Place in the string associated to the switch in this field	
Username ***SNMP V3 Field ONLY***	Place in the username associated to the network switching in this field.	
Authorization String ***SNMP V3 Field ONLY***	If the network switch security was setup with an Authorization String, place that in this field	
Privacy String ***SNMP V3 Field ONLY***	If the network switch security was setup with an Privacy String, place that in this field.	
VLAN Numbers *50 characters maximum* *Numbers & Characters & Special Characters Allowed*	If this variable is populated the name provided will override the name of the company.	
VLANS *Check Box Selection*	By selecting this box you're allowing this location to not have an ELIN assigned. The following warning will be presented upon checking this box. *"Warning: This information may not be used as location information for*	

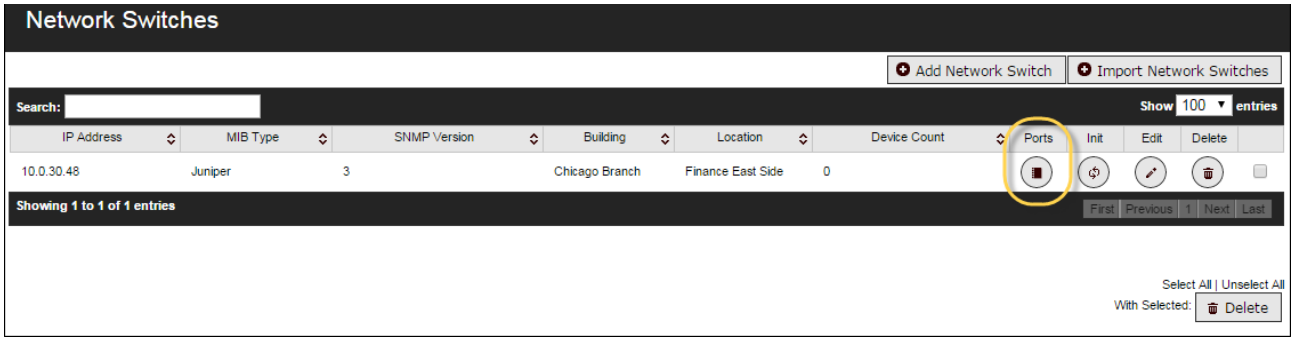
	emergency calling. An ELIN must be assigned for location information to be displayed at the PSAP. Proceed?"	
Switch is a Gateway	This field will be pre-populated with an available ELIN from the given pool. Other ELINs will be selectable from the drop down menu.	

The new network switch will appear in the table, as shown in the example below. As a final step, click the **Init** button  to refresh the configuration.

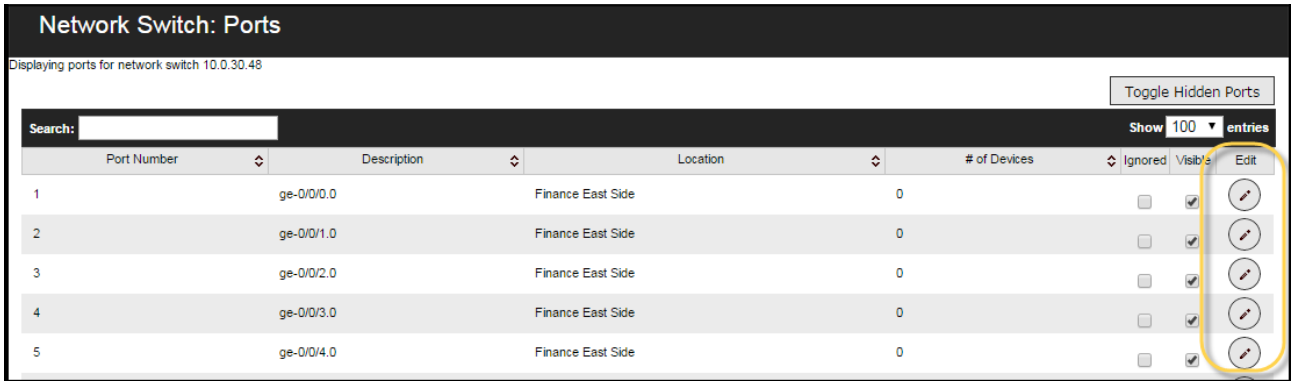


4.9.2 Viewing/Edit Ports

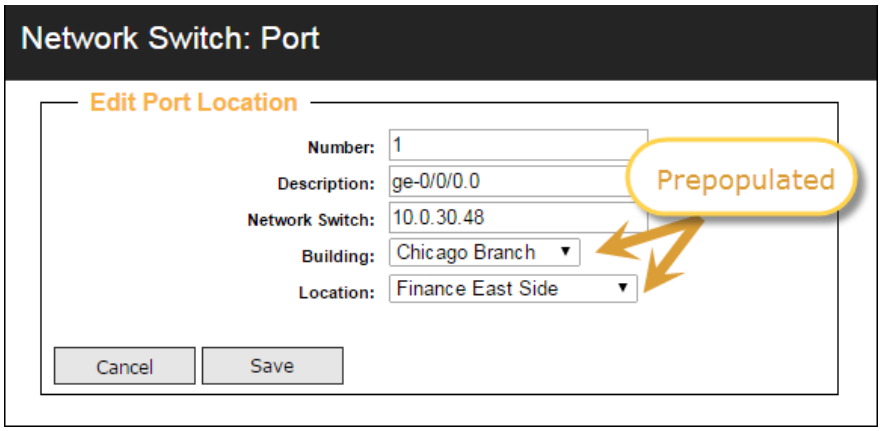
Detailed port information for network switches can be accessed by selecting the **View Ports**  icon for associated switches, as shown below.



This launches the port table for that network switch.

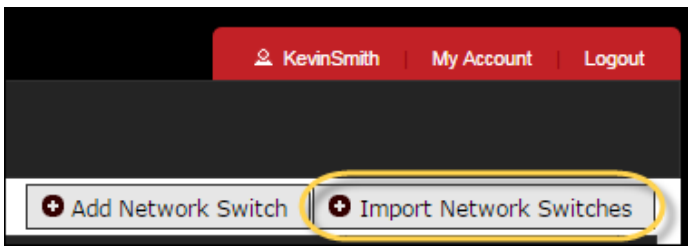


Any port may be edited if its location changes. Click the **Edit** icon  for a particular port number to edit it. This launches the Edit Network Switch Port screen, as shown in the example below. Make any necessary edits to the port location, then click **Save** when finished.



Note: If editing building and location information for an associated network switch port, configure these items before editing the port. See the sections titled Configure Building and Configure Emergency Response Locations (ERLs for more information.

4.9.3 Import Network Switches



When importing Network Switches a predefined format must be used. See below for format guidelines. This is also instructed on the individual import page.

CVS Row Format (IP Address, MIB Type, SNMP Version, VLANs, Subnet Mask (gateway), Building UID, Location Name, Community String (v2) / Username (v3), Auth Type (v3), Auth (v3), Priv Type (v3), Priv (v3))

*All fields EXCEPT subnet mask, and the fields that don't apply to the selected SNMP version, are required.
Building UID must match an existing building.
MIB Type must be one of: Bridge, Extreme, Juniper, or Cisco.
VLANs: Use a **space** separated list of VLANs, do not use commas. You can also use *auto* for Cisco switches and the system will retrieve all active VLANs automatically.
Auth Type is one of: NONE, MD5, SHA.
Priv Type is one of: NONE, DES3, AES128, AES192, AES256, DES.
Uploaded locations are matched to existing locations by matching building UID and location name.

A Sample Format is available which will show you the column variable layout.

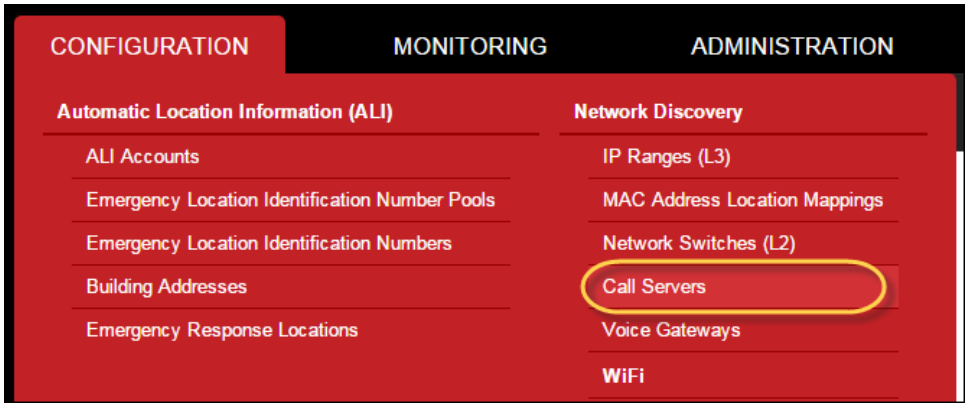
The Network Switch Report is also accessible from the Import page which will provide a list of Network Switches within your company which matches the importing format.

4.10Configure Call Servers

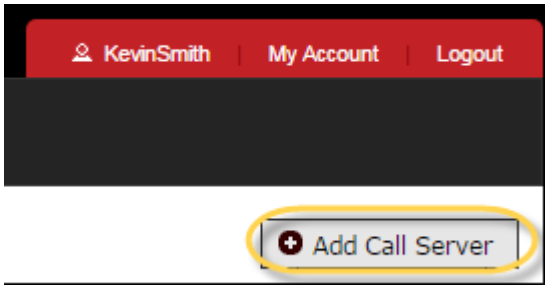
The application is configured with specific connection information for each of the call servers in your environment. Updates will be necessary if new servers are added. Also, updates will be necessary if IP address, port, or login information changes for a particular server. These types of changes can occur when a network is redesigned, for example.

4.10.1 Add Call Server

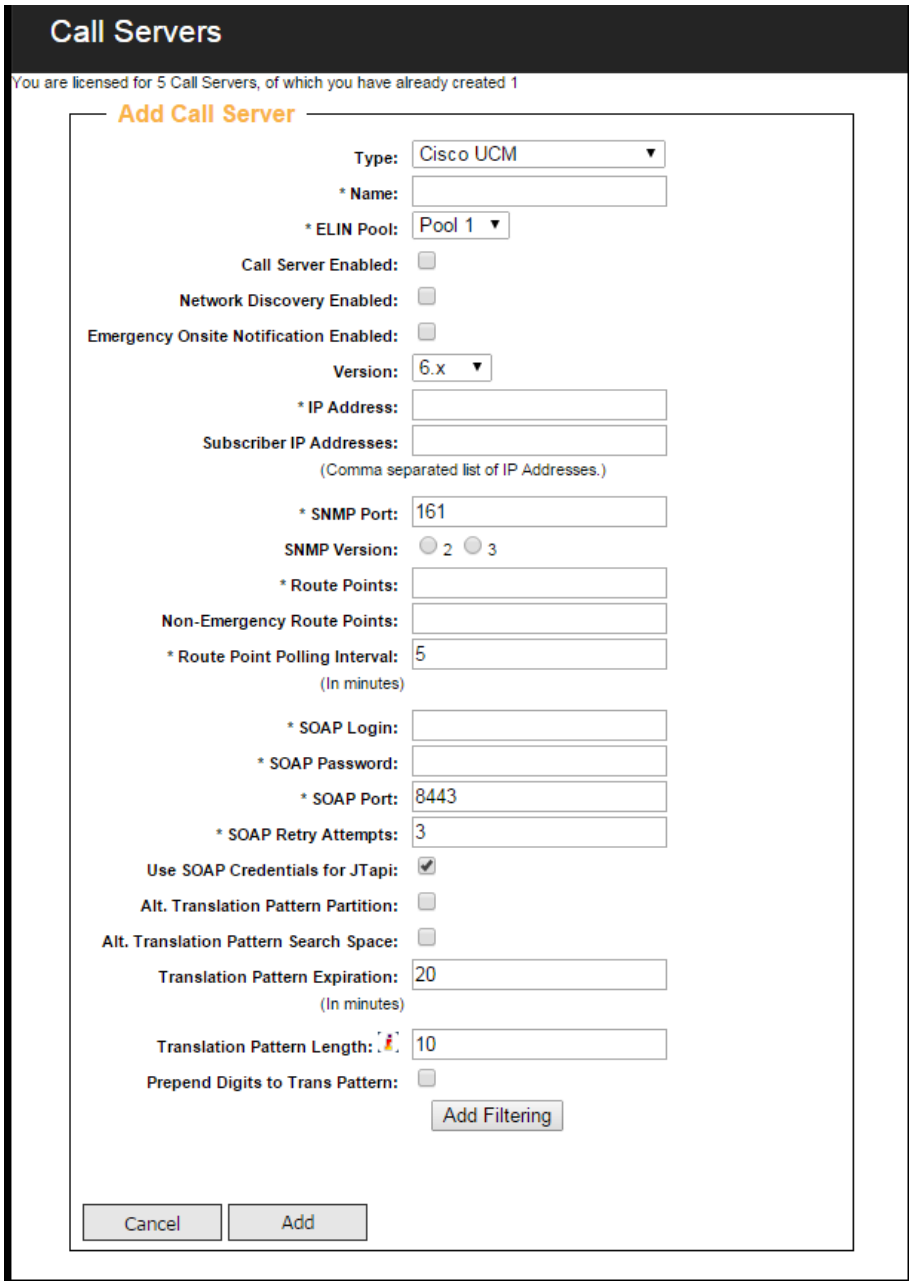
1. Select **CONFIGURATION > Call Servers** from the main menu.



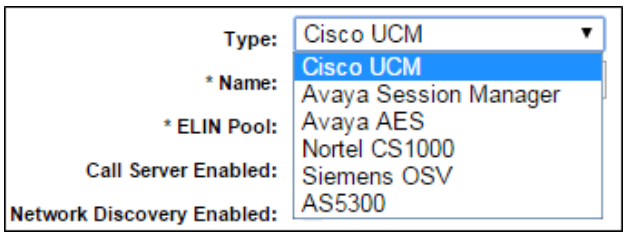
2. Click **Add Call Server** on the right of the screen.



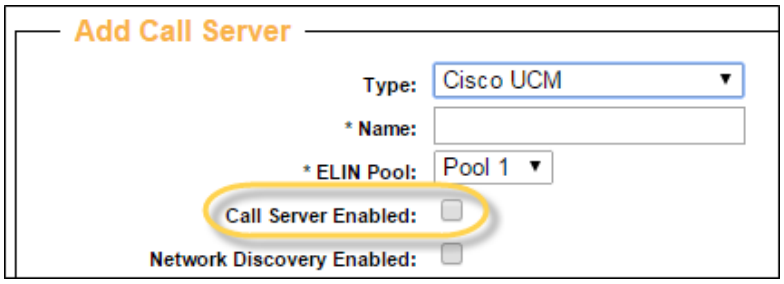
3. Type in the call server **Name** in the first field. This is a required field.



4. Select the call server **Type** and **Version** from the drop-downs. Selecting a different type will load a different set of input fields that are specific to the call server type.



5. Select the first checkbox to enable the call server. This checkbox triggers the phone system adapter, which handles the integration of E911 Manager® with the selected call server.



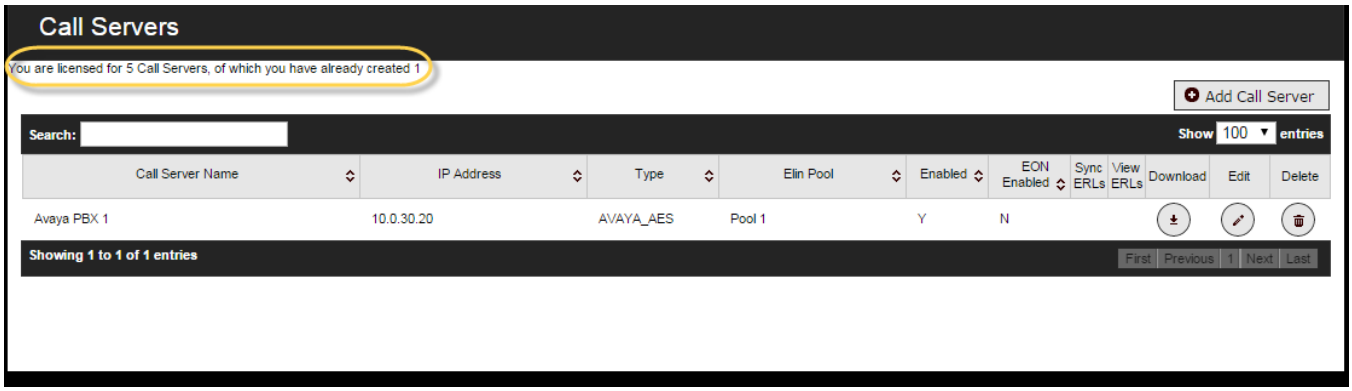
Note: The **Network Discovery Enabled** checkbox allows E911 Manager® to detect new devices and update the call server, if needed. It must be checked for network discovery to occur. The **Emergency Onsite Notification Enabled** checkbox enables E911 Manager® EON service. These two checkboxes only apply to customers licensed for these services.

6. Type in the information for your call server type in the required fields. This includes information like passwords, IP addresses, logins, etc. Cisco call servers have additional configuration options described below. Select all that apply.

   - **Alt. Translation Pattern Partition** gives users the flexibility to have e911 Manager® write to different route partitions in the CUCM.
   - **Alt Translation Pattern Search Space** gives users the flexibility to have e911 Manager® use a different search space when writing the translation pattern CUCM.
   - **Translation Pattern Expiration** defines how long the translation pattern e911 Manager® creates will be active. This allows a PSAP to call the person who dialed 911 back.
   - **Translation Pattern Length** defines how many digits from the left to include in the translation pattern. It is 4 digits by default (typically a person's extension).
   - **Prepend Digits to Trans Pattern** defines what digits to add onto the right side of the translation pattern. For example, it can give an alternative area code to the translation pattern.

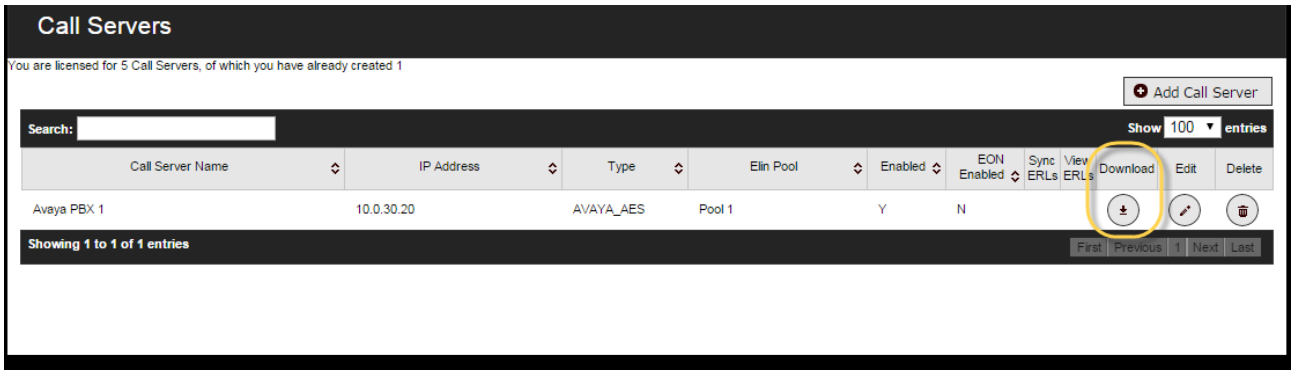
7. Click **Add** when finished.

The new call server will appear in the table, as shown in the example below. Add as many call servers as needed, but the number can't exceed the number of licenses.



4.10.2 Download from the Call Server

Manual downloads can be performed with certain call servers in the table, as shown in the example below.



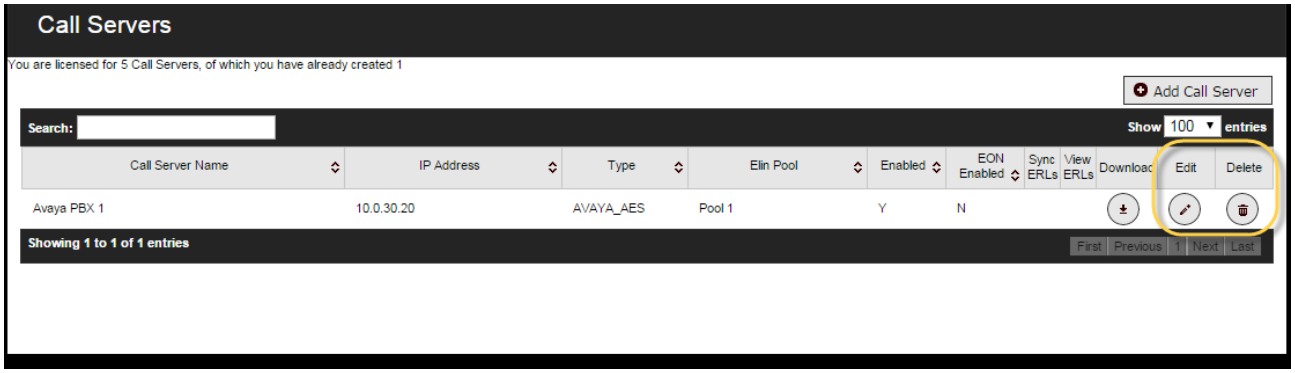
After the initial download of all call server information, generally only routine updates to the call server will occur. However, there are cases, such as the addition of phones or devices, which may require an entire call server download. Downloading retrieves a complete list of all devices and registered phones and populates these as endpoints in E911 Manager®. In the event that a routine call server update failed, a manual download and import could also be run to isolate problem. See the section titledImport of the Call Server for more information on scheduled and manual downloads.

The download process may take at least several minutes. Select **MONITORING > Device Status (Endpoints)** to see a table of devices and registered phones.

4.10.3 Edit/Delete Call Servers

The application is configured with specific connection information for each of the call servers in your environment. To manage call server information, select **CONFIGURATION** > **Call Servers** from the main

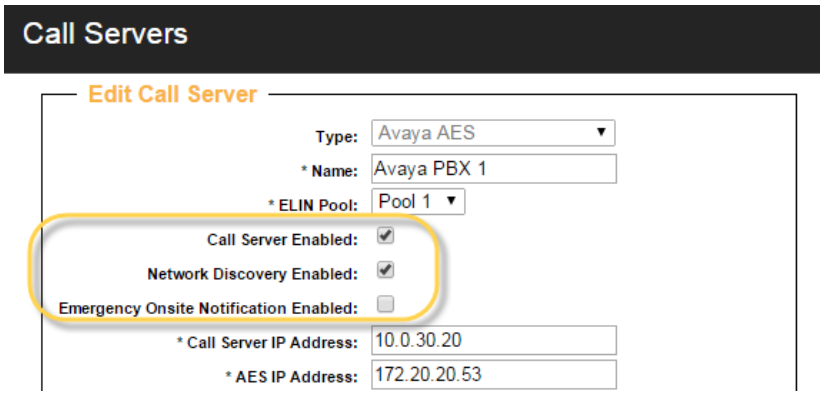
menu. **Edit** and **Delete** icons are provided for each server name in the table. Instructions for editing or deleting are provide below.



Edit Call Servers

First, click the **Edit** icon  associated with a particular call server. Next, make your edits on the Edit Call Server screen, as shown in the example below.

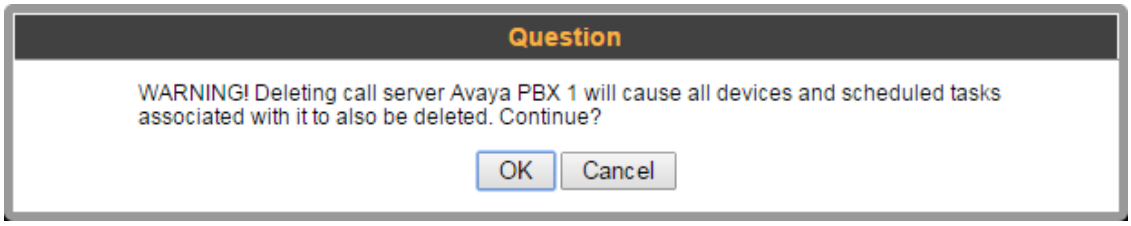
The **Call Server Enabled** checkbox triggers the phone system adapter, which handles the integration of E911 Manager® with the selected call server. The **Network Discovery Enabled** checkbox allows E911 Manager® to detect new devices and update the call server, if needed. It must be checked for network discovery to occur. The **Emergency Onsite Notification Enabled** checkbox enables E911 Manager® EON service. These two checkboxes only apply to customers licensed for these services. The first three checkboxes may be deselected for troubleshooting.



Click **Save** when finished editing.

Delete Call Servers

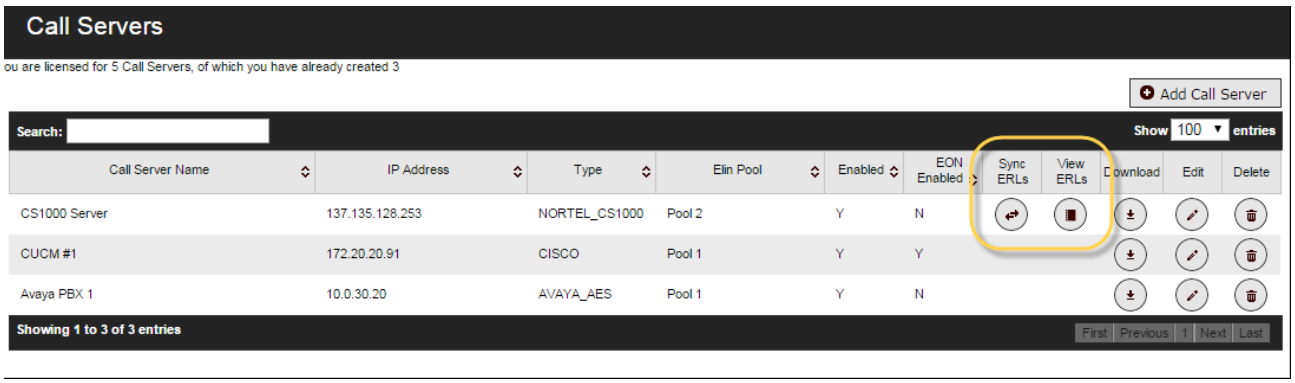
Click the **Delete** icon for a particular call server to remove it from the table. Next, click **OK** to confirm the deletion.



Note: Deleting a call server does not delete a license. The number of licenses shown in E911 Manager® is unique to each particular company. Additional call servers can be added as long these do not exceed the number of licenses. The only time a key would become invalid is if more call servers were added than allowed.

4.10.4 Sync/View ERLs

f your call server is the Nortel CS1000, you're provided with additional tools for synchronizing and viewing ERLS, or Emergency Response Locations, as shown below. ERLs allow the PSAP to provide more precise location information in the event of a 911 call. Without ERLs, PSAP operators may only see a single address, which would make locating a 911 caller difficult at a location with multiple buildings or floors, for example.



Sync ERLs

Clicking the **Sync ERLs** icon takes E911 Manager® locations and adds these to the CS1000 call server. Click **OK** to complete the request.

View ERLs

In a normal situation, the user or Admin adds buildings, locations, and ELINs to the E911 Manager application, and E911 Manager® dynamically pushes that data to the ERL table in the CS1000. At any time, you can click the **View ERLs** icon to see the relationship between the internally defined locations and the ERL table entries in the PBX.

4.10.5 Filtering

E911 Manager allows you to filter out specific devices based on criteria you define through Regular Expressions.

Format Example: *Name = DMCC.**

This would filter any station where the display name begins with “DMCC”

Format Example: Name=*DMCC.*|.*Voice.*

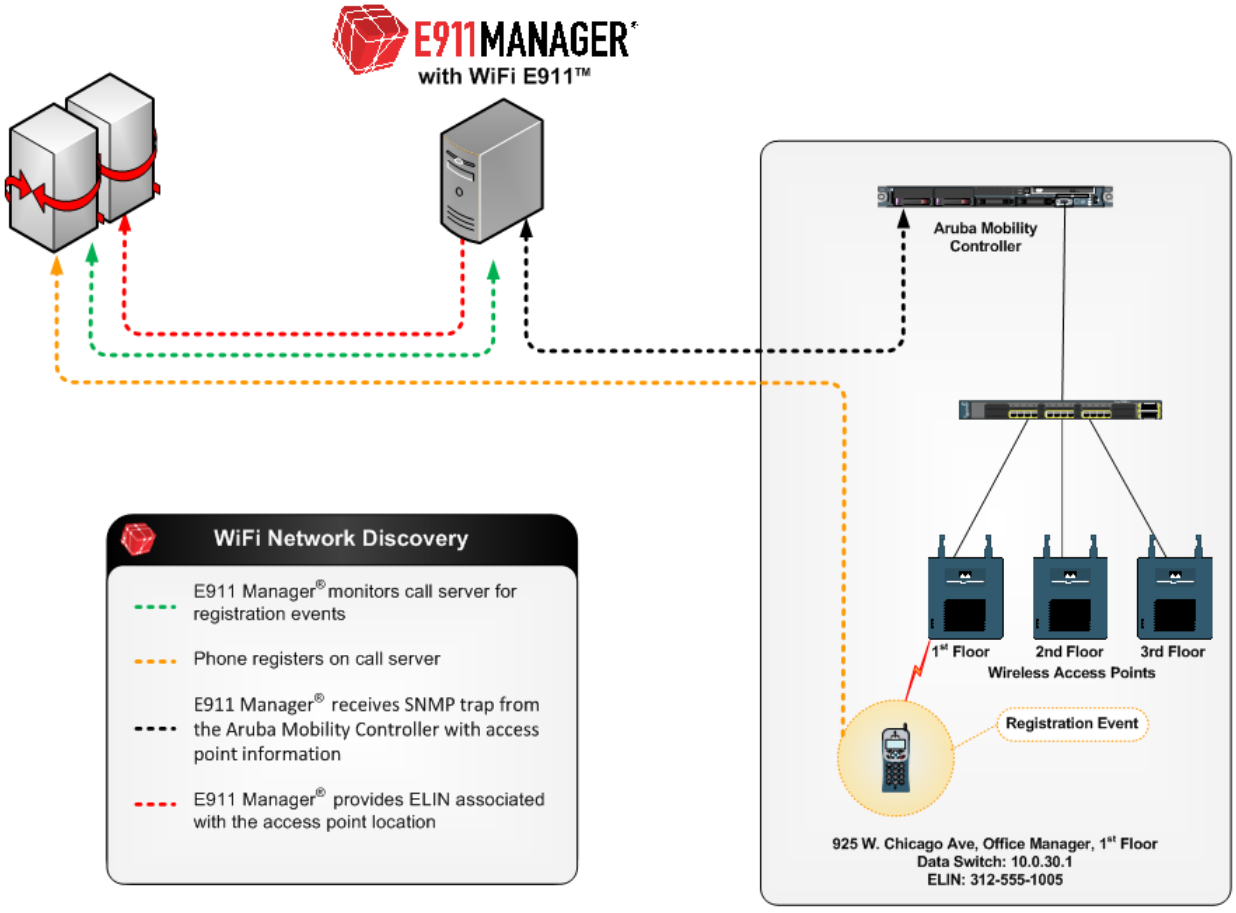
This would filter any station where the display name begin with “DMCC or “Voice”

Filtering is allowable on Avaya AES, Avaya CS1000 and Cisco CUCM call servers. Please see the Filtering Guide located in the User Guide section of the RedSky forum for details on which fields are filterable per PBX.

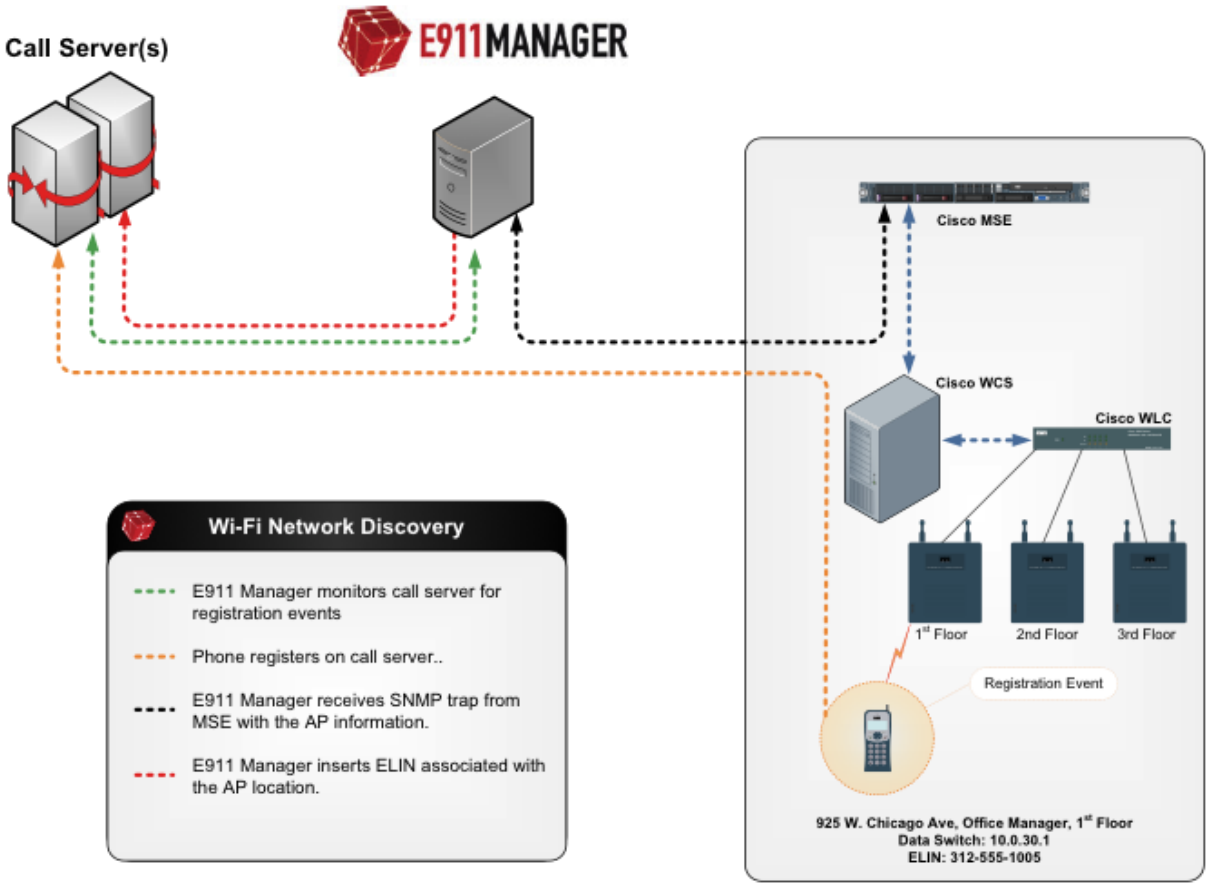
4.11Configure WiFi

Mobile phone users on WiFi networks can be anywhere on the network. If they dial 9-1-1, enterprises need accurate location information for emergency responders. WiFi E911™ is a software feature on RedSky's award-winning E911 Manager® platform that works seamlessly with enterprise WiFi networks to track the location of WiFi phones in real time and provide routing instructions to the call server when a 9-1-1 call is made.

4.11.1 Aruba Mobility Controller Diagram



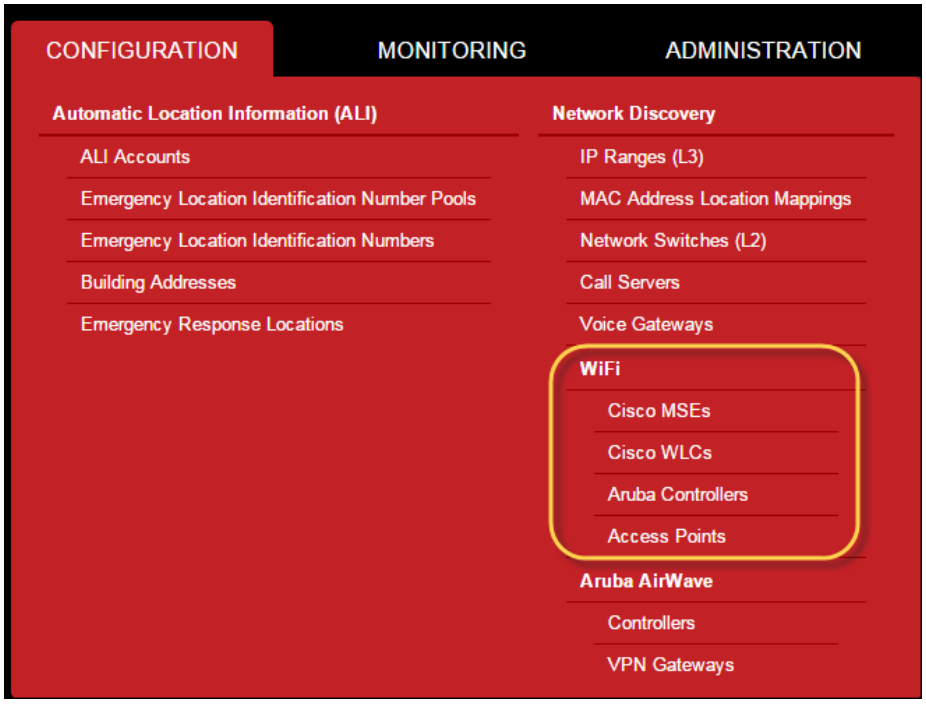
4.11.2 Cisco MSE Controller Diagram



4.11.3 Configure WiFi Controllers

Both Cisco MSE and Aruba Wifi controllers can be added, edited and deleted in E911 Manager®.

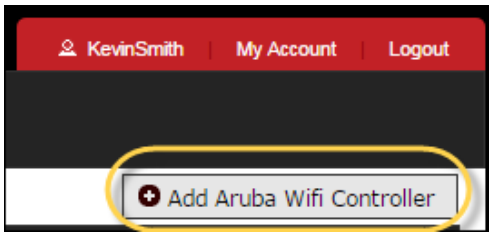
1. Select **CONFIGURATION > WiFi** from the main menu.



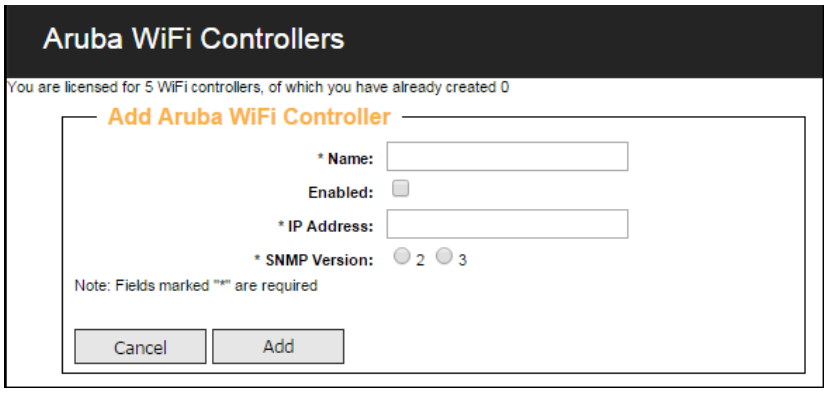
2. Select the appropriate controller type from the menu. E911 Manager® is compatible with the following:

- Aruba
  - Aruba Series 600, 3000, 6000, 7200 WiFi Controllers
  - Aruba Series 90, 100, 130 & 69, 68P, 177 Access Points
  - Aruba RAP-3 Remote Access Points
- Cisco
  - Cisco MSEs
  - Cisco APs
  - Cisco WLCs

3. Click the **Add** button on the right of the screen.



4. Add your WiFi controller information. Certain fields are required.

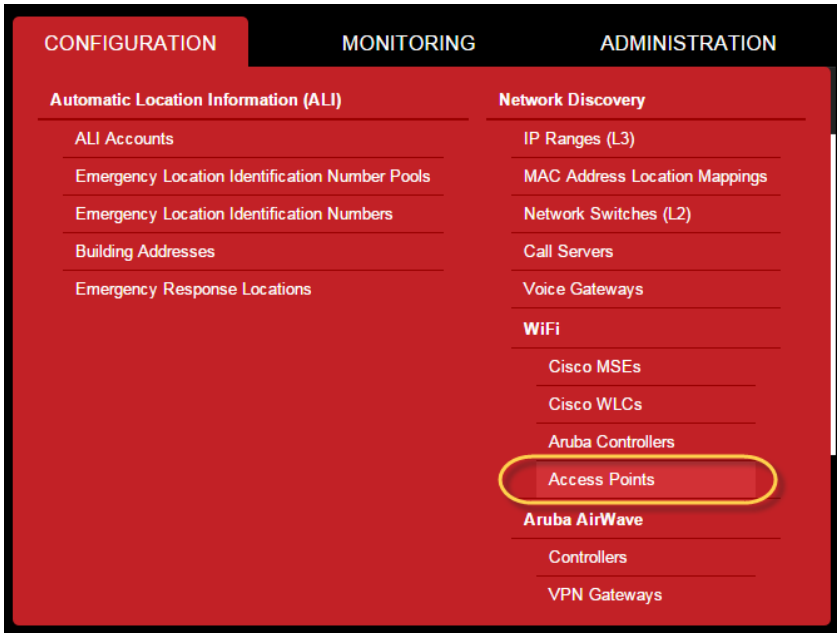


5. Click **Add**.

You can view saved WiFi controllers and WiFi access points by selecting **CONFIGURATION > WiFi** from the main menu.

4.11.4 Access Points

E911 Manager® allows you to view all of the WiFi access points in your organization. Select **CONFIGURATION > Wifi > Access Points** from the main menu. This links to a table that lists the name for each access point as well as its Wifi controller, building and location.

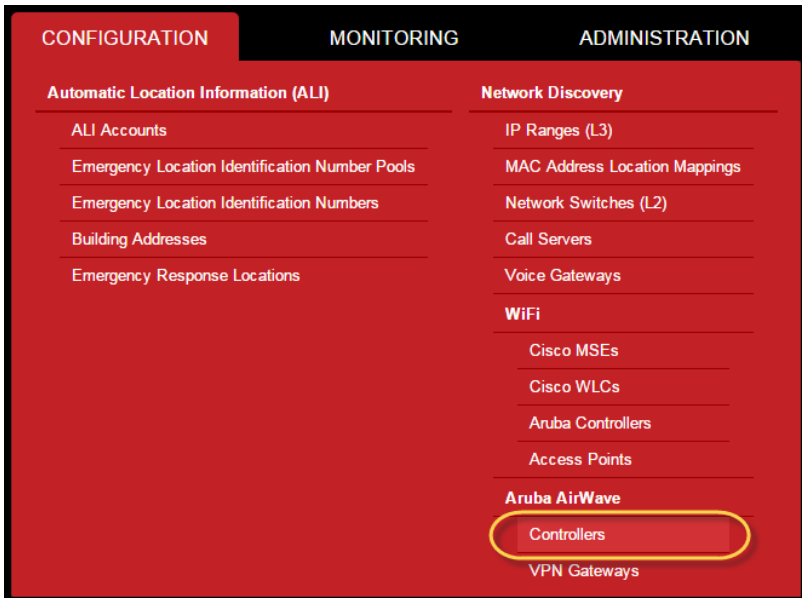


5.14 Configure Aruba AirWave

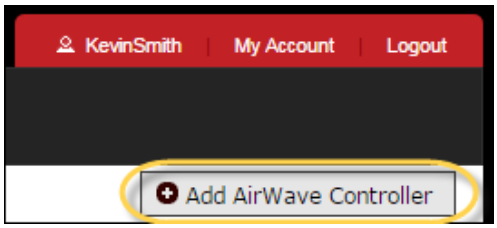
E911 Manager® lets you configure Aruba AirWave controllers as well as edit and delete VPN Gateways associated with each controller.

4.11.5 Configure Aruba Airwave Controllers

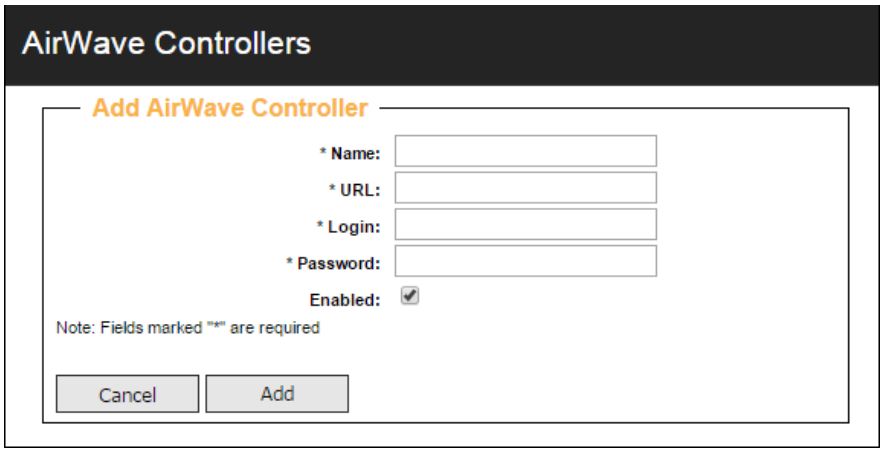
1. Select **CONFIGURATION > Aruba AirWave > Controllers** from the main menu.



2. Click the **Add** button on the right of the screen.

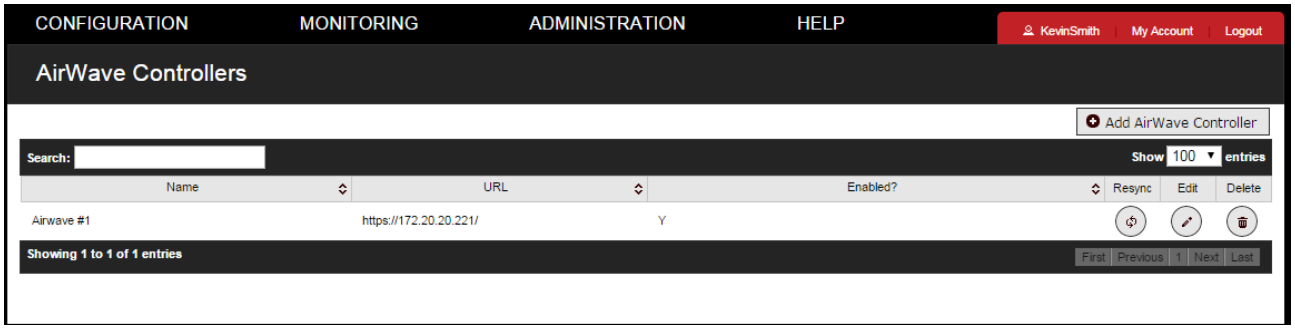


3. Add your AirWave controller information. Certain fields are required.



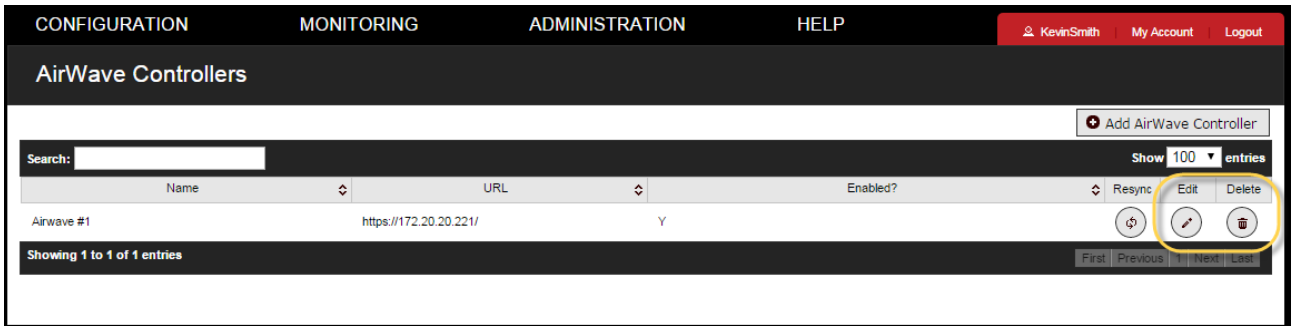
4. Click **Add**.

You can view saved AirWave controller information by selecting **CONFIGURATION > Aruba AirWave > Controllers** from the main menu.



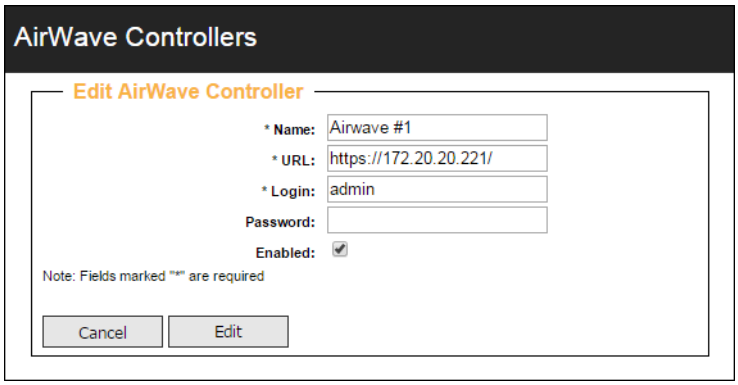
4.11.6 Edit/Delete AirWave Controllers

The application is configured with specific information for each of the Aruba AirWave controllers in your environment, and admins will not need to edit controller information on a regular basis. However, to manage controllers, select **CONFIGURATION** >**Aruba AirWave > Controllers** from the main menu. **Edit** and **Delete** icons are provided for each controller in the table. Instructions for editing or deleting are provide below.



Edit AirWave Controllers

First, click the **Edit** icon  associated with a particular controller. Next, make your edits on the Edit Call Server screen, as shown in the example below.

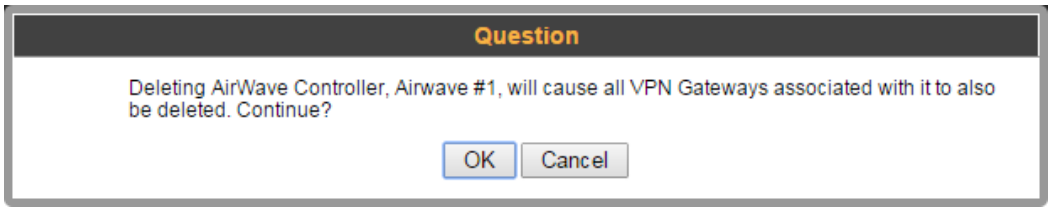


Click **Edit** when finished editing.

Delete AirWave Controllers

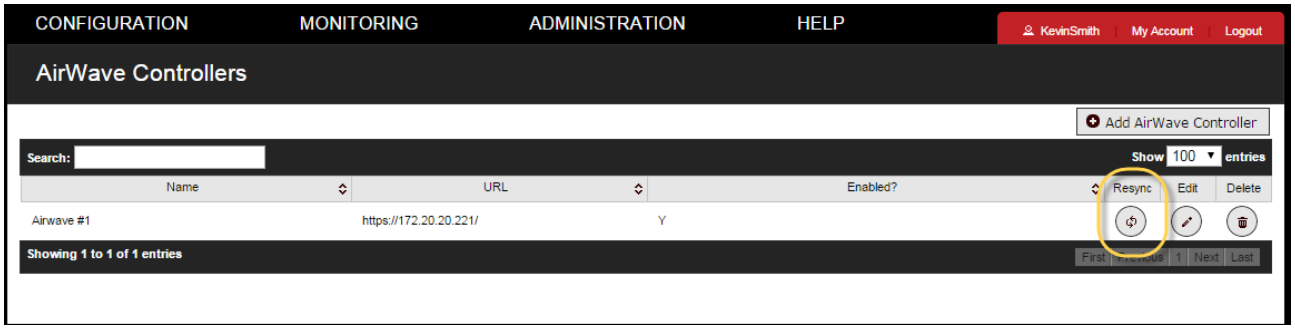
Click the **Delete** icon for a particular controller to remove it from the table. Next, click **OK** to confirm the deletion.

NOTE: Deleting an AirWave Controller will also delete all associated VPN Gateways.



4.11.7 Resync Controllers

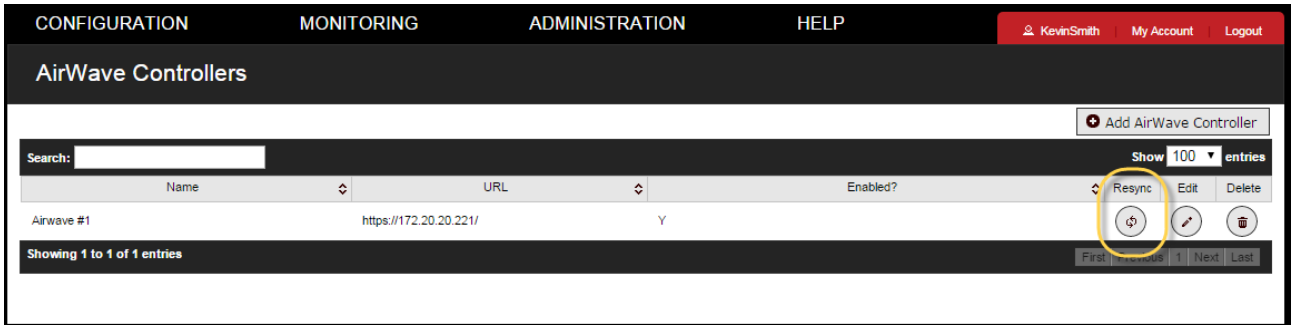
Aruba AirWave tracks all VPN Gateways, which are used from remote locations, such as an employee's home. You will need to delete or edit a VPN Gateway if a remote employee moves or leaves the company. Clicking the **Resync** button of an associated controller will delete all VPN Gateways that are no longer valid.



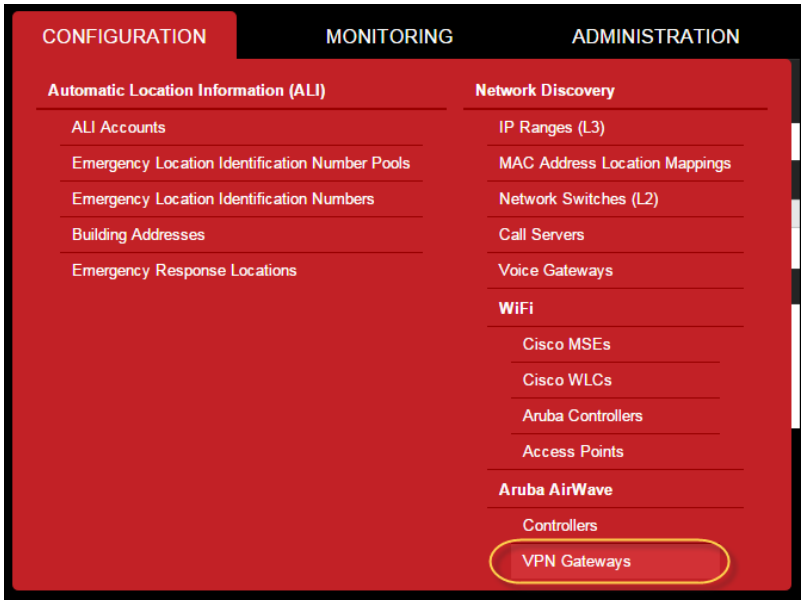
You can also manually edit and delete VPN Gateways. See the next section.

4.11.8 View/Edit VPN Gateways

Aruba AirWave tracks all VPN Gateways, which are used from remote locations, such as an employee's home. You will need to delete or edit a VPN Gateway if a remote employee moves or leaves the company. Clicking the **Resync** button of an associated controller will delete all VPN Gateways that are no longer valid.



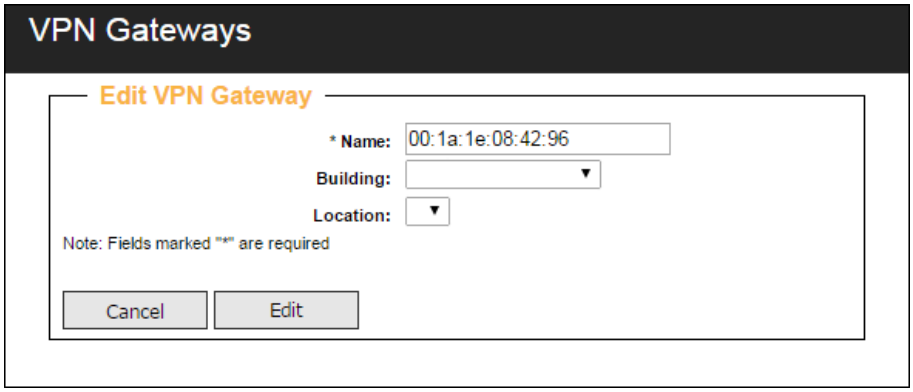
E911 Manager® also lets you manually edit and delete VPN Gateways associated with each Aruba AirWave controller. To manage VPN Gateway information, select **CONFIGURATION > Aruba AirWave > VPN Controllers** from the main menu. **Edit** and **Delete** icons are provided for each VPN Gateway in the table. Instructions for editing or deleting are provide below.



Edit Aruba Airwave VPN Gateways

1. Click the **Edit** icon  associated with a particular VPN gateway.

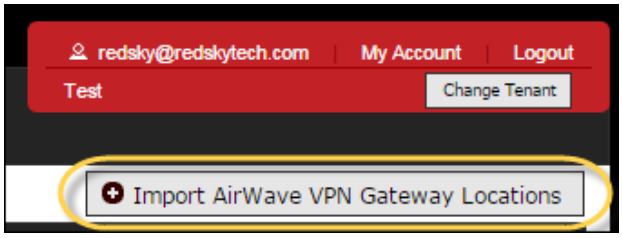
2. Make edits on the Edit VPN Gateway screen, as shown in the example below. The **Name** field is required.



3. Click **Edit** when finished.

You can view saved VPN Gateway information by selecting **CONFIGURATION > Aruba AirWave > VPN Gateway** from the main menu.

4.11.9 Import Aruba Airwave VPN Gateways



When importing Aruba Airwave VPN Gateways a predefined format must be used. See below for format guidelines. This is also instructed on the individual import page.

CVS Row Format (*VPN Gateway MAC Address, Building UID, Location Name)

*All fields are required. Building UID and location name must resolve to an existing location.

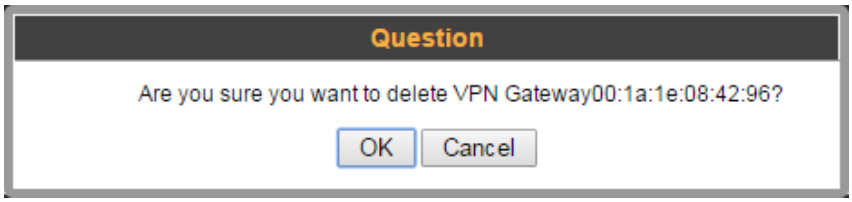
A Sample Format is available which will show you the column variable layout.

The Airwave VPN Gateway Report is also accessible from the Import page which will provide a list of Airwave VPN Gateways within your company which matches the importing format.

4.11.10 Deleting Aruba Airwave VPN Gateways

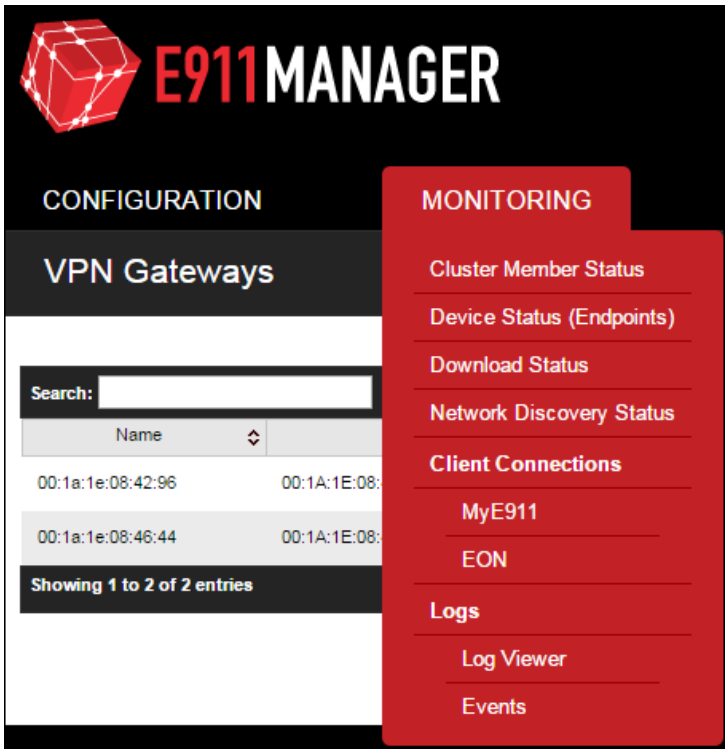
Delete VPN Gateways

Click the **Delete** icon  associated with a specific VPN Gateway. Next, click **OK** to confirm the deletion.



5 Monitoring

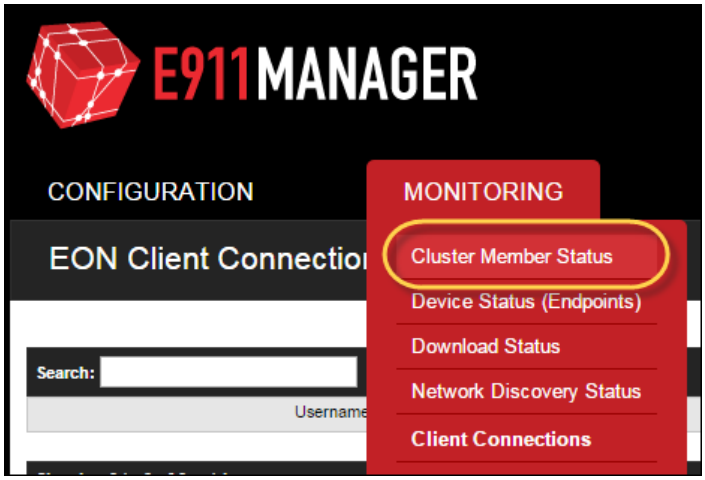
The Monitoring menu has options for overseeing the status of each cluster within the environment along with viewing endpoints, device download status information as well as logs and events.



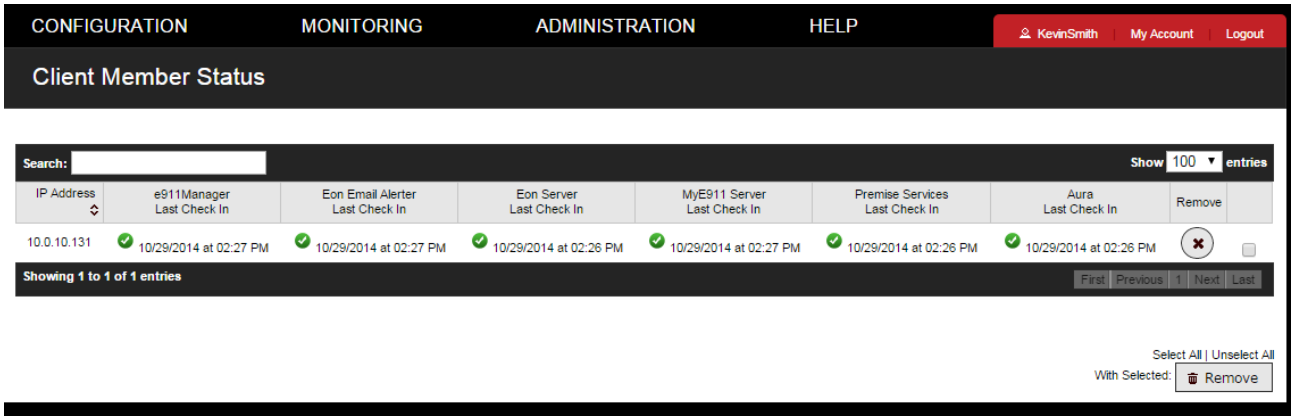
The section titled Cluster Members Status allows you to oversee the main aspects of the system such as the EON server, the MyE911 server, along with the Premise Services. Devices status allows you to see the endpoints within your enterprise and the standing of each. The Download status menu gives you the current standing of the device download performed from your inserted PBX. Upon performing a Network Discovery, this menu will help you follow along with the status of the device data transfers. The Client Connections menu gives you the status of any installed MyE911 and EON clients.

5.1 Cluster Member Status

E911 Manager® lists all endpoints, or devices and registered phones, on your network. To view endpoints, select **MONITORING > Cluster Member Status** from the main menu.

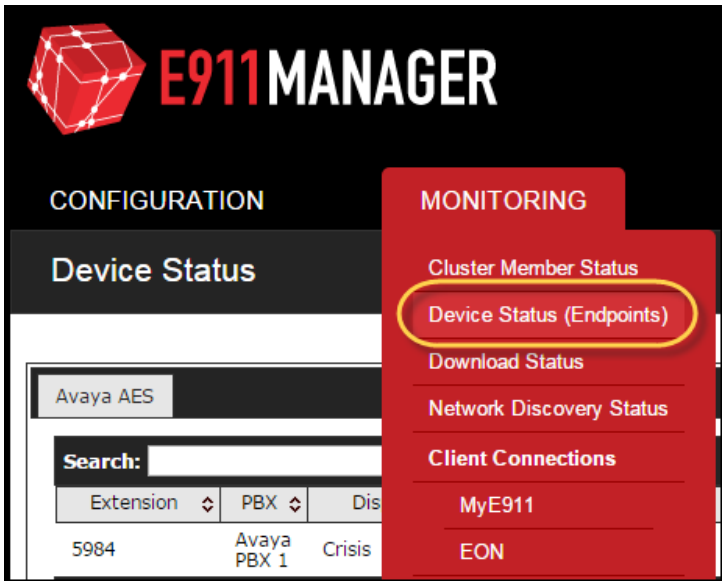


The Cluster Member Status page gives you status of the E911 Manager server, the EON Email Alerter Server, the MyE911 Server, the Premise Services, along with the Aura Server if applicable.

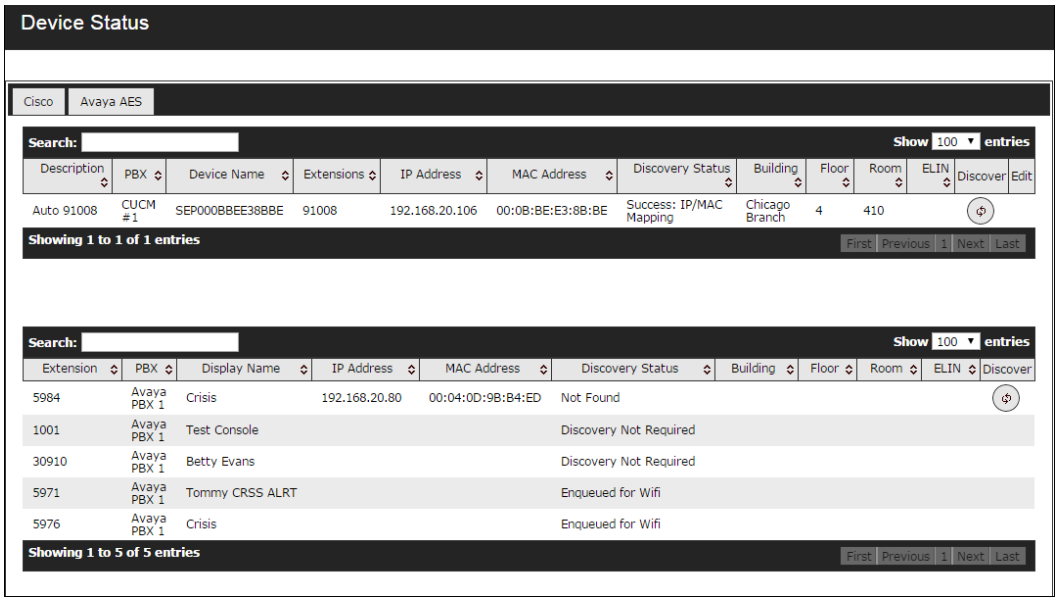


5.2 Device Status (Endpoints)

E911 Manager® provides up-to-date information on the stations that are in queue for discovery. This feature gives users accurate and real-time information about WiFi and Layer 2 device discovery in a visual format. To use this feature, select **ADMINISTRATION > Device Status (Endpoints)** from the main menu.



This links to the Monitor Device Statuses page, as shown in the example below. The number of both enqueued devices and processing devices is listed as well as a log of device status changes.

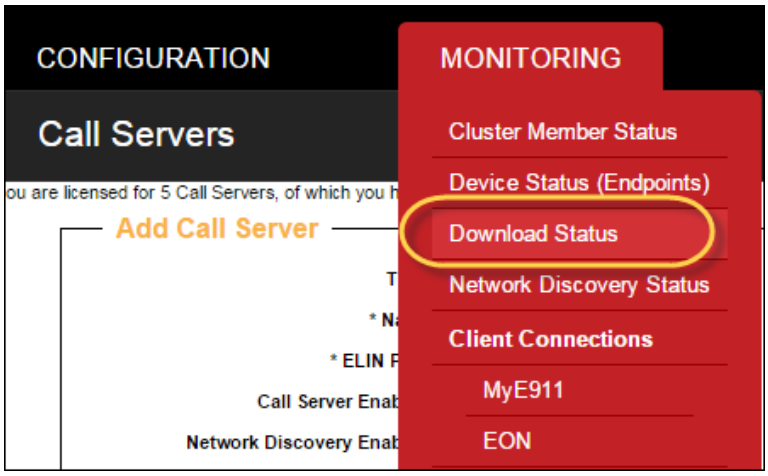


The status of downloads can be viewed by selecting **MONITORING > Device Status (Endpoints)** from the main menu

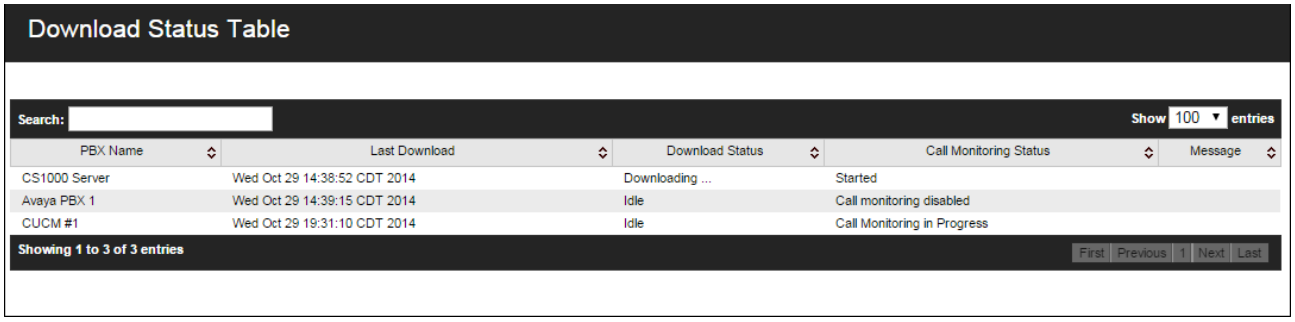
The Device Status page will give you details on the devices found within your PBX.

5.3 Download Status

The download status will give you details on the performance of the devices transferring from the PBX. To view endpoints, select **MONITORING > Download Status** from the main menu.

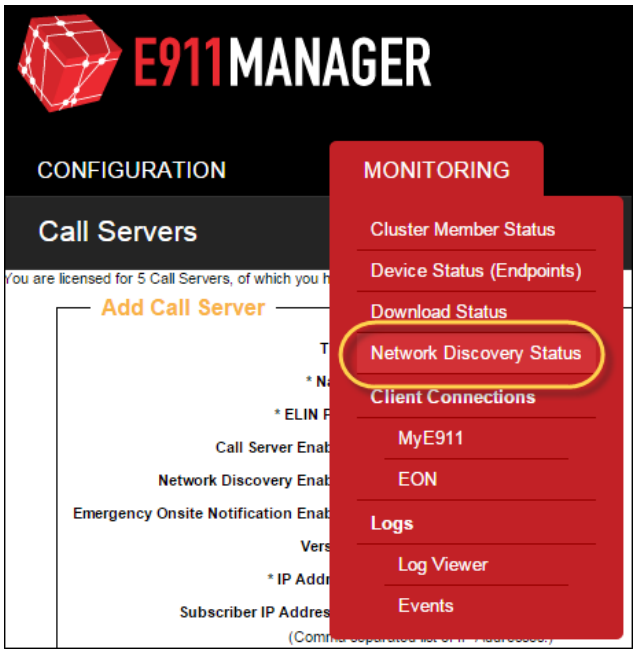


Upon your initial PBX downloads you'll get a table that provides a status of the process as seen below.

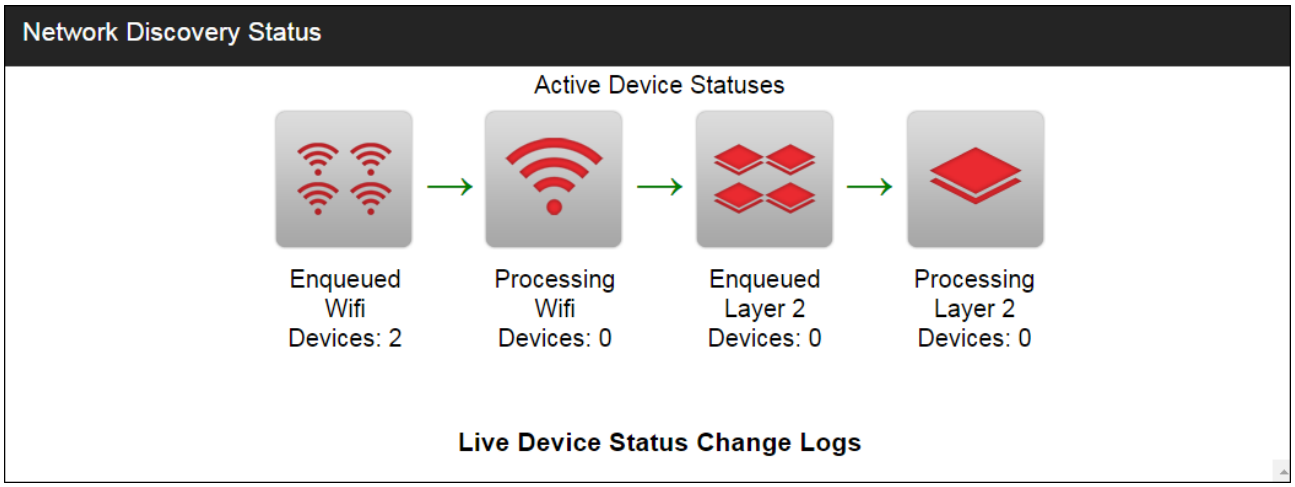


5.4 Network Discovery Status

The network discovery status will give you details on the performance of the devices or endpoints being located in the network. To view endpoints, select **MONITORING > Network Discovery Status** from the main menu.



Once you are on the Network Discovery Page you'll get an illustrated picture of how many devices are enqueued and processing. This is broken down by Wifi and Layer 2 which are both ways the network discovery is performed as seen below.



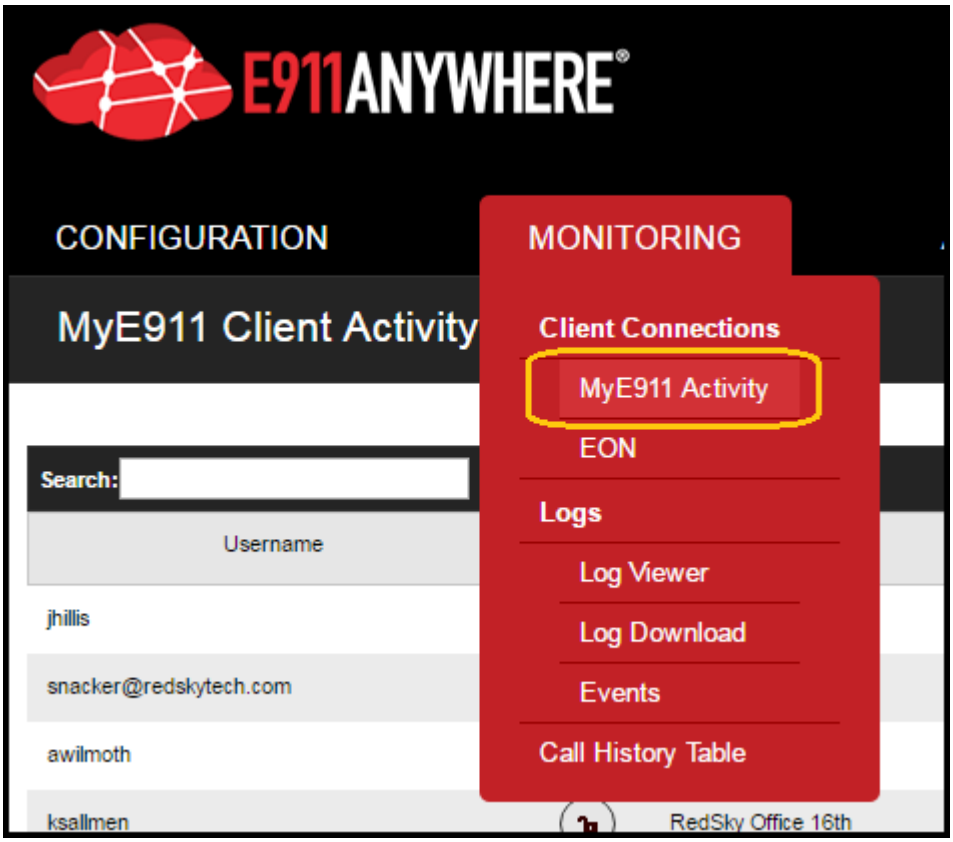
5.4.1 Network Discovery Statuses

Value	Status	Meaning
0	Not Attempted	Device has been identified as online and registered but network discovery has not started
1	Error	Error condition has occurred during network discovery
2	Success: layer three	
3	Enqueued For Layer2	Device has been placed on the layer2 network discovery queue
4	Success: layer two	Device was located successfully by Layer2 discovery
5	Processing Layer2	Device is attempting to be discovered via layer2
6	Not Found	Device was not located by any discovery method (and there were no errors)
7	Not Found - Last Known Location	Device was not located by any discovery method (and there were no errors). Additionally the displayed location value is the previously known location for the given device.
8	Discovery Not Required	Place holder for any TDM device
9	Error - Last Known Location	Errors occurred during the network discovery process (and no location was found). Additionally the displayed location value is the previously known location for the given device.
10	Enqueued For Wifi	Device is in the wifi discovery queue
11	Processing Wifi	Device is being processed by Wifi discovery
17	Success: VPN / Airwave	Device is being processed by VPN or Airwave discovery
18	Success: Site Data	Site Data from Avaya PBX successfully discovered
16	Success: WIFI	Device was located successfully by Wifi discovery
64	Located - Call Server update failed	Network discovery returned a valid location, but the system was unable to update the call server due to some problem

5.1 Client Connection & Activity Pages

E911 Anywhere® lets administrators view which MyE911® and EON users are connections and activities at anytime. MyE911® allows enterprises to provide complete 911 protection to employees who use mobile softphones, whether they are within or outside the corporate network. EON is an optional module that monitors all PBXs and call servers for an outbound 911 call and sends alert messages to security personnel, and emails and SMS messages to administrators and corporate security.

Select **MONITORING> Client Connections** from the main menu to view access information for MyE911®and EON users.

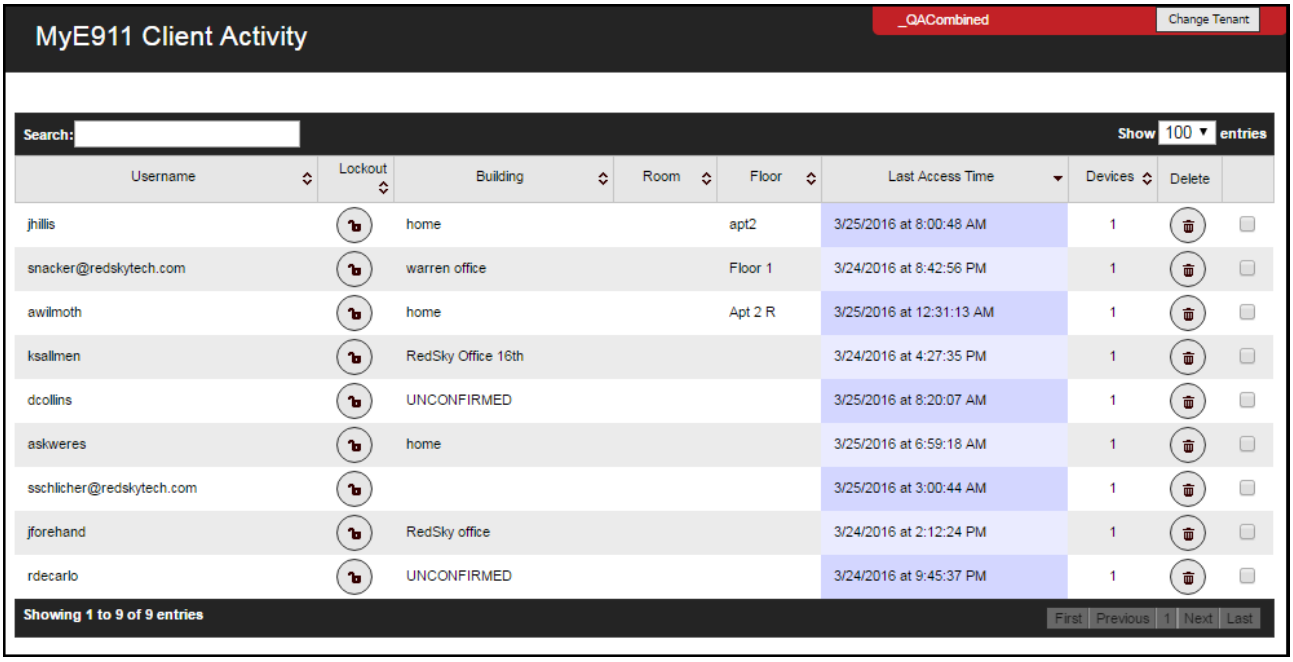


5.1.1 MyE911® Client Activity

The MyE911® software is loaded on the laptop with the softphone for the PC / MAC version. Every time the softphone is booted up, MyE911® for PC / MAC preempts the registration process and requires the user to identify their location to the enterprise.

MyE911 for Mobile® is loaded on an iOS or Android device and updates the location as the user moves from location to location.

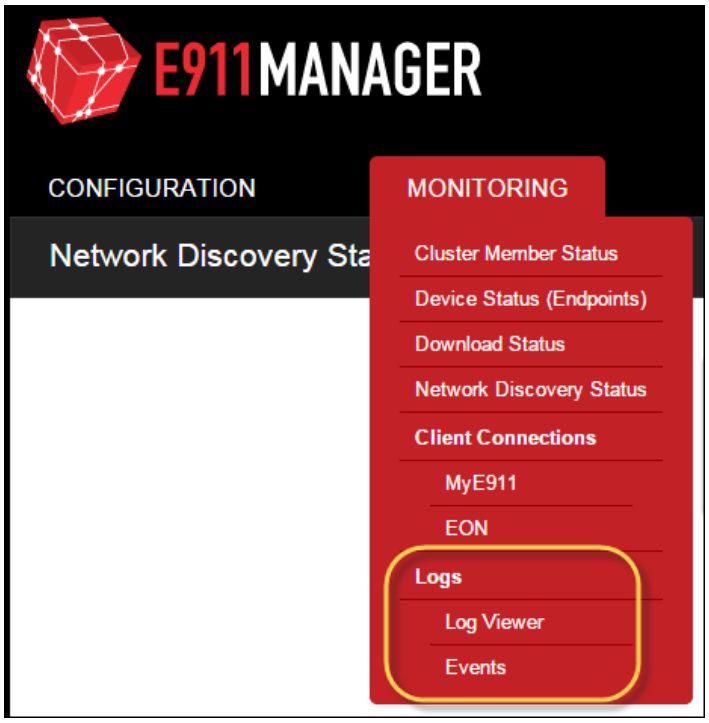
The MyE911 client connection page will show the users current location along with the devices being used. Since the same username will be used for all of the users devices this will store and track all devices and location updates for the administrator to oversee.

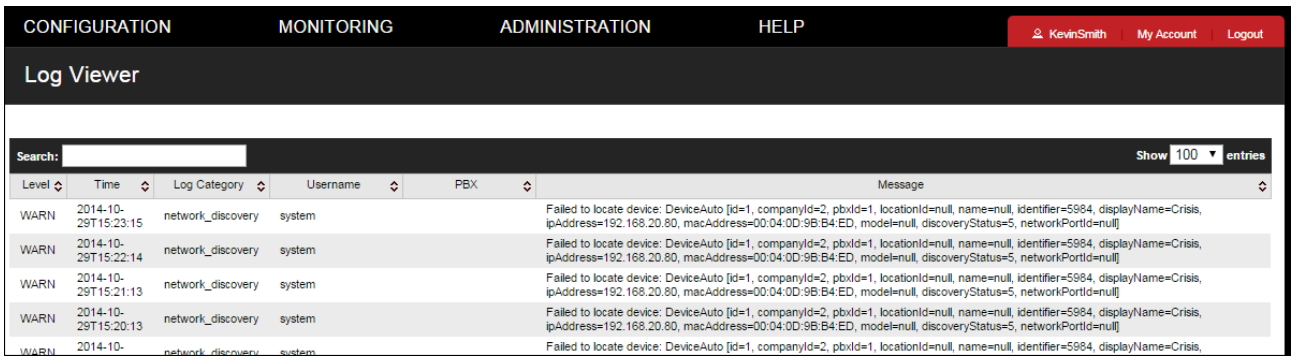


Within the Client activity page you can unlock / lock a user and also delete the record. This does not delete the username only the displaying of the users MyE911 activity.

5.2 Logs

E911 Manager® provides active monitoring and alerting of application or system process errors, such as PBX status, EON status, ALI update, etc. This log information can be accessed by selecting **Monitoring > Log Viewer** from the main menu.

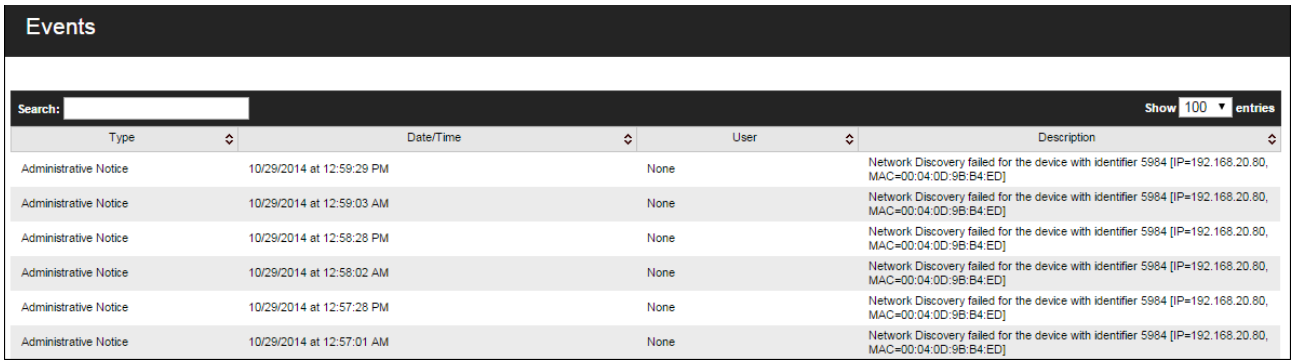




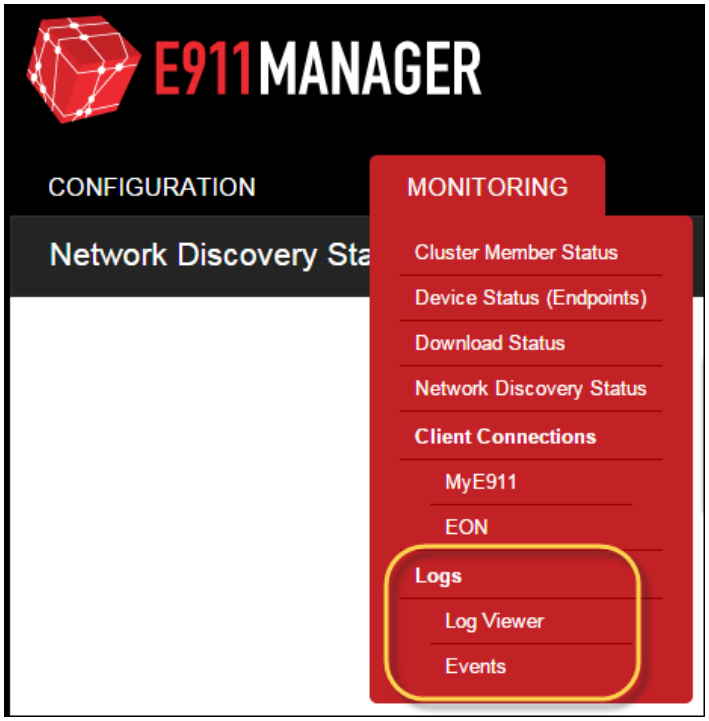
Logging is categorized according to level for easier tracing, including ERROR, INFO, DEBUG, WARNING, etc. Log categories include web, premise_services, web_server and unknown. The log viewer also displays the username associated with the log item, a descriptive message and the PBX, if available. Log headings can be sorted by clicking the arrows. In the case of error conditions, appropriate personnel can be alerted via email, and the alert can be integrated with the enterprises' existing management system via SNMP. See the section titled Subscribe to Alert Notifications for more information.

5.3 Events

E911 Manager® is an automated software solution that requires a minimum of human intervention after it is completely configured. However, the application lists certain events that should be monitored. The E911 Manager® Dashboard displays a table that provides information on the most recent events. These are often "hot items" that may require action, such as when the number of licenses is exceeded or a download error occurs.



A complete list of events can be view by selecting **MONITORING > Events** from the main menu, as shown below.



Since E911 Manager® may log many events, use the buttons at the bottom right of the table to navigate. Use the **Search** function to look for specific events, as shown in the example below.

5.3.1 Event Types

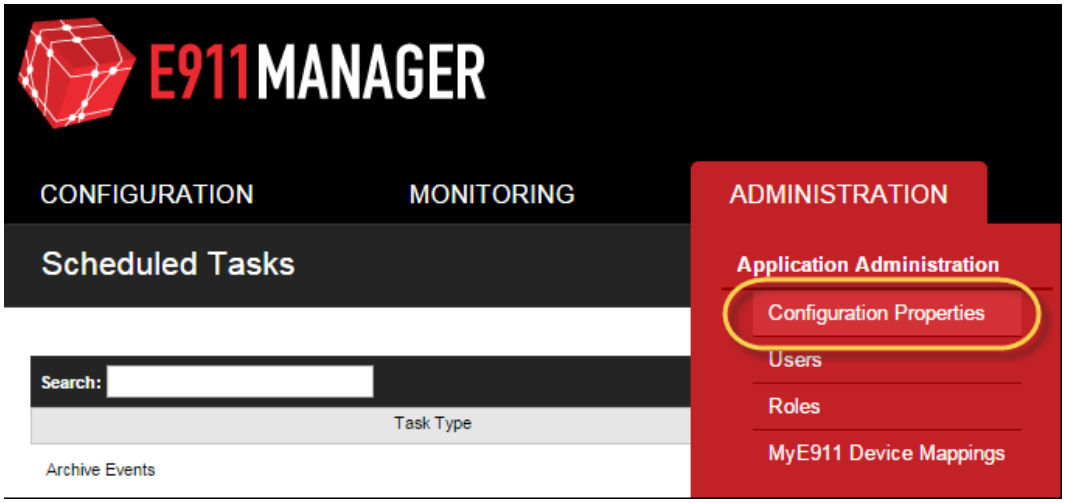
E911 Manager® has over 30 events that are monitored, and if an event occurs, an administrator can be made aware of the event via an email or SMS message. All events are logged to an event file, which can be reviewed for the time stamp of the event.

6 Administration

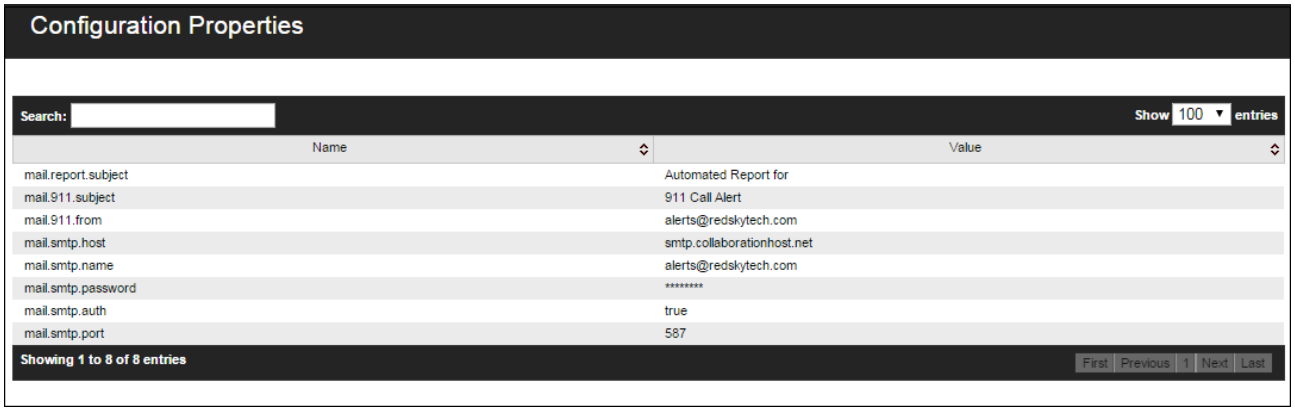
The administration menu allows you to setup users, roles and device mappings along with configuring reports.

6.1 Configuration Properties

The Configuration Properties table lists technical information related to how E911 Manager® is configured for your organization. To access the table, select **ADMINISTRATION > Configuration Properties** from the main menu.



As shown in the example below, the table includes values for your mail server configuration.

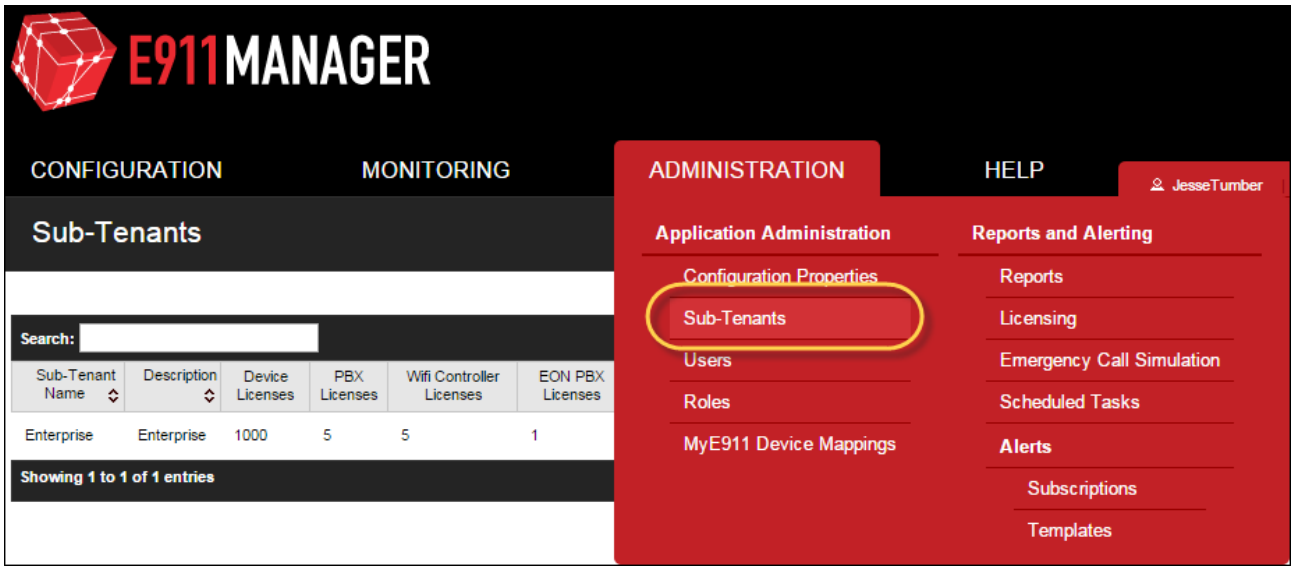


6.2 Sub-Tenant Support

The new Sub-tenant feature makes it easier manage large numbers of E911 Manager users over several locations. Instead of administering a single master list of users, you can now segment users into groups, or sub-tenants that can be based off different buildings or divisions of your enterprise.

For example, if your company has five buildings in a campus setting, you can designate each building as a sub-tenant, each with its own list of users. You can assign each sub-tenant its *own* administrator to further streamline and simplify E911 Manager® administration. Sub-tenants also have access to new roles-based access control features, which allow you to grant specific permissions to other administrators and users.

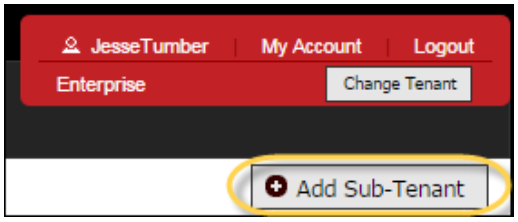
To access the table, select **ADMINISTRATION > Sub-Tenants** from the main menu.



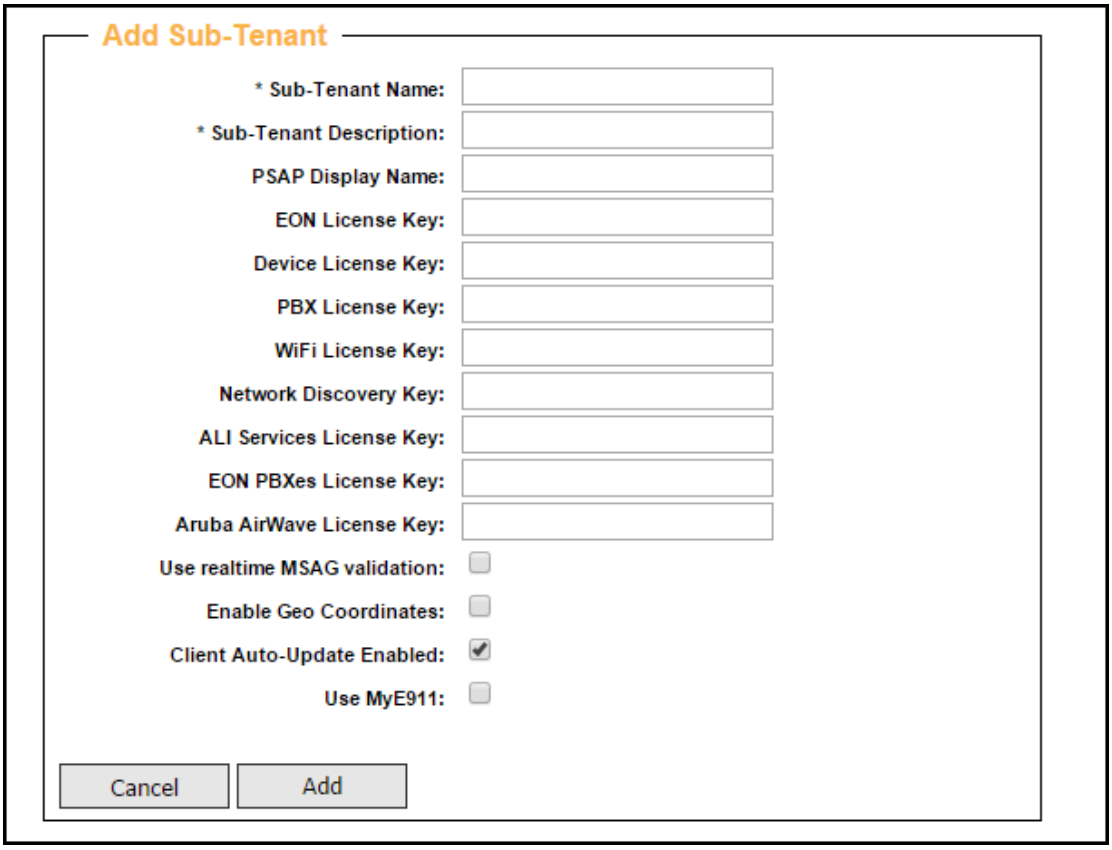
6.2.1 Add a new Sub-Tenant

1. Navigate to **ADMINISTRATION > Sub-Tenant** from the main menu.

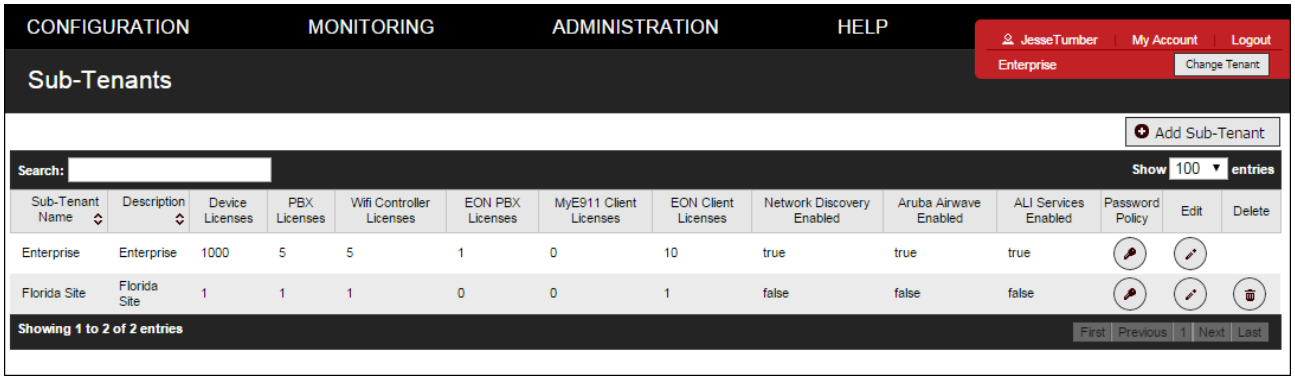
2. Click **Add Sub-Tenant** on the right of the screen near the logout menu.



3. Determine the name of the new sub-tenant and allocate the license resources accordingly. These licenses will be subtracted from the main enterprise since they will be in use

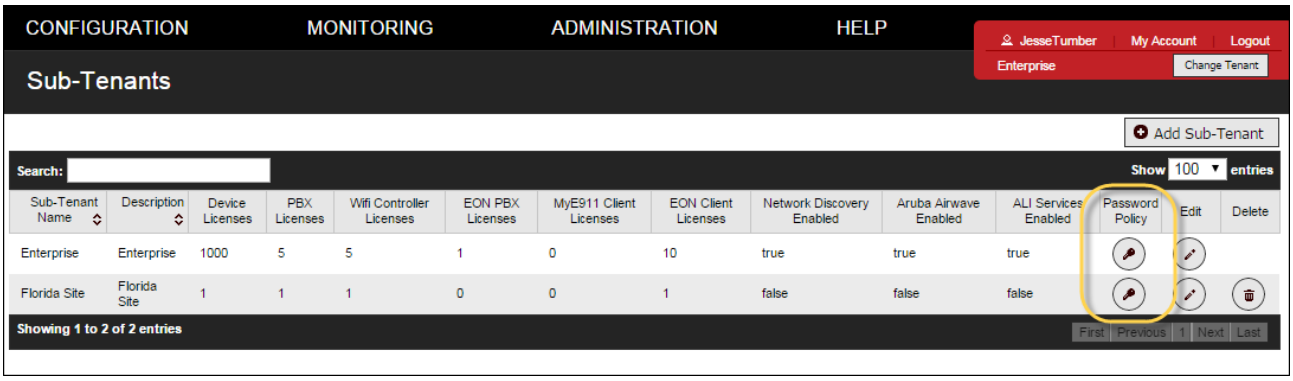


4. The new sub-tenants created will be displayed in the sub-tenant main viewing page as seen below.

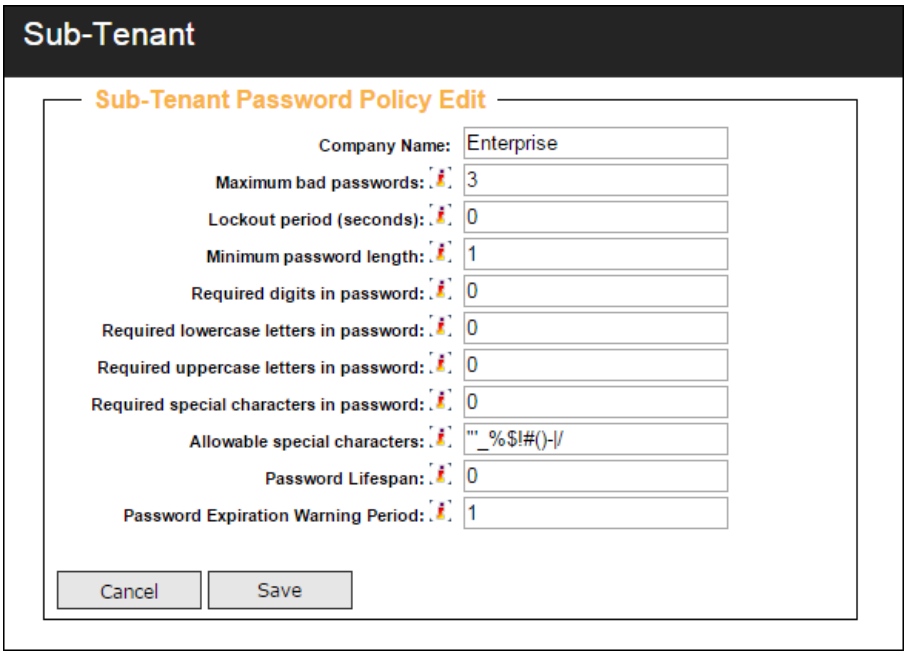


6.2.2 Editing Sub-Tenant Password Policies

1. Click on the Password Policy button for the sub-tenant you'd like to change the password policy of.

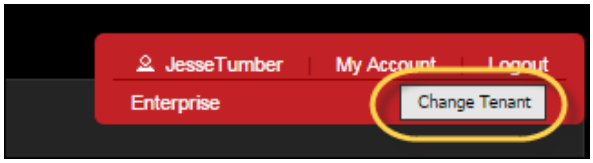


2. Within the Password Policy windows you can define custom restrictions who whomever logs into the sub-tenant

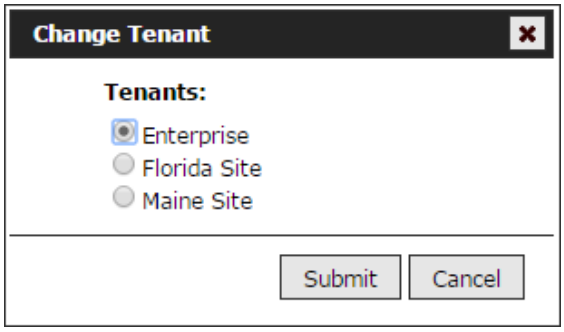


6.2.3 Switching between Sub-tenants

1. When logged in a sub-tenant click on the Change Tenant button located below the logout button on the right of the screen as seen below.



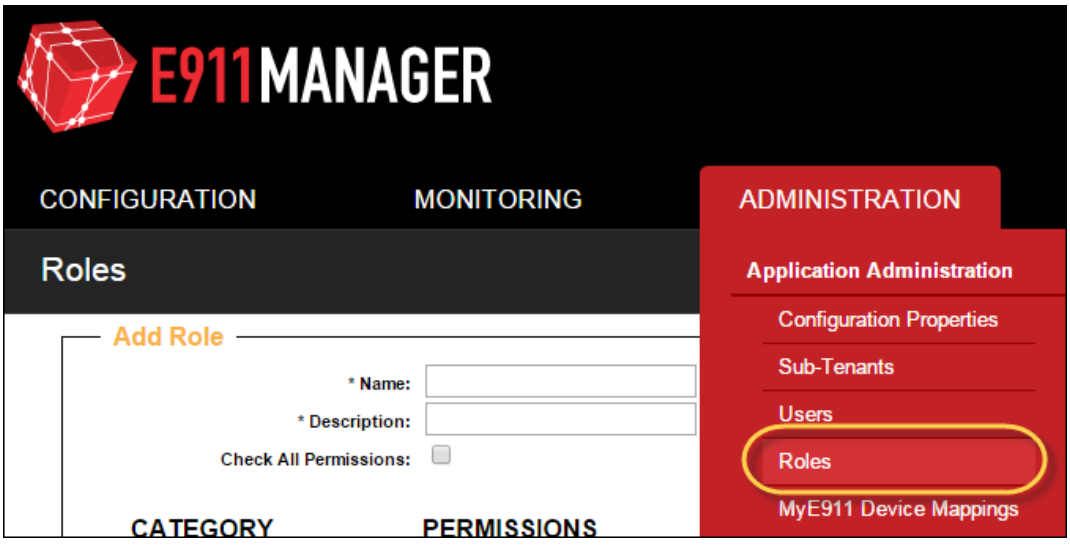
2. You will then be prompted to select the tenant to switch over to as seen below.



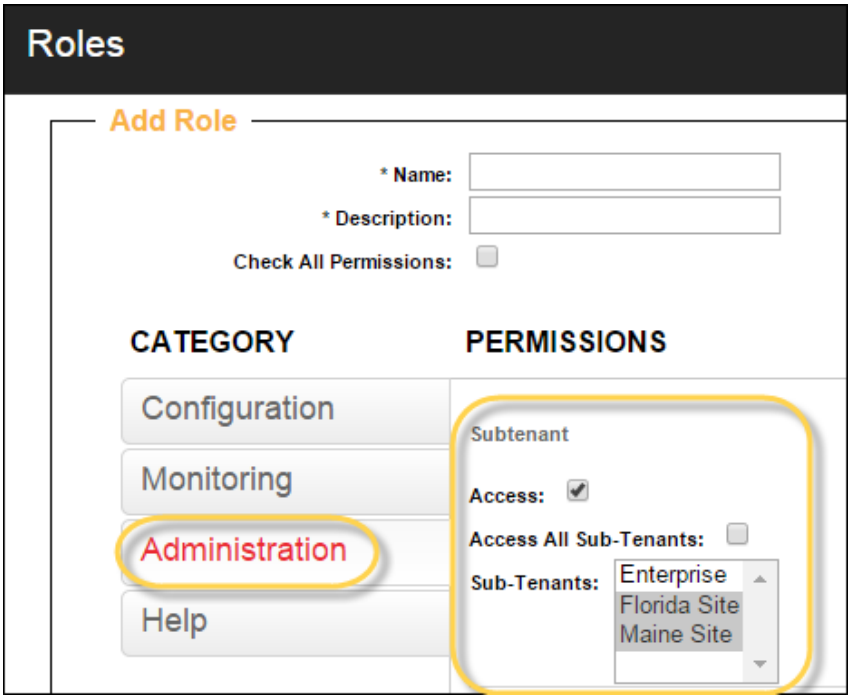
Note: You will need proper permissions in order to select the sub-tenant.

6.2.4 Applying Roles to specific Sub-tenants

1. Navigate to the Roles Based Access Controls menu by selecting **ADMINISTRATION > Roles** from the main menu.



2. Within the Administration Category you have the ability to select individual or all sub-tenant to grant Role Access

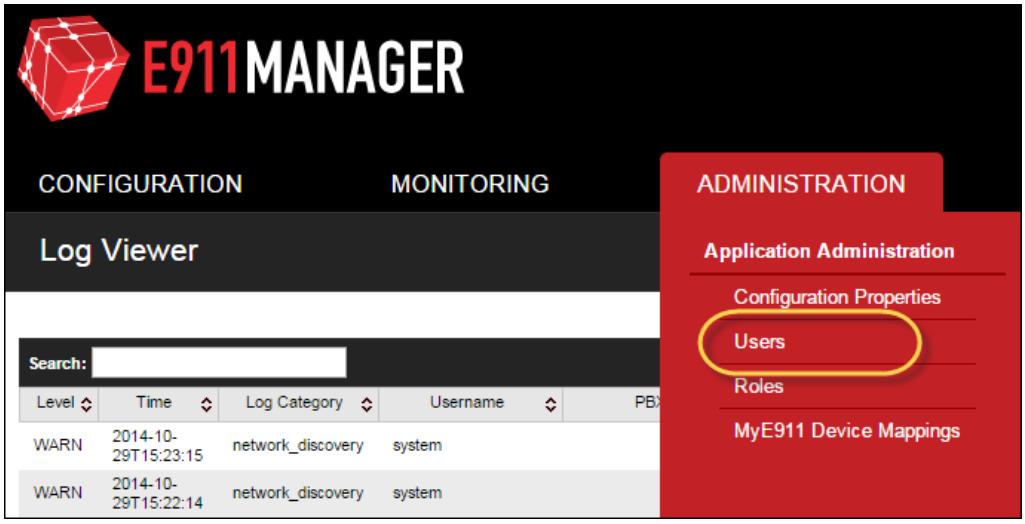


6.3 Users

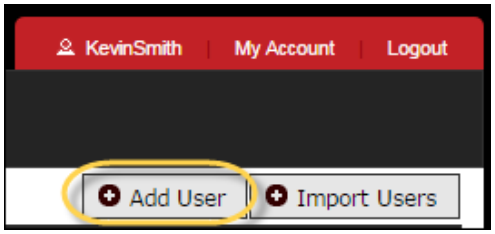
RedSky configured the application during the implementation of E911 Manager® using the **administrator** login. You can now either continue using this single login or create new users to track login activity.

6.2.5 Add User

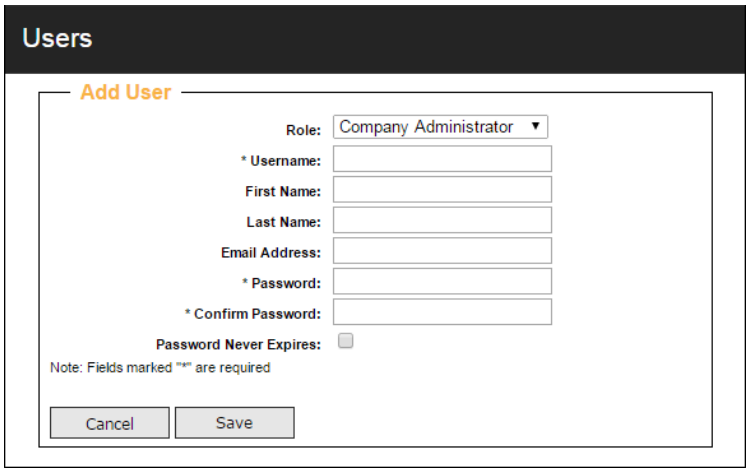
3. Select **ADMINISTRATION** > **Users** from the main menu.



4. Click **Add User** on the right of the screen.



5. Enter the new user information in the fields.

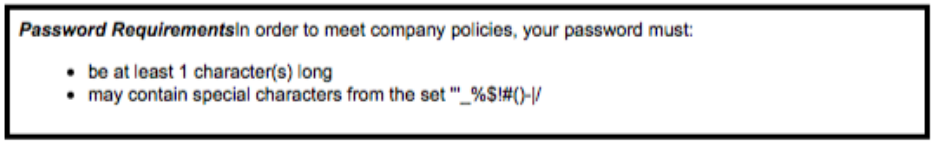


6. Select an appropriate role from the drop-down list, as shown above. The options are **Company_Administrator**, **Call_History_User, myE911_User** and **EON_User**. Assigning someone the Call History User role has only one purpose: to allow that person to see a table of all emergency calls

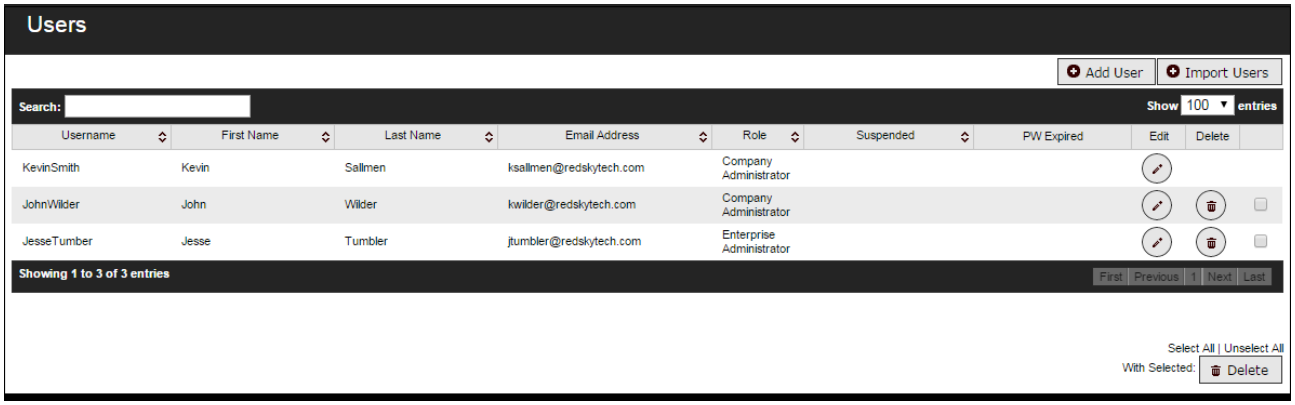
made from their company. See the RedSky website for more information about MyE911®. See the section titledAlerts Overview for more information about this service.

7. Click **Save** when finished.

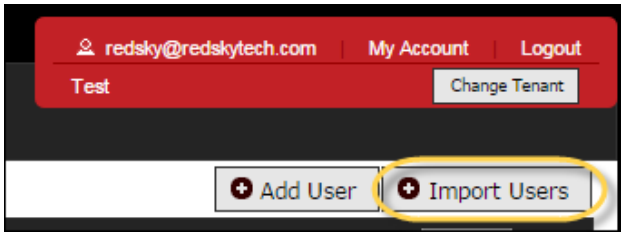
Note: The new user will not save if the password does not meet the requirements.



The new user will appear in the table, as shown in the example below. Notice that you can also view whether a user is suspended or their password is expired.



6.2.6 Import Users



When importing Users a predefined format must be used. See below for format guidelines. This is also instructed on the individual import page.

CVS Row Format (Username[1] (50), Password[1], Email Address, First Name (64), Last Name(64), User Role[2], ELIN[3](10), Start Building UID[4], Start Location[4])

[1] - required
[2] - for Web_User only, required
[3] - for MyE911 users only, required
[4] - for MyE911 users only, optional

A Sample Format is available which will show you the column variable layout.

The User Report is also accessible from the Import page which will provide a list of Users within your company which matches the importing format.

6.2.7 Password Reset

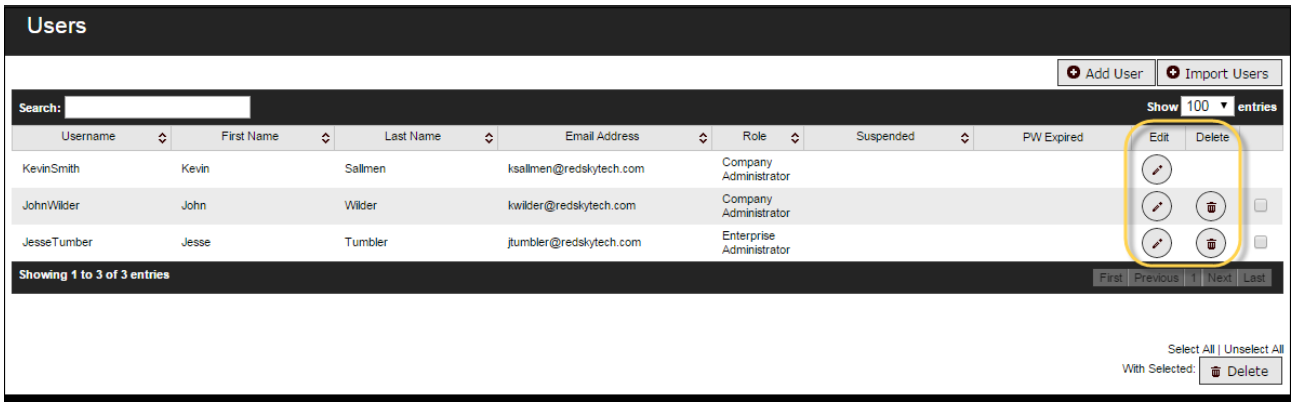
Customers now have the ability to reset their password from the main E911 Manager and E911 Anywhere pages along with the EON and MyE911 clients.

Upon requesting a password reset you will be given an email that guides you along the rest of the process. This can be done in lieu of calling support for password resets.

6.2.8 Edit/Delete Users

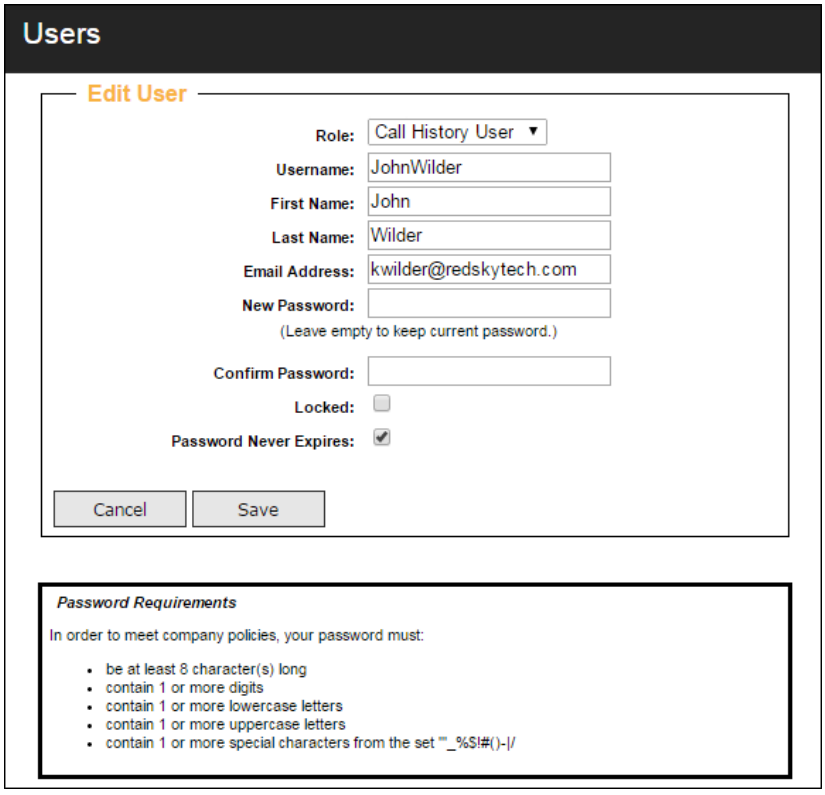
To manage user information, select **ADMINISTRATION > Users** from the main menu. **Edit** and **Delete** icons are provided for each username in the table. Instructions for editing and deleting are provided below.

Note: A username with the Company Administrator role can be edited, but not deleted.



Edit User

1. Click the **Edit** icon  associated with a particular user.
2. Make edits on the Edit User screen, as shown in the example below.

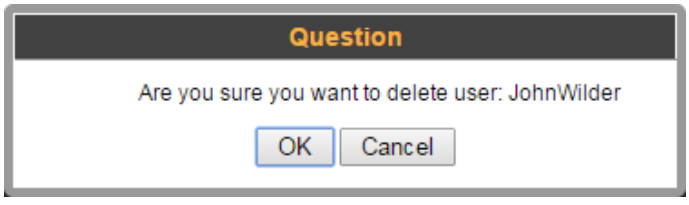


3. Click **Save Changes** when finished.

Note: If changing a password, be sure to follow the password requirements.

Delete User

Click the **Delete** icon  for a particular user to remove them from the table. Next, click **OK** to confirm the deletion.



6.3 Roles Based Access Controls

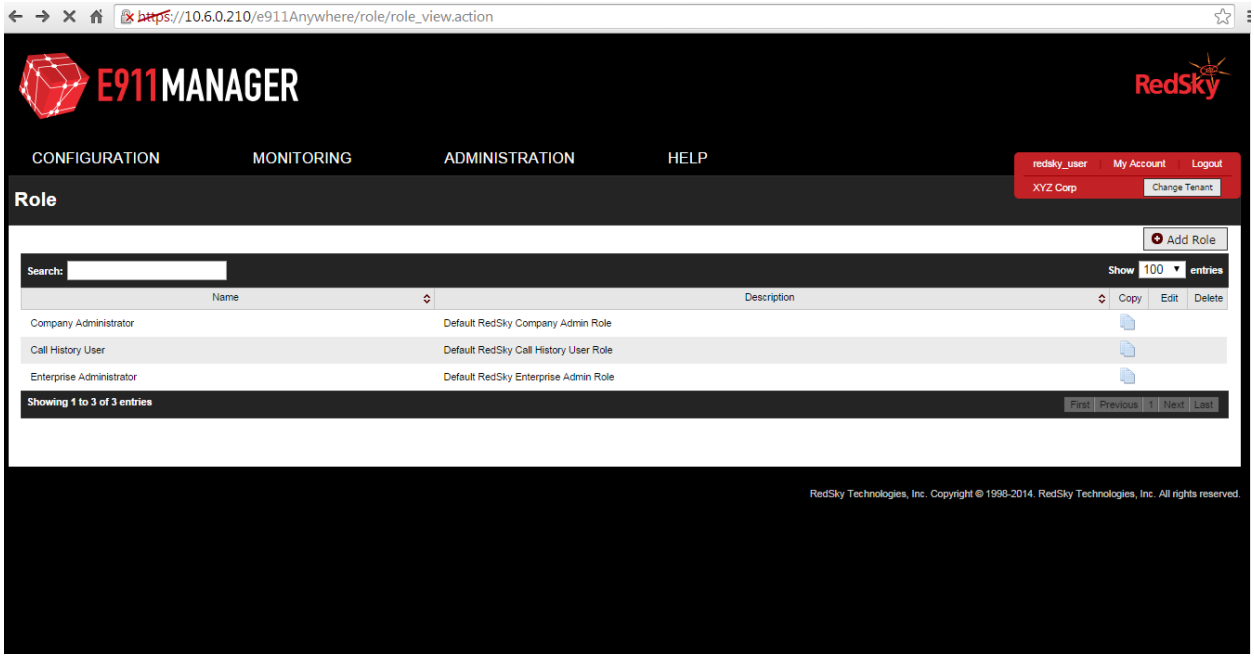
E911 Manager® 6.4.0 has enhanced its roles-based access control system, which further ensures that only authorized users who have been assigned specific permissions can access to the application. Authorization

tagging was added, and Java Server page (JSP) modifications were made to increase field level security. A new naming convention was added to make this feature more user friendly. Also, exports for user roles were modified, and user export data now includes user role.

E911 Manager® roles-based access control is based on the following components:

- Users who login to the system
- Roles which define users and their permissions
- Permissions which define access rights within the system

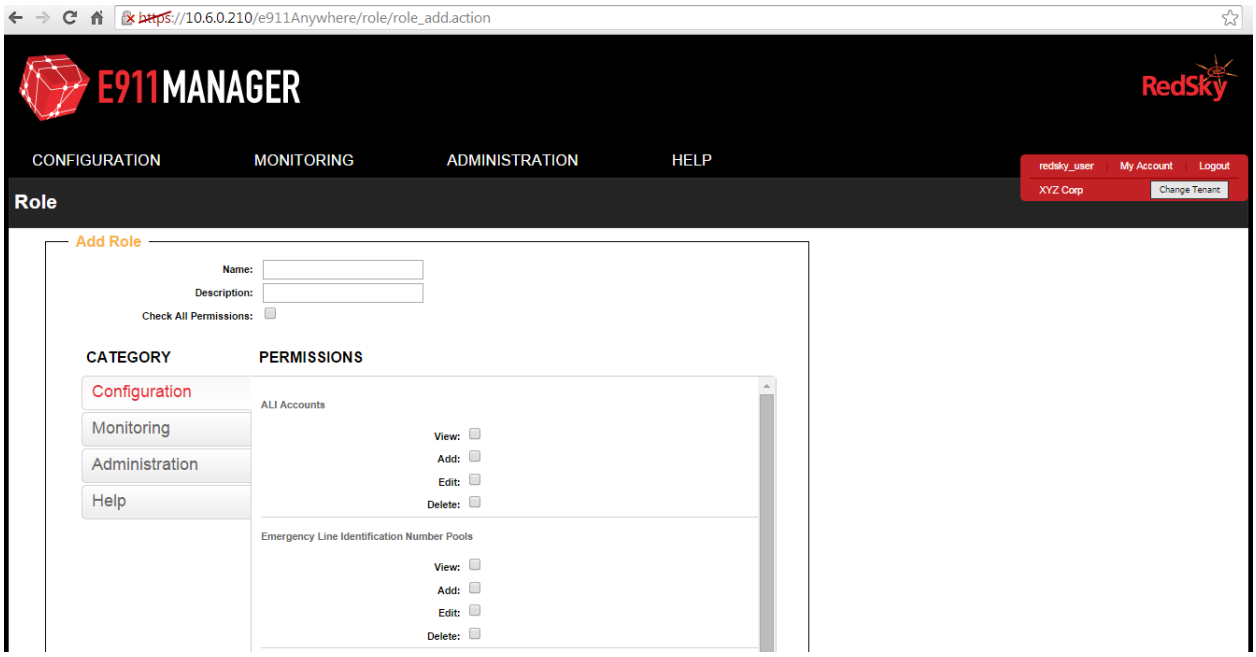
These significant roles-based access control enhancements will allow administrators to delegate tasks and lockdown permissions granted to all users. Roles can be viewed by selecting **Administration**>**Roles**, as shown in Figure 2. Buttons are available to easily add, edit and delete roles.



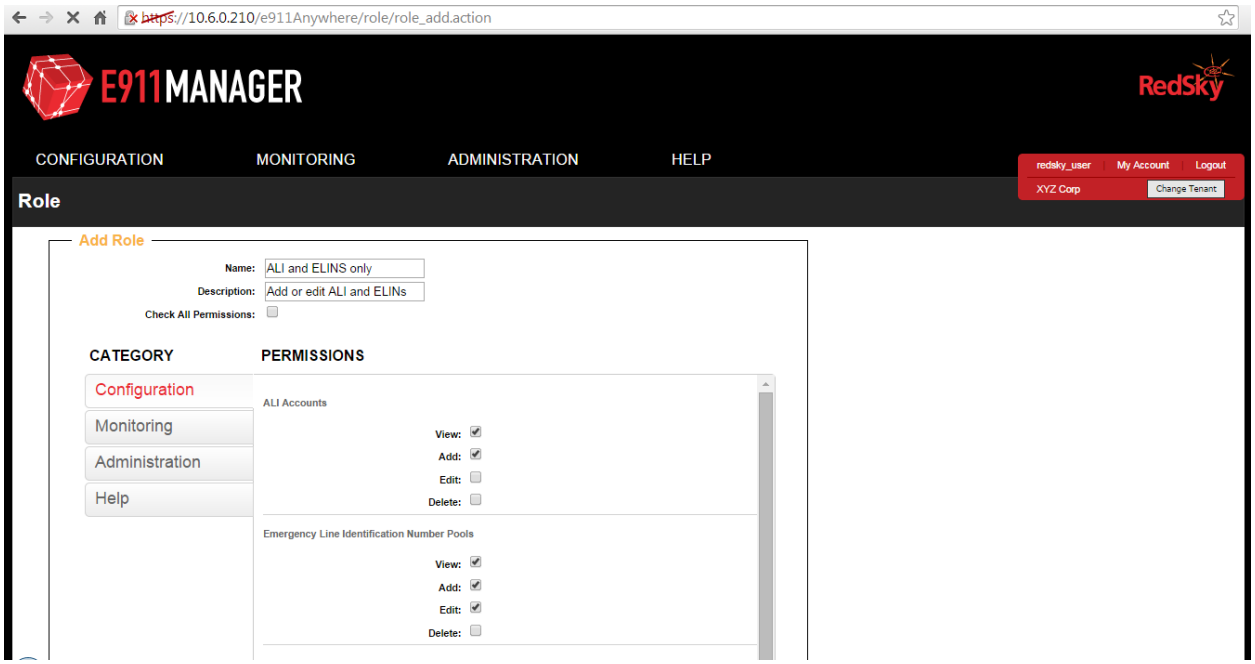
6.3.1 Roles-Based Access Control Categories

Four categories allow you to break down permissions for each user, as shown in Figure 3.Categories can be selected with a click and consist of the following:

- Configuration
- Status and Reports
- Administration
- Help



The extensive number of categories, assets and actions allow you to be as granular with role permissions as your organization requires. To define a role, simply give it a name and description, then click the checkboxes for each asset to enable permissions. Editing a role is similar to adding one, and Figure 4 shows a sample role with specific permissions selected.



6.3.2 Allowable Roles-Based Access Control Actions

The table below lists available user actions along with descriptions.

Action	Description
Add	Allows a user to create new records
Copy	Allows a user to copy an alert template
Create	Allows a user to create a report
Delete	Allows a user to delete existing records
Disconnect	Allows a user to disconnect a client
Download	Allows a user to download an ALI/PBX
Edit	Allows a user to edit existing records
Ignore	Allows a user to ignore a port
Import	Allows a user to import information or data
Initialize	Allows a user to initialize a call server
Monitor	Allows a user to monitor the Network Discovery Status
Rediscover	Allows a user to rediscover a device
Resync	Allows a user to resync a device
Run	Allows a user to run a task
Sync ERLs	Allows a user to sync ERLs (CS1000)
Test	Allows a user to test an Alert or Emergency Call
Toggle port visibility	Allows a user to toggle a port's visibility
View	Allows a user to view this page
View ERLs	Allows a user to view ERLs (CS1000)

Table 1. Available User Actions passion

6.3.3 Roles-Based Access Control Actions Available to Each Asset

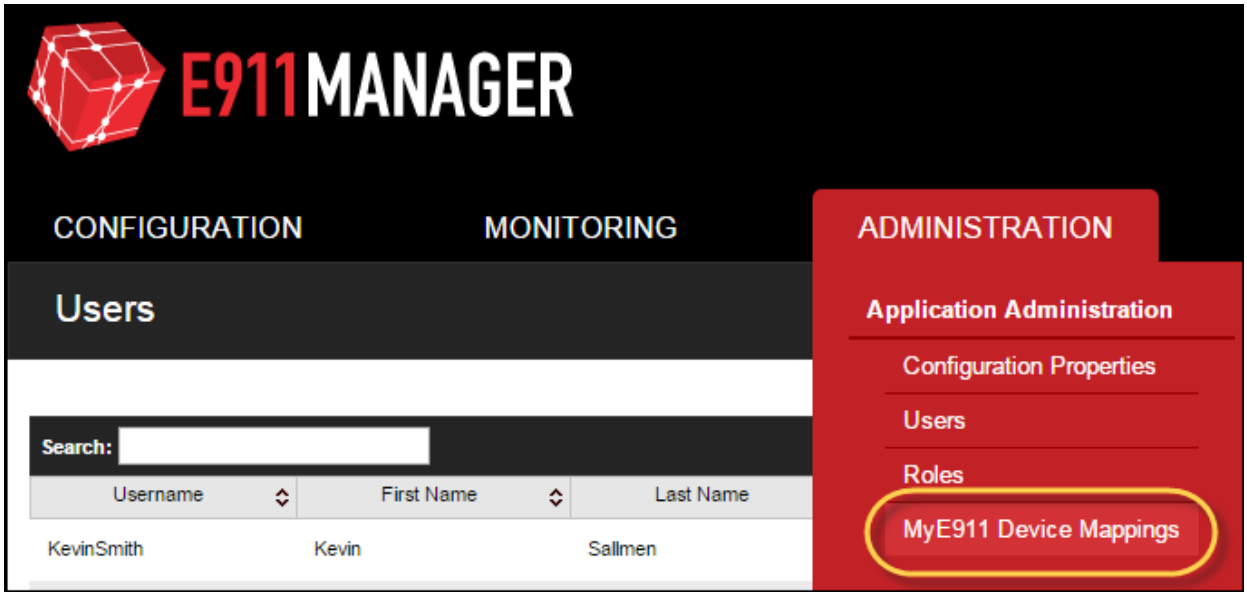
The table below lists all of the assets available to each category and the actions available to each asset.

Configuration	
Asset	**Action(s)**
ALI Provider Sites	View, Add, Edit, Delete
Aruba Airwave Controllers	View, Add, Edit, Delete, Resync
Aruba VPN Gateways	View, Edit, Delete
Buildings	View, Add, Edit, Delete, Import
Call Servers	View, Add, Edit, Delete, Download, Sync ERLs, View ERLs
Cisco Devices	Import
ELIN Pools	View, Add, Edit, Delete
ELINs	View, Add, Edit, Delete, Import
ERLs	View, Add, Edit, Delete, Import
IP Ranges	View, Add, Edit, Delete, Import
MAC Location Mapping	View, Add, Edit, Delete, Import
Network Switches	View, Add, Edit, Delete, Import, Initialize
Port	View, Edit, Ignore, Toggle port visibility
View ERLs	Allows a user to view ERLs (CS1000)
Voice Gateways	View, Add, Edit, Import
WiFi Access Points	View, Add, Edit, Delete
WiFi Aruba Controllers	View, Add, Edit, Delete, Resync
WiFi Cisco MSE	View, Add, Edit, Delete, Resync
WiFi Cisco WLCs	View, Add, Edit, Delete
Status and Reports	
Asset	**Action(s)**
Alert Subscription	View, Add, Edit, Delete, Test
Alert Subscription Templates	View, Add, Edit, Delete, Copy
Call History	View
Cluster Member Status	View, Delete
Create Reports	Create
Download Status	View
Endpoints	View, Rediscover
Administration	
Asset	**Action(s)**
Users	View, Add, Edit, Delete, Import
MyE911 Device Mapping	View, Delete
Emergency Call Simulation	View, Test
Events	View
Scheduled Tasks	View, Add, Edit, Delete, Run
Client Connection – MyE911	View, Disconnect
Client Connection - EON	View, Disconnect
Configuration Properties	View, Edit
Network Discover Status	Monitor
Log Viewer	View
Licensing	View
Roles	View, Add, Edit, Delete

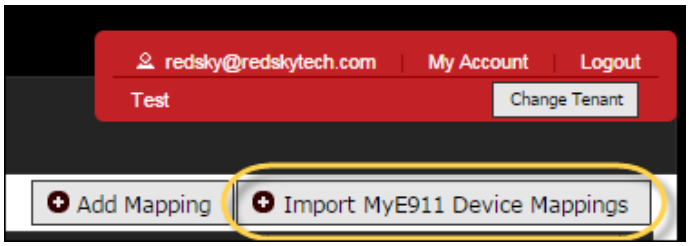
Help	
Asset	**Action(s)**
Help	View

6.4 My E911 Device Mapping

MyE911® allows enterprises to provide complete 911 protection to employees who use mobile softphones, whether they are within or outside the corporate network. When users are connected, E911 Manager® displays the call server name and device identifier for each MyE911 username. Select **ADMINISTRATION > MyE911 Device Mapping** to view this information.



6.4.1 Import Device Mappings



When importing MyE911 Device Mappings a predefined format must be used. See below for format guidelines. This is also instructed on the individual import page.

CVS Row Format (MyE911 Username*, Call Server Name*, Device Identifier*)

* Required fields

A Sample Format is available which will show you the column variable layout.

The MyE911 Device Mapping Report is also accessible from the Import page which will provide a list of MyE911 Device Mappings within your company which matches the importing format.

6.5 Reports

E911 Manager® provides a comprehensive set of default reports that are available to you. The option for customizing the reports and their columns is also possible. Along with the default columns provided we include several others that you can include. See the list below for default and additional columns available within each report. Along with these reports, E911 Manager® maintains a complete log of all events for compliance and audit purposes. There are two general subsets of reports, Current State Reports and Activity Reports. Below are the list of each along with their default and additional columns to use within the report.

Current State Reports

- Buildings (Civic Addresses)

  Default Columns

  Building Name, Building UID, Personal Username, House Number, House Number Extension, Prefix Directional, Street Name, Street Type, Post Directional, City, County, State, Zipcode, Country, Telco ID, Supplemental Data, ELIN Pools

  Additional Available Columns

  No Additional Columns Available

- GEO Coordinate Address

  Default Columns

  Building Name, Building UID, Latitude, Longitude, Closest City, State, Location Description, Supplemental Data, Elin Pools

Additional Available Columns

No Additional Columns Available

Devices

Default Columns

Device Name, Device UID, Display Name, PBX Name, Building Name, Floor, Room, Device IP, MAC Address, Extension, Discovery Status, ELIN

Additional Available Columns

Model Switch IP, Port Description, House Number, House Number Extension, Prefix Directional, Street Name, Street Type, City, State, Zip Code, County, Latitude, Longitude, Closest City, State, Location Description, Supplemental Data

AES Specific

AES.Last Known Port Info, AES.Type

Cisco Specific

Cisco.Device Description, Cisco.Calling Search Space, Cisco.Current Profile Name, Cisco.Device Pool Name, Cisco.Login User ID, Cisco.Mobility User ID, Cisco.Product

Locations (ERLS)

Default Columns

Building UID, Location Name, Floor, Room, ELIN, Company Name Override

Additional Available Columns

Building Name, House Number, House Number Extension, Prefix Directional, Street Name, Street Type, City, State, Zip Code, County, Latitude, Longitude, Closest City, State, Location Description, Supplemental Data

Users

Default Columns

Username, Email, First Name, Last Name, Role, ELIN, Starting Building ID, Starting Location

Additionally Available Columns

Building Name, Location Name, Company Name Override, Last Login

ALI Accounts

Default Columns

ELIN, ALI Provider Site, ELIN Status, House Number, House Number Extension, Prefix Directional, Street Name, Street Type, Post Directional, City, County, State, Zipcode, Latitude, Longitude, Floor, Room

Additionally Available Columns

Building Name, Building UID, Location Name, Company Name Override, Supplemental Data

Devices with Missing Locations

Default Columns

Device Name, Device UID, Display Name, PBX Name, Device IP, MAC Address, Extension, Discovery Status

Additionally Available Columns

Model

AES Specific

AES.Last Known Port Info, AES.Type

Cisco Specific

Cisco.Device Description, Cisco.Calling Search Space, Cisco.Current Profile Name, Cisco.Device Pool Name, Cisco.Login User ID, Cisco.Mobility User ID, Cisco.Product

IP Ranges

Default Columns

IP Range Name, Lower IP, Upper IP, Building UID, Location Name

Additionally Available Columns

Building Name, House Number, House Number Extension, Prefix Directional, Street Name, Street Type, City, State, Zip Code, County, Latitude, Longitude, Closest City, State, Location Description, Supplemental Data

Network Switches

Default Columns

IP Address, MIB Type, SNMP Version, VLANs, Subnet Mask, Building UID, Location Name, Community String (v2) Username (v3), Auth Type (v3), Auth (v3), Priv Type (v3), Priv (v3)

Additionally Available Columns

Building Name, House Number, House Number Extension, Prefix Directional, Street Name, Street Type, City, State, Zip Code, County, Latitude, Longitude, Closest City, State, Location Description, Supplemental Data

- Network Ports

Default Columns

Switch IP, Port Description, Building UID, Location Name, Ignored

Additionally Available Columns

Building Name, House Number, House Number Extension, Prefix Directional, Street Name, Street Type, City, State, Zip Code, County, Latitude, Longitude, Closest City, State, Location Description, Supplemental Data

- MAC Address Mappings

Default Columns

MAC Address, Building UID, Location Name

Additionally Available Columns

House Number, House Number Extension, Prefix Directional, Street Name, Street Type, City, State, Zipcode, County, Latitude, Longitude, Closest City, State, Location Description, Supplemental Data, Building UID, Building Name, Location Name, Floor, Room, ELIN, Company Name Override

Activity Reports

- Events

Default Columns

Event, Description, Username, Date and Time, IP Address

Additional Available Columns

No Additional Columns Available

911 Calls Made (Emergency Calls)

Default Columns

Call Type, Call Date, Call Time, PBX Name, ELIN, Extension, Device Name, Device IP, MAC Address, Building Name, Building UID, Address, Location Name, Supplemental Data

Additional Available Columns

No Additional Columns Available

Non-Emergency Calls Made

Default Columns

Call Type, Call Date, Call Time, PBX Name, ELIN, Extension, Device Name, Device IP, MAC Address, Building Name, Building UID, Address, Location Name, Supplemental Data

Additional Available Columns

No Additional Columns Available

ECRC Calls Made

Default Columns

Call Type, Call Date, Call Time, PBX Name, ELIN, Extension, Device Name, Device IP, MAC Address, Building Name, Building UID, Address, Location Name, Supplemental Data

Additional Available Columns

No Additional Columns Available

Changes To Locations

Default Columns

Event, Description, Username, Date Time, IP Address

Additional Available Columns

No Additional Columns Available

Admin Notices

Default Columns

Event, Description, Username, Date Time, IP Address

Additional Available Columns

No Additional Columns Available

Auditing

Default Columns

Event, Description, Username, Date Time, IP Address

Additional Available Columns

No Additional Columns Available

- EON Client 911 ACK

Default Columns

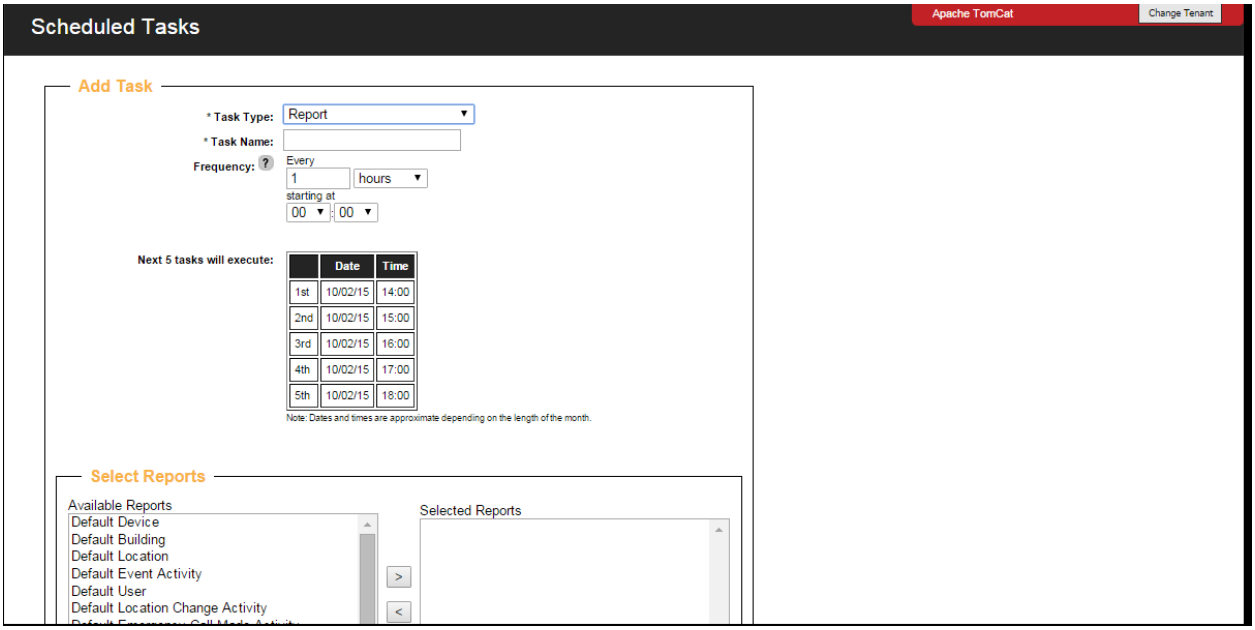
Event, Description, Username, Date Time, IP Address

Additional Available Columns

No Additional Columns Available

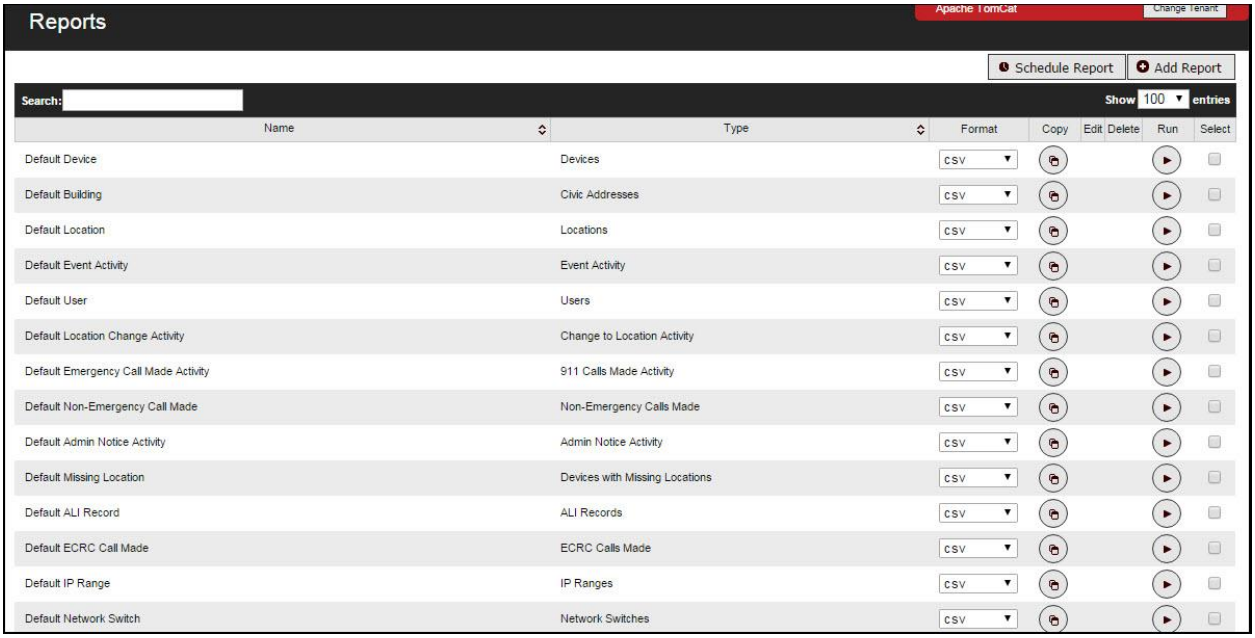
6.5.1 Scheduled Reports

E911 Manager® allows administrators to set up reports that can be run as scheduled tasks and distributed to administrators in the enterprise. In order to schedule your report visit the Administration Scheduling Report Page. You will notice the option for Task Type – Report is available. Follow the dialogue box to schedule the report according to your desired timeline. More details on this can be found in the Scheduled Tasks section.

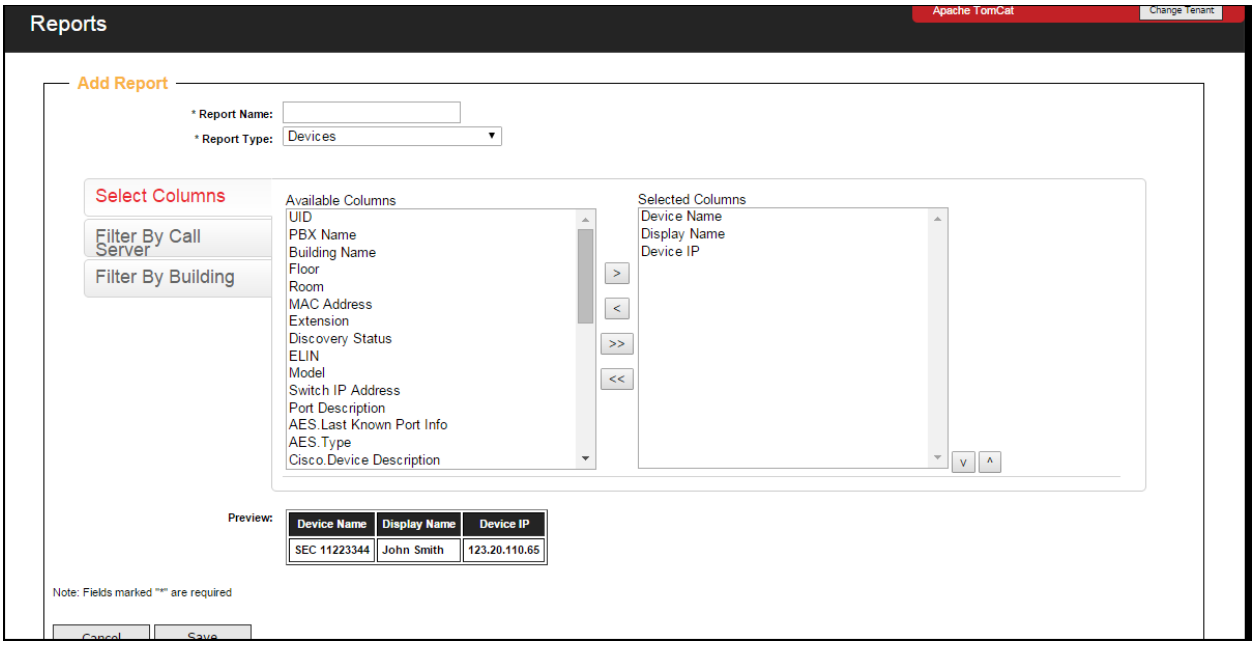


6.5.2 Create Reports

Reports can be created and downloaded in .pdf or .cvs file format for immediate viewing by selecting **ADMINISTRATION > Reports** from the main menu. The screen below shows the Report View Page.

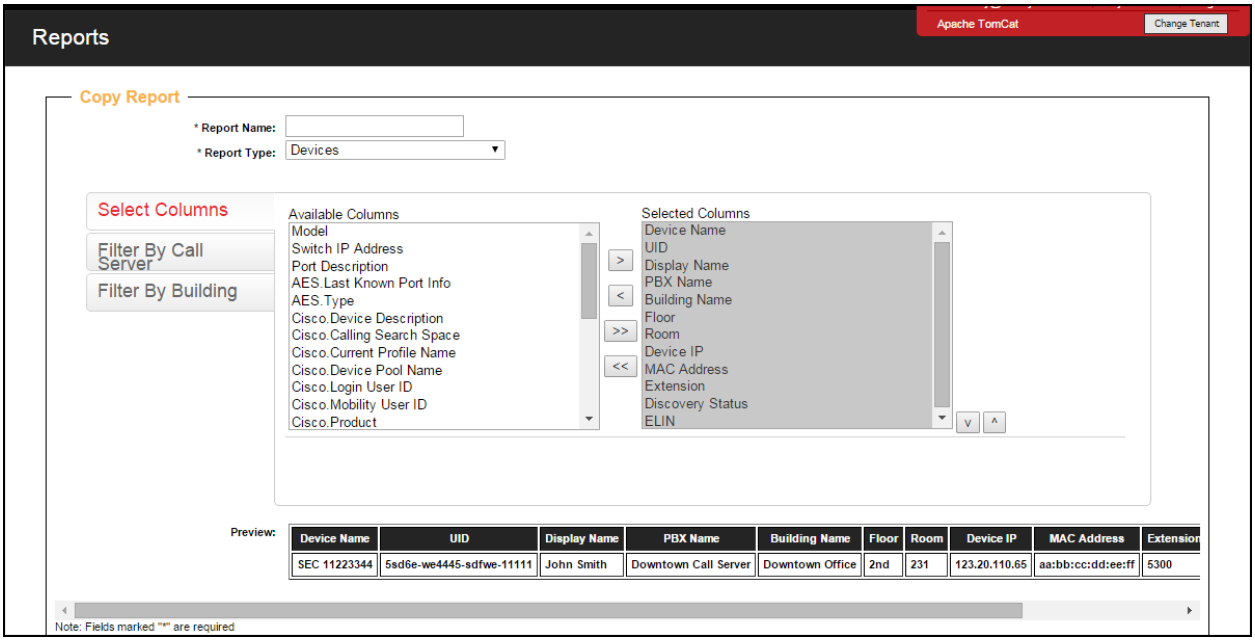


In order to create a new report Select the “Add Report” button. Below you will see the create report page which gives you the ability to select a report type and manage the columns that you’d like to be displayed.



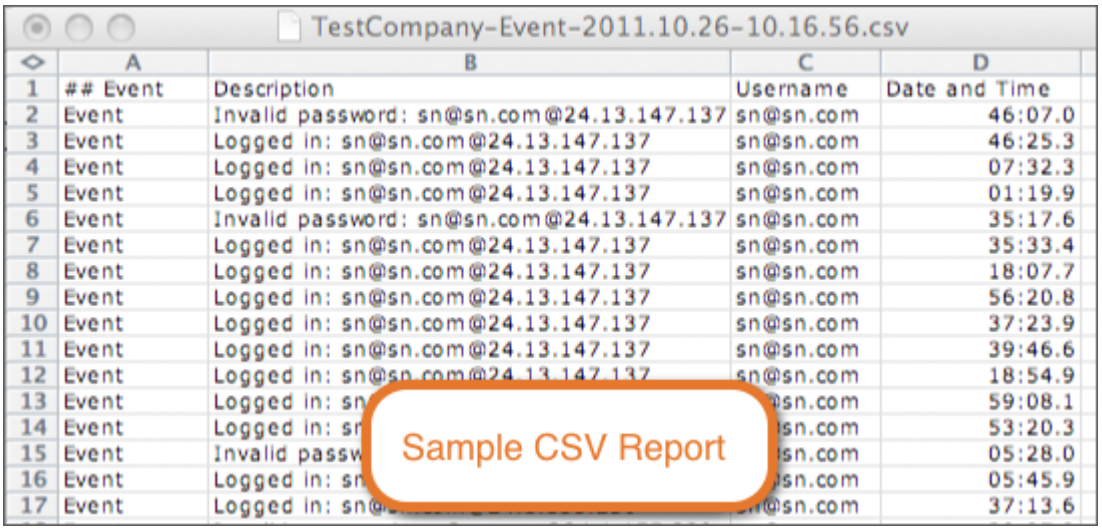
6.5.3 Copying a Default Report

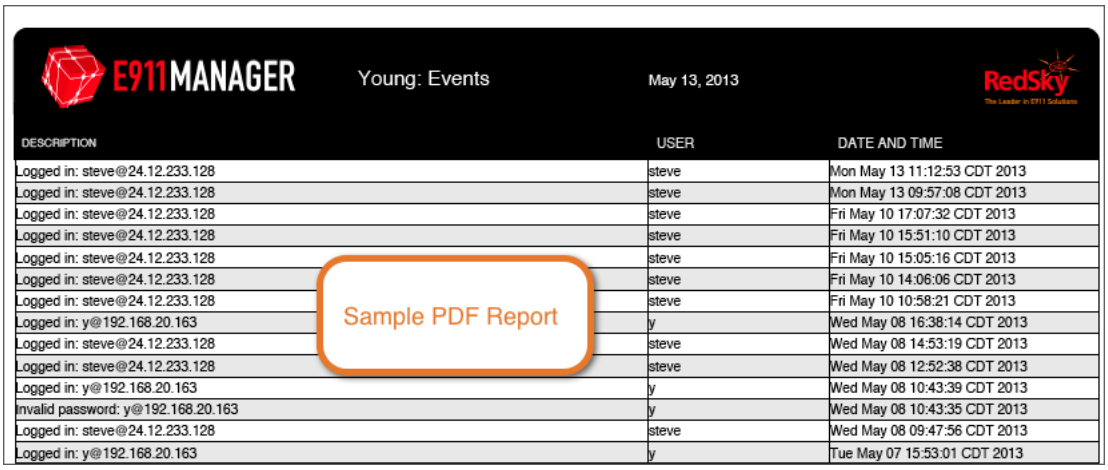
When copying a default report, click the Copy button on the report you’d like to mimic within the Report View Page. As you can see from the screenshot below the default columns for the default report are selected on the right hand side. You can now add new columns or arrange to order to your liking.



6.5.4 Sample Report Screenshots

Sample reports are shown below. See the section Create Reports for more information on creating and downloading Current State and Activity reports. You can create as many reports as you need to monitor E911 Manager®. For example, creating reports for IP Ranges or Network Switches is useful for investigating issues or simply keeping track of status changes.



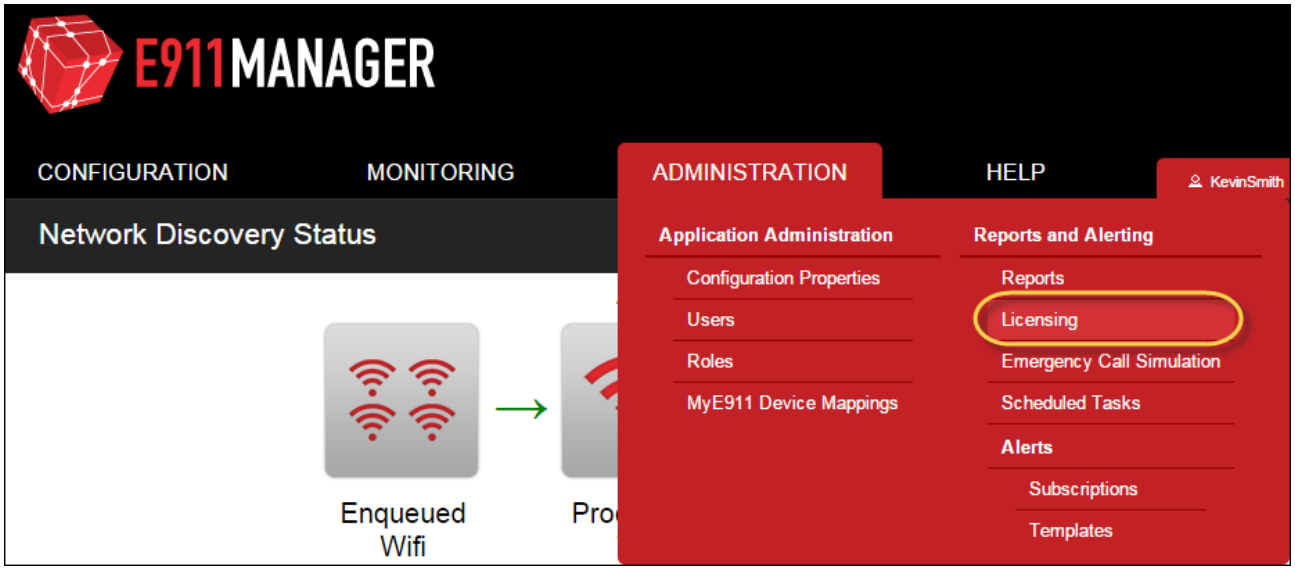


DESCRIPTION	USER	DATE AND TIME
Logged in: steve@24.12.233.128	steve	Mon May 13 11:12:53 CDT 2013
Logged in: steve@24.12.233.128	steve	Mon May 13 09:57:08 CDT 2013
Logged in: steve@24.12.233.128	steve	Fri May 10 17:07:32 CDT 2013
Logged in: steve@24.12.233.128	steve	Fri May 10 15:51:10 CDT 2013
Logged in: steve@24.12.233.128	steve	Fri May 10 15:05:16 CDT 2013
Logged in: steve@24.12.233.128	steve	Fri May 10 14:06:06 CDT 2013
Logged in: steve@24.12.233.128	steve	Fri May 10 10:58:21 CDT 2013
Logged in: y@192.168.20.163	y	Wed May 08 16:38:14 CDT 2013
Logged in: steve@24.12.233.128	steve	Wed May 08 14:53:19 CDT 2013
Logged in: steve@24.12.233.128	steve	Wed May 08 12:52:38 CDT 2013
Logged in: y@192.168.20.163	y	Wed May 08 10:43:39 CDT 2013
Invalid password: y@192.168.20.163	y	Wed May 08 10:43:35 CDT 2013
Logged in: steve@24.12.233.128	steve	Wed May 08 09:47:56 CDT 2013
Logged in: y@192.168.20.163	y	Tue May 07 15:53:01 CDT 2013

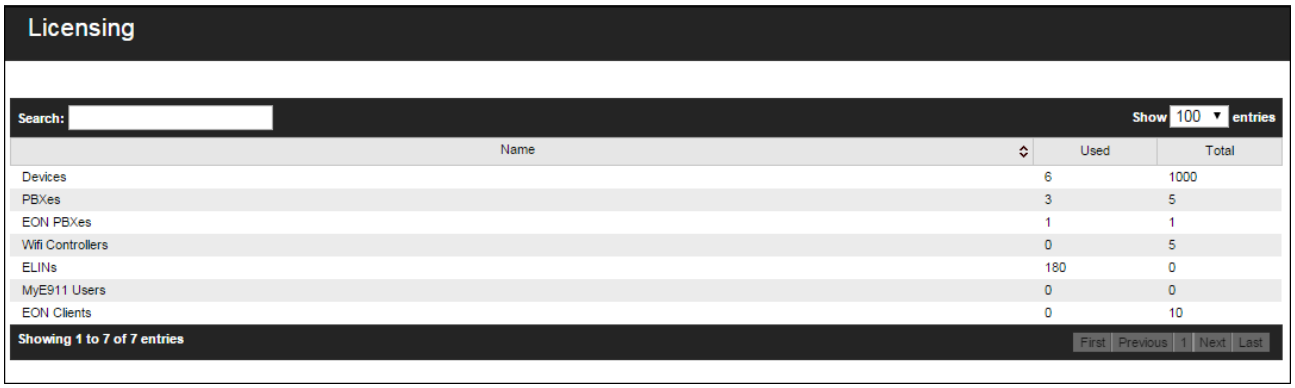
6.6 Licensing

Your E911 Manager® service is setup for a certain number of devices, ELINs, SLDA users, PBXs and WiFi controllers depending on your service agreement. Also, if your organization signed up for Emergency On-Site Notification (EON), you are licensed for a certain number of EON clients. EON is an optional module for E911 Manager that reduces response time by notifying security and administrative personnel the instant someone on the network dials 9-1-1. Email and SMS text messages also can be sent where needed. For more information and a diagram of how EON works, see RedSky's Emergency On-Site Notification page.

To view your organization's licenses, select **ADMINISTRATION > Licensing** from the main menu. This feature lets you keep track of both available licenses and licenses in use. E911 Manager® will display an error message if you exceed your licensing limits. Contact RedSky if you need additional licenses.



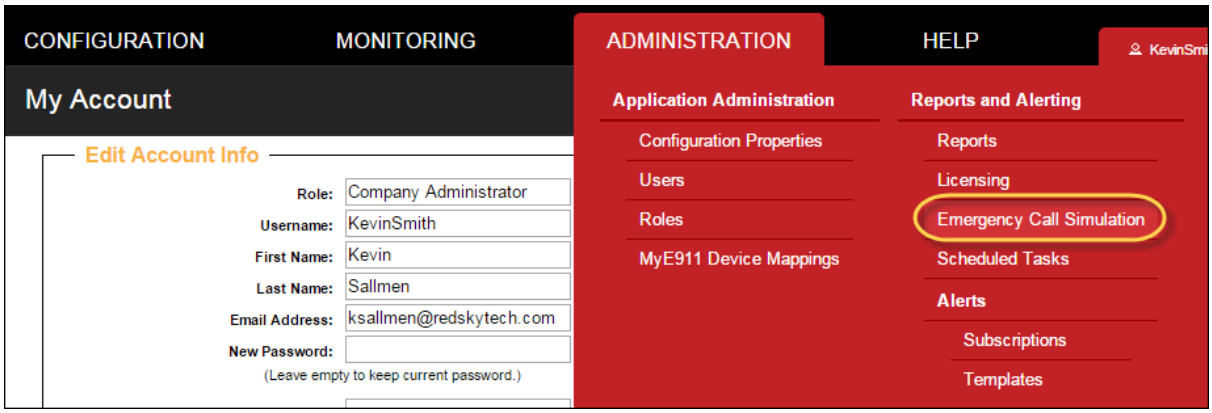
Based on the purchases by the customer you will see the total amounts along with the amounts currently in used as seen below.



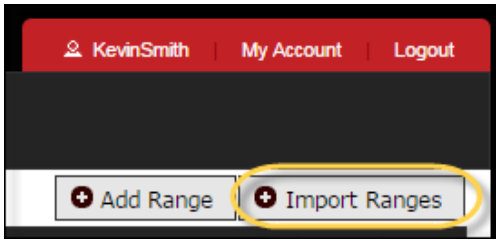
6.7 Emergency Call Simulation

E911 Manager® allows administrators to test the system from the point an emergency call would be made. Testing ensures that routing to the intended receiver is properly set up. It ensures users get the alerts they are subscribed to, and it lets users test the look and feel of the alerts before an actual emergency occurs.

To send a test message, select **ADMINISTRATION > Emergency Call Simulation** from the main menu. Next, specify a building and/or phone switch, and then click **Send Test**. After the test is sent, the intended recipient should receive the alert.



6.7.1 Note: **Buildings and phone switches must be pre-configured in E911 Manager® to show up in the drop-down lists. RedSky set up this information during implementation, but if you need to add or edit this information, see the sections titled Configure Building, Configure Call Servers and Import IP Ranges**



When importing IP Ranges a predefined format must be used. See below for format guidelines. This is also instructed on the individual import page.

CVS Row Format (range name, start IP address, end IP address, building UID, location name)

*All fields are required. Building UID and location name must resolve to an existing location

A Sample Format is available which will show you the column variable layout.

The IP Range Report is also accessible from the Import page which will provide a list of IP Ranges within your company which matches the importing format.

Configure Network Switches for more information.

6.8 Scheduled Tasks

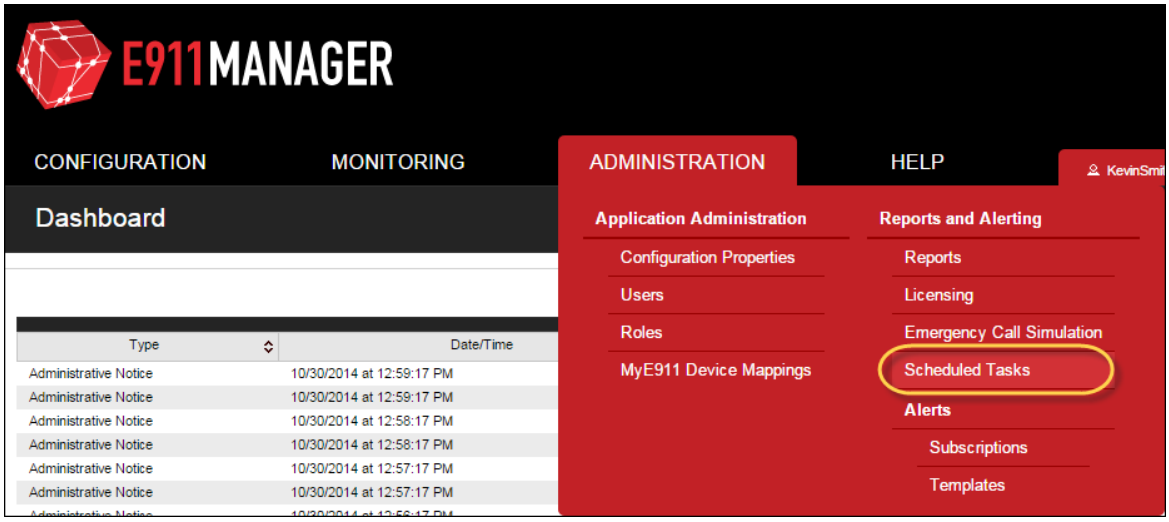
E911 Manager® includes the ability to set up a number of scheduled tasks that run automatically on a daily, weekly and monthly basis. Scheduled tasks such as call server downloads were set up during implementation of E911 Manager®, and these may not need to be reconfigured. Also, the need for ALI uploads, ALI downloads and WiFi controller re-syncs varies depending on your integration. However, administrators can set up or modify scheduled reports to keep track of over a dozen events that occur in the application.

A wide variety of reports are available to keep administrators "in touch" with E911 Manager®. These reports can be run as scheduled tasks and distributed to administrators in the enterprise. Reports can be generated in either .pdf or .csv formats. E911 Manager® keeps a log of virtually every transaction on the system. This is a valuable protection for the enterprise i.e. a complete audit trail of your location record management and, with EON, the precise time and acknowledgement of a 911 emergency call. See the section titled Alerts Overview to learn more. Reports can also be created instantly E911 Manager® and downloaded for viewing.

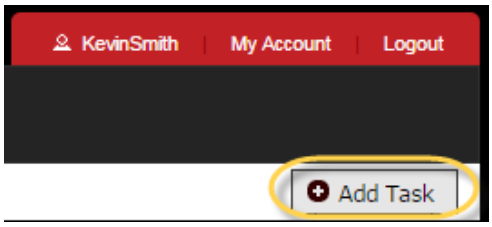
6.8.1 Create Scheduled Reports

Once users are created, the application can be configured to update specified users to receive E911 Manager® reports via email. Follow the steps below to configure scheduled reports:

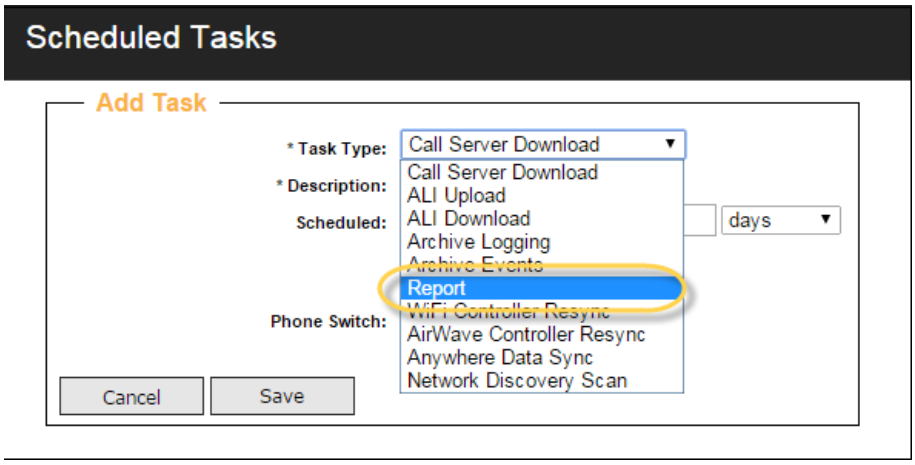
1. Select **ADMINISTRATION > Scheduled Tasks** from the main menu.



2. Click the **Add Task** button on the right of the screen.



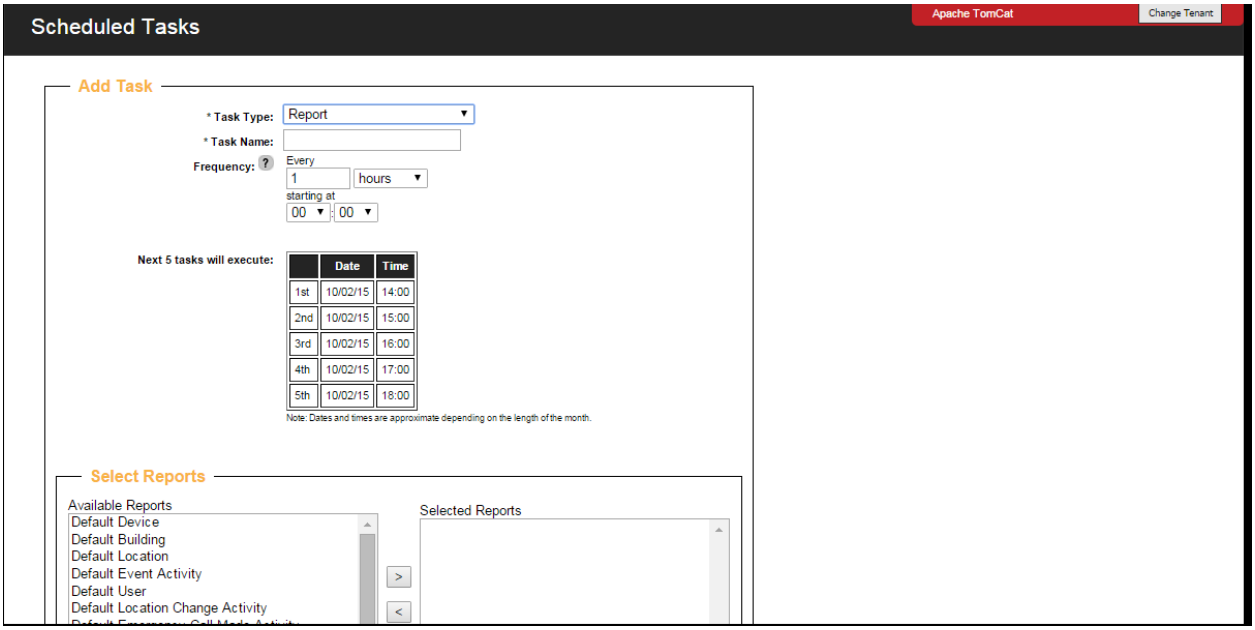
3. Select the **Report** task type from the drop-down menu.



4. Type in a description.

5. Specify a **Schedule** with the drop-down menus. You can schedule daily, weekly and monthly reports as well as specific times.

6. Choose a **Report file type**. Cvs reports can be opened in spreadsheet programs like Excel.



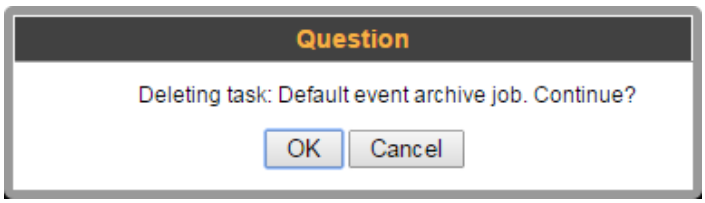
Note: You can create both types of reports instantly by selecting **MONITORING > Reports** from the main menu.

7. Click the **Subscribe** button when finished.

The scheduled report will appear in the Scheduled Tasks table as a Report Task Type, as shown in the example below. You can view this table at any time by selecting **ADMINISTRATION > Scheduled Tasks** from the main menu. You can run a scheduled task at anytime by clicking the **Run Now** button.

6.8.2 Edit/Delete Scheduled Reports

Click the **Edit** icon associated with a particular scheduled task to change it. Click the **Delete** icon to remove it from the table. Next, click **OK** to confirm the deletion.

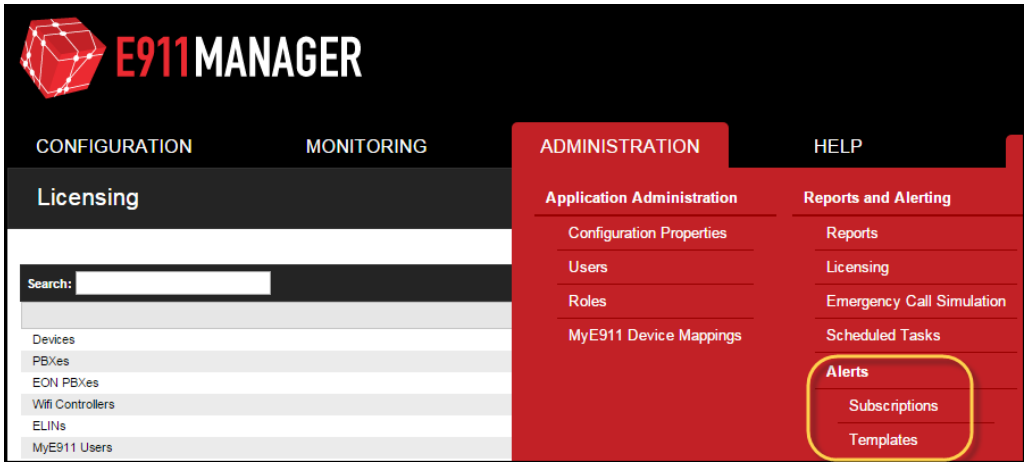


6.9 Alert Subscriptions

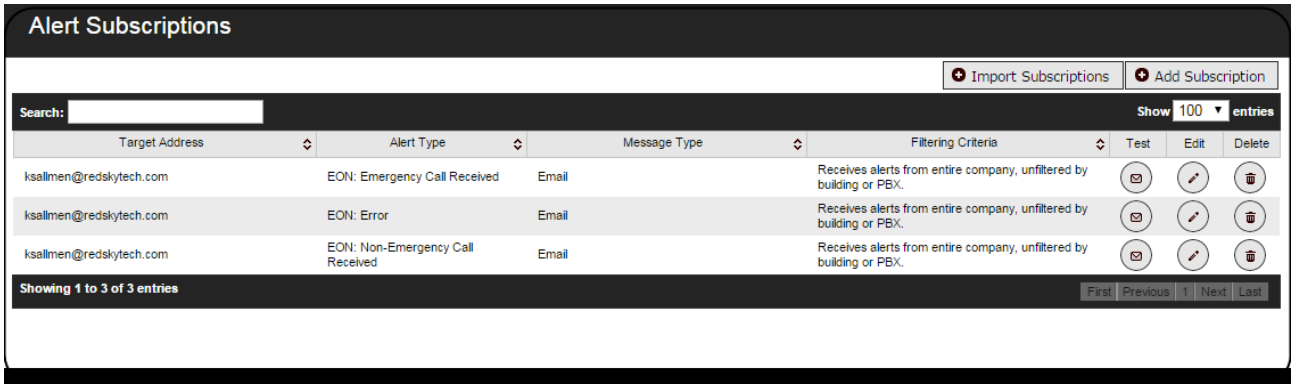
E911 Manager® has been designed to handle all aspects of E911 in the background while alerting administrators, users and security personnel of events that require immediate attention. These events include call server errors and ALI update errors. Alerts can also be sent when Emergency On-Site Notification (EON) is triggered, such as when an emergency call is detected. EON is an optional module that monitors all PBXs and call servers for an outbound 911 call. When EON sees a call, it retrieves the location record for the caller and sends a notification and the location of the caller to security desks, and sends emails and SMS messages to administrators and corporate security. For more information about EON, see the RedSky website.

Administrators can subscribe to many different alert types in E911 Manager®. Alerts can be configured to send via EON, Email, SMS, SNMP or phone. Also, E911 Manager® provides templates for various alert scenarios that companies may encounter. Alert messages can also be tailored, which benefits enterprises that require additional information unique to their corporate configuration added to the message, or that need to limit the messages to certain lengths (e.g., SMS text). See the section titled Alert Templates for more information. Only EON subscribers can set up related alert subscriptions.

To view alert subscriptions, select **ADMINISTRATION > Alerts** in the main menu. To subscribe to alerts, see the sections titled Subscribe to Alert Notifications and Subscribe to EON Alerts.



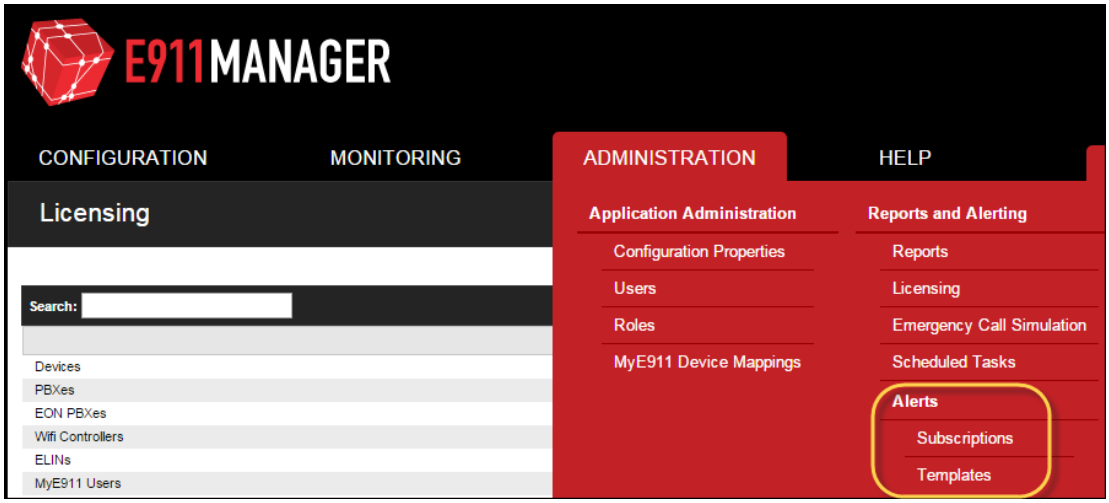
The Alert Subscriptions table displays the alert and message type as well as the address of the recipient. The example below shows both EON and non-EON alert subscriptions.



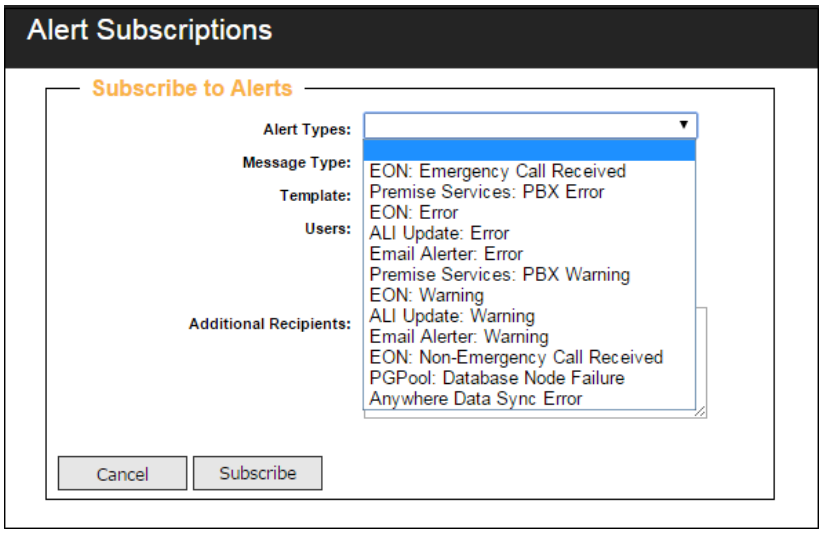
6.9.1 Subscribe to Alert Notifications

The application can be configured so specified receive alerts of events that occur in E911 Manager®. Follow the steps below to configure alert subscriptions:

1. Select **Administration > Alerts > Subscribe** from the main menu.



2. Select the **Alert Type** from the drop-down menu, as shown below.



The default alert types that can be sent to designated recipients are described below. Warning alerts may occur when there are no serious problems, such as configuration issues.

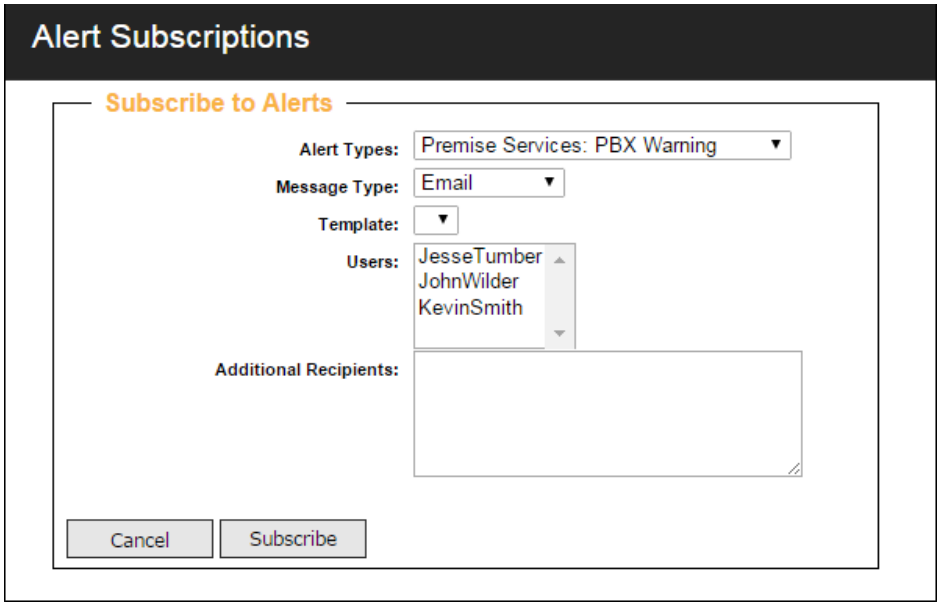
- **EON: Emergency Call Received** — the alert sent to EON users when an emergency call is detected
- **Premise Services: PBX Error** — the PBX alert type sent when an error occurs with the call servers
- **EON: Error** — the alert sent to EON users when an error occurs with EON
- **Ali Update: Error** — the Ali alert type sent when an error occurs when updating ELIN statuses
- **Email Alerter: Error** — the email alert type sent when an error occurs with the module that sends emails
- **Premise Services: PBX Warning —** the alert sent to EON users when a warning occurs with the call servers
- **EON: Warning** — the alert sent to EON users when a warning occurs with EON
- **Ali Update: Warning** — the Ali alert type sent when a warning occurs when updating ELIN statuses
- **Email Alerter: Warning** — the email alert type sent when a warning occurs with the module that sends emails

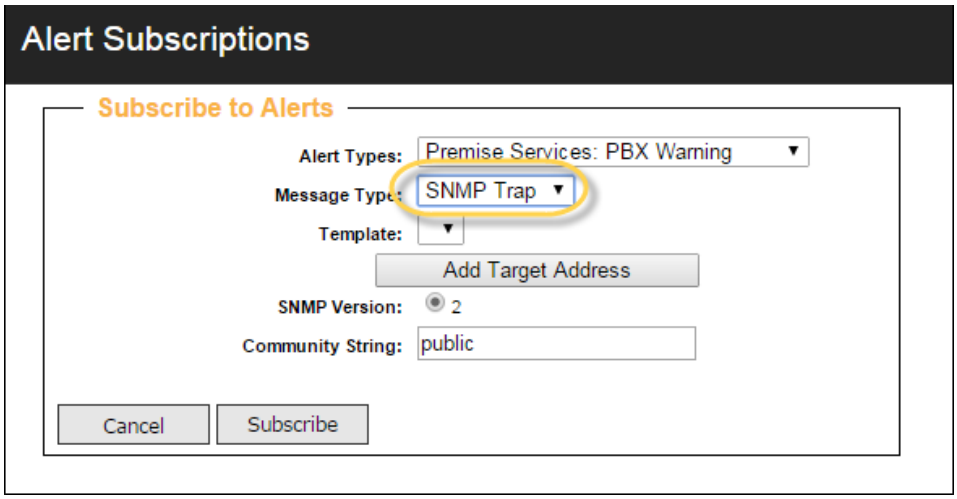
Note: The list includes "EON" Alert Types. Emergency On-Site Notification (EON) is an optional module for E911 Manager that reduces response time by notifying security and administrative personnel the instant someone on the network dials 9-1-1. The first option, **EON: Emergency Call Received**, includes additional options not available with other alerts. See the section titled Subscribe to EON Alerts for more information.

3. Select a **Message Type**. Messages can be sent via SMS, email, SNMP and phone call. Selecting **EMAIL** will let you select specific E911 Manager® **Users** as recipients of the alert. Selecting **SNMP Trap** will enable additional configuration options, including an **Add Target Address** button that can be clicked to include **IP** and **Port** information. Additional IPs and Ports can be added by clicking the button. Selecting **Phone Call** will enable a button for adding phone number information.

   When using SMS Subscription Alerts the phone number needs to be placed in as an email address. Use this website for looking up your carrier and plotting the string correctly.
   http://www.emailtextmessages.com/

   Example: 3123322325@vtext.com





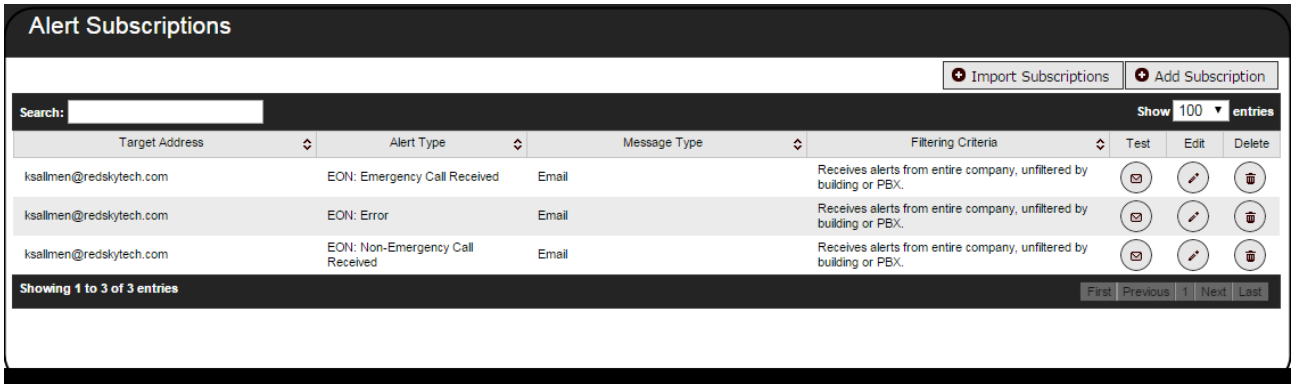
4. Select a **User** if you selected an **EMAIL** message type.

5. Select a **Template** from the drop-down list. E911 Manager® includes the ability to create templates that can be used for alert subscriptions. These must be preconfigured to show up in the drop-down list. See the section titledE911 Manager® comes with many standard templates for creating alert messages. These templates can be customized, and users can also create new templates from scratch. Saved templates automatically become available for use when subscribing to alerts. To view and create templates, select **MONITORING > Alert Subscriptions > Templates** from the main menu. See the section titled Alert Templates for more information.

6. Add additional recipients in the field, if necessary.

7. Click **Subscribe** to finish.

The new alert subscription will appear in the Alert Subscriptions table, as shown in the example below. You can view this table at any time by selecting **MONITORING > Alert Subscriptions > View** from the main menu. Notice that you can test each alert subscription by clicking the button . Test messages will contain the word "Test" in the subject. However, only send test messages to recipients expecting these alerts.



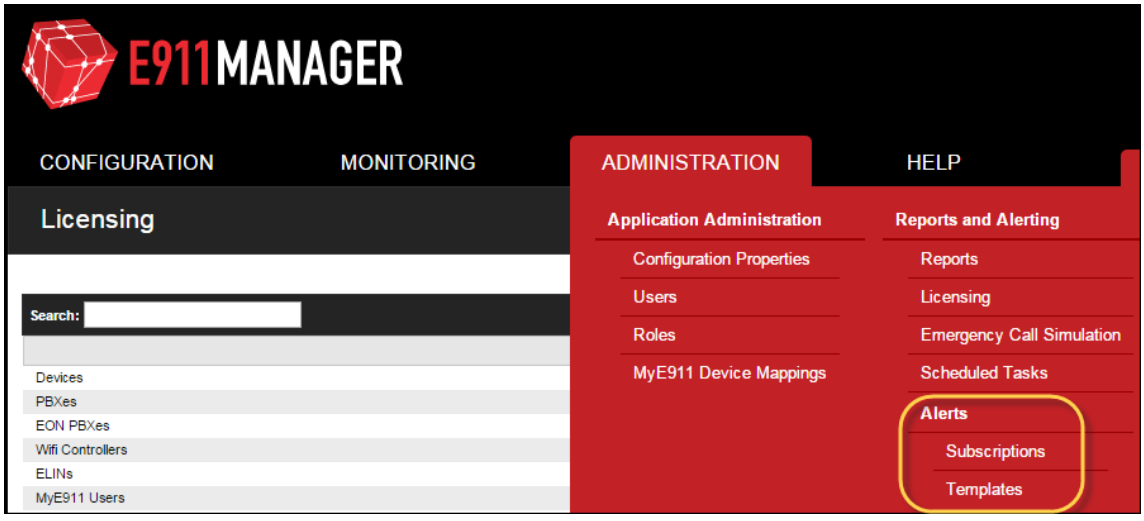
6.9.2 Alerts Overview

Emergency On-Site Notification (EON) is an optional module for E911 Manager® that reduces response time by notifying security and administrative personnel the instant someone on the network dials 9-1-1. EON sends a loud alarm along with a “screen pop” alert screen to security computers that includes the number and location of the caller. Email and SMS text messages also can be sent where needed. The entire process is time-stamped and logged. EON messages can also be tailored, which benefits enterprises that require additional information unique to their corporate configuration added to the message, or that need to limit the messages to certain lengths (e.g., SMS text). See the section titledAlert Templates for more information.

For more information and a diagram of how EON works, see RedSky's Emergency On-Site Notification page.

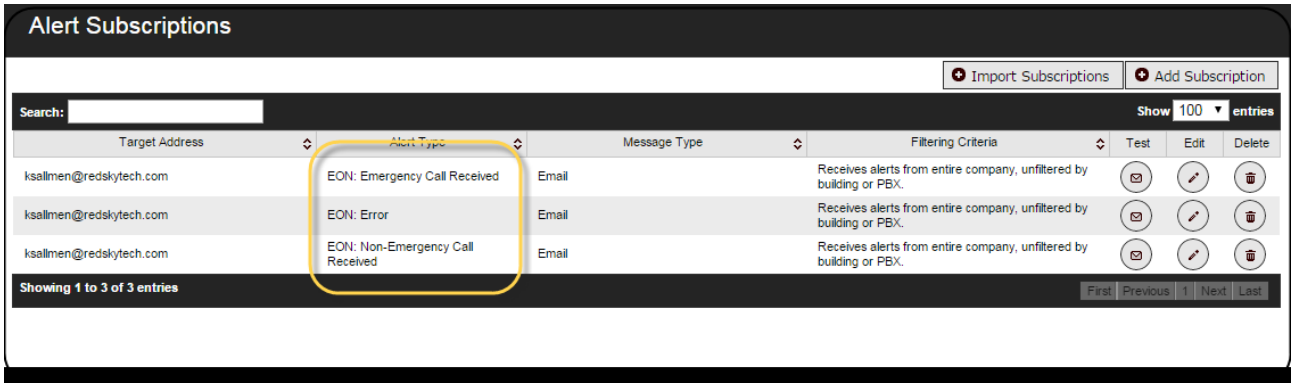
6.9.3 View Alert Subscriptions

Select **MONITORING > Alert Subscriptions > View** from the main menu.



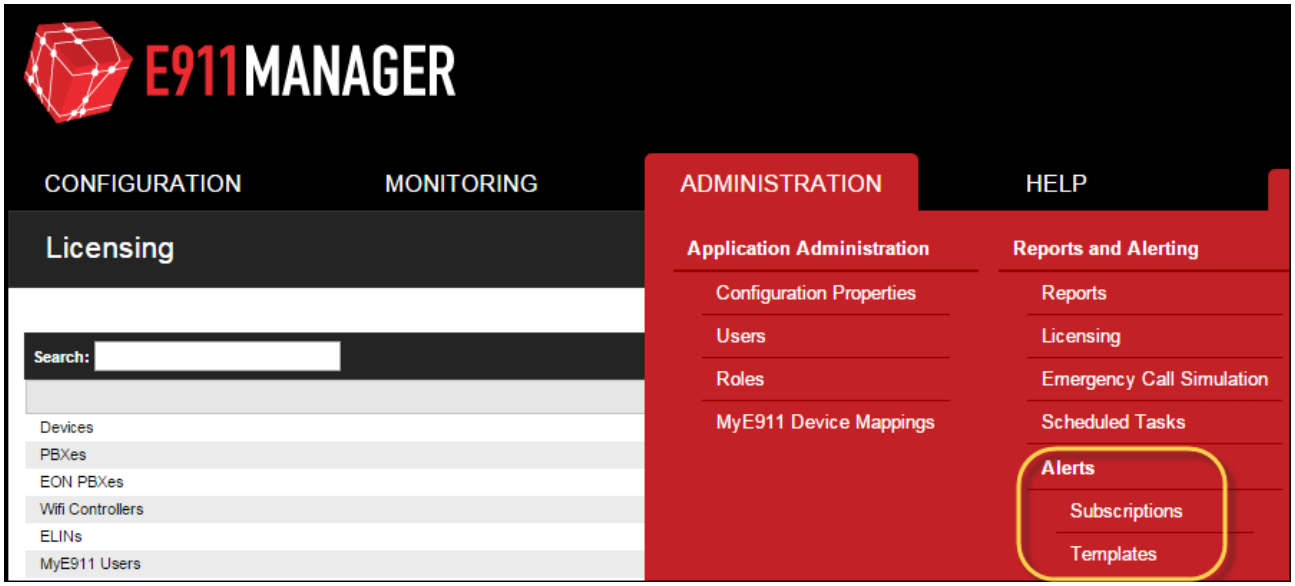
The Alert Subscriptions table appears, as shown in the example below.

Note: EON alerts are displayed with non-EON alerts. For more information on these types of alerts, see the section titled Alert Subscriptions.

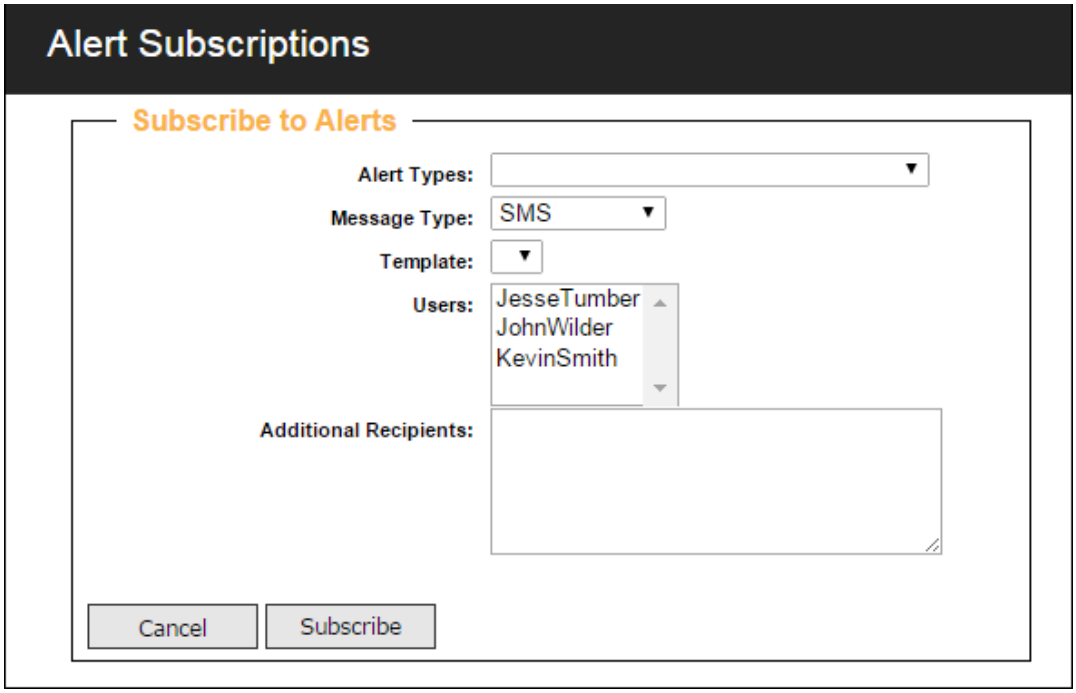


6.9.4 Subscribe to EON Alerts

To subscribe, select **ADMINISTRATION > Alert Subscriptions > Subscribe** from the main menu.



This launches the default Subscribe to Alerts screen, as shown in the example below.

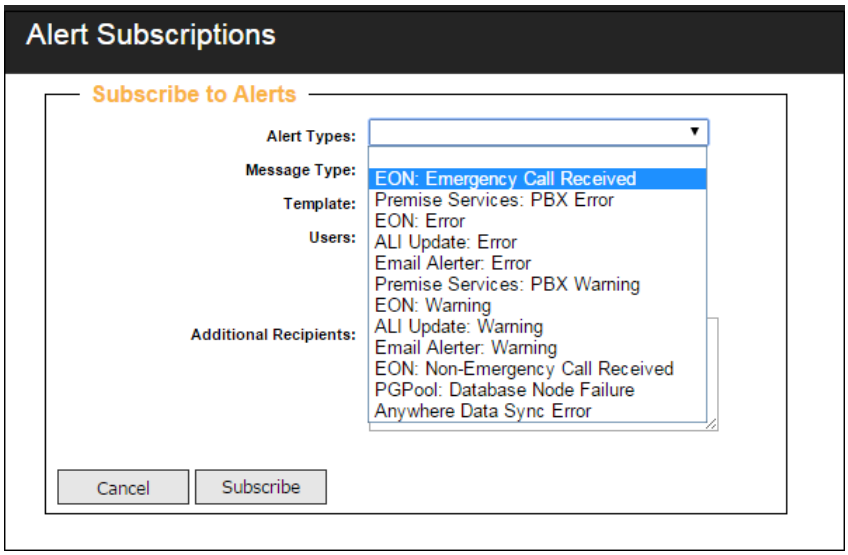


Follow the steps below to configure an EON alert:

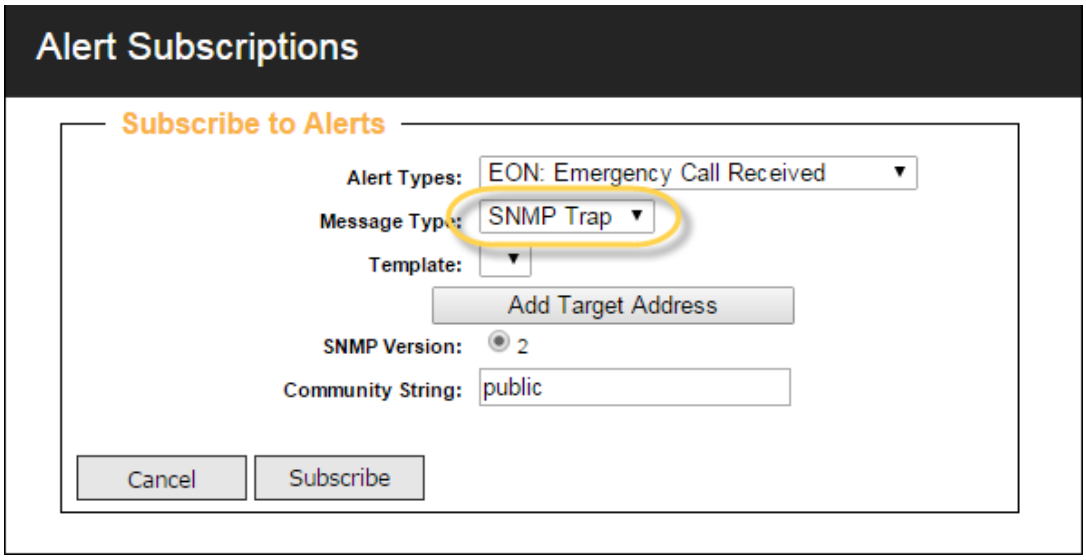
1. Select one of the EON **Alert Types** in the drop-down list. The options include the following:

   - **EON: Emergency Call Received** - the alert sent to EON users when an emergency call is detected
   - **EON: Error** - the alert sent to EON users when an error occurs with EON
   - **EON: Warning** - the alert sent to EON users when a warning occurs with EON

Note: The window expands with additional options when the **EON: Emergency Call Received** alert type is selected.



2. Select a **Message Type**. Messages can be sent via SMS, email and SNMP. Selecting **EMAIL** lets you specify E911 Manager® **Users** as recipients of the alert. Selecting **SNMP Trap** will enable additional configuration options such as the **Add Target Address** button, which can be clicked to include **IP** and **Port** information. Additional IPs and ports can be added by clicking the button.



3. If you selected an **EMAIL** message type, select the **Users** who'll receive the alert. Enter any additional email addresses in the **Additional Recipients** field.

4. Select a **Template** from the drop-down list. E911 Manager® includes the ability to create alert templates that can be used for alert subscriptions. These must be preconfigured to show up in the drop-down list. See the section titled Alert Templates for more information.

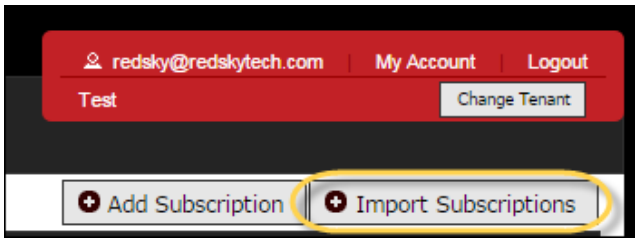
5. If you selected the **EON: Emergency Call Received** alert type, either click the **Use Entire Company** checkbox, or click a particular building(s) and click the buttons to select and deselect buildings. If you click the checkbox, the specified user receives alerts from the entire company, unfiltered by building. The buildings listed have been preconfigured E911 Manager®. See the section titled Configure Building for more information.

6. If you selected the **EON: Emergency Call Received** alert type, click a particular call server(s) and click the buttons to select and deselect call servers.

7. Click **Subscribe** when finished.

The new subscription appears in the Alert Subscriptions table.

6.9.5 Import Alert Subscriptions



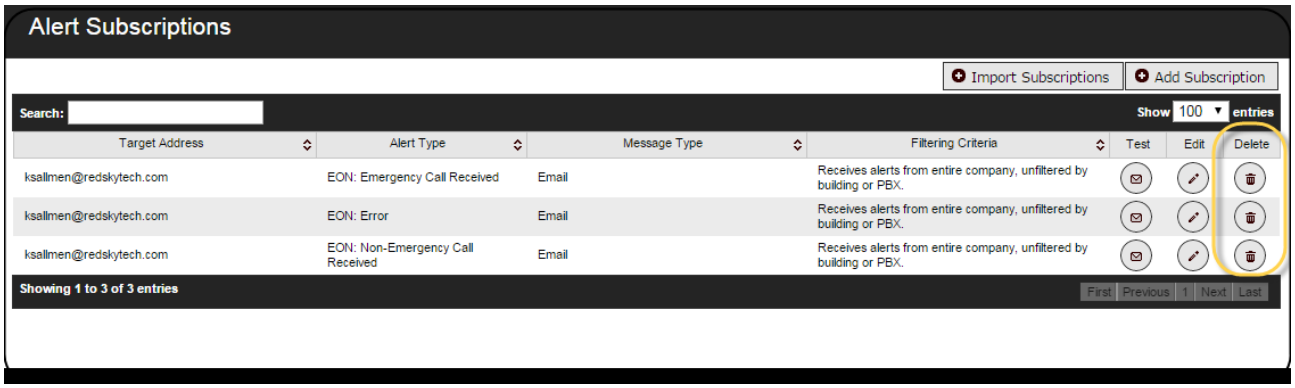
When importing Alert Subscriptions a predefined format must be used. See below for format guidelines. This is also instructed on the individual import page.

CVS Row Format (*Template Name, Usernames[2], Additional Email Addresses[2], Buildings[2], Call Servers[2])

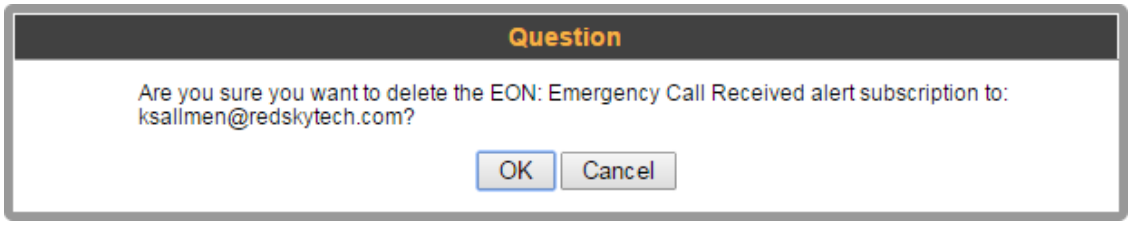
[*] - required
[2] - a list of comma delimited values surrounded by quotation marks

6.9.6 Delete Alert Subscriptions

EON Alert Subscriptions can't be edited, but they can be deleted. Just click the Delete icon for an associated subscription. To view subscriptions, select **ADMINISTRATION > Alert Subscriptions > View** from the main menu.

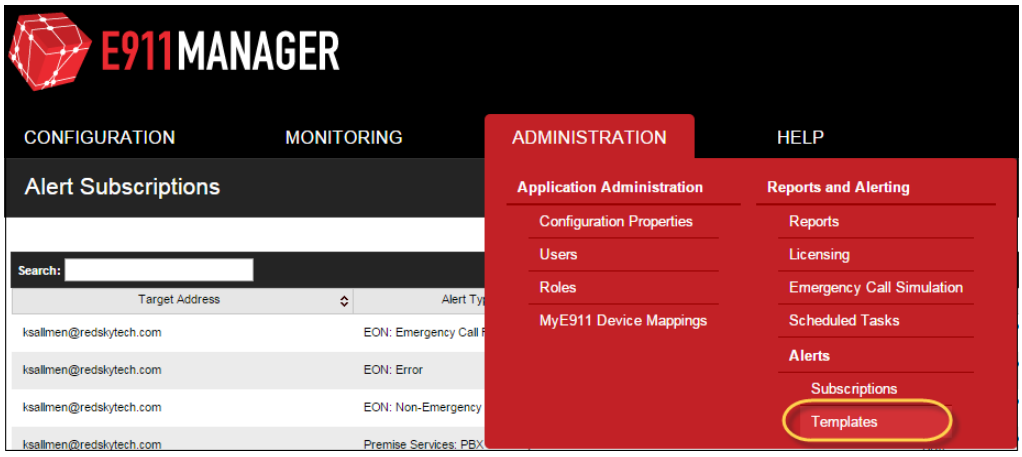


Next, click **OK** to confirm the deletion.

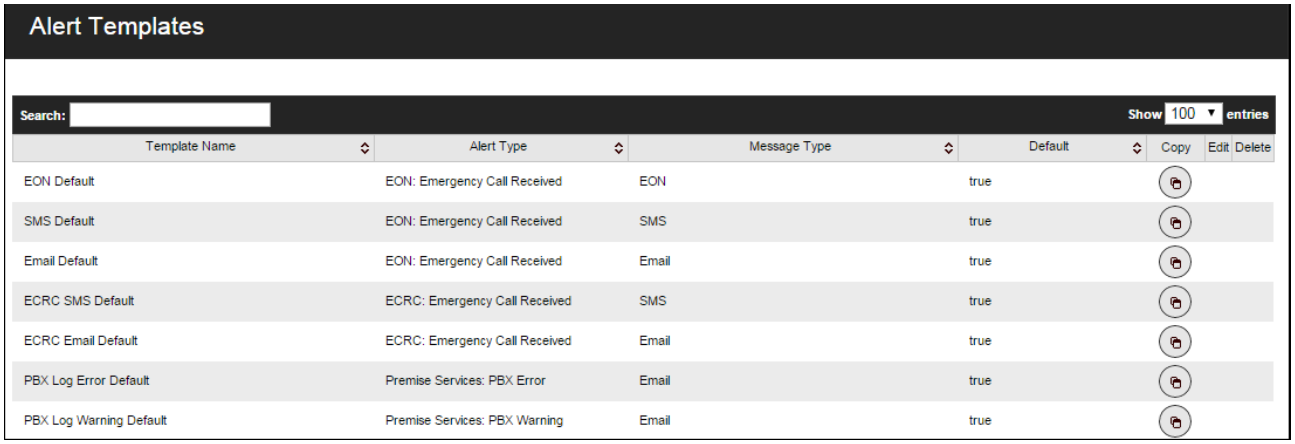


6.9.7 Alert Templates

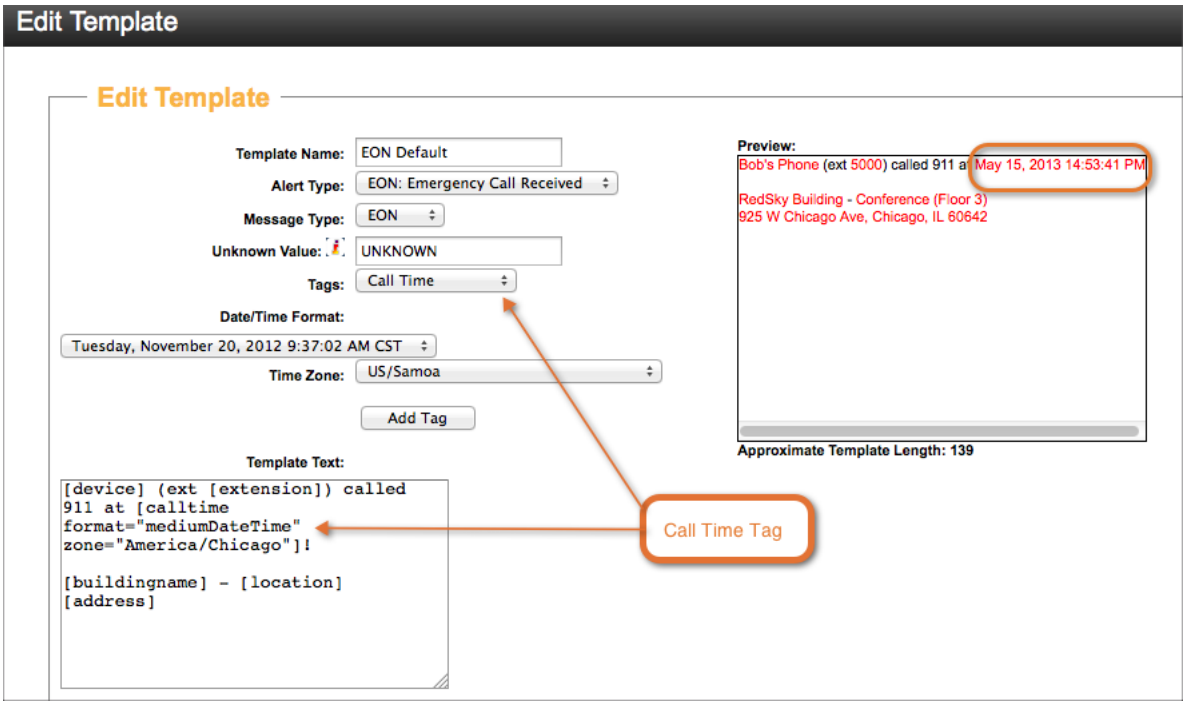
E911 Manager® comes with many standard templates for creating alert messages. These templates can be customized, and users can also create new templates from scratch. Saved templates automatically become available for use when subscribing to alerts. To view and create templates, select **MONITORING > Alert Subscriptions > Templates** from the main menu.



The Alert Templates table displays all templates by name, alert type, message type and default status. Notice that each alert template has a default status of either 'true' or 'false'. A 'true' default type signifies a standard template created by RedSky that cannot be deleted. A 'false' default type signifies a template created by the user. These types of templates can be deleted.

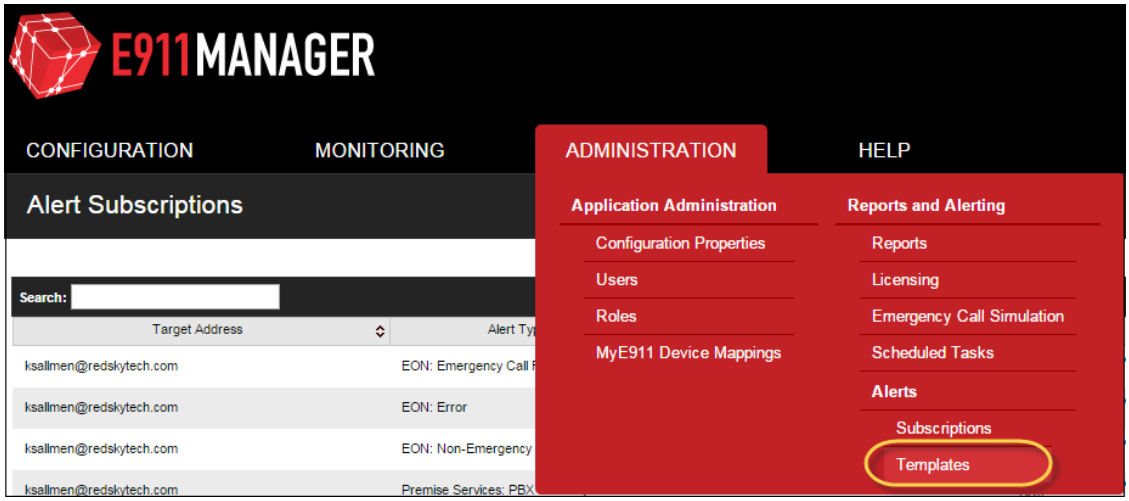


To view details about any particular template, click the **Edit** icon  associated with it. For example, clicking the **Edit** icon for the template named EON Default displays the information shown below. The Preview field displays the message that will be sent when and EON Notice that template text contains tags that E911 Manager® automatically populates with relevant information. In the example below, the **Call Time** tag inserts the date and time in the selected **Date/Time Format** and **Time Zone** in the preview field. See the section titled Create/Edit Templates for more information about customizing templates.

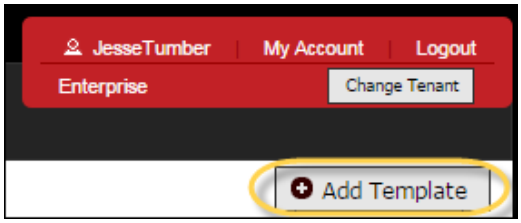


6.9.8 Create/Edit Templates

Select **MONITORING > Alert Subscriptions > Templates** from the main menu.



Next, click the **Add Template** button on the right of the screen.



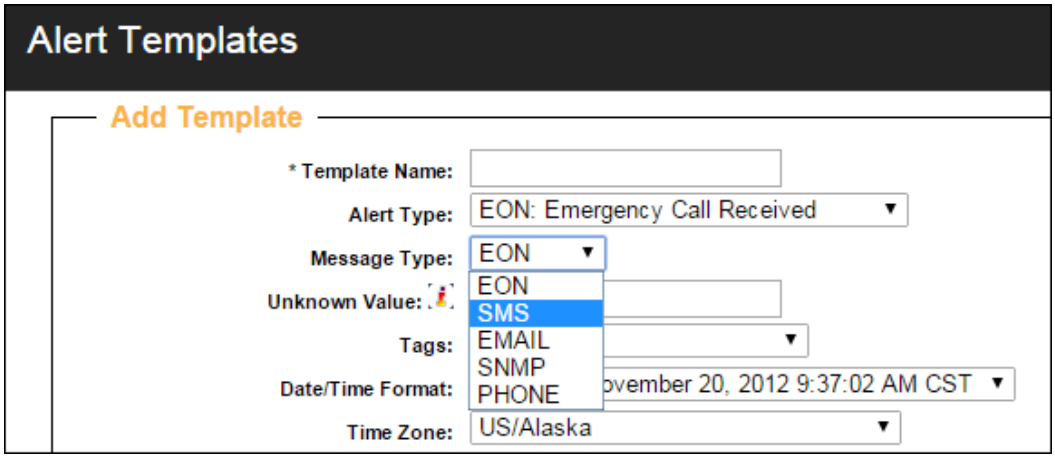
Follow the steps below to add a template:

1. Give your template a relevant name.

2. Select an **Alert Type** from the drop-down menu.

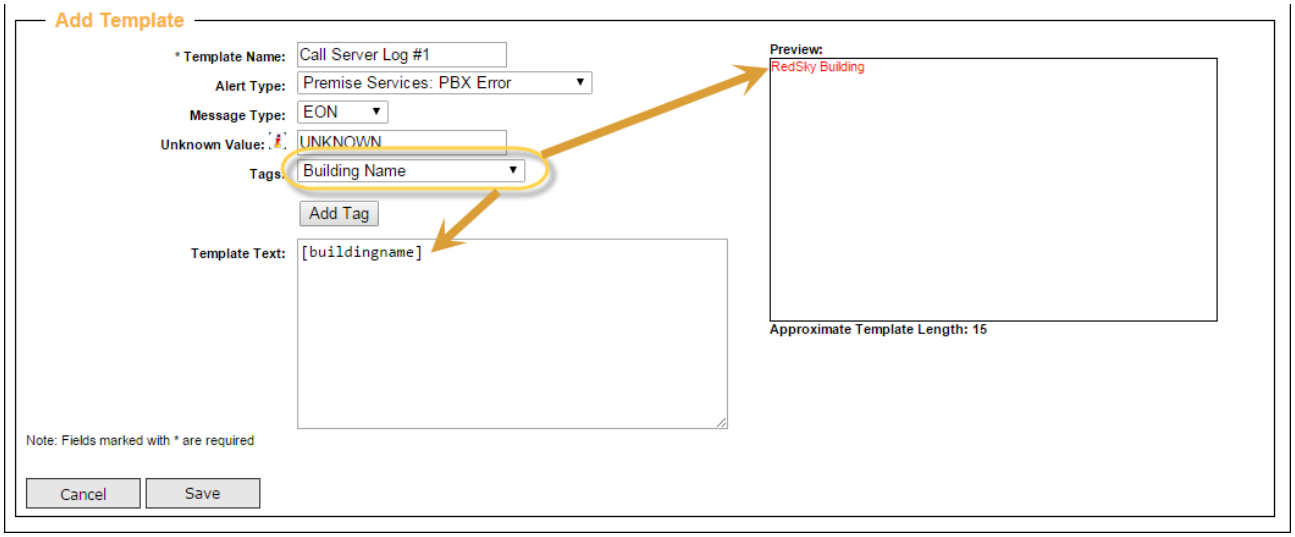
Note: The list includes EON alert types. Emergency On-Site Notification (EON) is an optional module for E911 Manager® that reduces response time by notifying security and administrative personnel the instant someone on the network dials 9-1-1. See the section titled Alerts Overview for more information.

3. Select a **Message Type** from the drop-down menu.

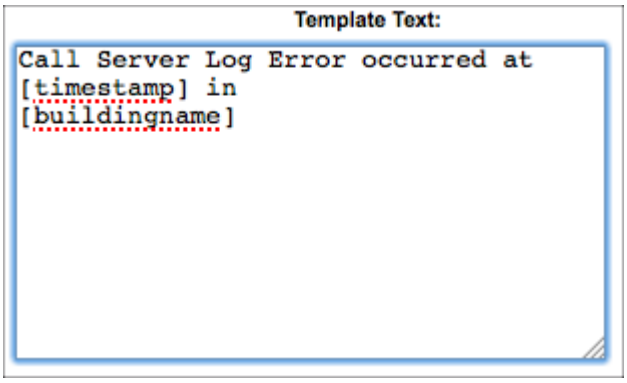


4. Type in a different value for the **Unknown Value** field, if necessary. This value defines what E911 Manager® will default to in case the given data tag is undefined. For example, it a tag is a location, but there is no location assigned, the 'Unknown' value will be inserted.

5. Add tags to the template text by selecting items from the drop-down list and clicking the **Add Tag** button. There are over a dozen available tags, which allow you to include a range of valuable information in the alert. When you add a tag, E911 Manager® automatically populates it with relevant information. For example, adding **Building** inserts the building tag in the Template Text field and the actual building name in the Preview fields.

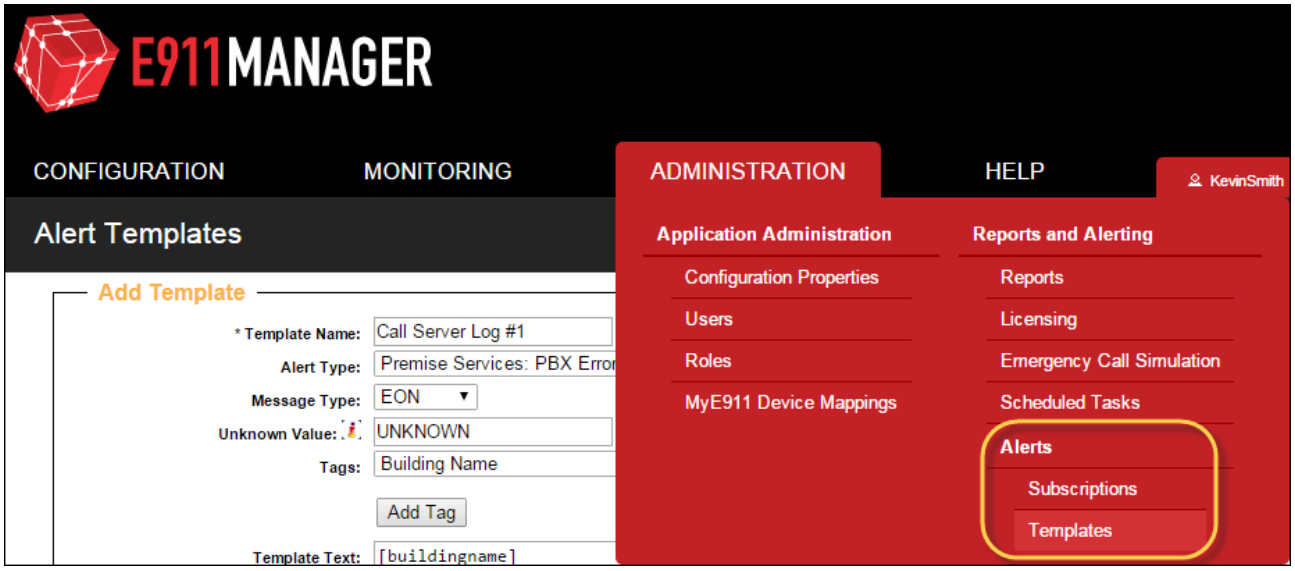


6. Type in optional descriptive text in the Template text field. Adding relevant text can help place tags in the correct context.



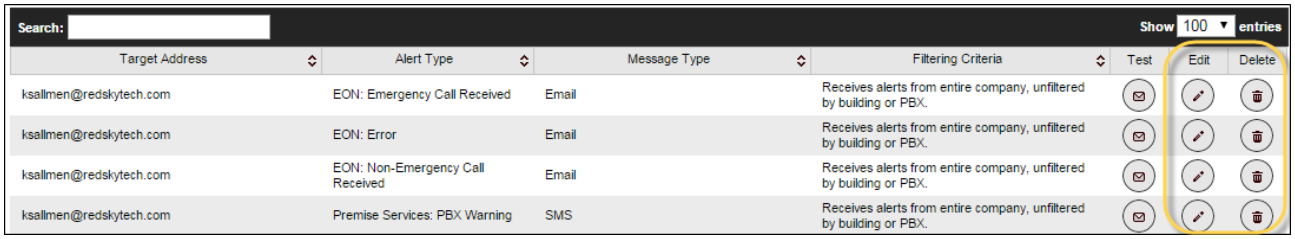
7. Click **Save** when finished.

Once saved, the template will be available when subscribing to alert subscriptions. You can view all saved alert templates by selecting **MONITORING > Alert Subscriptions > Templates** from the main menu.



Edit and Delete Templates

All saved templates can be edited by clicking the **Edit** icon  associated with a particular template. Click the **Delete** icon  for a particular template to remove it from the table.

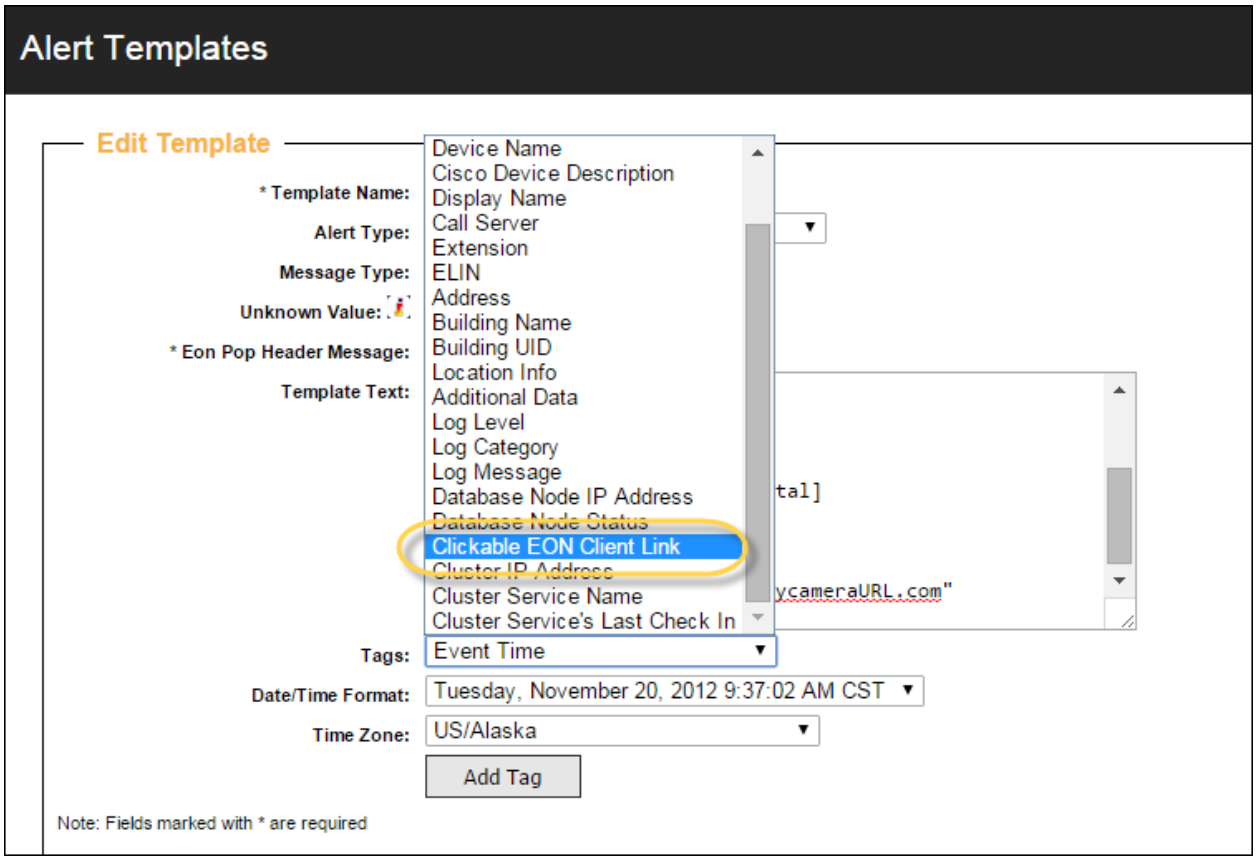


Templates are edited in the same way as described in the Creating Templates section above. Existing text and tags are edited directly by clicking in the Template Text field.

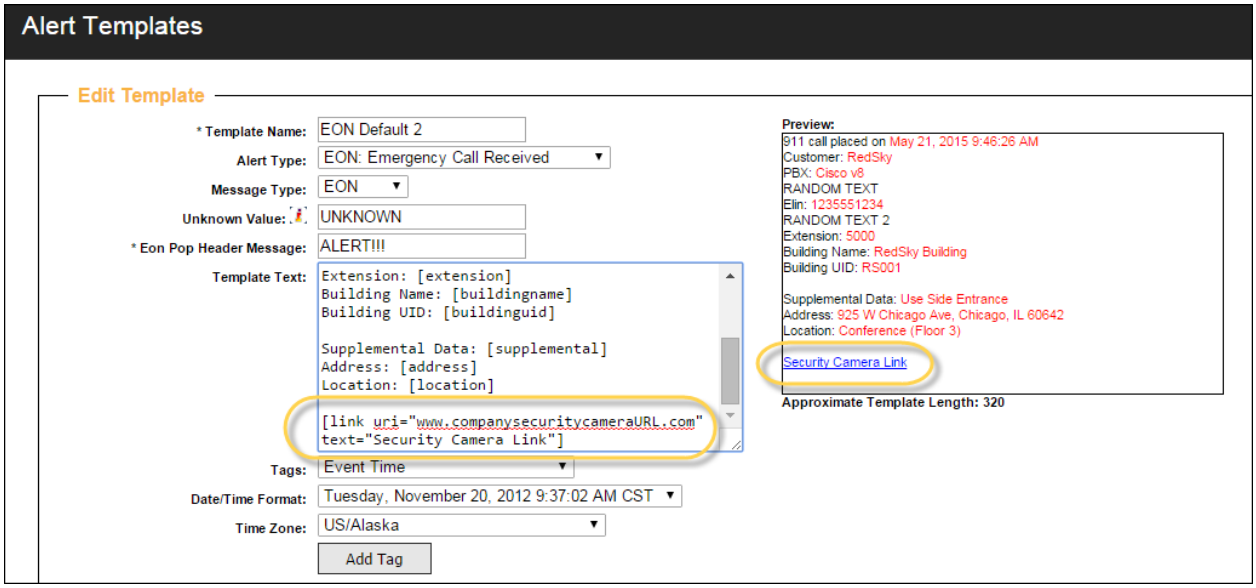
6.9.9 Adding HTML within an EON Template

We've enhanced the functionality within EON templates by allowing for the inclusion of HTML links. This opens the door for more possibilities within the alerting application by giving the users options to link to internal or external sites and pages.

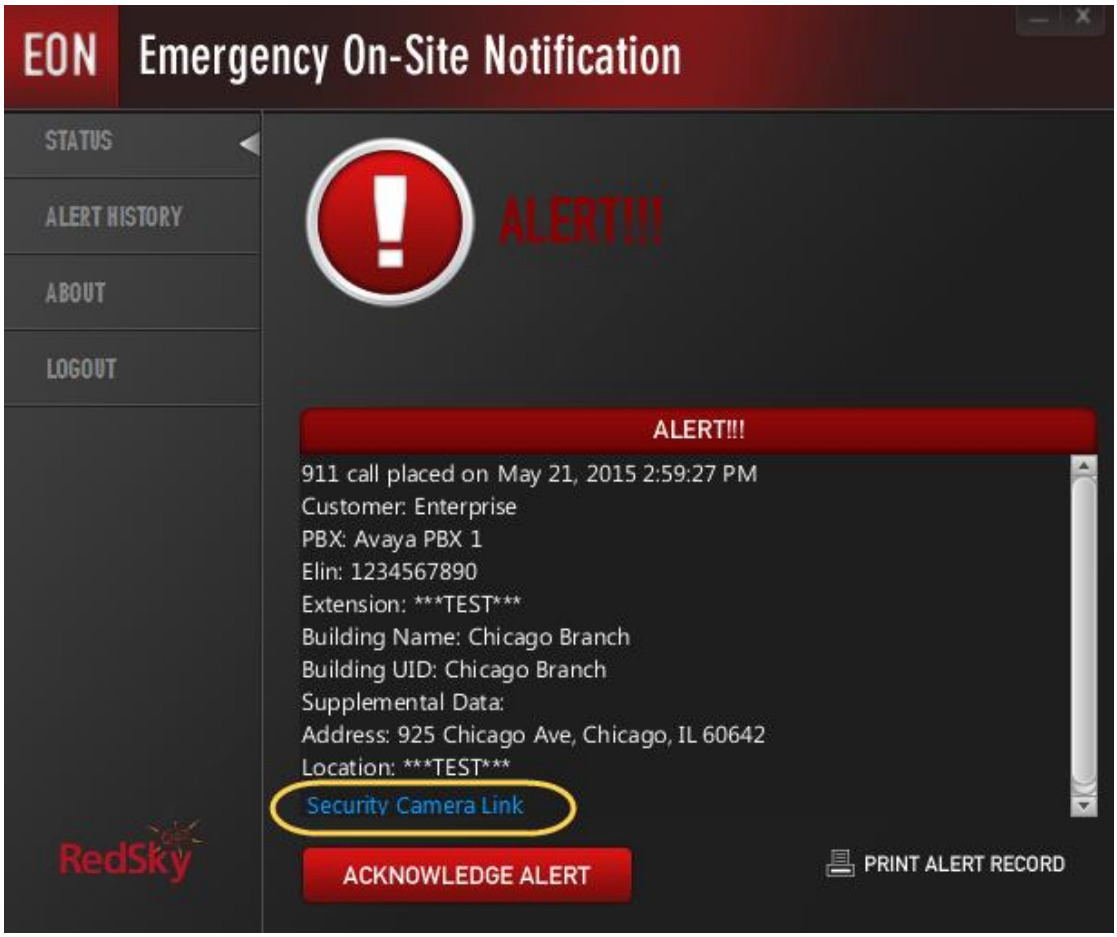
1. Within the Alert Template page the EON Default Template has an additional tag named "Clickable EON Client Link" as seen below which can be inserted into the template.



2. Once the tag is entered you are required to enter the URL of the page,site,or file and the text to display within the EON screen pop as seen below.

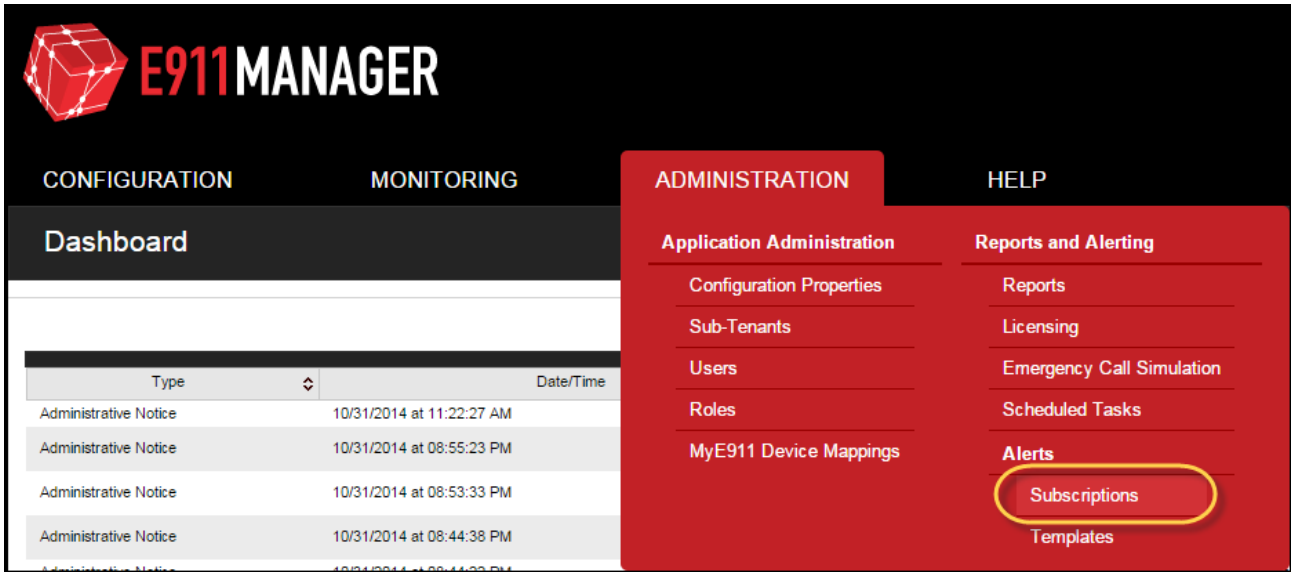


3. The end result will be displayed upon an Emergency Call or Emergency Call Simulation.



6.9.10 Edit/Delete Alert Subscriptions

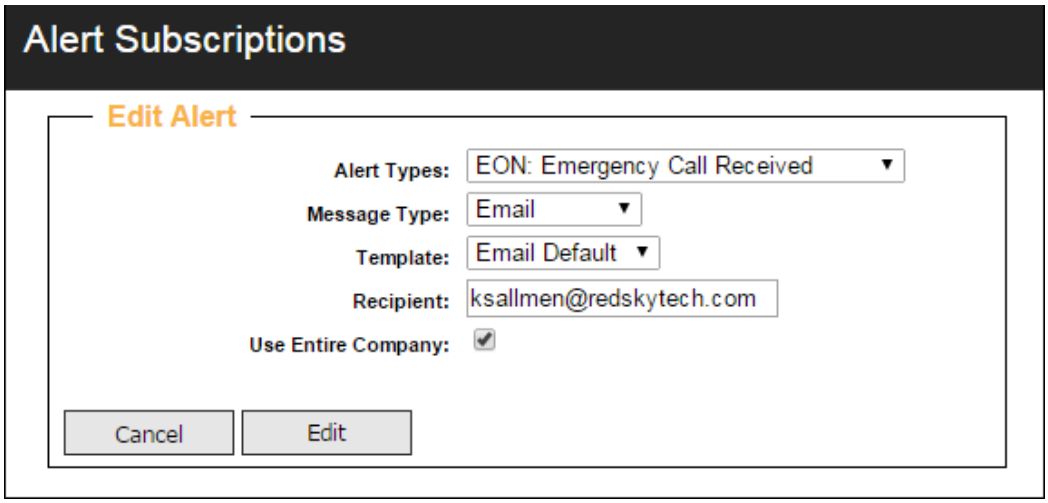
New to Version 6.3.5 is the ability to edit alert subscriptions. To manage alert subscriptions, select **MONITORING > Alert Subscriptions > View** from the main menu. **Edit** and **Delete** icons are provide for each alert subscription in the table. Instructions for editing and deleting are provided below.



Edit Alert Subscriptions

1. Click the **Edit** icon  associated with a particular alert subscription.

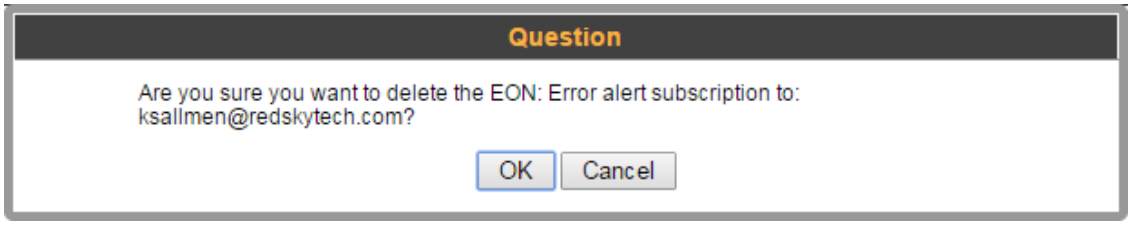
2. Make edits on the Edit Alert screen, as shown in the example below. Editing is similar to subscribing up an alert.



3. Click **Edit** when finished.

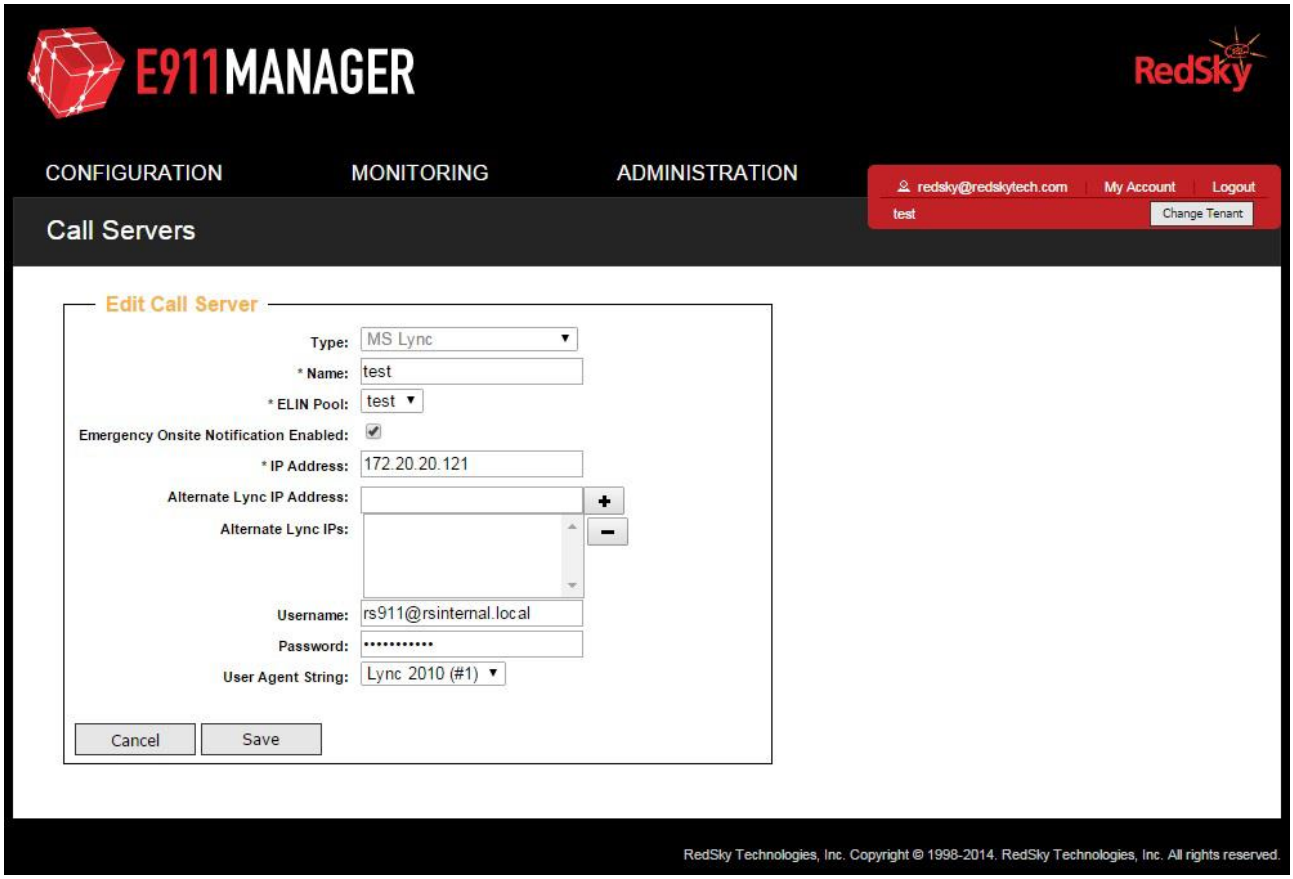
Delete Alert Subscriptions

Click the **Delete** icon  associated with a particular alert subscription. Click **OK** to confirm the deletion. The alert subscription will be deleted from the table.



6.9.11 Setting up Emergency Call Alerts for Microsoft Lync

Emergency calls originating from Microsoft Lync can now trigger RedSky Technologies Emergency Call Alerts when configured according to the following guidelines.



Upon adding a Call Server which is accessible through CONFIGURATION -> Call Server, you will notice in the “Type” field there is now a selection for Microsoft Lync. Now you can populate the remaining required fields for your Lync Server. To enable Emergency Alerts:

Check the “Emergency Onsite Notification Enable” checkbox.

• Provide the username and password for your E911 Manager Lync user.

• Select a User Agent String for your Lync version (2010 or 2013)

Once the Lync Server is added to E911 Manager, you will receive Emergency On-Site Notifications for any emergency calls placed by Lync clients on the designated Lync server.

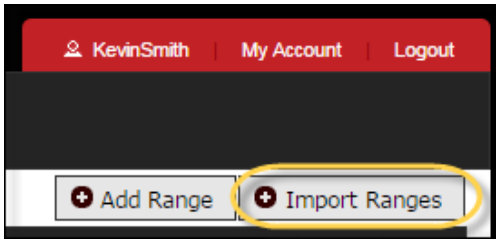
7 Launch Network Discovery

E911 Manager® supports two methods of location determination for IP phones:

- **Network Regions/IP Ranges**
- **Layer2/Port Level Discovery**

Both of these methods provide real-time tracking and location determination of IP phones without admin intervention. Phones can move anywhere in the enterprise and their location is automatically discovered and the call server is updated to provide the correct outbound emergency number (ELIN).

7.1.1 Network Discovery is an automatic process in E911 Manager® that happens behind the scenes. However, it requires that your Network Switch and IP Range information is up to date. See the sections titled Import IP Ranges



When importing IP Ranges a predefined format must be used. See below for format guidelines. This is also instructed on the individual import page.

CVS Row Format (range name, start IP address, end IP address, building UID, location name)

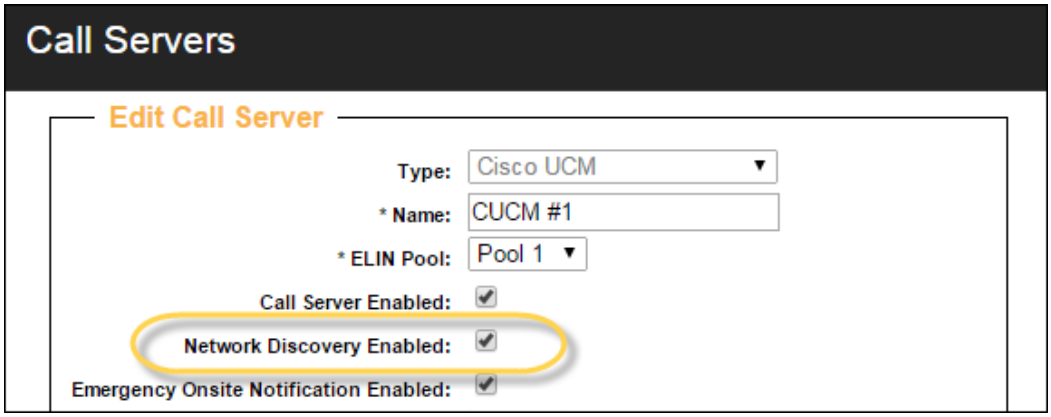
*All fields are required. Building UID and location name must resolve to an existing location

A Sample Format is available which will show you the column variable layout.

The IP Range Report is also accessible from the Import page which will provide a list of IP Ranges within your company which matches the importing format.

Configure Network Switches and Configure IP Ranges for more information on managing IP Range or Network Switch information.

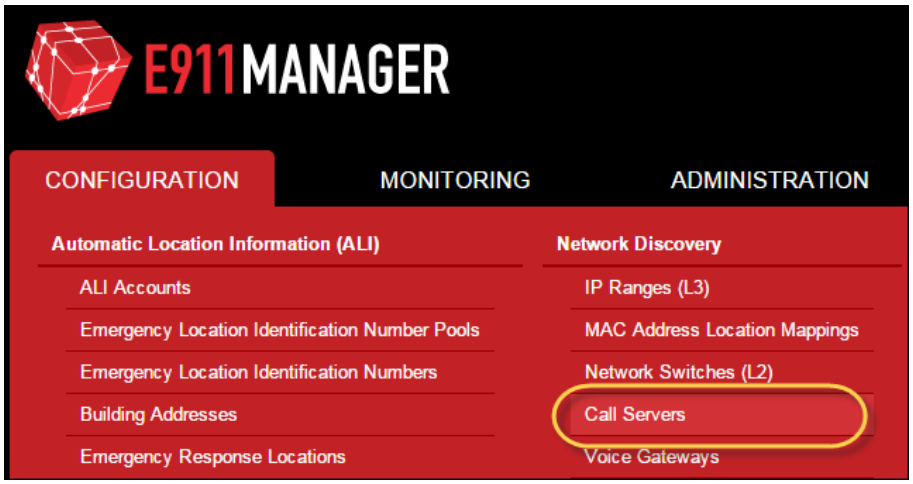
Also, another requirement is that the service **Network Discovery Enabled** must be checked for each call server for network discovery to occur, as shown in the example below. The service allows E911 Manager® to detect new devices and update the call server, if needed. See the section titled Configure Call Servers for more information on managing call server information.



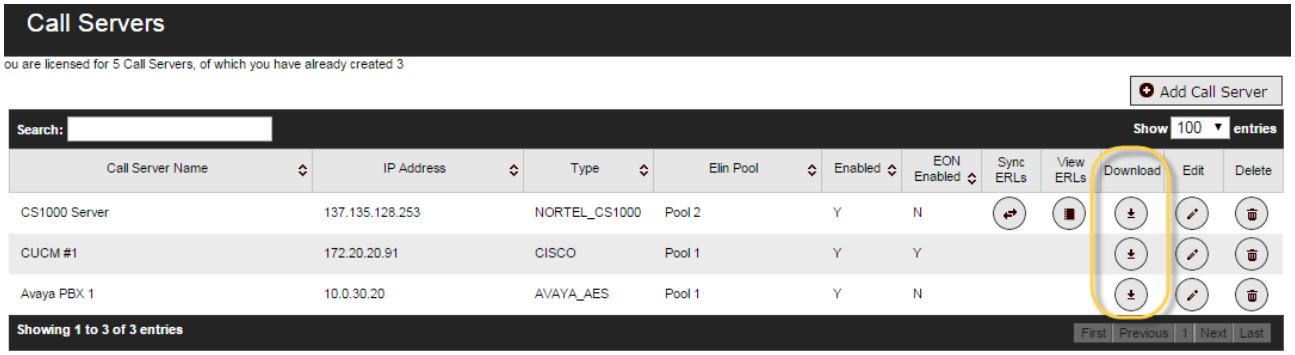
8 Import of the Call Server Devices

After the initial download of all call server information, generally only routine updates to the call server will occur. However, there are cases, such as the addition of phones or devices, which may require an entire call server download. Downloading retrieves a complete list of all devices and registered phones and populates these as endpoints in E911 Manager®. In the event that a routine call server update failed, a manual download and import could also be run to isolate problem.

1. Select **CONFIGURATION > Call Servers** from the menu.



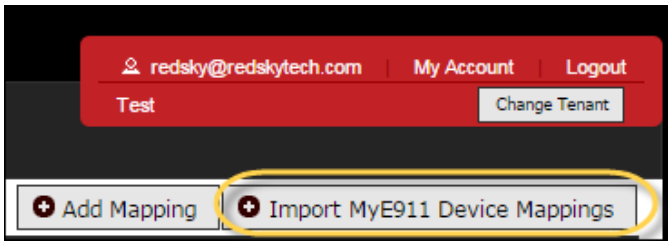
2. Next, click the **Download** icon  for a particular call server, as shown below.



3. Click **OK** in the pop-up box to confirm the download.

The download process may take at least several minutes. Select **MONITORING > Device Status (Endpoints)** to see a table of devices and registered phones.

8.1.1 Import Cisco Devices



When importing Cisco Devices a predefined format must be used. See below for format guidelines. This is also instructed on the individual import page.

CVS Row Format (Device Name, UID, PBX Name, Building UID, Location Name)

All fields are required

9 Troubleshooting

The first thing you should do if you experience a problem is to determine exactly what that problem is. Examples include the following:

- Are your scheduled jobs not running?
- Are you unable to log into the application?

Whatever the problem, a good place to look is in the E911 Manager **Event Report** for more details. The Event Log will help you determine where the problem is stemming from:

- Is it call server-related?
- E911 database provider-related?
- A problem with your network connection?
- Or, something with the application itself?
- See the section titled Events for more information.

IMPORTANT: Do not attempt to re-install the E911 Manager software without first consulting RedSky Support!

Email RedSky Technical Support

You can send an email to support@redskytech.com.

Call RedSky Technical Support (8:00am – 5:00pm CST/CDST Monday – Friday)

1-866-778-2435

10 RedSky Technologies Support

10.1 Email RedSky Technical Support

You can send an email to support@redskytech.com.

10.2 Call RedSky Technical Support

(8:00am – 5:00pm CST/CDST Monday – Friday)

1-866-778-2435

11 Contact

Corporate Headquarters
333 N Michigan Ave
Chicago, Illinois 60601
1-877-REDSKY1
Tel. 312-432-4300
Fax 312-432-4320
info@redskytech.com

sales@redskytech.com