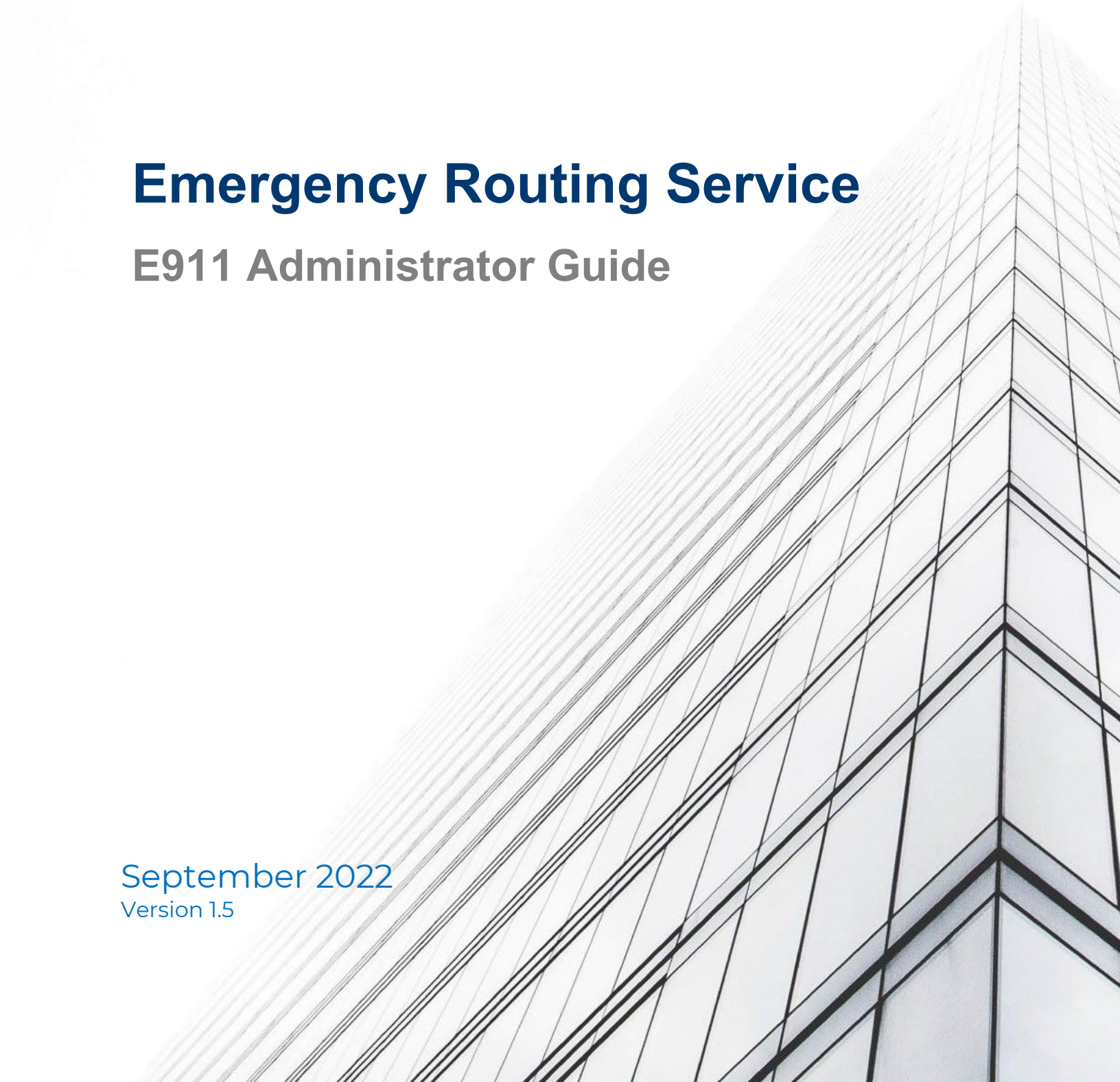
COMCAST BUSINESS | MASERGY

Emergency Routing Service

E911 Administrator Guide



September 2022
Version 1.5

Table of Contents

Masergy ERS Portal E911 Administration Guide 3
Masergy ERS Portal Sign In. 3
e911 Administrator Management 3
Email Notification Management 5
Emergency Response Location (Regional) e911 Notification 6
e911 Batch Provisioning of Subscribers 8
e911 Location Manager for Hosted UC 8
E911 Location Manager – Customer Account ID and Token 8
Windows Silent Installation Instructions 9
Add New Subscribers 10
Change Emergency Response Location for a Subscriber 14
Add New Emergency Response Location 15
Removal of an Emergency Response Location 17
Dynamic Mapping – Subnets, Wireless Access Points, & Switches 18
Subnets 18
Wireless Access Points 20
Switches and Ports 21
Monitoring 25
Call Details Records 25
Provisioning Logs 28
HELD Service 28
Login History 34
Appendix 35
Deployment Considerations 35
Hosted UC 35
Intelligent SIP Trunking 35
E911 Emergency Call Testing using 933 Service 36
Masergy ERS Portal – Terminology 37
Acronyms 38

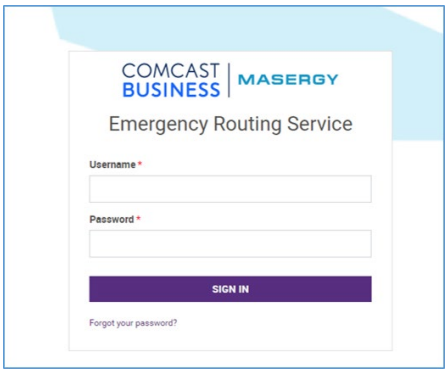
Masergy ERS Portal E911 Administration Guide

This Masergy Emergency Routing Service e911 administration guide will provide the customer e911 team the ability to add, modify, and delete – Subscribers, Emergency Response Locations (ERL), Subnets, Wireless Access Points, and Switches for their service with Masergy.

Note: Masergy will handle any batch provisioning requirements.

Masergy ERS Portal Sign In.

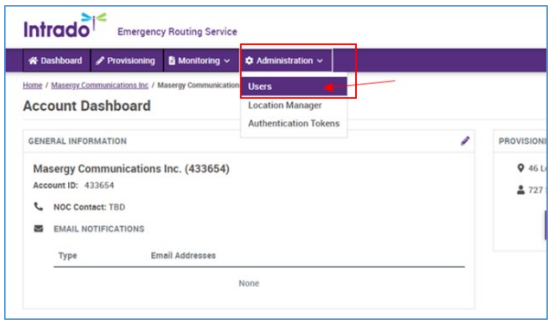
Using your administrator credentials sign into the Masergy ERS portal credentials at https://911.masergy.com/users/sign_in .



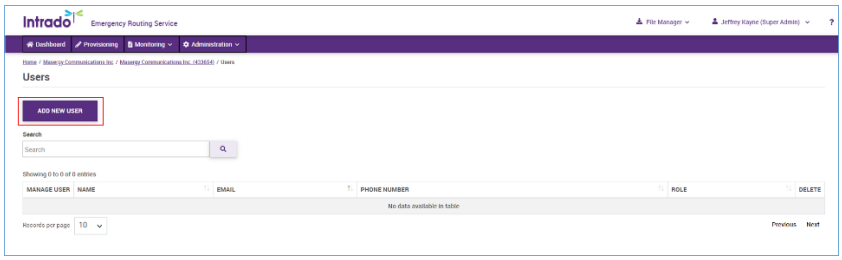
e911 Administrator Management

The e911 Administrator can manage the administrators for their enterprise account. The e911 administrator can create additional e911 administrators, reset passwords, and delete. The following procedure outlines the steps to follow.

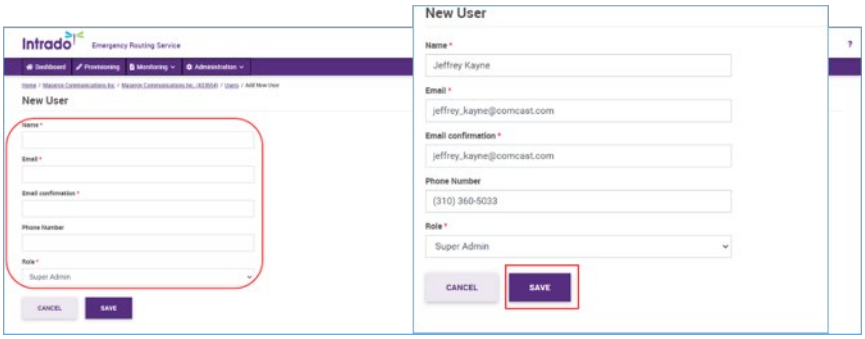
1. In the e911 enterprise account dashboard, locate the **Administration** tab as shown in the image, from the drop-down menu, select **Users**.



2. Next, select **Add New Users**.

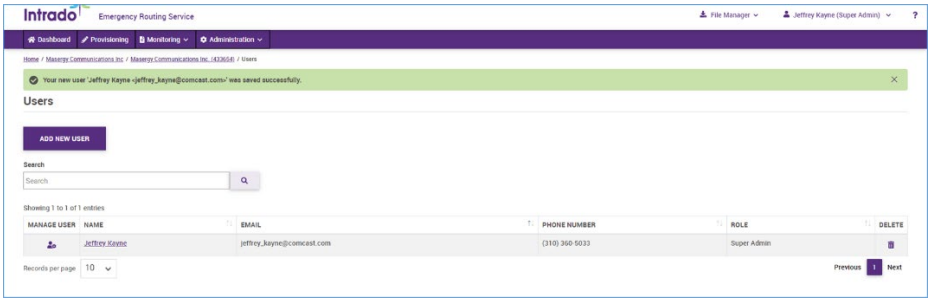


3. Fill out the **New User** form including their name, email address, contact phone number, and the **Role** from the drop-down menu. For the **Role** select **Super Admin.** When finished select **Save**.

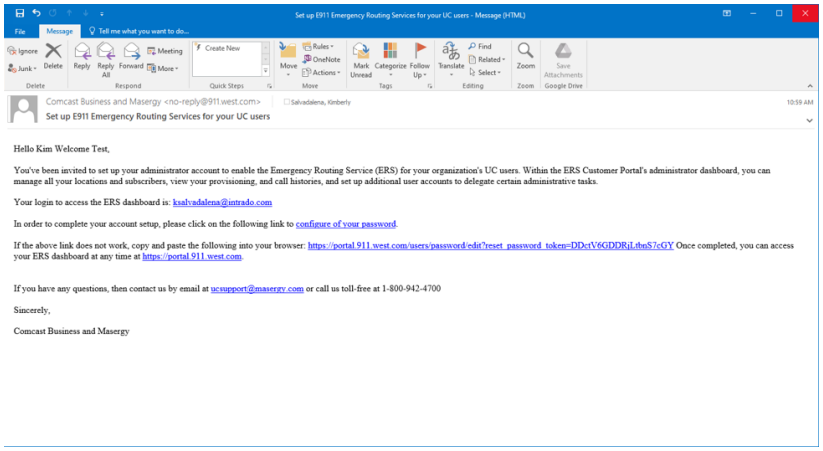


4. The new e911 administrator has now been created. A welcome email from the Masergy ERS portal is sent to the new e911 administrator.

   Note: the password link in the welcome email expires after 24 hours.



5. Sample Welcome email.



6. When the new e911 administrator selects the login link from the welcome email, will log them into the Masergy ERS Portal login screen to create their password. After the e911 administrator has successfully created their password is automatically logged into the Masergy ERS Portal landing page for their enterprise account.

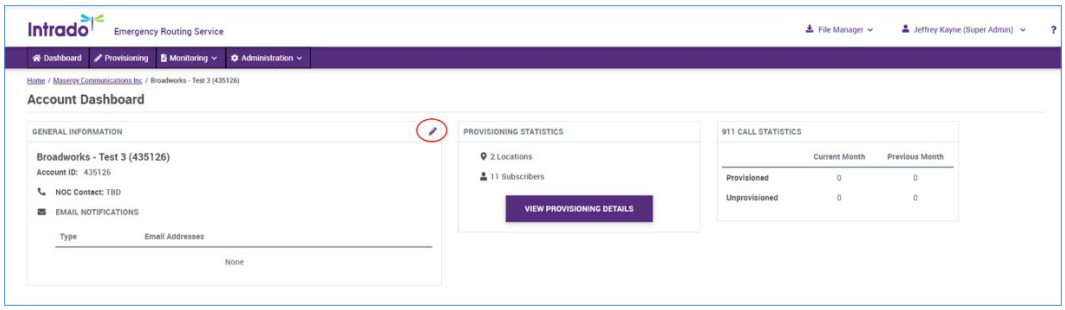
7. Repeat the above steps to create additional e911 administrators.

Email Notification Management

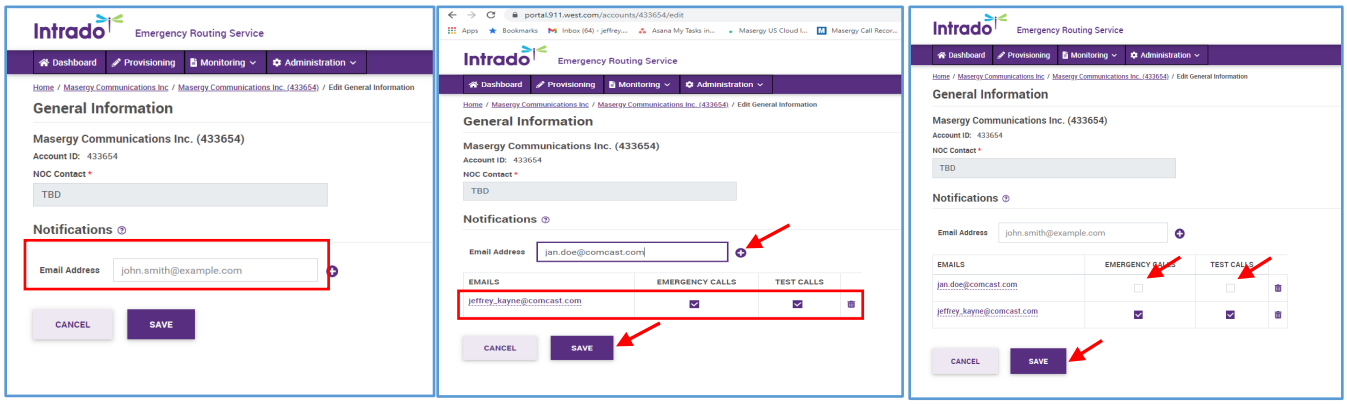
E911 Administrators and non-administrators can receive email notifications for a 911 emergency calls and 933-test calls. E911 administrators can add email notification for their own account or Masergy can do this for you.

Note: both e911 administrators and non-administrators can receive these email notifications.

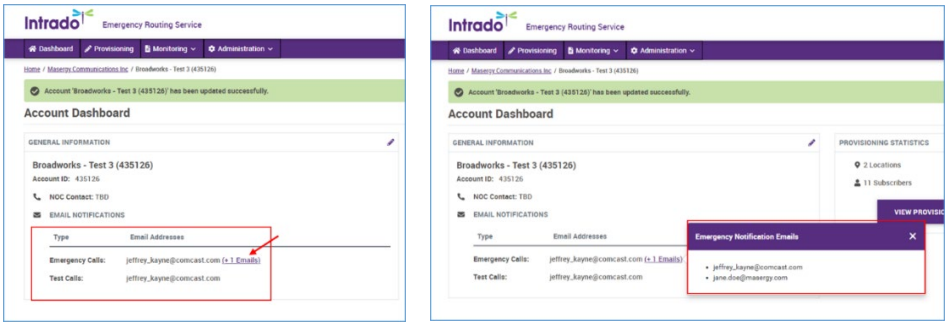
1. From the Account Dashboard, select the Edit (pencil icon), to add email addresses for email notifications.



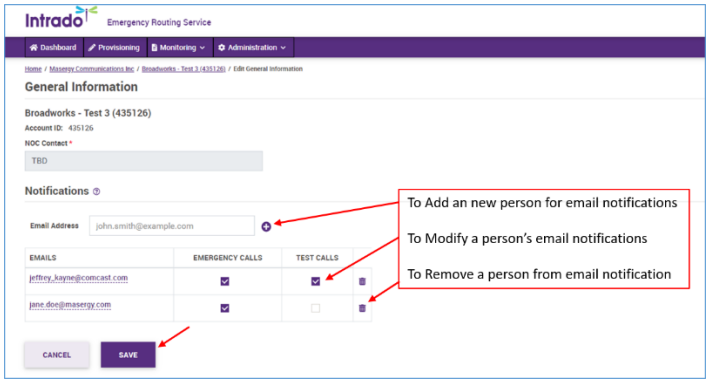
2. Enter the email address; select the "**+**" to add this email address. Next, select the checkboxes to enable this email address for Emergency Calls and/or Test Calls notifications.
   a) Emergency Calls is whenever any end-user would dial 911.
   b) Test Calls is where the end-users might test their e911 location information by dialing 933.
   c) If you need to remove a user from the email notification, select the trashcan icon to delete them



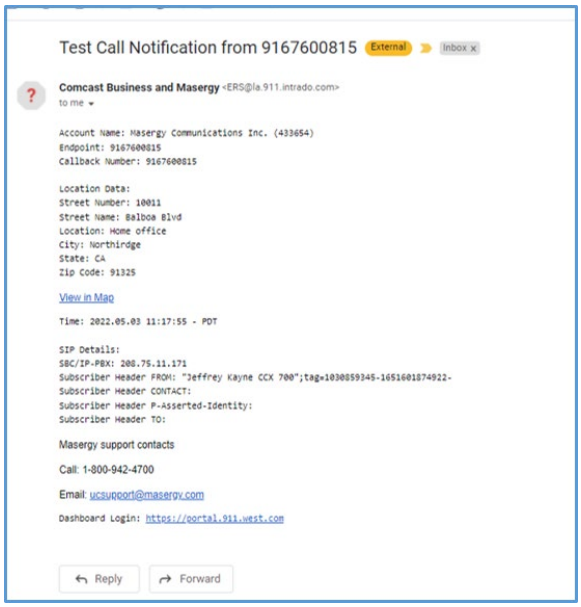
3. In the Account Dashboard, a list of users is displayed that will receive the e911 email notifications.



4. In the Account Dashboard, if you need to add, modify, or remove the e911 email notification assignments, select the pencil icon to enter the Notifications screen.



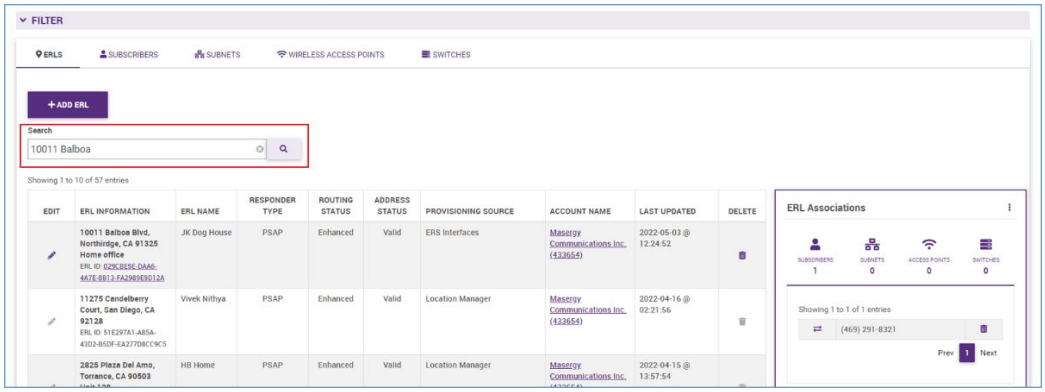
5. Sample 933Test Email notice comes from Comcast Business and Masergy. The 911 emergency email is similar.



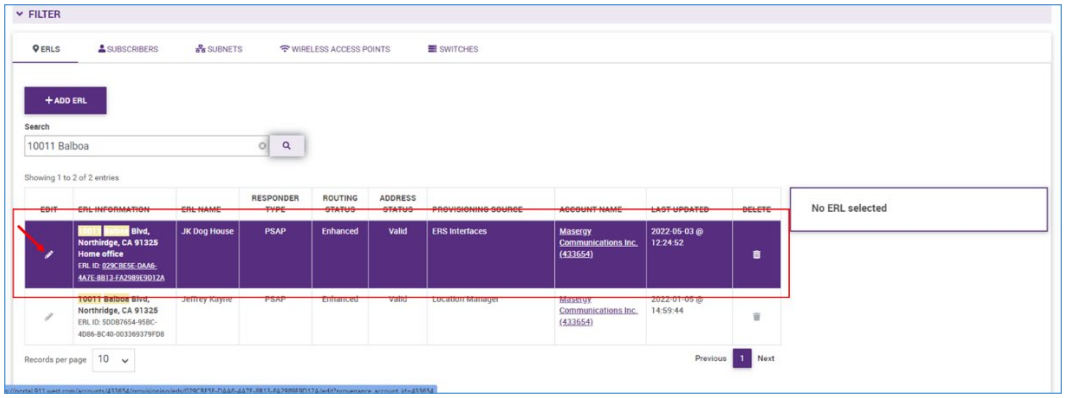
Emergency Response Location (Regional) e911 Notification

To set up e911 email notification for any regional location is accomplished inside the Emergency Response Location (ERL) routing options section.

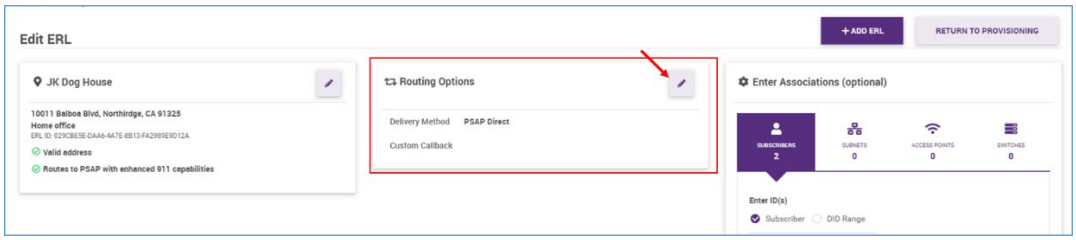
1. Search for the ERL where you want to add a regional 911 emergency email notification.



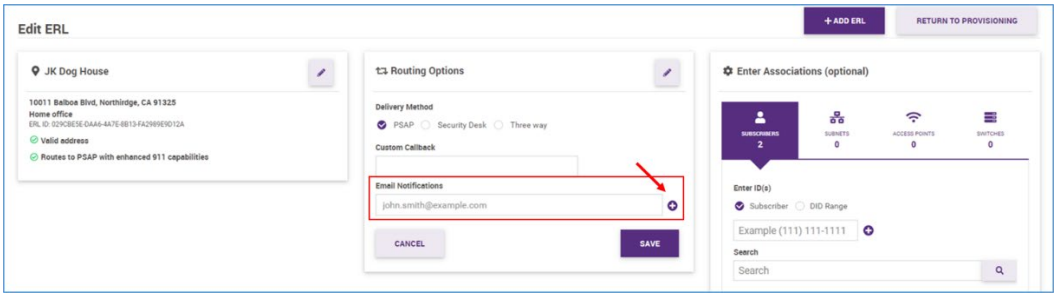
2. Select the edit (pencil) icon to modify the selected **ERL**.



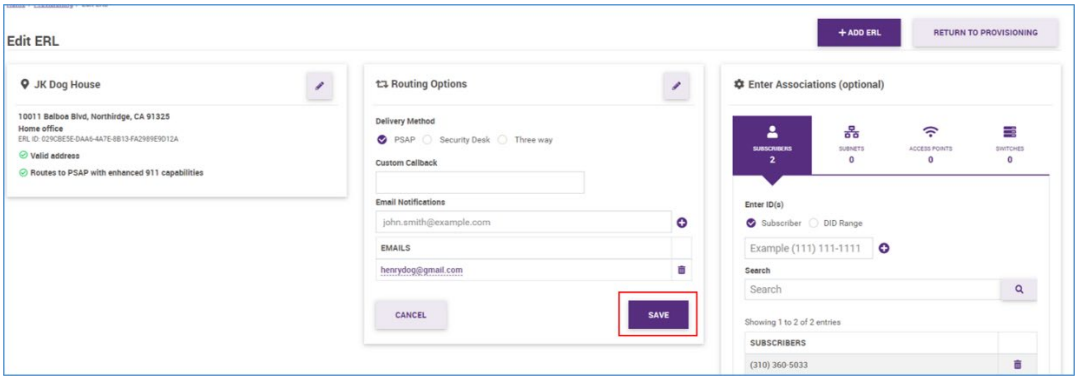
3. Select the edit (pencil) icon in the **Routing Options**.



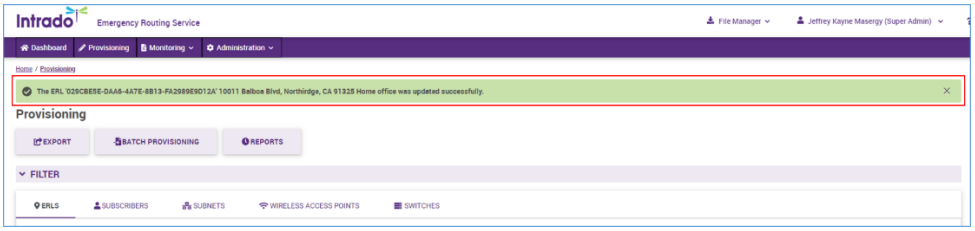
4. In the Email Notifications field, enter the email address for the e911 email notification. Select the **"+"** to enter each email address.



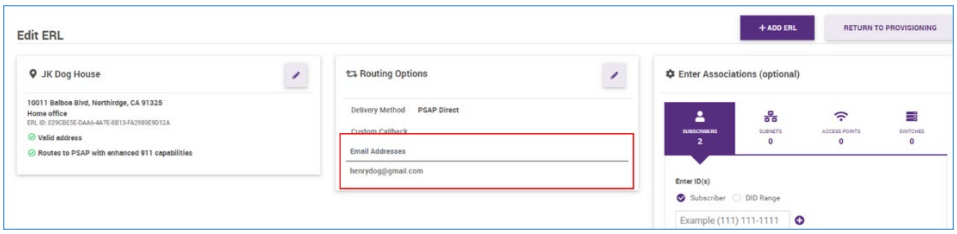
5. When you are finished adding all of the e911 email addresses for this ERL, select **SAVE**.



6. A green banner will be displayed showing the ERL update was successful.



7. To review any e911 email notification address for an ERL, simply select the edit icon and view the **Email Addresses** listed in the Routing Options section.

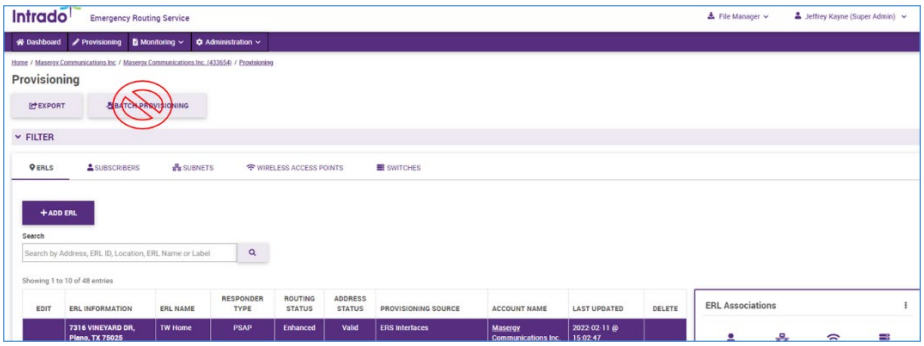


8. Repeat the above steps to add or delete the 911 Email Notifications email addresses.

Note: All 933 Test notifications are administered at the enterprise level.

e911 Batch Provisioning of Subscribers

Masergy will handle all customer requests for batch provisioning for adding **Subscribers** and **Emergency Response Locations** (ERL). Masergy will provide the e911 Administrator, the e911 Worksheet to fill out. When the completed e911 Worksheet is returned. Masergy will proceed to finish the batch provisioning for the enterprise account.



e911 Location Manager for Hosted UC

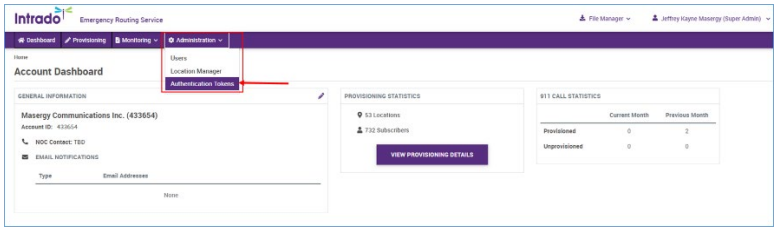
The Masergy 911 Location Manager is an application that is installed on the end user's device (PC / MAC). The application provides a way for the end user to update their emergency location as they move. The application keeps track of the user's location and prompts the end user for their location when it detects a location change (change in IP, connected switch mac, connected access point).

E911 Location Manager – Customer Account ID and Token

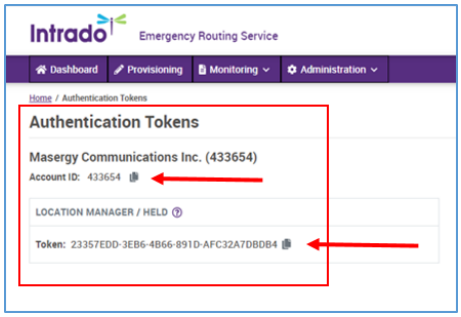
Masergy or the e911 Administrator will need to provide the customer enterprise ID and token which is required for the Location Manager Client. The end-user when installing the Location

Manager application on the Windows / Mac desktop will need to use this information. The Location Manager does support Windows silent installation.

1. In the Account Dashboard, form the top menu **Administration** drop-down menu, select the **Authentication Tokens**



2. **Authentication Tokens** windows provides the **Account ID** and **Token** that is required for the installation of the 911 Location Manager.



Windows Silent Installation Instructions

The silent installation procedure needs to be executed on each end-user device that the Location Manager application is installed on.

1. Obtain the Location Manager Installation package from the Masergy Software and Download web page.
2. Extract the zipped installation package and select the *911LocationManagerSetup.exe* file.

Command-line: (silent install)

Navigate to the location of the executable file. The Enterprise Account ID and Token will need to be inserted into the silent install command

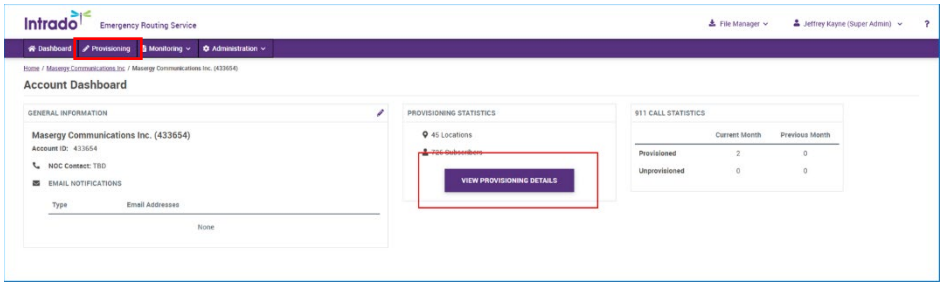
- **Sample Enterprise Account ID = 433188**
- **Sample Account Token = 44B0D255-F1AA-468A-879B-9AE8ADB4B740**

911LocationManagerSetup.exe /S -accountid=<Enterprise Account ID> -token=<Account token>

911LocationManagerSetup.exe /S -accountid=*433188* -token=*44B0D255-F1AA-468A-879B-9AE8ADB4B740*

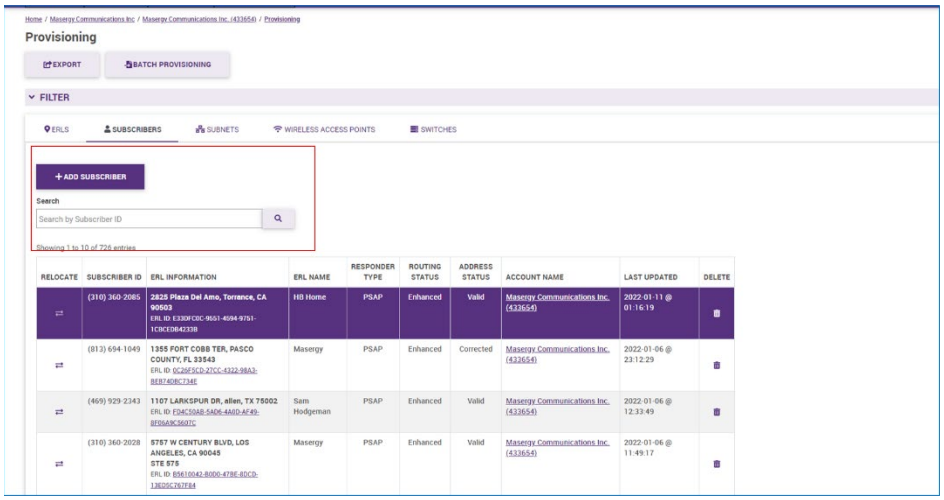
Add New Subscribers

1. From the Account Dashboard, select the **View Provisioning Details** or **Provisioning** tab.

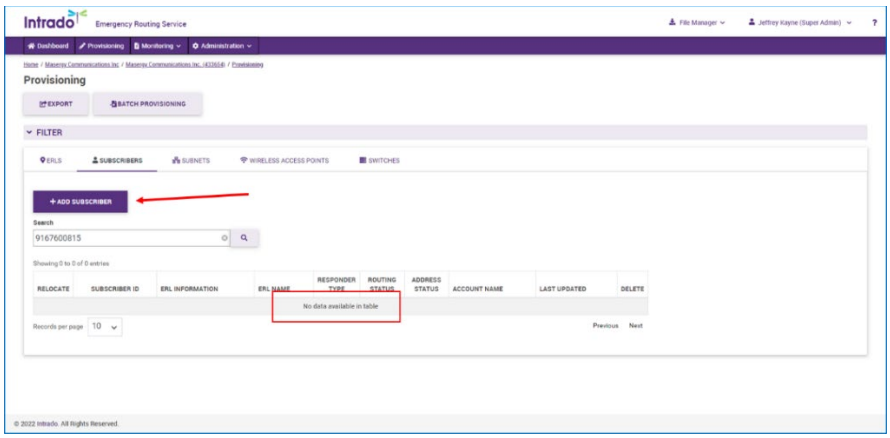


2. The **Provisioning** displays several tabs for the **Emergency Response Locations** (ERL), **Subscribers**, **Subnets**, **Wireless Access Points**, and **Switches**. Select the **Subscribers** tab; first do a search on the telephone number (TN) to make sure it is not already registered.

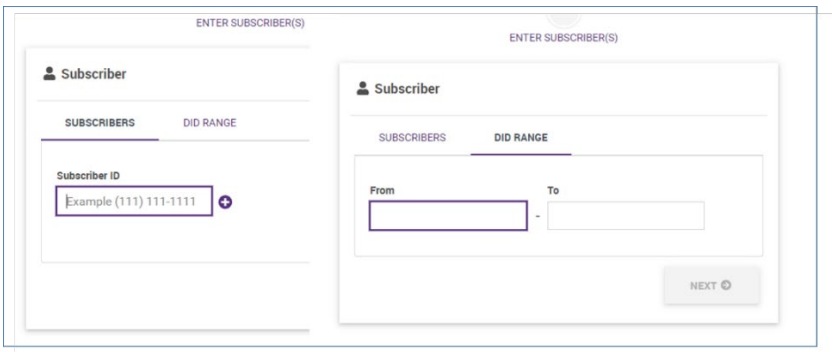
   Note: The Subnets, Wireless Access Points, and Switches only pertains to the Hosted UC customers that want to use dynamic routing. MS Teams / SIP Trunk customers will not use these devices in this portal.



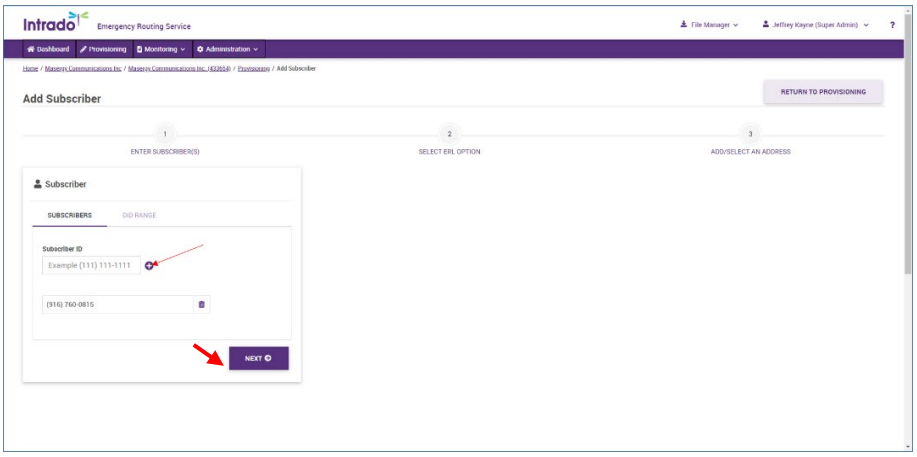
3. For a new **Subscriber**, enter the telephone number and search to verify if the subscriber already exists and if they have been assigned to an ERL. In this example, a subscriber (9167600815) search provided that no data was available. You can proceed to add this new subscriber to this account. Select the **Add Subscriber**.



4. Adding a new subscriber can be done individually or in a range of telephone numbers.



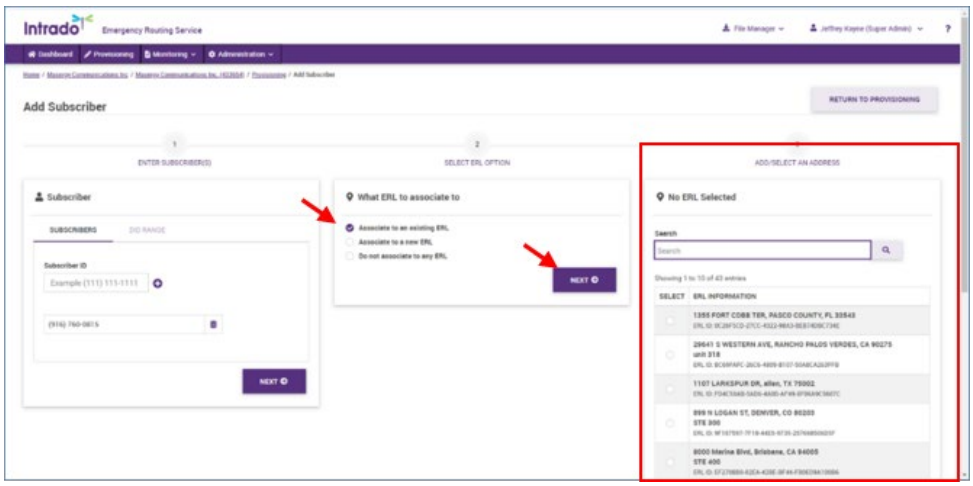
5. The e911 administrator after entering the subscriber number will need to select the "**+**" symbol before continuing to the Next step. The "**+**" saves the entered number entered. Select **Next** when you are ready to proceed to selecting the ERL option for the subscriber(s).



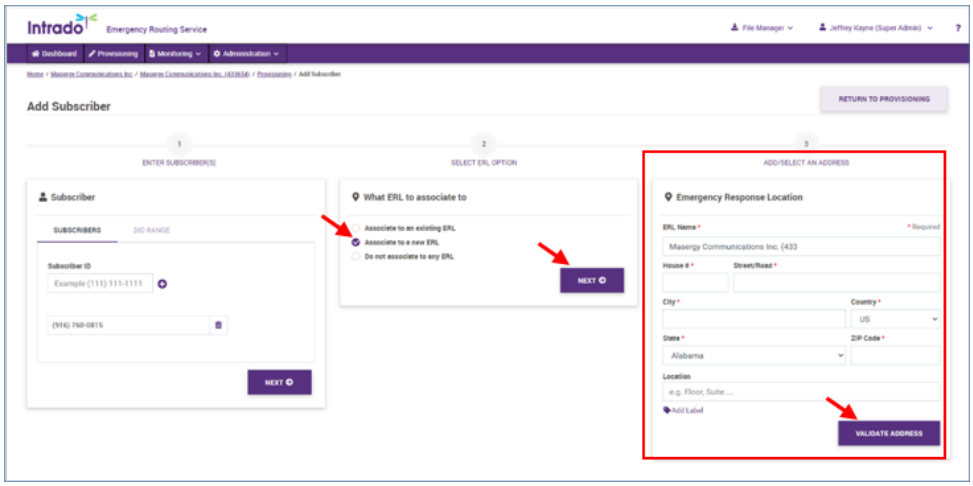
Note: multiple individual subscribers can be added before proceeding to the next step.

6. Next, you will select the **Select ERL Option** that best suits the new subscriber(s) being added.

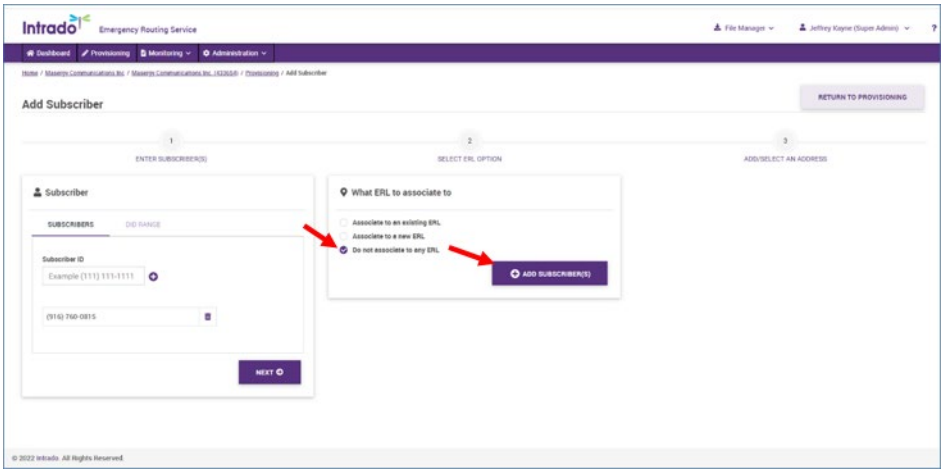
   a) **Associate to an existing ERL** – opens a dialog box to search the list of ERLs



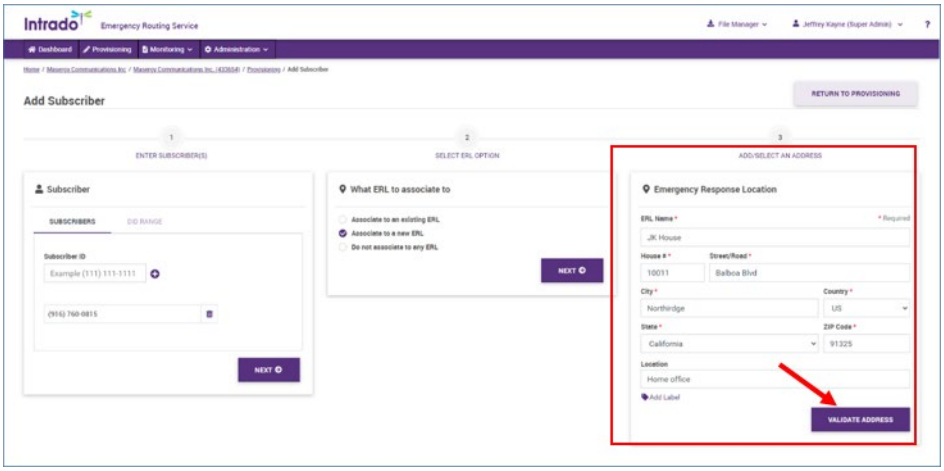
b) **Associate to a new ERL** – opens a dialog box for creating a new ERL. All new addresses entered are validated to ensure the proper routing of e911 emergency services with that address.



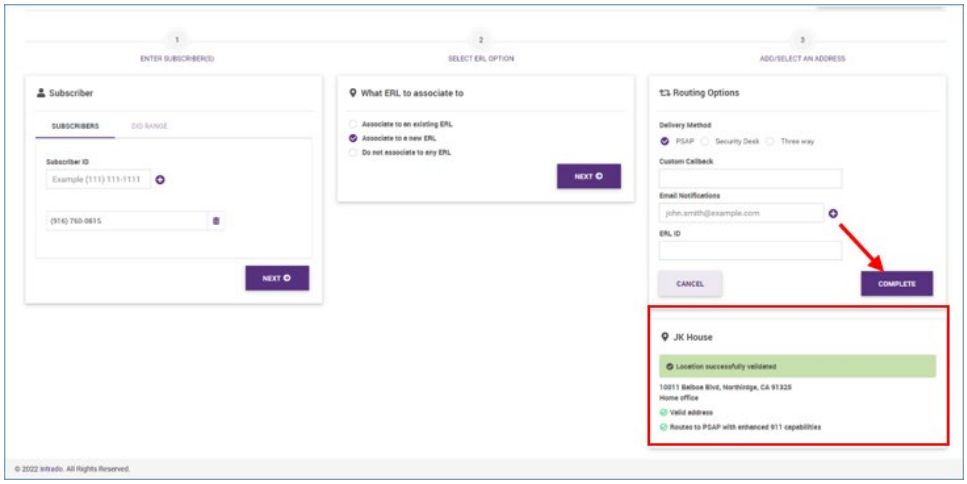
c) **Do not associate with any ERL** – this will add the new subscriber(s) without an associated ERL because the entries is using HELD information.



7. For this new **Subscriber**, no existing ERL address was suitable. A new ERL needs to be created for this remote subscriber and validated. The e911 administrator after filling in the ERL information would select the Validate Address.

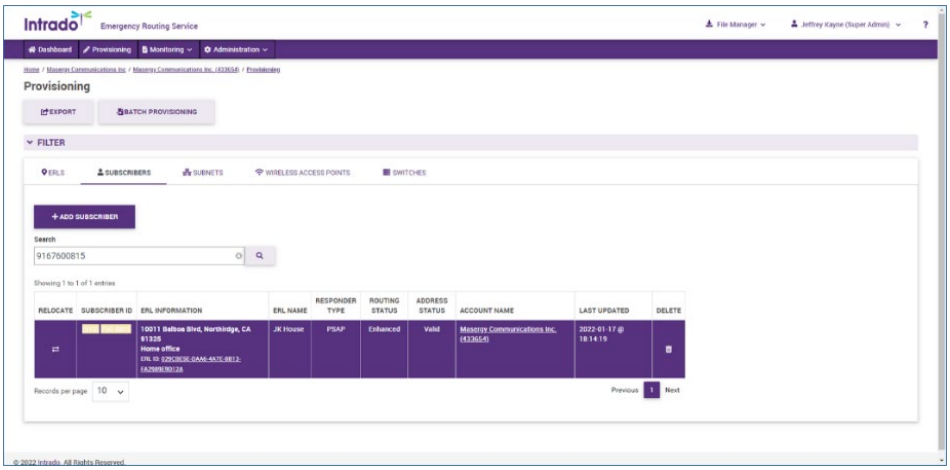


8. Once the new ERL address is validated, the e911 administrator would select the **Complete** button to finish the process.



9. In the Account Dashboard, a green banner message is displayed showing the ERL was created successfully and the total number of new subscriber(s) that have been added.

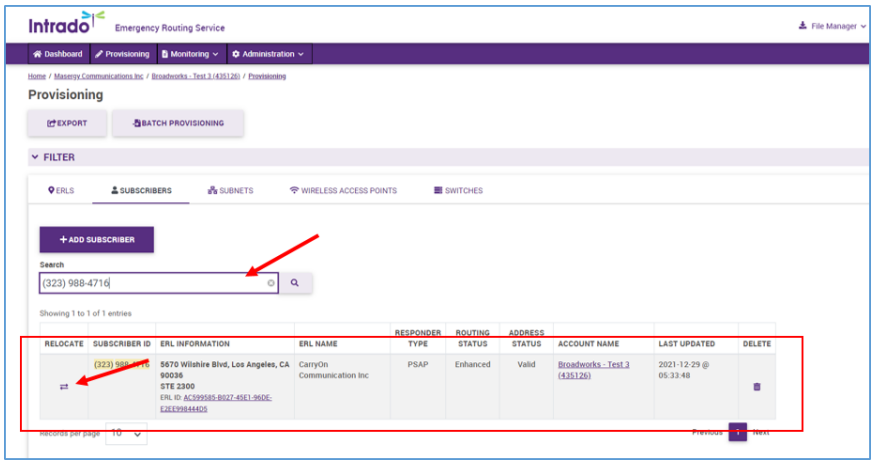
10. The new subscriber is now already active.



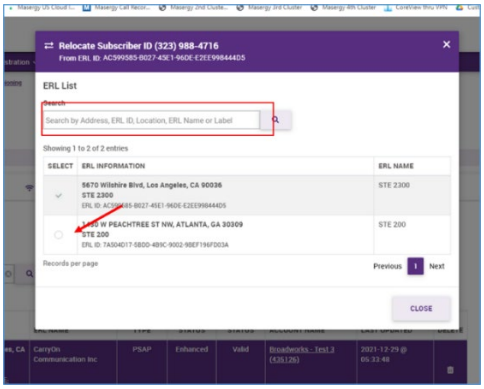
Change Emergency Response Location for a Subscriber

If any subscribers have relocated from an assigned Emergency Response Location (ERL) to a new ERL this can be managed by the e911 Administrator or by Masergy.

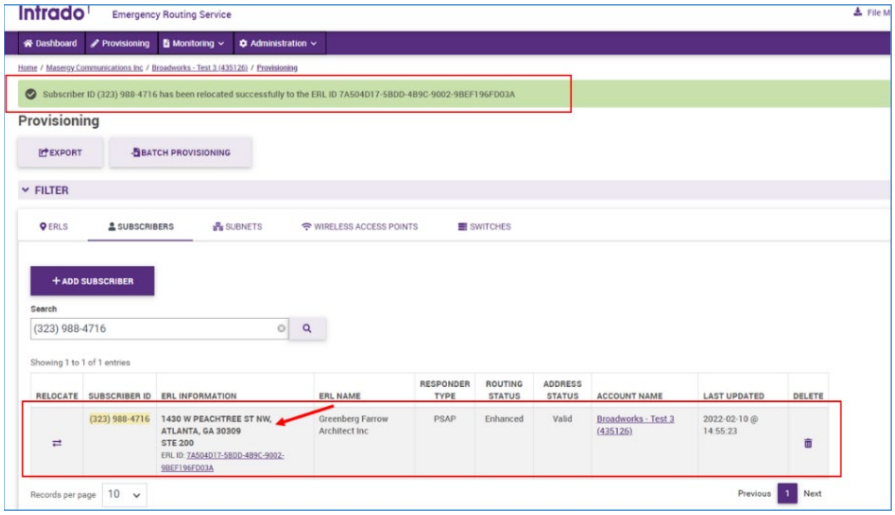
1. In the **Subscribers** tab, search for the subscriber that needs to relocate their ERL. Next, select the **Relocate** icon (arrow).



2. The **ERL List** allows you to search for the ERL the subscriber needs to be relocated. Select the radio button next to the ERL.



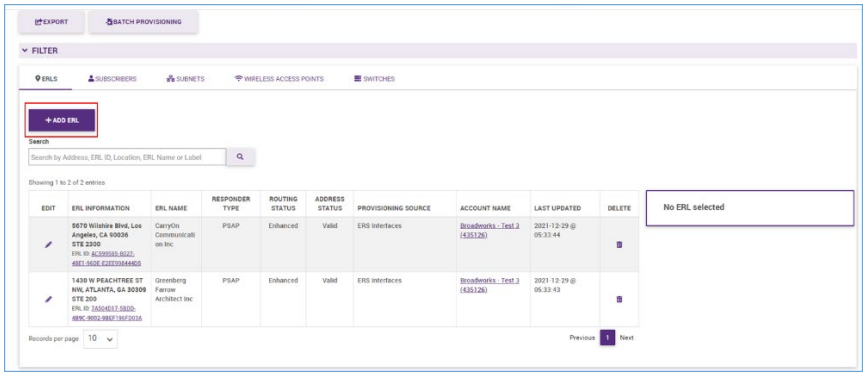
3. The **Subscriber** is relocated to the new ERL. A banner displays the results of the actions taken.



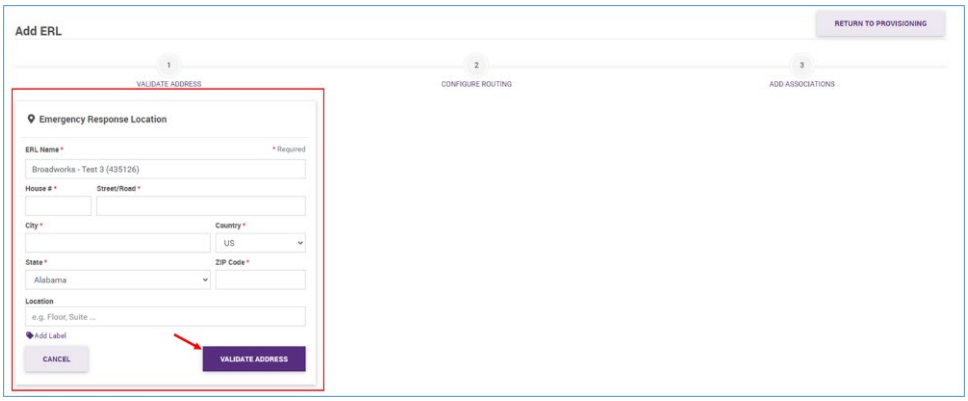
Add New Emergency Response Location

If any subscribers require a new **Emergency Response Location** (ERL) such as for a remote user, a new ERL can be created by the e911 Administrator or by Masergy.

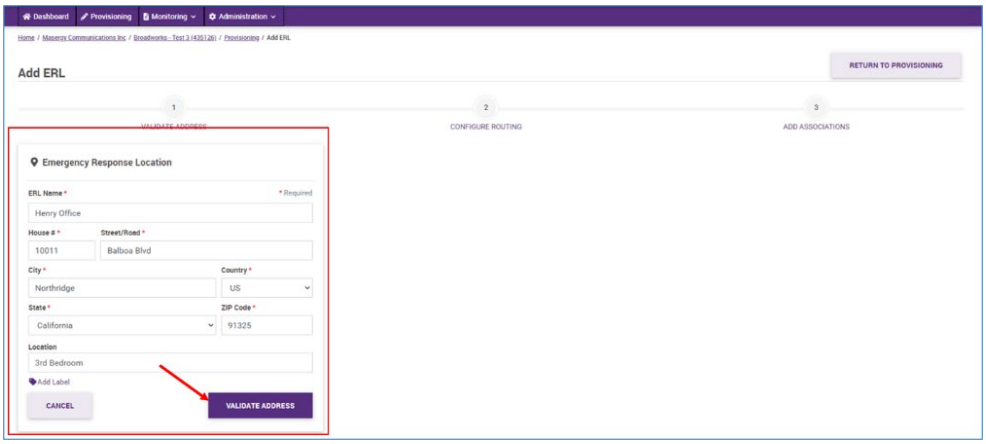
1. Select the **+ Add ERL** button to create the ERL.



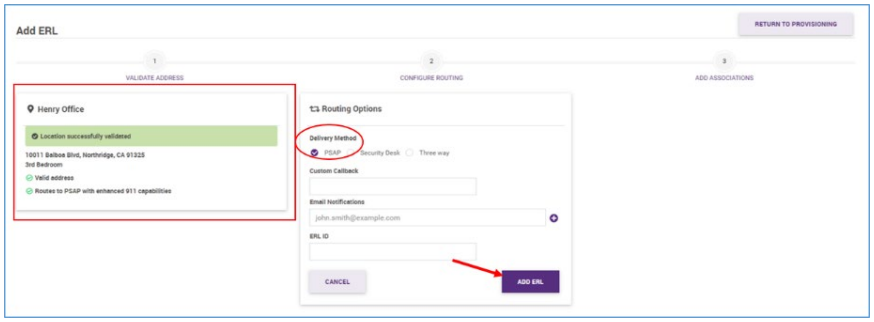
2. Fill in the **Emergency Response Location** form completely. Select **Validate Address.**



3. Here is an example of the **Emergency Response Location** form ready to be validated.

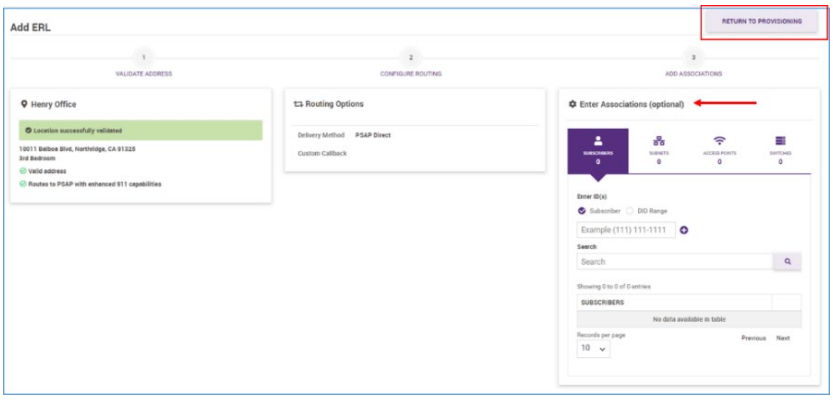


4. After the ERL, address is validated. In the **Routing Options ➔ Delivery Method**, select **PSAP**. Select the **ADD ERL** button to finish creating the new ERL.

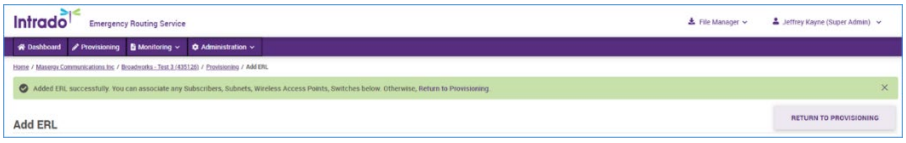


Note: For the Routing Options – Delivery Method, **PSAP** is the only option supported by Masergy.

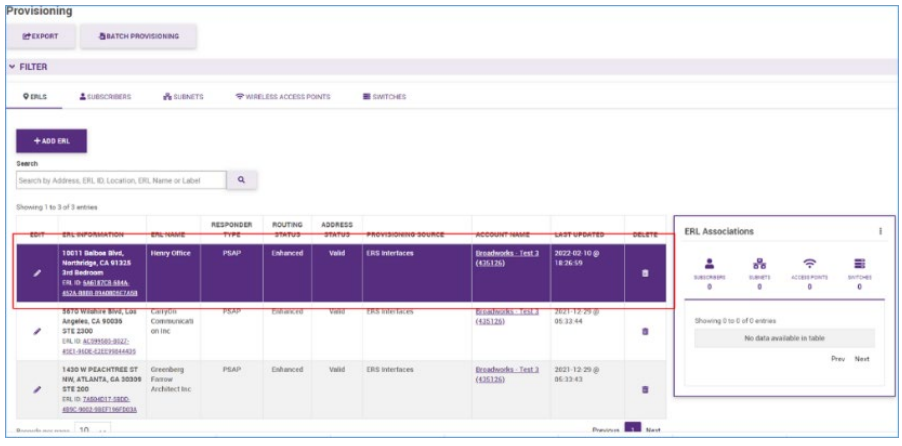
5. The new ERL is now available. In the image, an administrator can add the new Subscribers to be associated with the ERL.



6. Select the **Return to Provisioning** and a banner would be displayed with the results of the actions taken.



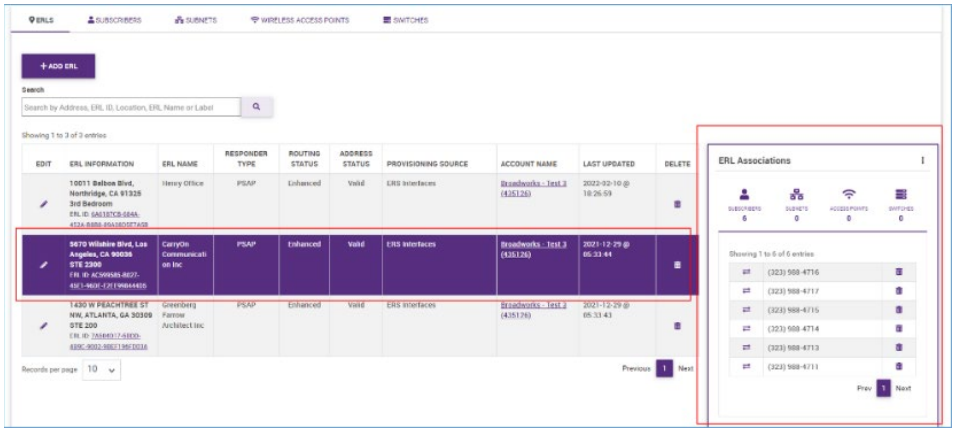
7. The new **Emergency Response Location** is available for Subscribers to be assigned.



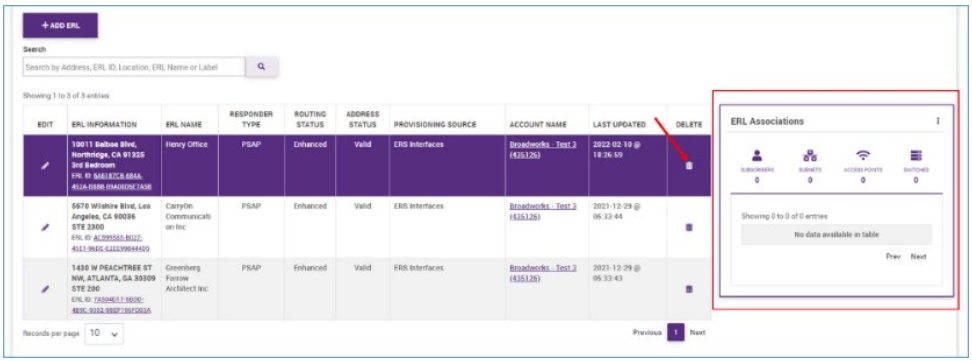
Removal of an Emergency Response Location

Emergency Response Locations (ERL) can be removed from the Masergy ERS portal whenever they are no longer needed. However, keeping these ERLS without assigned Subscribers does not create any issues. The deletion process can be handled by the e911 Administrator or by Masergy.

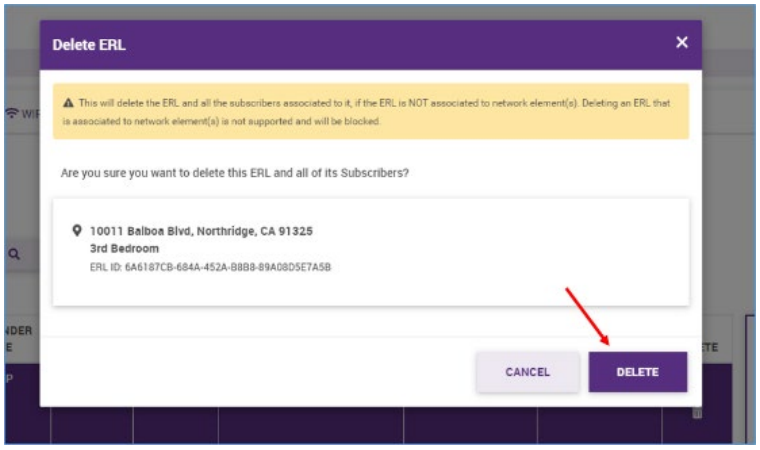
1. Before you can remove any **Emergency Response Location**, all existing assigned **Subscribers** need to be reassigned to another ERL. Select the **ERL** that needs to be deleted to review if there are any Subscribers assigned. For instance, this ERL shows, there are six (6) Subscribers.



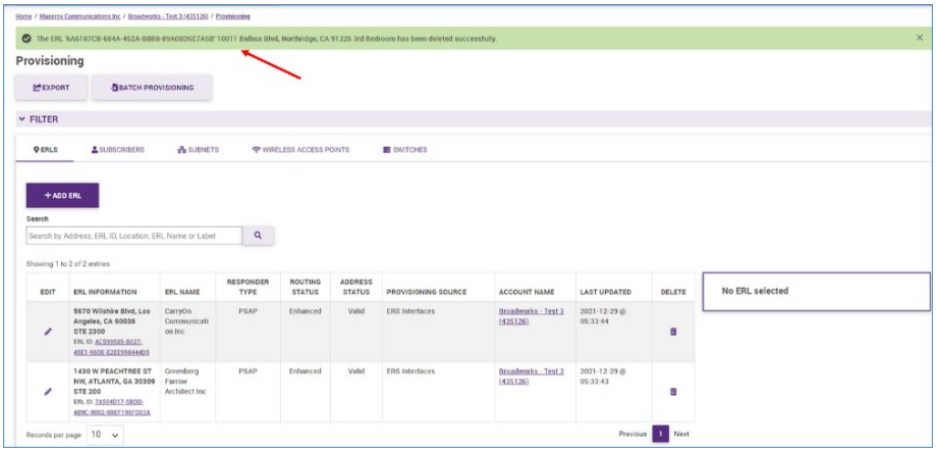
2. For instance, this **ERL** has no **Subscribers** assigned. This ERL can be removed. Select the **Trashcan** icon to delete this ERL.



3. A **Delete ERL** window is displayed. Select the **Delete** button to finish the deletion process.



4. In **Provisioning**, the **ERL** tab displays a banner with the results and the list of ERLs will no longer display the ERL that was removed.



Dynamic Mapping – Subnets, Wireless Access Points, & Switches

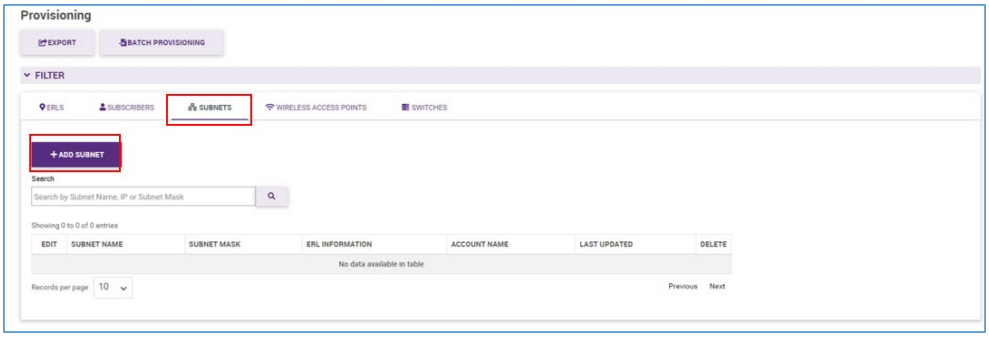
For the Hosted UC customer, dynamic mapping is only required if your enterprise locations have nomadic devices.

In **Provisioning**, for dynamic mapping you will use the tabs for **Subnets**, **Wireless Access Points**, and **Switches** that need to be configured by the e911 Administrator. Masergy does offer professional services for customers that require assistance.

Subnets

A subnet, or subnetwork, is **a network inside a network**. Subnets make networks more efficient. Through sub-netting, network traffic can travel a shorter distance without passing through unnecessary routers to reach its destination. The following procedure will guide you through the steps in creating a subnet.

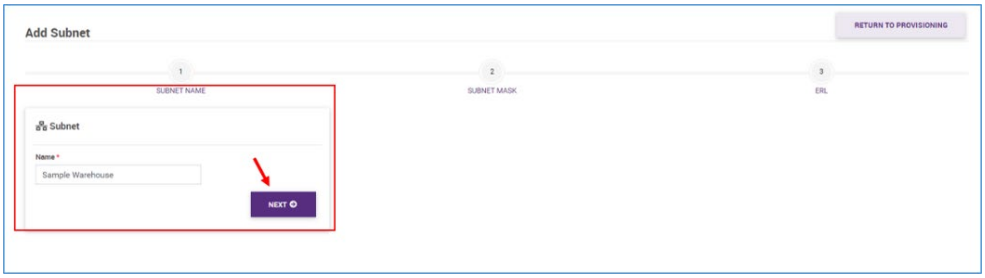
1. In **Provisioning**, select the **SUBNETS** tab, then select the **+ADD SUBNET** button.



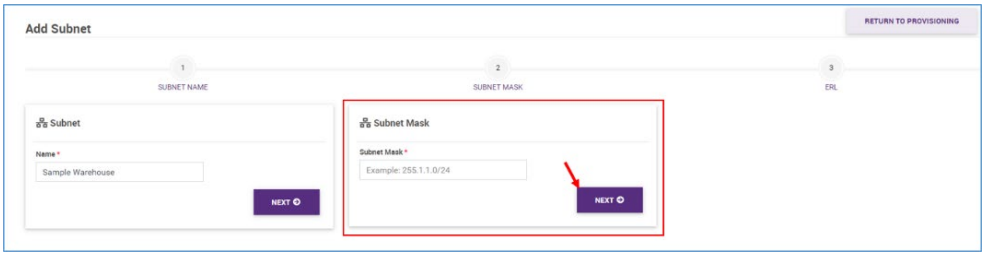
2. The following table provides format and examples to fill in the **Subnet** fields:

Field	Description	Format and Examples
Subnet Name	Name for the Subnet. Enter an easily identifiable name for your subnet.	Example: Basement Office
Subnet Mask	The IP address of the Subnet that is associated to the ERL.	Must be in standard IPv4 address format. Example: 192.168.92.2/24

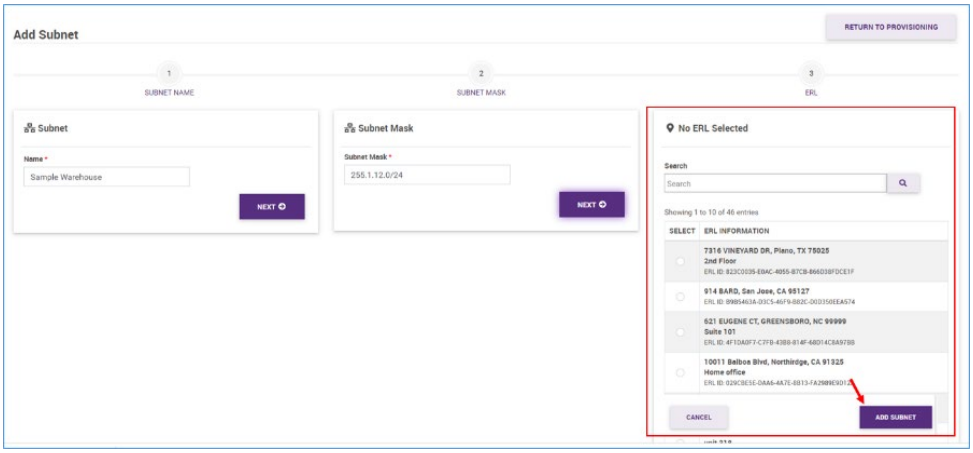
3. Enter the unique name for the new **Subnet** and select **Next**.



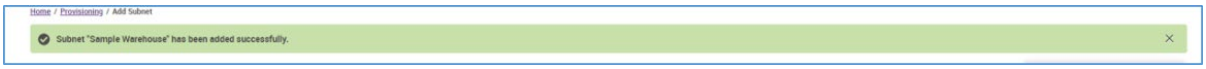
4. Enter the **Subnet** Mask information and select **Next.**



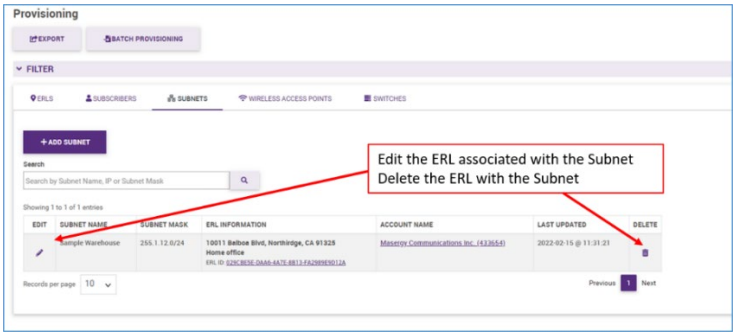
5. Select the ERL that the new Subnet would be associated with and then select **ADD SUBNET**.



6. A banner is displayed showing the new **Subnet** has been added successfully.



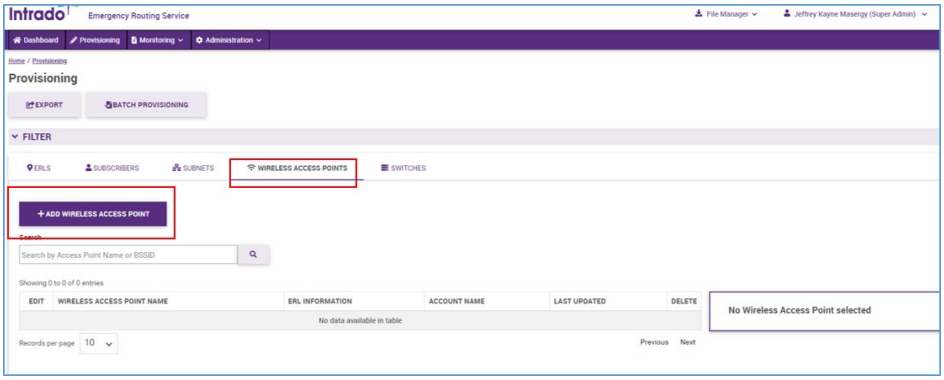
7. The e911 Administrator can manage any changes for the **Subnets**.



Wireless Access Points

Wireless Access Points (WAPs) **connect traditional wired networks to wireless clients**. These wireless networks provide ease of access to the network for mobile users, increasing productivity while reducing infrastructure costs.

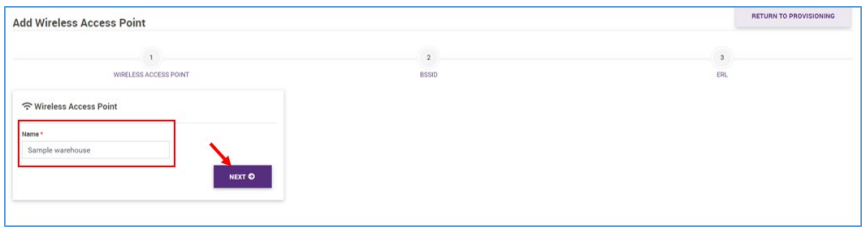
1. In **Provisioning**, select the **Wireless Access Points** tab, then select the **+ADD Wireless Access Point** button.



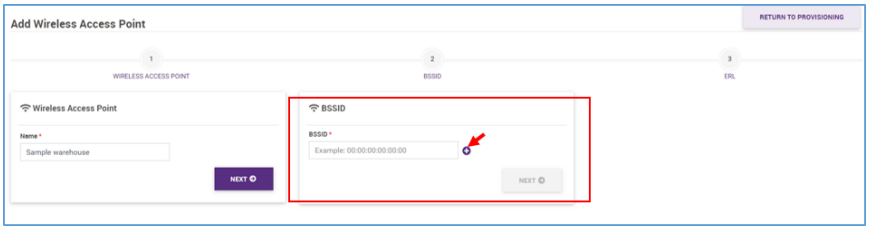
2. The following table provides format and examples to fill in the **Wireless Access Point** fields:

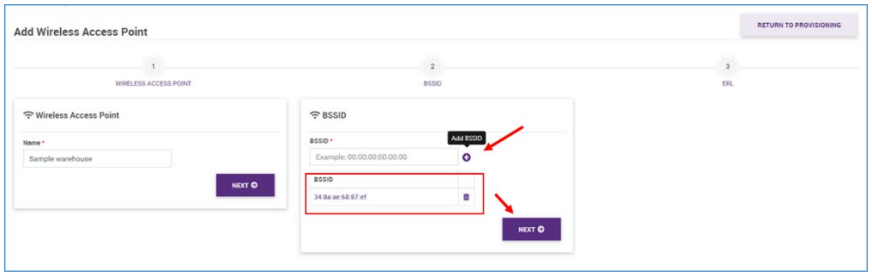
Field	Description	Format and Examples
Wireless Access Point Name	Name of the Wireless Access Point	Example: Floor 1
BSSID	Wireless Access Point's BSSID that is associated to the ERL.	Must be in standard MAC address format. Example: 34:8a:ae:68:87:ef
Access Point ID	System-generated ID for the Wireless Access Point.	

3. Enter the unique name for the new **Wireless Access Point** and select **Next**.

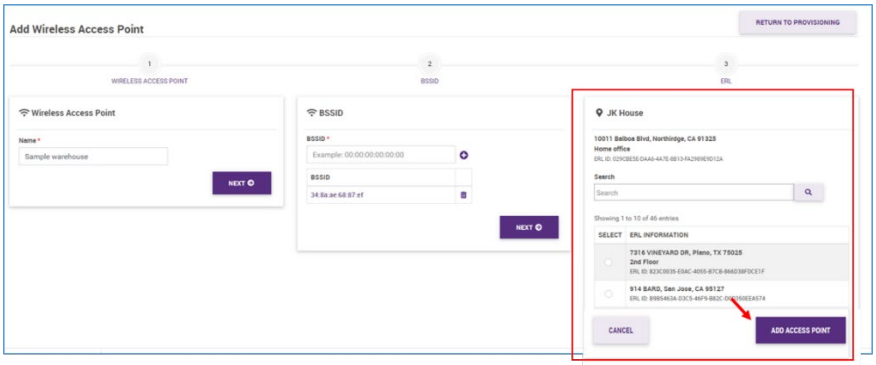


4. Enter the **BSSID** information for the **WAP** followed by the **+** icon then select **Next.** Repeat the steps if you need to add multiple BSSIDs for this **WAP**.



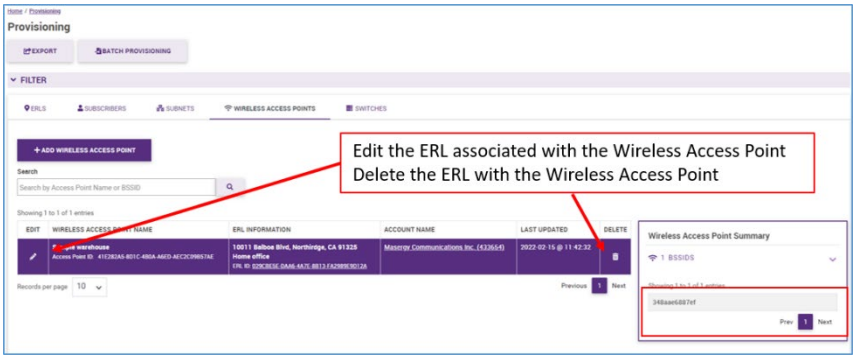


5. Select the **ERL** that the new **WAP** would be associated with and then select **ADD Access Point**.



6. A banner is displayed showing the new **Wireless Access Point** has been added successfully.

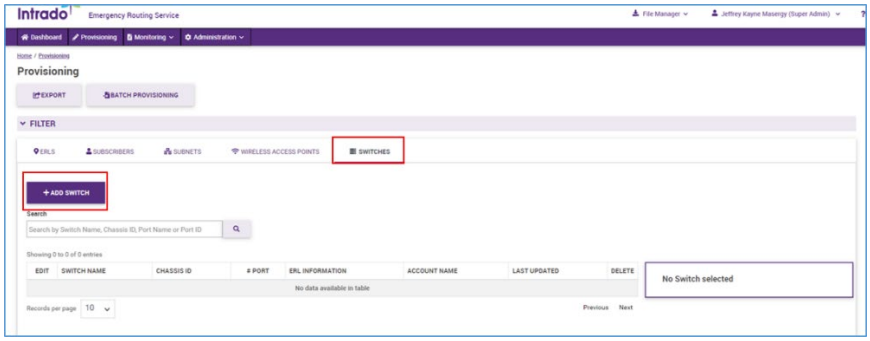
7. The e911 Administrator can manage any changes for the **Wireless Access Points**.



Switches and Ports

Network devices connect to a switch through its switch ports. Switch Ports **are physical openings where data cables are plugged in to connect the devices**. Switch port type should be configured according to the requirement considering the factors like network architecture, speed, and functionality.

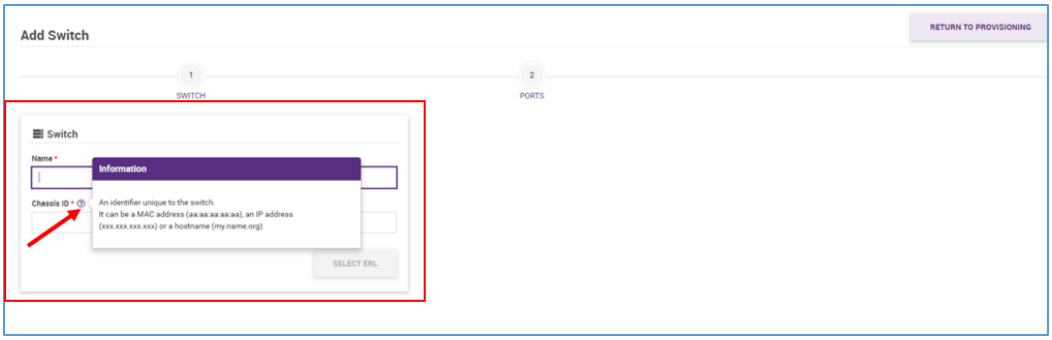
1. In **Provisioning**, select the **Switches** tab, then select the **+ADD Switch** button.

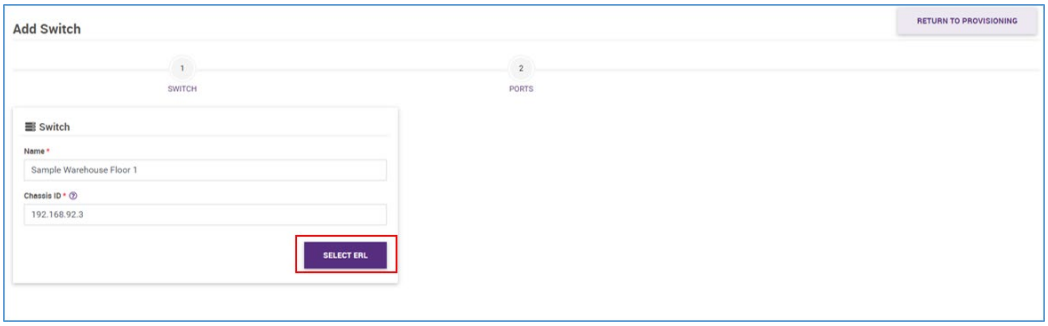


2. The following table provides format and examples to fill in the **Switch and Ports** fields:

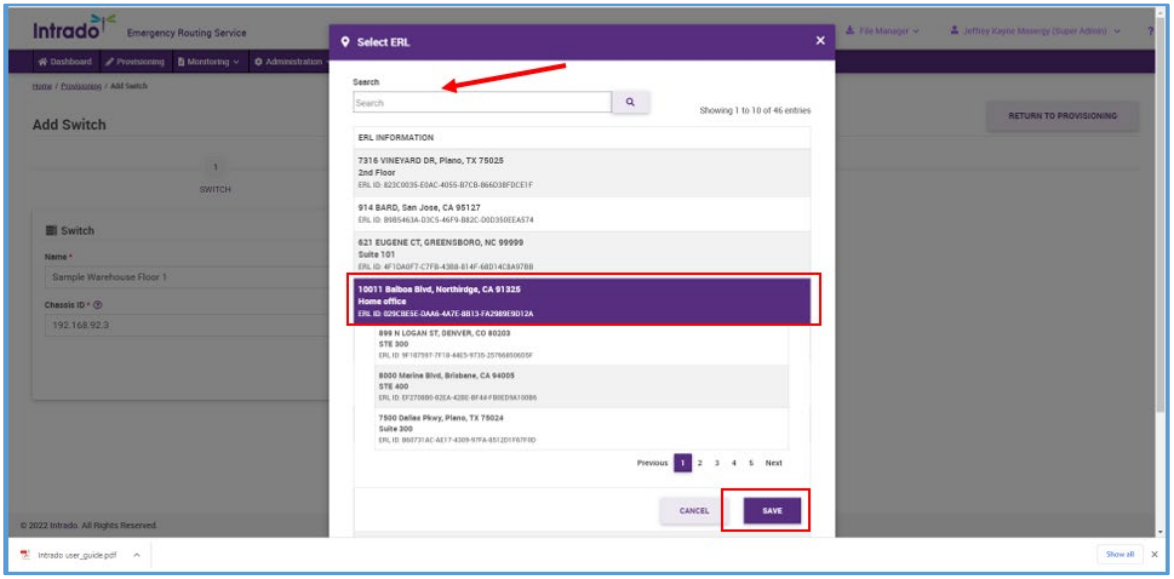
Field	Description	Format and Examples
Switch Name	Name of the switch.	Example: Conference Room
Chassis ID	Chassis ID of the switch. Acceptable formats include: • Hostname • IP Address • MAC Address	Up to 256 alphanumeric and special characters are accepted. Examples: Host Name: Floor1.enterprise.com IP Address: 192.168.92.3 MAC Address: 11:22:33:44:55:66
Port Name	Name of the port.	Example: Coffee Room, Gi01/9/8
Port ID	Switch Port or port associated to an ERL. Acceptable formats include: • IP Address • MAC Address • Port Name	Up to 256 alphanumeric and special characters are accepted. Examples: IP Address: 192.168.92.3 MAC Address: 11:22:33:44:55:66

3. Enter the unique name for the new **Switch** and **Chassis ID** then select **ERL**.

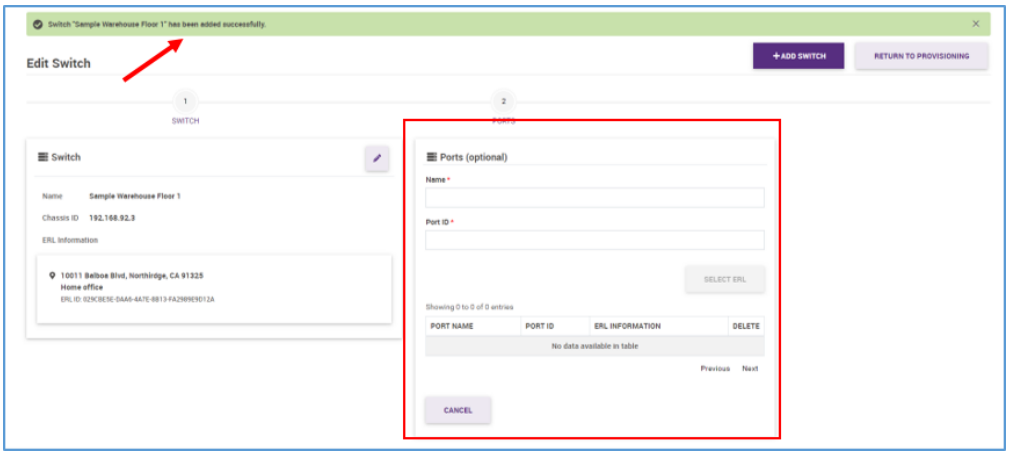




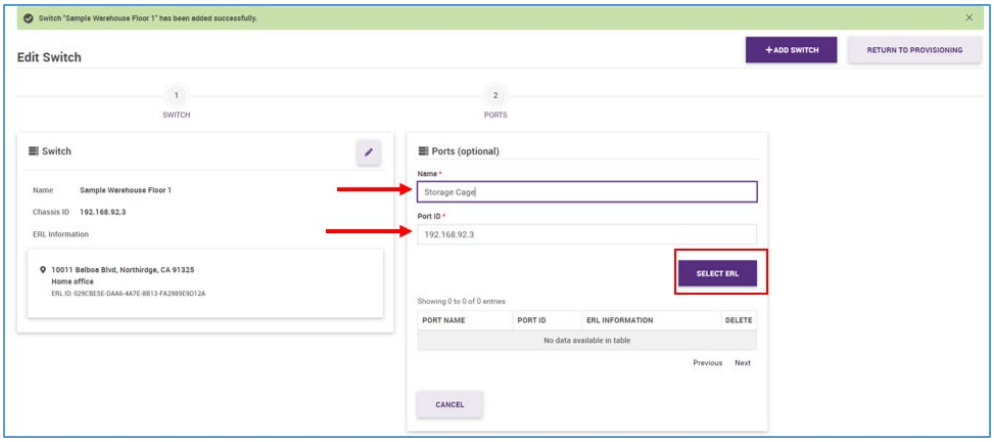
4. In the **Select ERL** window, search for the **ERL** to be associated with this **Switch**. Select the ERL and select **Save.**



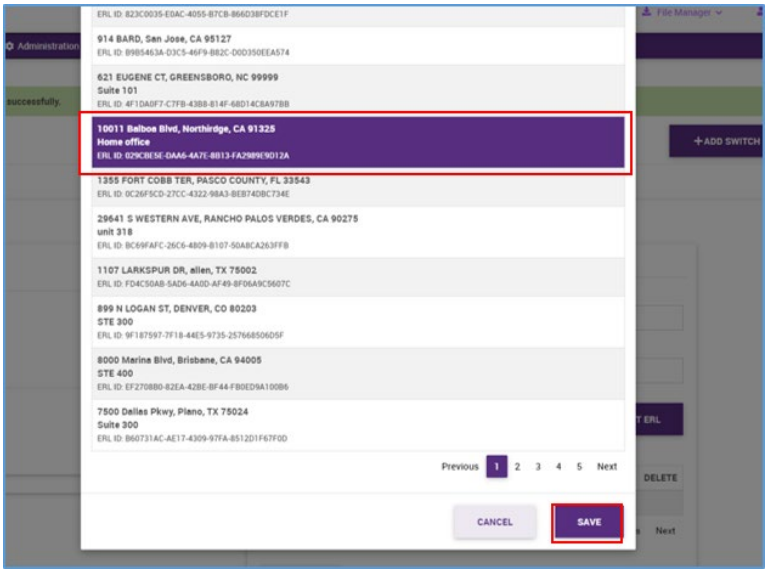
5. A banner is displayed at the top showing the **Switch** has been successfully added. Optionally, the e911 Admisntrator can also assign **Ports** for this **Switch**.



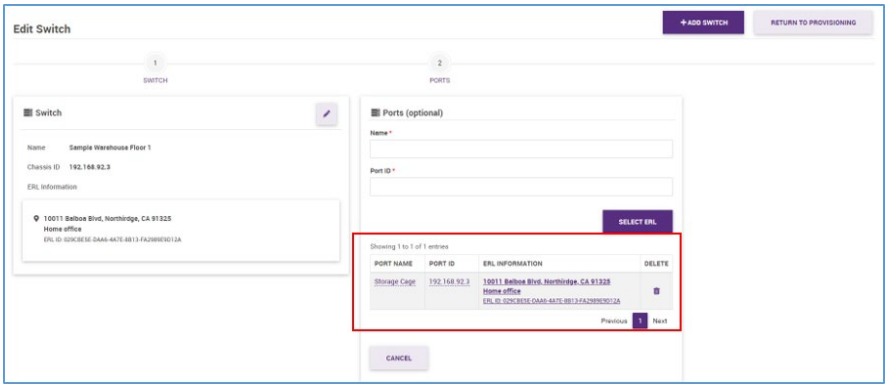
6. In the **Ports**, add a unique **Name** and **Port ID** then **Select ERL** button.



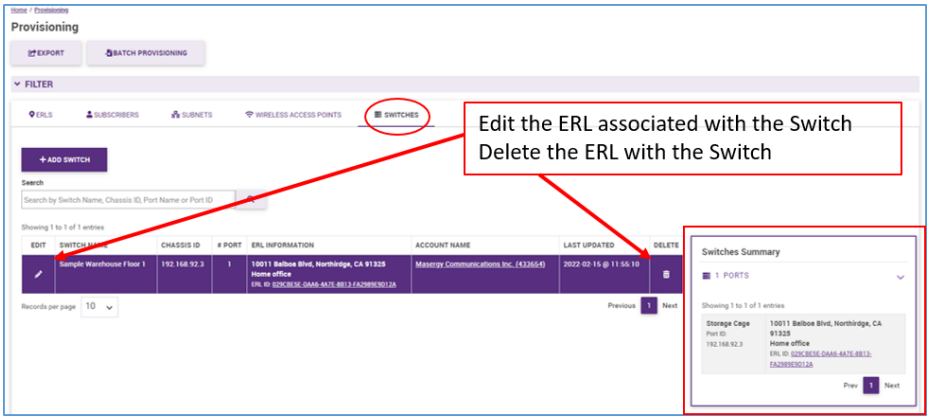
7. Select the **ERL** for this **Port** and select **Save**.



8. This procedure can be repeated for any additional ports that need to be configured for this Switch.



9. The e911 Administrator can manage any changes for the **Switch**. The **Switches Summary** will show all the Ports that have been configured.



Monitoring

The Masergy ERS portal contains various auditing and monitoring functions that enable you to keep track of activity in the Masergy Emergency Routing Service (ERS).

In the Masergy ERS, various events trigger the creation of a record. These events include the addition of an ERL or subscriber record, calls processed by the ERS, and ERS portal user logins. These records are stored in the ERS portal as:

- **Call Details Records** – enabling you to review the details of each call processed by the ERS.
- **Provisioning Logs** – enabling you to audit provisioning activity related to your account.
- **HELD Service** Status – enabling you to view and audit the transactions that occur between the ERS and the HELD phone.
- **Login History** – enabling you to view user activity on the portal.

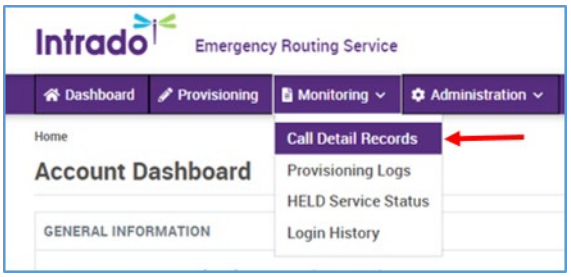
Call Details Records

When a call is processed by the ERS, a record of the call is saved and is called a Call Detail Record or **CDR**. The *Call Details Records* screen lists all the calls originating from the customer account including provisioned and unprovisioned calls. All information related to the calls such as the Account Name, Account ID, ERL ID, and Subscriber ID are displayed in this screen. The e911 Administrator can also apply specific filters to narrow down the list of calls displayed and generate scheduled reports.

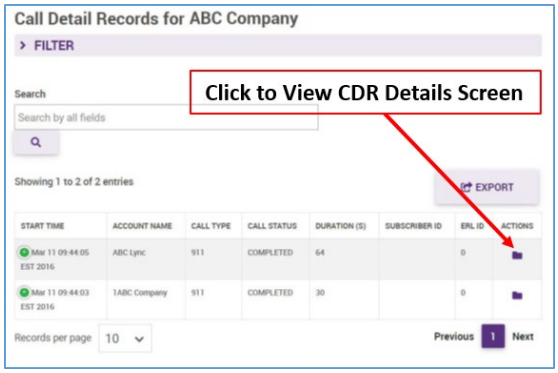
Each call detail record also contains a link to its *CDR Details* screen. This screen contains additional information related to the call. For example, the reason a call was routed to the ECRC as opposed to the PSAP.

To access **Call Detail Records:**

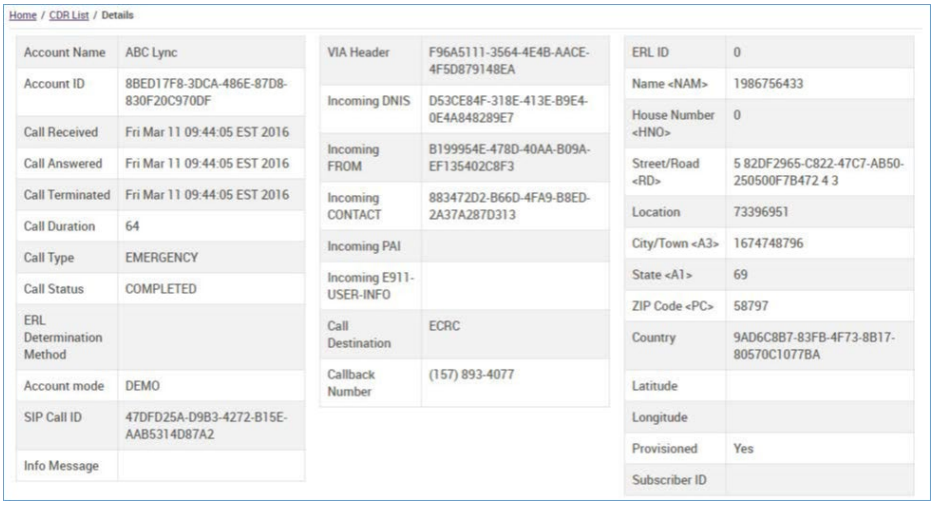
1. From the **ERS portal main menu**, choose **Monitoring ➔ Call Detail Records**



To obtain more details related to a specific call, click on **CDR Detail Folder** icon from the **Actions** section.



The *Details* screen provides more details regarding the call flow and call routing information of a specific call. Fields displayed in this screen vary depending on the type of call and the account configuration. Explanation of each field and possible values are provided in CDR Details Table.



CDR Details Table Screen with Field Descriptions

Field	Description and Possible Values (where applicable)
Account Name*	Name of your company provided at the time of account creation.
Account ID*	Identifier for your account.
Call Received*	Time that the call was received.
Call Answered	Time that the call was answered.
Call Terminated	Time that the call was terminated.
Call Duration*	Duration that the call lasted, in seconds.
Call Type*	Type of call that was processed.
Call Status*	Status of the call that was processed.
Account Mode	Mode that the account is currently in, depending on the account configuration. Possible values: Live Demo
SIP Call ID	Identifier for the SIP call.
Info Message	Field displays the reason why the call was routed to the ECRC. Only populated when the call is routed to the ECRC; otherwise it is blank.
VIA Header	Can be used to trace the account from where the call originated as well as the path of the call.
Incoming DNIS	Dialed Number Identification Service contains the callback number of the caller or the Subscriber ID.
Incoming FROM	Field that displays the originating information related to the call.
Incoming CONTACT	Field that can be used to trace the account from where the call originated as well as the path of the call.
Incoming PAI	The P-Asserted-Identity that comes in with the call. Depending on your account configuration settings, this field most often contains the caller's Subscriber ID or the callback number.

Note: The fields marked with an asterisk (*) below are also present in the *CDR List* screen.

Furthermore, the *Details* screen also provides the **Info Message field**. The Info Message provides details as to why the call was routed to the ECRC. There are various reasons as to why a call is routed to the ECRC, otherwise it is blank. They are:

- Account is configured to direct calls with a specific address status to the ECRC
- Call originated from an ERL that does not have PSAP coverage
- ERL's address status dictates that the call should be routed to the ECRC

For a detailed description, please review the **Info Message Field table**.

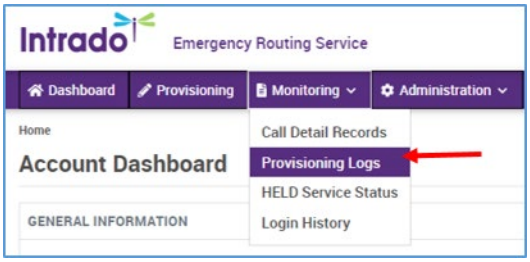
Info Message	Description
Account configuration – route to ECRC with basic location	The call was routed to the ECRC since the subscriber's account is configured in this manner. Additionally, the subscriber's location is not displayed at the ECRC terminal and the subscriber is asked to verbally confirm their location.
Account configuration – route to ECRC with enhanced location	The call was routed to the ECRC since the subscriber's account is configured in this manner. However, the subscriber's location is automatically displayed at the ECRC terminal.
ERL has no PSAP coverage – route to ECRC	The call was routed to the ECRC since the subscriber's location is not served by any PSAP.
ERL not found – route to ECRC	The call was routed to the ECRC since the subscriber's location information was not found in the ERS database. To fix this issue and ensure call is routed to the PSAP, please re-provision this subscriber's location.
Address in Invalid-Geo Status – route to ECRC	The call was routed to the ECRC since the subscriber's address was in "Invalid – Geo" status.
Address in Pending-Geo status – route to ECRC	The call was routed to the ECRC since the subscriber's address was in "Pending – Geo" status.
Expired/Unassigned Extension Bind DID – route to ECRC	The call was routed to the ECRC since the call could not be processed by the ERS due to the following reasons: • PSAP has called the subscriber back with an expired number. • Automated call from a number that is unallocated.
Address in Pending-Geo status – route to ECRC	The call was routed to the ECRC since the subscriber's address was in "Pending – Geo" status.

Provisioning Logs

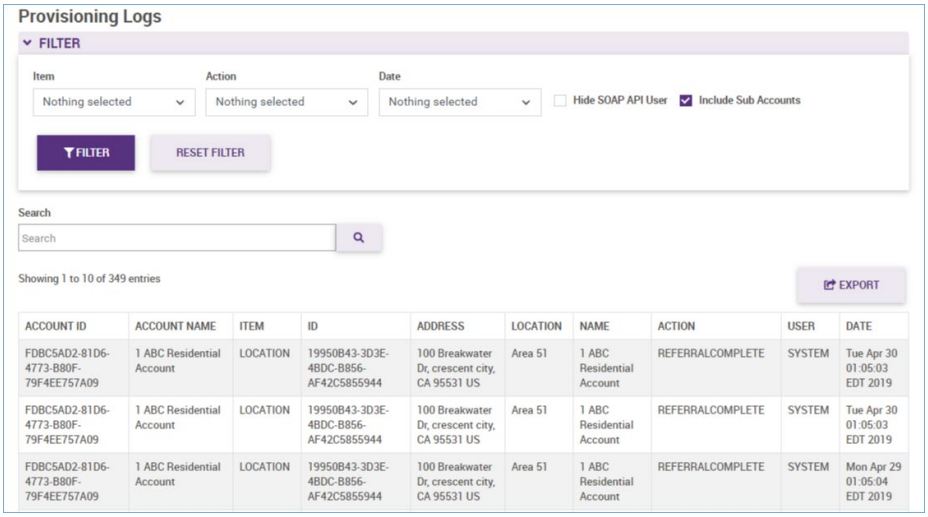
The Provisioning Logs screen provides a list of all provisioning changes made in your customer account. This includes the creation, modification, and deletion of fixed ERLs as well as caller-reported ERLs, subscribers, subnets, switches, wireless access points and Sub Accounts.

To access **Provisioning Logs**:

1. From the **ERS portal main menu**, choose **Monitoring ➔ Provisioning Logs**.



The *Provisioning Logs* screen displays, all the changes made in your customer account. The **Action** column identifies the nature of the modification.



You can also filter and search records displayed in this screen.

HELD Service

The HELD Service Status screen provides records of the information exchanged between the HELD-compliant phone and the ERS. This includes information about the HELD requests that are sent to the ERS from the phone and the responses that the ERS sends to the phone. There is also a special setting available to view the HELD transactions made in the customer account.

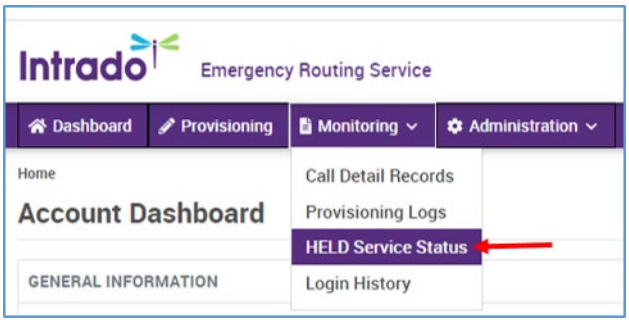
Note: The HELD service only applies to Hosted UC customers.

Note: the HELD Service Status Option appears only when HELD capability is activated in the account.

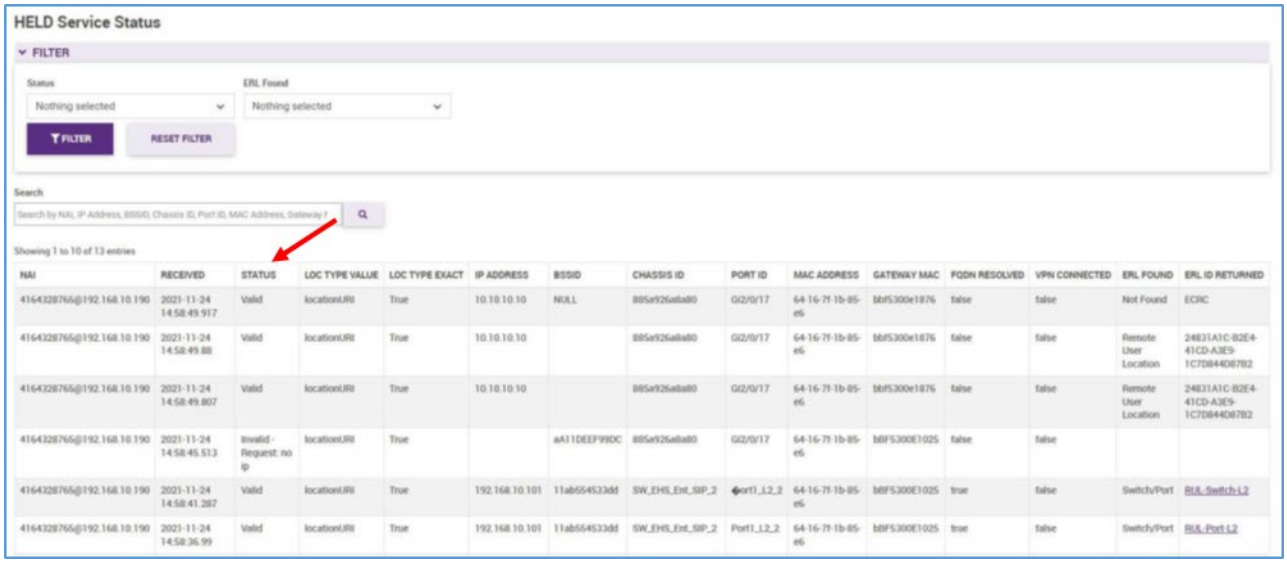
Note: Records of HELD transactions are kept for a maximum for 30 days in the ERS. They are deleted after this time frame.

To access users **Held Service Status**:

1. From the **ERS portal main menu**, choose **Monitoring ➔ Held Service Status**.



The HELD Service Status screen displays, with all the HELD transactions that occurred in your customer account. The **Status** column identifies whether the HELD request was valid or invalid.



For HELD Service Status Field Descriptions, please review the following table.

Field	Description	Formats and Examples
NAI	Subscriber's identifying information that was sent in the HELD request.	**Possible Formats**: • subscriber@fqdn • subscriber@ip • subscriber Examples: • 5147452143@192.168.10.190
Received	Date and time the HELD Request was received by the ERS. Format: YYYY-MM-DD HH:MM:SS	**Format**: YYYY-MM-DD HH:MM:SS **Example**: 2021-03-12 12:30:35

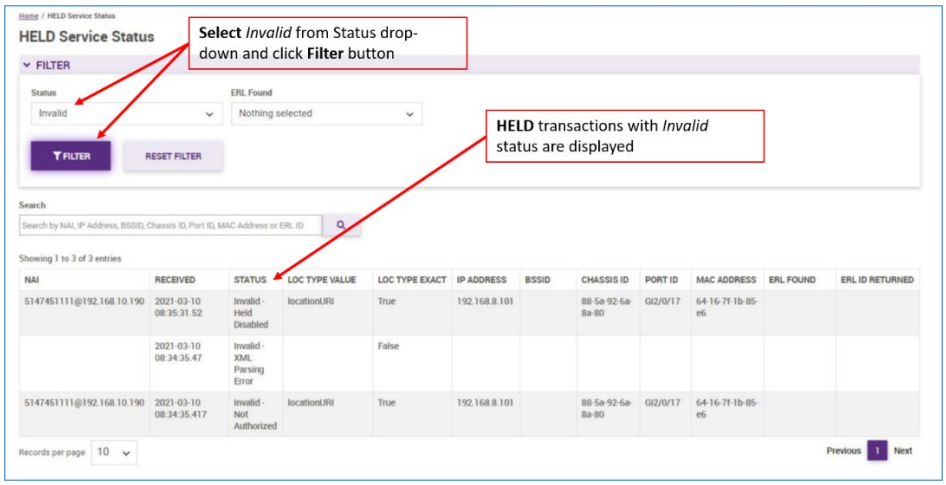
Field	Description	Formats and Examples
Status	Status of the HELD Request. Possible Values: • **Valid:** The HELD request was valid and processed by the ERS. • **Invalid - HELD Disabled**: The HELD Service option was not activated on your account. Please contact Masergy Support for more information. • **Invalid - XML Parsing Error:** The XML request could not be parsed since it was not RFC5985 – compliant. • **Invalid - Not Authorized**: The account is not authorized to use the HELD service since the certificate provided is invalid or has been disabled.	
LOC Type Value	Type of location information the phone requested from ERS in the HELD request. Possible Values: • locationURI	
LOC Type Exact	Accuracy of the location information requested. This value in conjunction with the LOC Type Value determine the values that ERS should return in the HELD Response. Possible Values: • True • False Note: Please note that even though ERS can process HELD requests with LOC Type Exact value as False, it is recommended to send this value as True.	
IP Address	IP address sent in the HELD Request.	**Example**: 198.168.8.101
BSSID	BSSID sent in the HELD Request.	**Example**: 11:22:33:44:66:77
Chassis ID	Chassis ID sent in the HELD Request.	**Example**: 88-5a-92-6a-8a-80
Port ID	Port ID sent in the HELD Request.	**Example**: Gi2/0/17
MAC Address	MAC Address sent in the HELD Request.	**Example**: 64-16-7f-1b85-e6
Gateway MAC	Gateway MAC address sent in the HELD Request. Only applies to deployments where Remote User Location Service is activated.	**Example**: 64-16-7f-1b85-e6

Field	Description	Formats and Examples
FQDN Resolved	Used to indicate whether the user is onsite or remote based on the softphone's reachability to a DNS server within the customer's network. Only applies to deployments where Remote User Possible Values: • True • False	
VPN Connected	This is a field derived by ERS and indicates if the Gateway MAC sent in the HELD Request matches one of the VPNs provisioned in the ERS. Only applies to deployments where Remote User. Possible Values: • True • False	
ERL Found	Network element that the ERS used to find the phone's location. ERS finds the ERL by matching the network element sent in the HELD request to the pre-provisioned network map in the account. Possible Values: • **Subnet**: IP address sent in the HELD Request was matched to a subnet provisioned in the account. • **Wireless Access Point:** BSSID sent in the HELD Request was matched to the Wireless Access Point provisioned in the account. • **Switch**: Chassis ID that was sent in the HELD request was matched to a switch provisioned in the account. • **Port**: Port ID that was sent in the HELD request was matched to the port (if available) or the switch (under which the port was added) provisioned in the account. • **Remote User Location**: The Remote User Location Service was used to determine the user's location. • **Not Found**: ERS could not find a match between the network element sent in the HELD request and the pre-provisioned network map.	

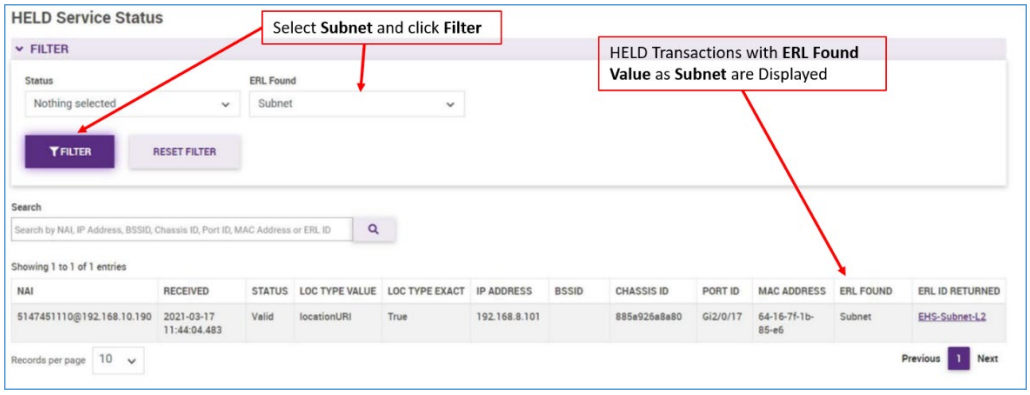
Field	Description	Formats and Examples
ERL ID Returned	ERL ID of the phone's location found by ERS by matching the network element in the HELD request with the pre-provisioned network map. This ERL ID was sent to the phone in the HELD response. Possible Values: **ERL ID**: ERL ID of the phone, determined by ERS **ECRC**: ERS was unable to find a match. 9-1-1 call from this phone will be routed to ECRC.	

In this **HELD Service Status Screen**, you can perform the following actions:

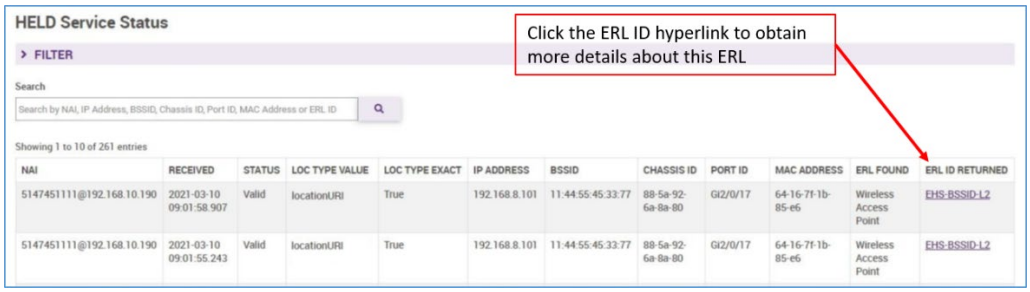
1. Apply filters to truncate the list of entries.
    a. Example 1: To view the list of invalid HELD requests, choose Invalid under the **Status** filter and then click **Filter** button. The screen updates to display only invalid HELD transactions.



    b. Example 2: To view the list of HELD transactions where the ERL was found using the Subnet-ERL association, choose Subnet from the **ERL Found** filter option and click **Filter**. The screen updates to display only HELD transactions where the phone's location was found using the Subnet-ERL association that was pre-provisioned in the network map.

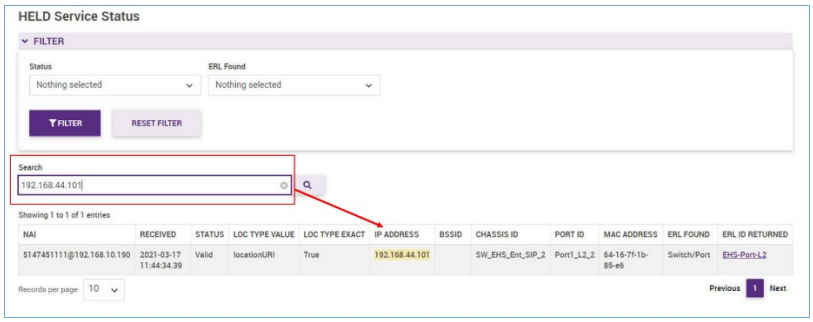


c. Clear the filters by clicking the **Reset Filter** button.
d. View the ERL that was discovered for the phone, by clicking the hyperlink under the **ERL ID Returned** column.

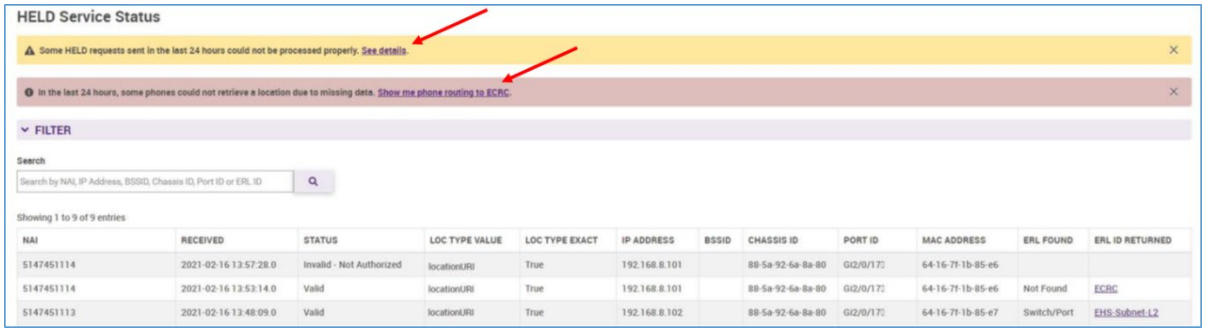


e. Search for a specific network element by entering the value in the Search text box. You can search by the following parameters:
   i. NAI
   ii. IP Address
   iii. BSSID
   iv. Chassis ID
   v. Port ID
   vi. MAC Address
   vii. ERL ID

   For example, you can search for a specific IP Address by entering the value in the Search text box.



f. View any warnings or notices that the ERS displays regarding the HELD transactions.



   i. **Some HELD requests sent in the last 24 hours could not be processed properly.** To view, select the hyperlink **See details**.

When you click on the See Details hyperlink, the screen updates to only display HELD transactions with Status as Invalid.

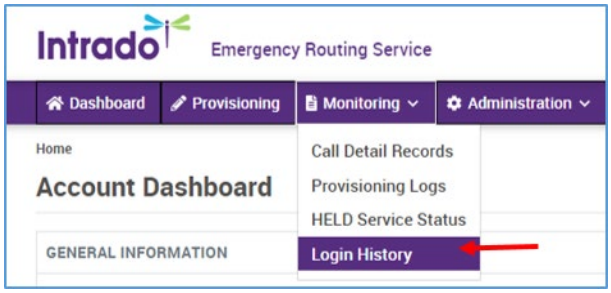
ii. **In the last 24 hours, some phones could not retrieve a location due to missing data.** To view, select the hyperlink **Show me phone routing to ECRC**. When you click on the See Details hyperlink, the screen updates to only display HELD transactions whose ERL Found status is Not Found. That is, ERS could not determine the phone's location and a 9-1-1 call from the phone will be routed to ECRC. This message is displayed when the network map was not properly provisioned in the ERS account or the phone did not provide the required data in the HELD request to permit location determination.

Login History

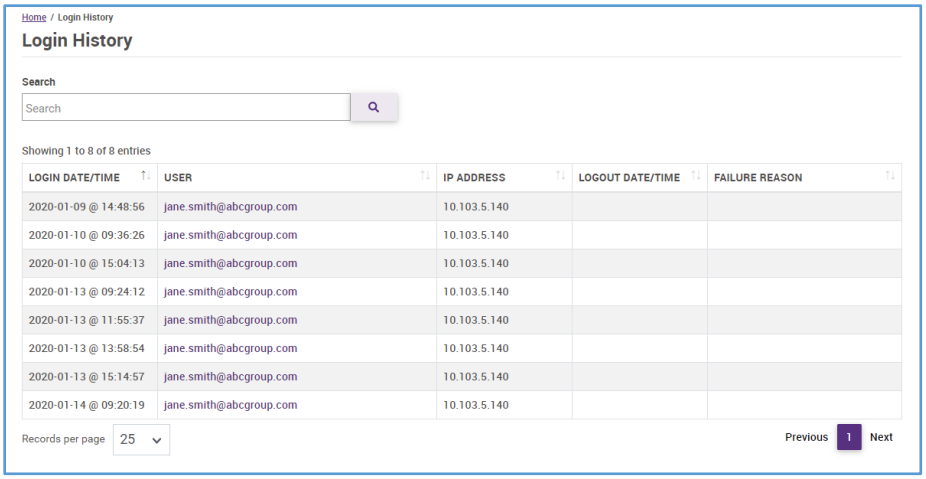
The Login History screen shows the user's email address, their IP address, the login and logout date and time—and if they were not able to log in, the reason why their login attempt failed

To access users **Login History**:

1. From the **ERS portal main menu**, choose **Monitoring ➔ Login History**.



Login History screen



Appendix

Deployment Considerations

Hosted UC

- Every hosted UC license includes emergency calling
- During initial deployment, Masergy Service Delivery will provide a spreadsheet to customers to provide static addresses for each of their users' DIDs. Masergy will create the association between address and DID, validating the addresses are a dispatchable location. Additionally, service delivery will provision an emergency services customer admin, who can update locations/create network mappings directly with Masergy's Emergency Calling portal.
- If desired, a customer may create a wire mapping of their building, allowing even more granular location information. This is accomplished by a designated customer 911 admin logging into Masergy's Emergency Calling portal and creating the network mapping. It requires the admin, depending on their network, to provide more granular location address information for each Wi-Fi access point, network access switch port, etc. Once the network map is complete, hard phones and soft-phones are automatically located based on the network elements provided by the device.
- Masergy will provide access to a Location Manager Client that may be loaded onto a user's desktop.
    - When a user is off-site, the Location Manager Client will detect a change in network and prompt the user to enter their current location's address, validate, and update Masergy's emergency routing service to use that address should an emergency call be placed. This is useful for users who work remotely and are not always in the office.
    - When on-site, if the mapping has been established, the client will not prompt the user.
- Once the customer is live, customers may call Masergy support for any static address location updates for DIDs or their customer admin can access and make changes directly.

Intelligent SIP Trunking

- During initial deployment, Masergy Service Delivery will provide a spreadsheet to customers to provide static addresses for each of their users' DIDs with emergency calls. Masergy will create the association between the address and DID, validating the addresses are a dispatchable location. Additionally, service delivery will provision an emergency services customer admin, who can update locations and create network mappings.
- Masergy recommends that each DID have emergency calling provisioned to ensure that each user can have a dedicated emergency calling address so that in the event of an emergency call is disconnected, the PSAP can call back the caller for location accuracy.
    - Customers may choose to not provision emergency calling for each DID, but in doing so recognize that call back will not get back to the original emergency caller, users will be sharing the same emergency location, and the Location Manager client may not be used. For this reason, Masergy recommends that customers with users that will be working remotely should always have been assigned emergency calling work locations.

- Masergy's Emergency Calling Portal cannot be used by Intelligent SIP Trunking customers using PIDF-LO/MS Teams customers. Regular Intelligent SIP Trunking customers using static service can.
- Customers with third party PBXs, including MS Teams, are responsible for configuring their PBX/Location Information Server (LIS) to send dynamic address information to Masergy (PIDF-LO).

Once the customer is live, customers may call Masergy support for any address location updates for DIDs with emergency calls, or their customer admin can access and make changes directly.

E911 Emergency Call Testing using 933 Service

The 933 service is a courtesy text-to-speech service that Bandwidth offers as part of the 911 package. When an end-user dials 933, it will play back the phone number and address that is provisioned in the 911 Access Masergy ERS Dashboard.

From any client, simply dial "933" and be provided with audio information about how their call would be routed in a real 911 emergency call. The types of responses provided are dependent on how the DIDs are configured.

Call made from DID that is not registered with Masergy
Result: Routed to ECRC at customer's expense
Caller will hear: "your account is in live mode, subscriber identifier is - <phone number>, your location is unknown, your location coverage will be emergency call center"

Call made from DID that is registered with Masergy
Result: Routed to PSAP
Caller will hear: "your account is in live mode, subscriber identifier is - <phone number>, your location is currently provisioned; location coverage is enhanced 911"

Call made from a HELD device provisioned on Masergy's Emergency Calling Service.
Result: Routed to PSAP
Caller will hear: "your account is in live mode, subscriber identifier is - <phone number>, your location is currently provisioned; your location coverage is enhanced 911"

Call made from a HELD device not provisioned on Masergy's Emergency Calling Service
Result: Routed to ECRC at customer's expense
Caller will hear: "your account is in live mode, subscriber identifier is - <phone number>, your location is unknown, your location coverage will be emergency call center"

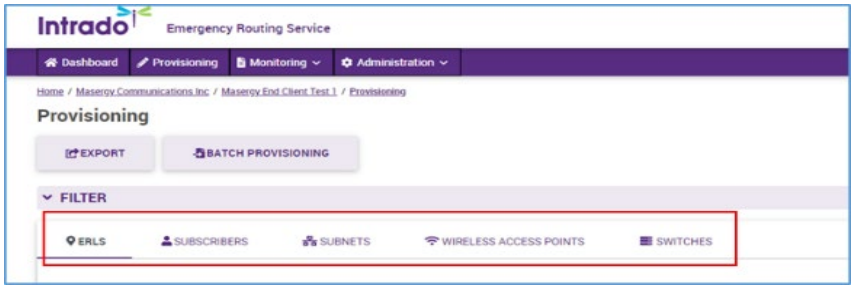
Call made from DID provisioned on Masergy's Emergency Calling Service that contains dynamic location information (PIDF-LO) embedded in the signaling
Result: Routed to PSAP using address embedded in signaling
Caller will hear: "your account is in live mode, your subscriber identifier is - <phone number>, your address is provided, your latitude and longitude are provided, and your location coverage is Public Safety Answering Point"

Note: It is possible that for this scenario dialing "933" will result in the caller hearing that "your location coverage is Emergency Call Center". This can happen if the LIS on premise is providing a

location that has not been verified. As long as DID is provisioned, it will route to ECRC but will NOT incur the ECRC cost.

Call made from DID not provisioned on Masergy's Emergency Calling Service that contains dynamic location information (PIDF-LO) embedded in the signaling
Result: Routed to ECRC at customer's expense
Caller will hear: your account is in live mode, your subscriber identifier is - <phone number>, your address is provided, your latitude and longitude are provided, your location coverage is Emergency Call Center"

Masergy ERS Portal – Terminology



ERL: Emergency Response Location.

- The ERL table is used to store all emergency locations
- Each TN / Device is associated with an ERL

Subscribers

- Each TN is defined as a subscriber
- A TN may or may not be assigned an ERL
- Licensing is tied to the TN
- A TN that is not associated with an ERL can use HELD to acquire Location

Subnets

- Device network (IP subnet) attribute for HELD emergency location identification
- Each subnet is associated with an ERL

Wireless Access Points

- Wireless Access Point MAC address for HELD emergency location identification
- Each MAC address is associated with an ERL

Switches

- Switch MAC address for HELD emergency location identification
- Each MAC address is associated with an ERL

Note: Subnets, Wireless Access Points, and Switches only apply to Hosted UC customers only. SIP Trunk / MS Teams customers will not use these e911 provisioning services from the Masergy Emergency Routing Service portal.

Acronyms

Acronym	Stands For	Definition
ALI	Automatic Location Identification	An ALI Database is a secure database that contains the exact 911 address for given associated phone numbers. This database is queried by the PSAP at the time of a 911 call to obtain the caller's location.
ECRC	Emergency Call Relay Center	The Masergy Emergency Call Relay Center (ECRC) exists to handle emergency calls that cannot be routed to a local 911 center. ... High demand on local 911 networks also causes calls to be routed to Masergy. These calls can be generated by major catastrophic events like fires, weather, and mass casualty incidents.
ELIN	Emergency Location Identification Number	A ten-digit DID number you purchase from the local exchange carrier (LEC) is one way for organizations to provide specific location information to the public safety answering point (PSAP) for a 911 call. During a 911 call, the ELIN takes the place of the caller's telephone number as the ANI and is used to route the call to the appropriate PSAP. The PSAP uses the ELIN to query the automatic location identification (ALI) database and retrieve the caller's location.
FCC	The Federal Communications Commission	The Federal Communications Commission regulates interstate and international communications by radio, television, wire, satellite, and cable in all 50 states, the District of Columbia, and U.S. territories.
HELD	HTTP Enabled Location Delivery	A protocol that can be used to acquire Location Information (LI) from a LIS within an access network as defined in IETF RFC 5985.
LIS	Location Information Server	The location information server or LIS is a network node originally defined in the National Emergency Number Association i2 network architecture that addresses the intermediate solution for providing e911 service for users of VoIP telephony. The LIS is the node that determines the location of the VoIP terminal.
MLTS	Multi-line Telephone Systems	Traditionally, multi-line phone systems refer to key telephone systems where users have a single phone to host multiple phone numbers. Users accept incoming calls or make outgoing calls by pressing a dedicated key for a particular phone number. Modern multi-line phone system now refers to cloud-hosted phone systems that can host multiple business phone numbers in a cloud PBX system that answers all incoming calls and routes them to the right virtual extension. It provides businesses with an advanced PBX system that handles incoming calls to each virtual phone number based on the rules specified for each.
PIDF-LO	Presence Information Data Format Location Object	An IETF standard is used to represent an address/location in XML format. The introduction of PIDF-LO allows organizations to send a caller's location information to the Public Safety Answering Point (PSAP) in an end-to-end IP-based E911 network.
PSAP	Public Safety Answering Point	A public-safety answering point (PSAP), sometimes called a "public-safety access point" is a call center where emergency calls (like police, fire brigade, ambulance) initiated by any mobile or landline subscriber are terminated.
SMS	Short Message Service	SMS is a text messaging service component of most telephone, Internet, and mobile device systems. It uses standardized communication protocols that let mobile devices exchange short text messages.
TN	Telephone Number	A telephone number serves as an address for switching telephone calls using a system of destination code routing. Each Subscriber has a DID telephone number assignment
XML	Extensible Markup Language	XML (Extensible Markup Language) is a markup language similar to HTML, but without predefined tags to use