Lumen® IQ SIP

Administrative guide – managing trunks

January 2021

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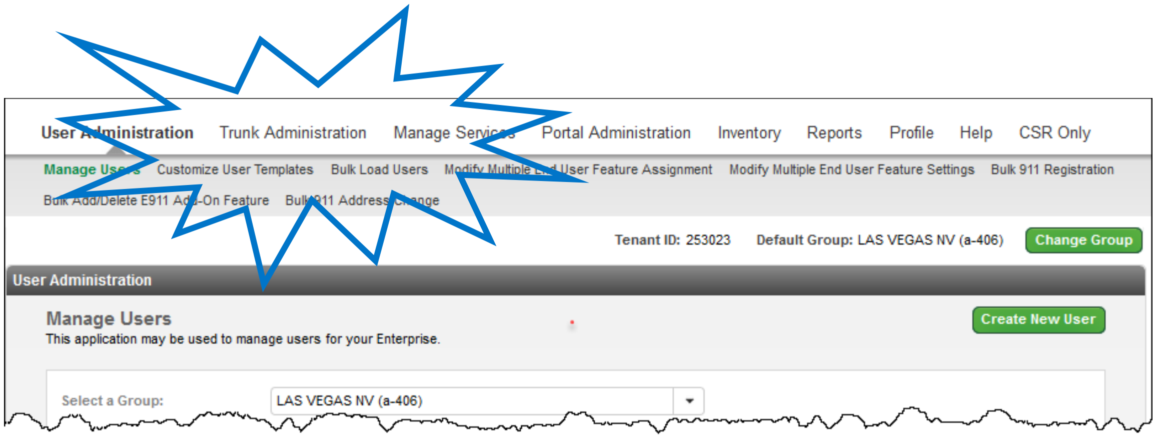
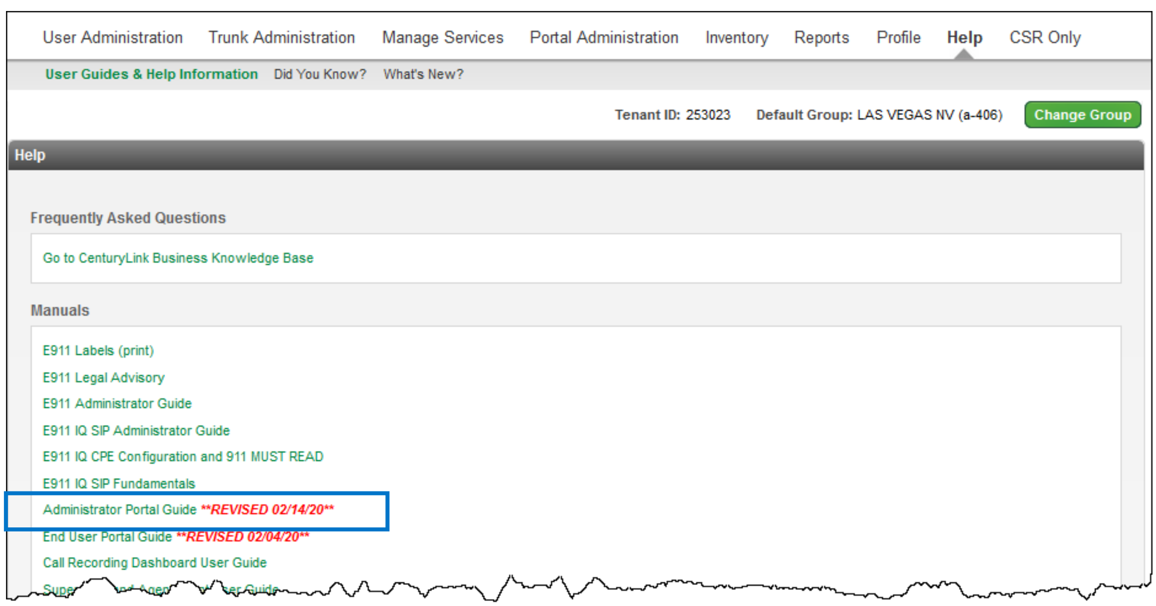
About this guide

The information contained within this user guide is specific to **trunk administration** features and trunk management only. If you don't have a trunk administration option on your main menu, you don't subscribe to that service.



For information pertaining to additional features and functionality within the administrator portal, refer to the comprehensive **administrator portal guide** for full details.

A full copy of the portal guide can be found under **help**:

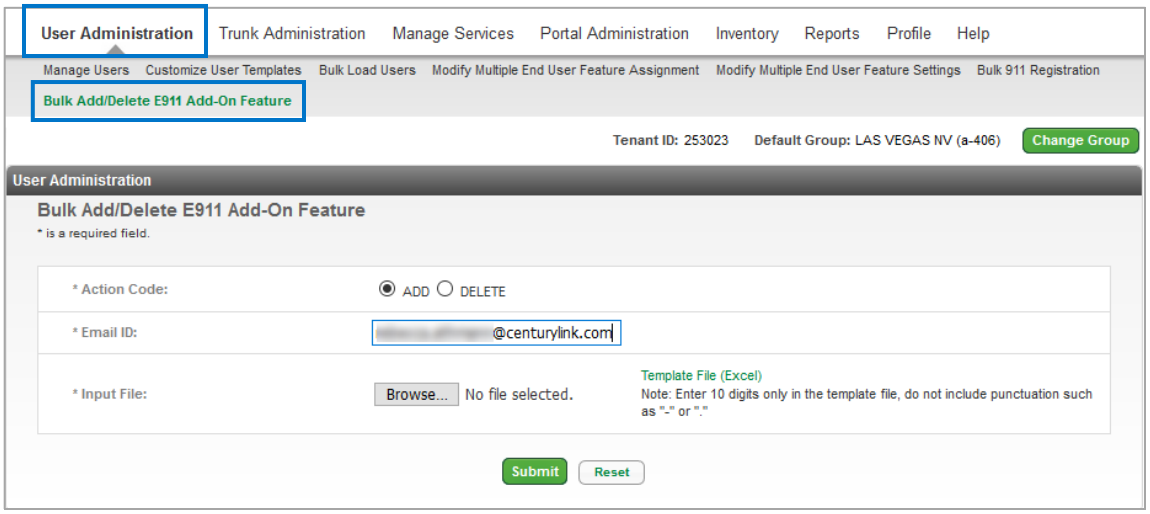


User Administration

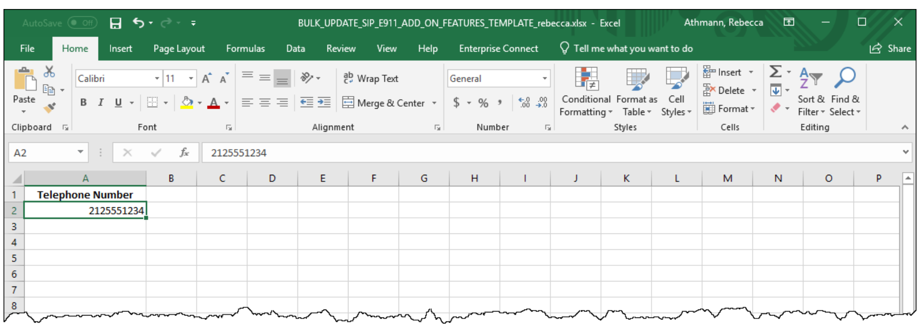
The 911 address associated to each user, is based on the address associated to the group (site) they're built in. If you need to change an address, add a suite number or cubicle number, individual E911 add-on licenses can be purchased to allow you to register unique addresses based on a user's specific location. This license can be assigned individually by seat or can be added or deleted in bulk.

Bulk add/delete E911 add on feature

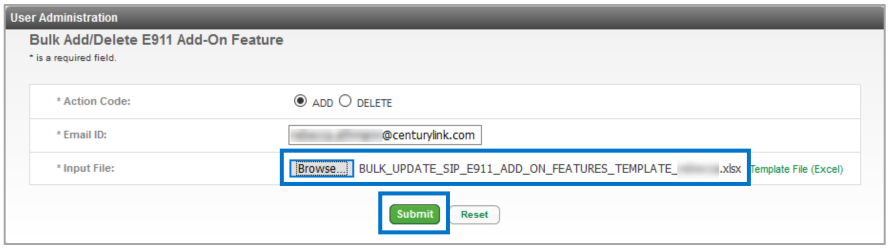
1. Click **user administration** from the main menu.
2. Click **bulk add/delete E911 add-on feature** from the sub menu.
3. Click the radio button based on the action you want to perform:
    - **Add** – assign E911 license to a user(s)
    - **Delete** – unassign E911 license from a user(s)
4. In the **email ID** field, enter a valid email address; this address receives email notification for the success or failure of your bulk upload.



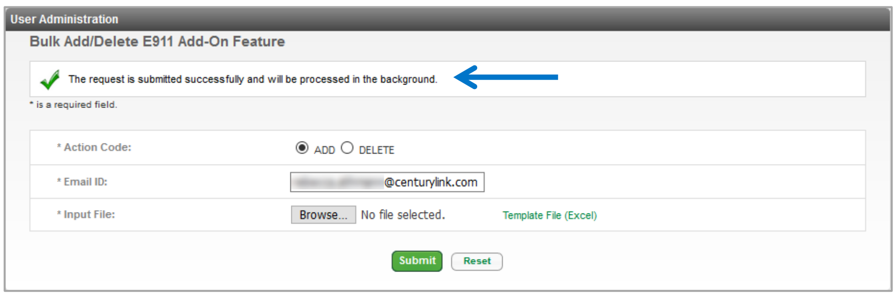
5. Click the **template file (Excel)** hyperlink to download the bulk upload template spreadsheet.
6. Enter all telephone numbers in **column A** that should be impacted by the bulk upload, 10-digits only, no punctuation such as "." or "-". Example: 2125551234, 2125559876, etc., name and save the document.



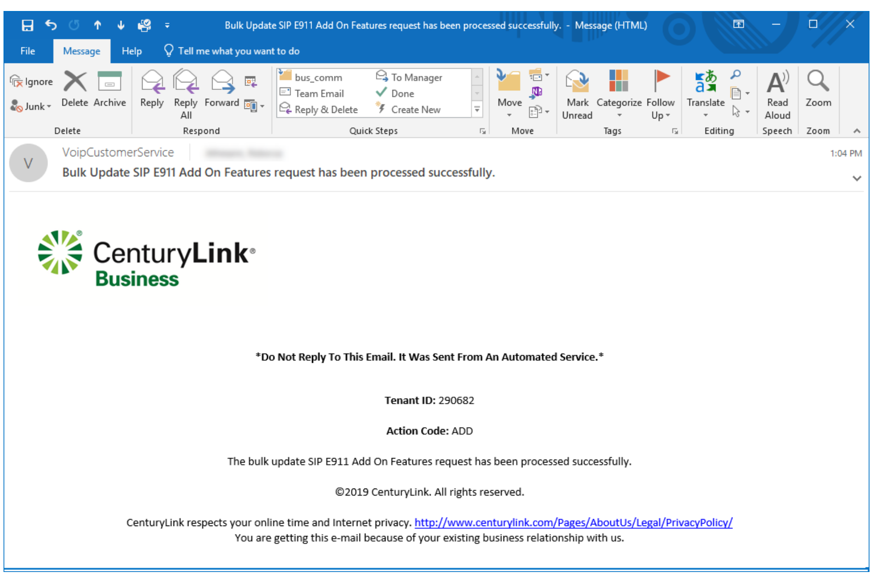
7. Click the **input file browse** button to locate the saved file based on your operating system.
8. The uploaded file is indicated next to the **browse** button.
9. Click the **submit** button.



10. Receive notification that the request was successfully submitted and will be processed.



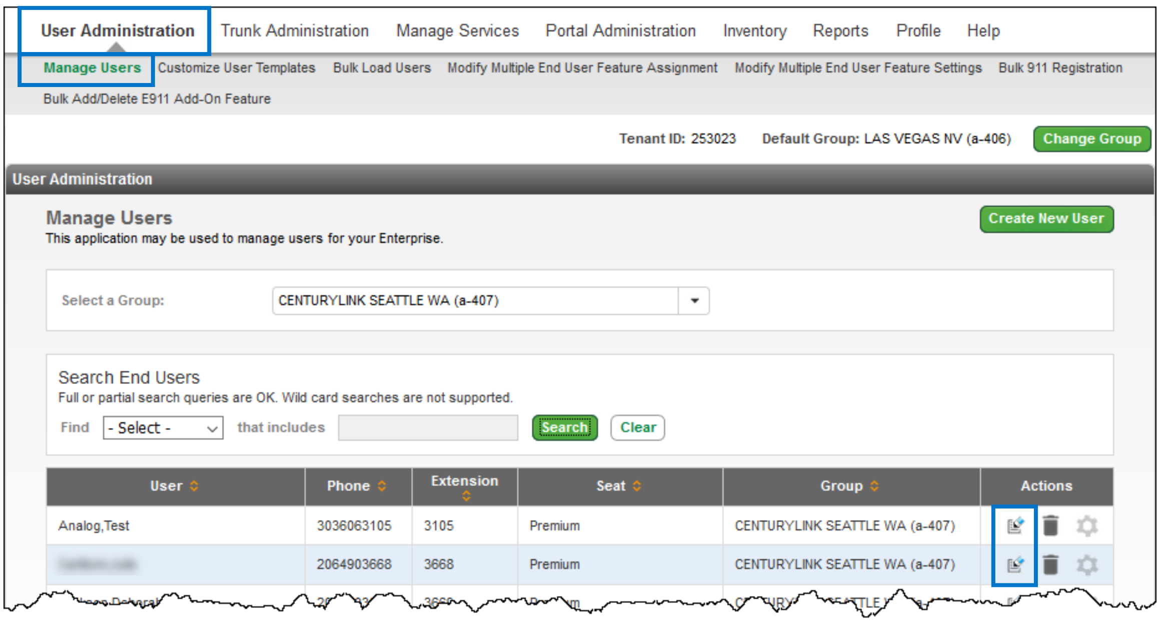
11. An email is sent to the email address listed in the **email ID** field. If the upload failed, it'll be noted within this email.



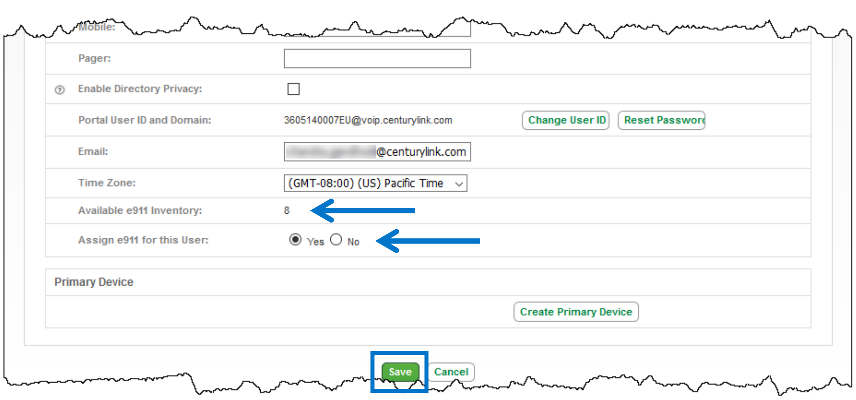
Manually add/delete E911 add on feature

Bulk add/delete E911 add-on feature allows you assign or unassign individual E911 licenses to several users at a time, but this can also be done manually on a seat by seat basis.

1. Click **user administration** from the main menu.
2. Click **manage users** from the sub menu.
3. Click the **edit** icon for the user you need to manage.

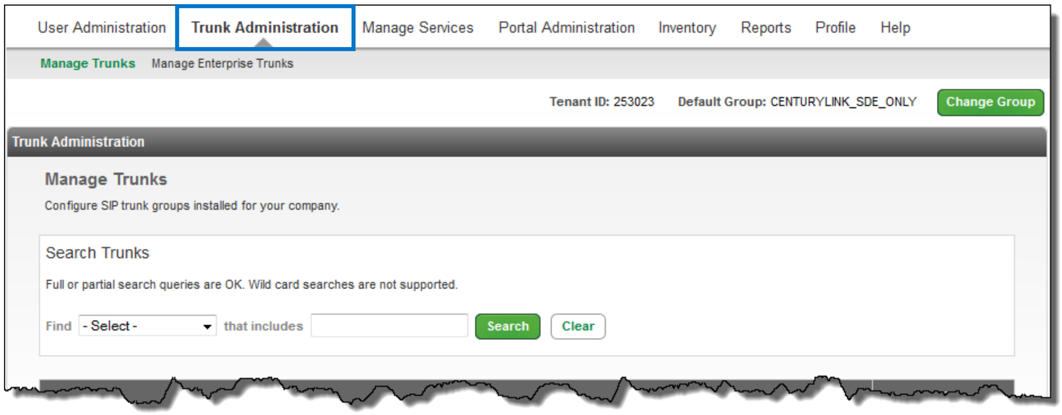


4. Scroll down to locate **available E911 inventory**, this indicates whether you have available licenses to assign and how many. This number incrementally changes as licenses are assigned and unassigned.
5. To add a license to the user, click the **assign E911 for this user yes** radio button, to unassign a license, click the **no** radio button.
6. Click the **save** button.



Trunk administration

Note: If you don't have Lumen SIP trunking, you won't see reference to this feature on the main menu in your administrator portal.

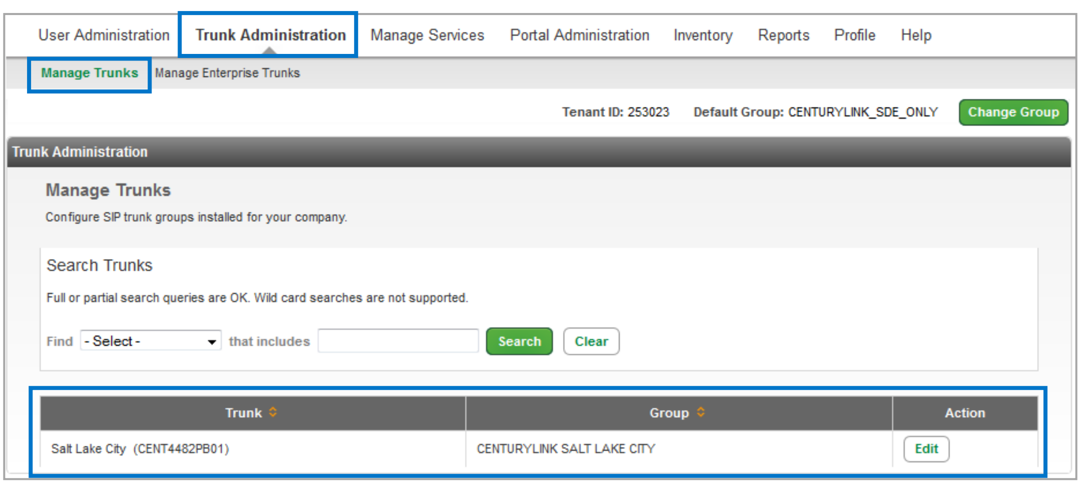


Trunk administration functionality allows you to **manage trunks** within your enterprise or configure collections of trunk groups via **manage enterprise trunks**. The options you have available within the **trunk administration** menu vary based on the level of services you have purchased.

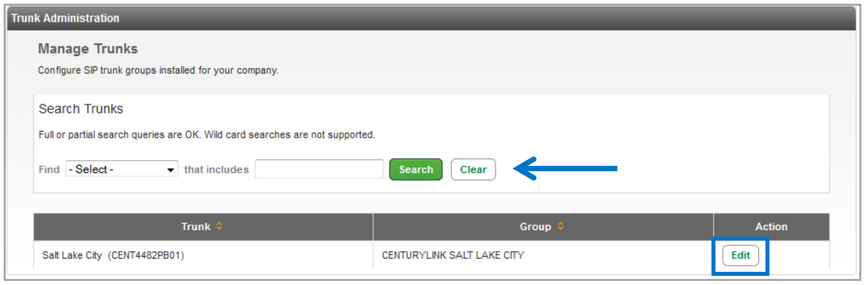
Manage trunks

Within **manage trunks**, you can move users from trunk group to trunk group, build users and enable/disable features based on features available for the seat type.

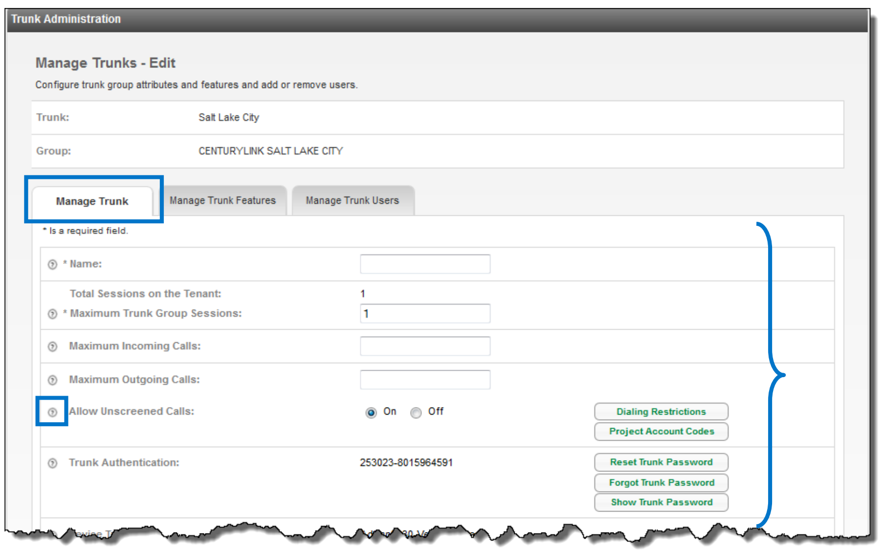
1. Click **trunk administration** from the main menu.
2. Click **manage trunks** from the sub menu.
3. All trunks within your enterprise are displayed.



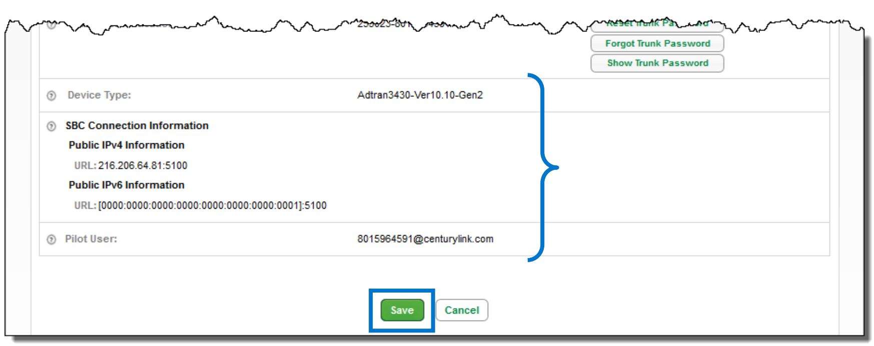
4. Scroll through your trunk groups or use the **search trunks** field to narrow your search.
5. To review or configure a specific trunk group, click the **edit** button.



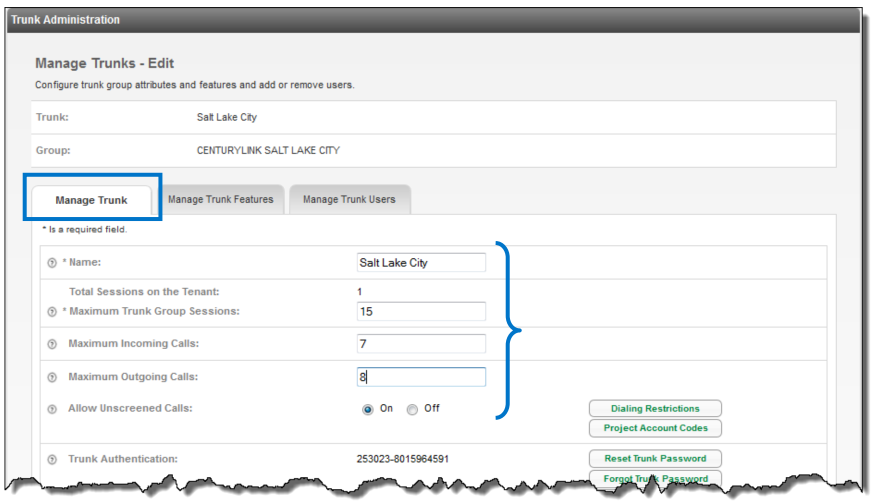
6. All information pertaining to that trunk group will be provided on the **manage trunk** tab, including **SBC connection information**, **IP address**, **pilot number**, **PBX device type**, etc.
7. To change any of the editable fields, enter the information in the appropriate field.
8. As always, if you're not sure what a feature is for, hover over the "**?**" for a brief description.



9. After changes or modifications are made, always click **save** to enable your changes.



10. In the **name** field, enter a name to identify that trunk.
11. **Total sessions on the tenant** field is pre-calculated and static and is determined based on the number of trunk sessions agreed to in your contract.
12. In the **maximum trunk group sessions** field, enter the number of trunks you want to use from your **total session** amount – this number does not have to equal your Total Sessions in the enterprise.
13. In the **maximum incoming calls** field and the **maximum outgoing calls** field, enter the number of calls you want supported on the incoming and outgoing trunk group.
14. **Allow unscreened calls** allows the trunk group to allow originating calls even, if the originator is not a Lumen user – provided the originating trunk group can be identified via available signaling.
    - **Yes** – enable this feature
    - **No** – disable this feature
    - Customer must own the numbers used for the **unscreened calls** feature
    - For 911, the PBX must send a valid number from the trunk

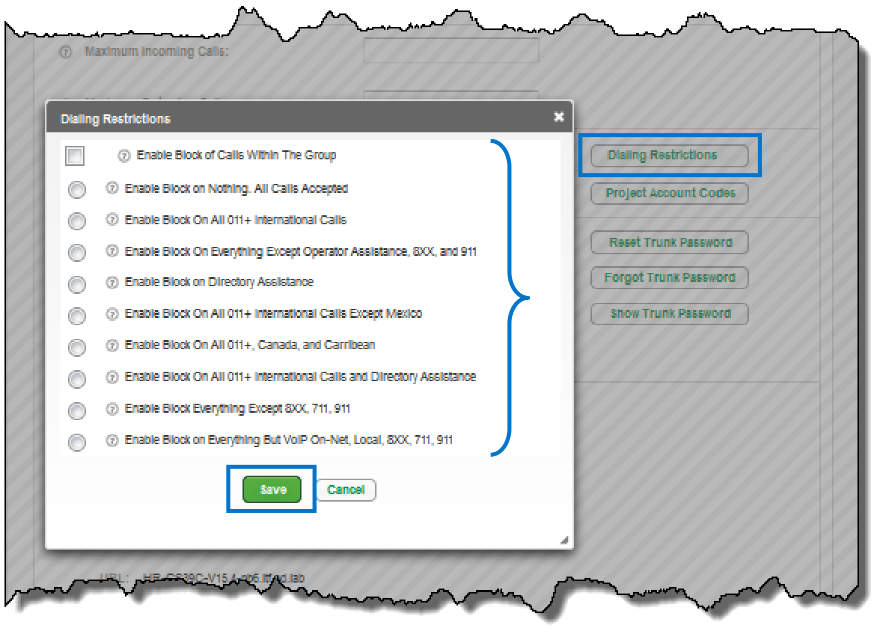


15. Define **dialing restrictions** or allow **PAC/VPAC** codes to be used with **unscreened calls**.
16. Click the **dialing restrictions** button.
17. In the **dialing restrictions** window, choose the dialing options you want to apply to unscreened calls by selecting the **check box** or the **radio** buttons.

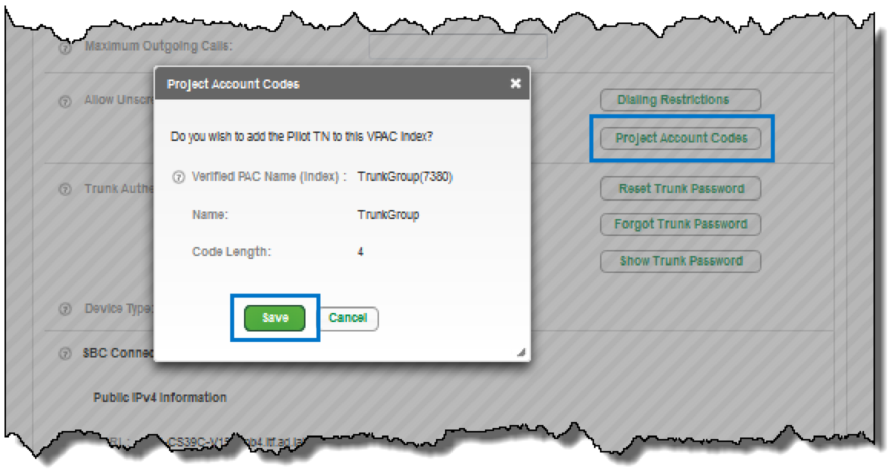
PLEASE NOTE

Note: Enable block of calls within a group prevents calling within a group, calls can only be completed to numbers outside of the group.

18. To apply your settings, click the **save** button.



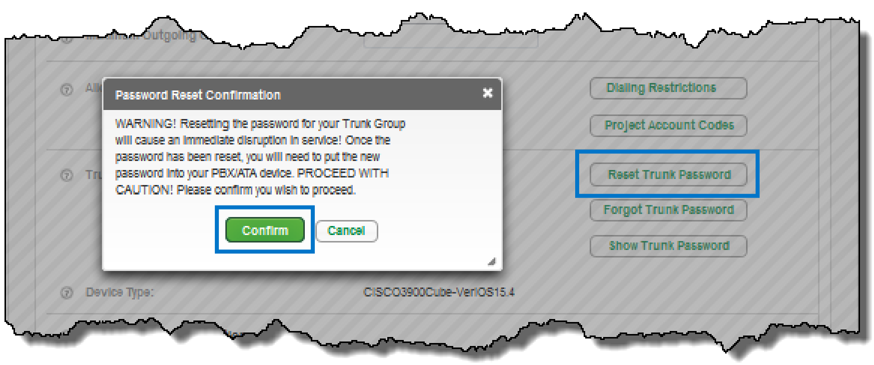
19. Click the **project account codes** button to allow your **PAC** (project account codes) or **VPAC** (verified project account codes) to be used for **unscreened calls** made from this trunk group
20. PAC and VPAC codes are ordered and managed under managed services – refer to the full administrators guide under **help** from the main menu, for details on ordering and managing PAC and VPAC codes.
21. Click the **save** button.



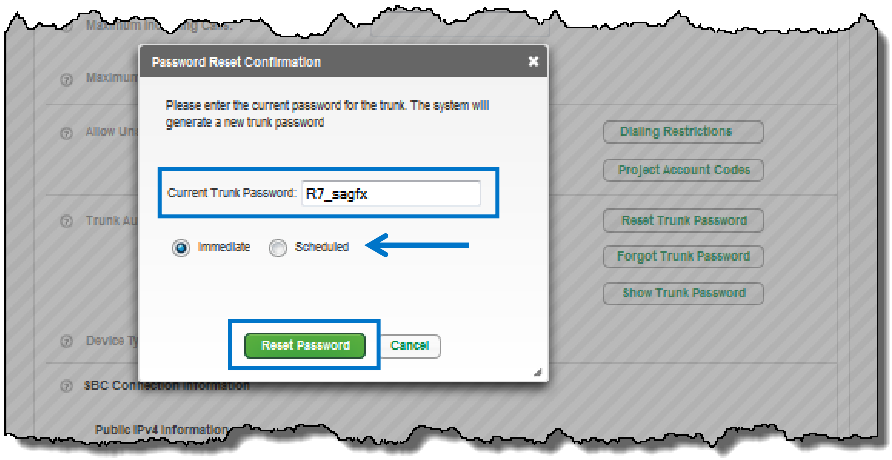
22. You can reset the **password** for your trunk group by clicking the **reset trunk password** button.
23. Click the **confirm** button to proceed with your password reset.

PLEASE NOTE

Note: Changing the trunk password needs to be coordinated, as you'll also need to change the password on your PBX/ATA in conjunction with your password reset. **Resetting the password causes an immediate disruption to your service!!**

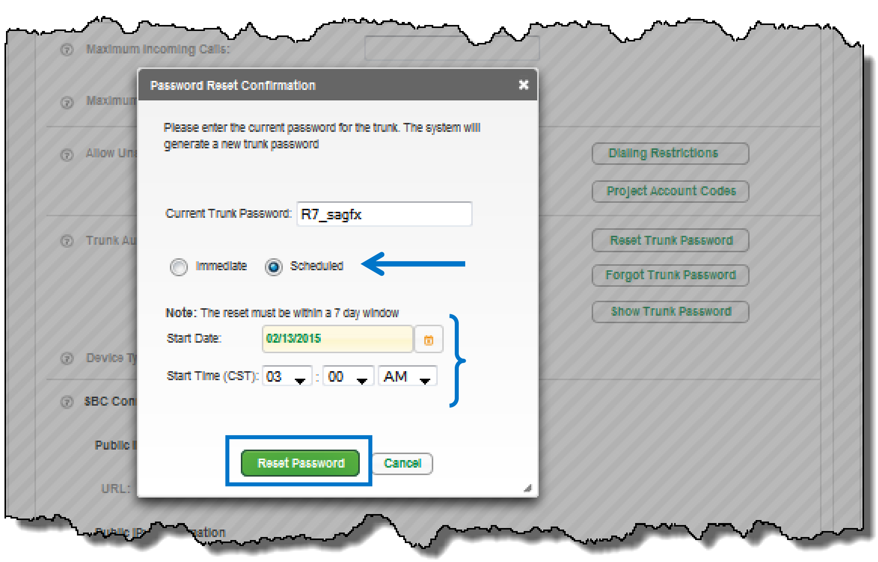


24. To reset the password, you'll be required to enter the current password in the **current trunk password** field.
25. Click the **immediate** radio button to change the password immediately.
26. Click the **save** button.
27. To schedule your password reset, click the **scheduled** radio button.

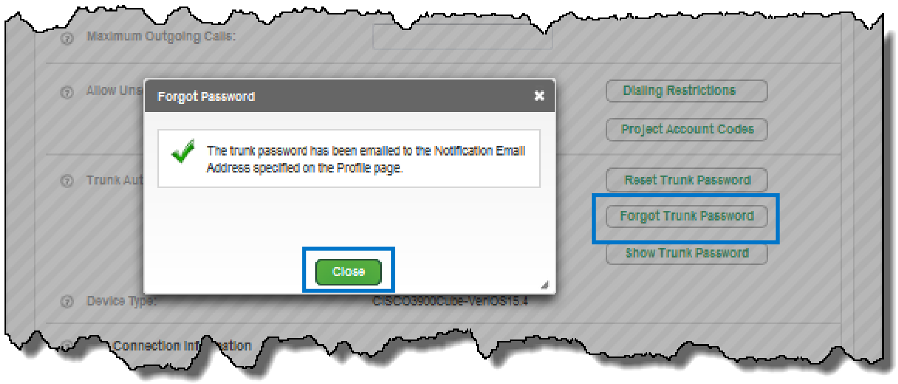


28. Select the **start date** for the password reset by clicking the **calendar** icon.
29. From the **start time** dropdown boxes, select the time, including a.m. or p.m., that you want your password reset to take effect.
30. Click the **reset password** button.

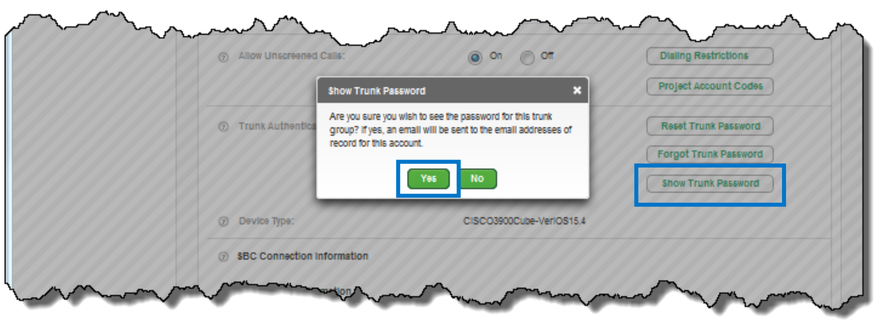
PLEASE NOTE **Note:** An email will be sent to the email address of the primary administrator as indicated under **profile** on the main menu.



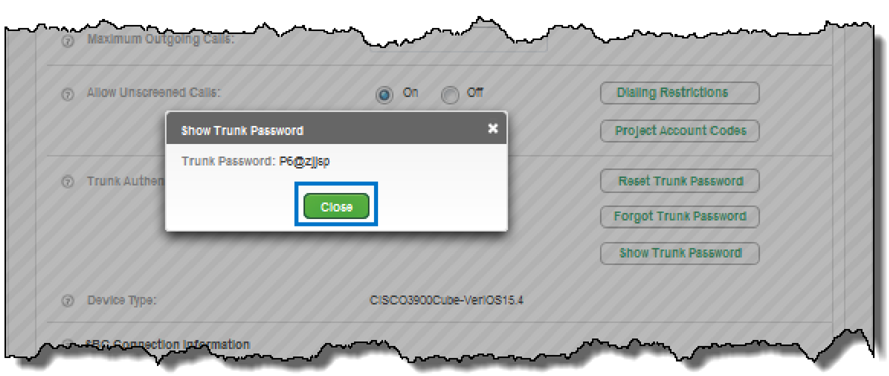
31. If you forget your trunk password, click the **forgot trunk password** button.
32. An email will be emailed to the primary administrator as listed under **profile** on the main menu.
33. Click the **close** button.



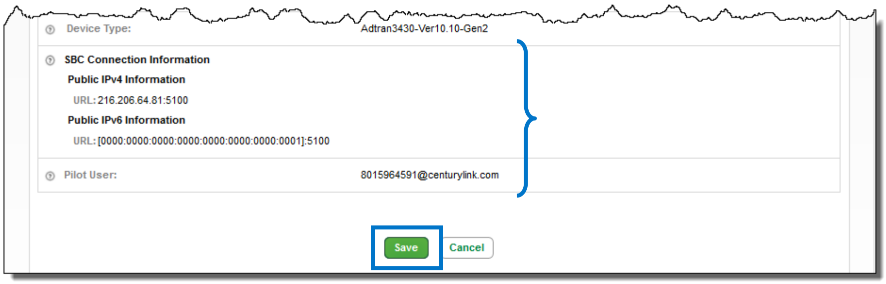
34. If you can't remember or don't have a record of your trunk password, click the **show trunk password** button.
35. A warning box appears indicating that for security purposes, an email will be sent to the primary administrator of the account.
36. Click **yes** to display the current password.



37. A window appears with the trunk password listed.
38. Make note of the password then click the **close** button.



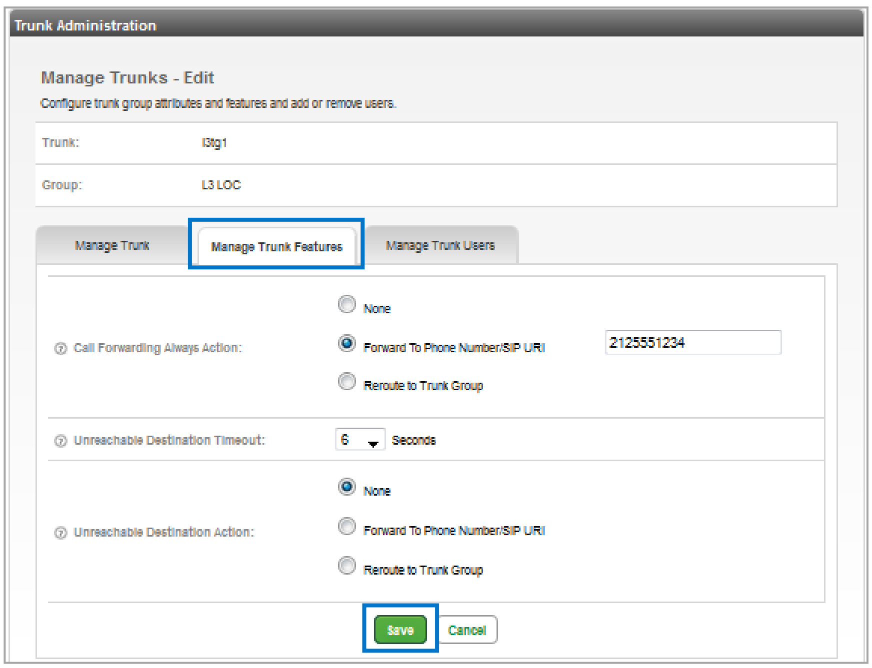
39. The **device type** section indicates the type of device you're using to connect to the trunk group.
40. **SBC connection information** defines the session border controllers that manage traffic over your trunk group.
41. The **pilot user** identifies the unique number that is associated to your trunk group. It defines various characters of your trunk group such as AoR (address of record).
42. After all changes are made, click the **save** button.



Manage trunk features

Manage trunk features gives you the ability to set up and define **call forwarding** treatments, as well as treatments for when your trunk is **unreachable**.

1. Click the **manage trunk features** tab.
2. The default setting for **call forwarding** is **none** by default.
3. To enable **call forwarding always** to a phone number, click the **forward to phone number/SIP URI** radio button.
4. An editable field is provided where you enter either a **phone number** or **SIP URI**.
5. Click the **save** button to enable call forwarding always to that destination.

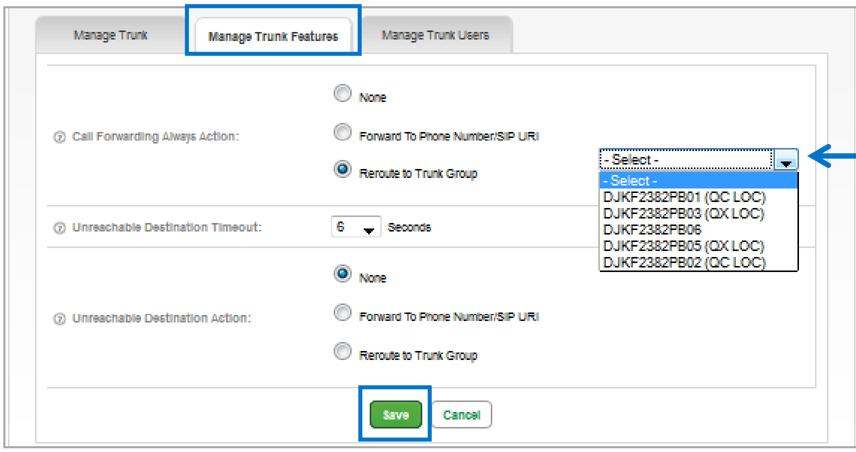


6. If you have more than one trunk group, you can choose to **call forward always** to one of those trunk groups.

Note: You'll only be able to use this feature if you have more than one trunk group within your enterprise

7. Click the **reroute to trunk group** radio button.
8. A dropdown box appears with a list of all trunk groups within your enterprise.

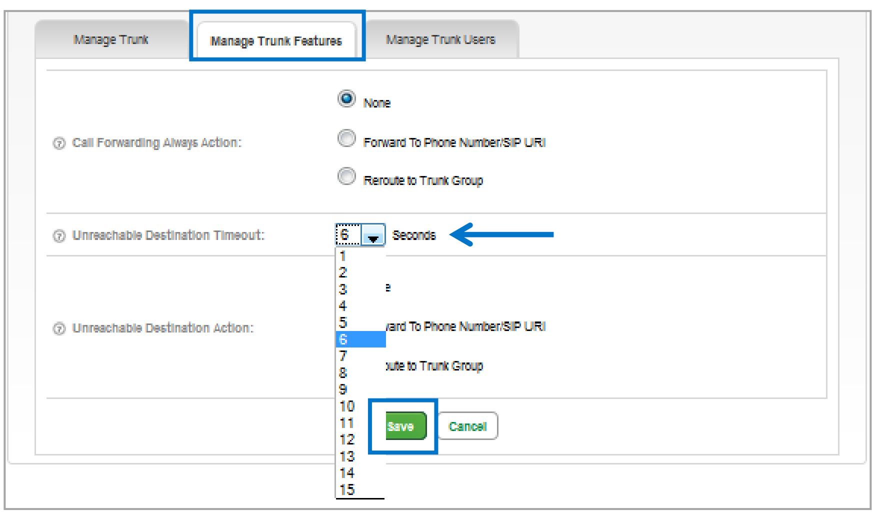
9. Select the **trunk group** you wish to reroute calls to from that list.
10. Click the **save** button to enable call forwarding always to that trunk group.



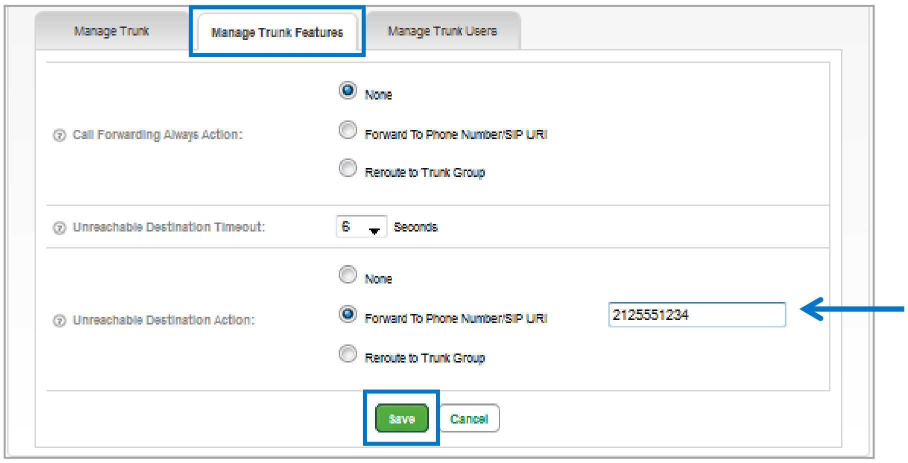
11. The **unreachable destination timeout** feature allows you to define the number of seconds the network should wait for a response to a SIP invite message.

Note: Forwarding will only be invoked if the internet goes down, or if the PBX does not answer.

12. Click the **unreachable destination timeout** dropdown box.
13. Choose how many seconds, from 1-15, you want the system to wait for a response.
14. Click the **save** button.



15. By default, the **unreachable destination action** is set to **none**.
16. To enable forwarding to a phone number when your trunk is unreachable, click the **forward to phone number/SIP URI** radio button.
17. An editable field is provided where you enter either a **phone number** or **SIP URI**.
18. Click the **save** button to enable forwarding to that destination.

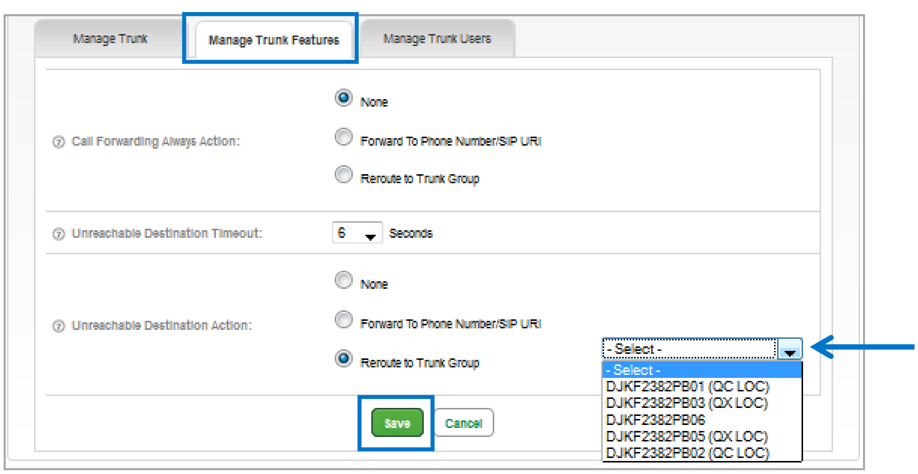


19. If you have more than one trunk group within your enterprise, you can choose to forward calls to another trunk group if your trunk is unreachable.

PLEASE NOTE !

Note: You'll only be able to use this feature if you have more than one trunk group within your enterprise

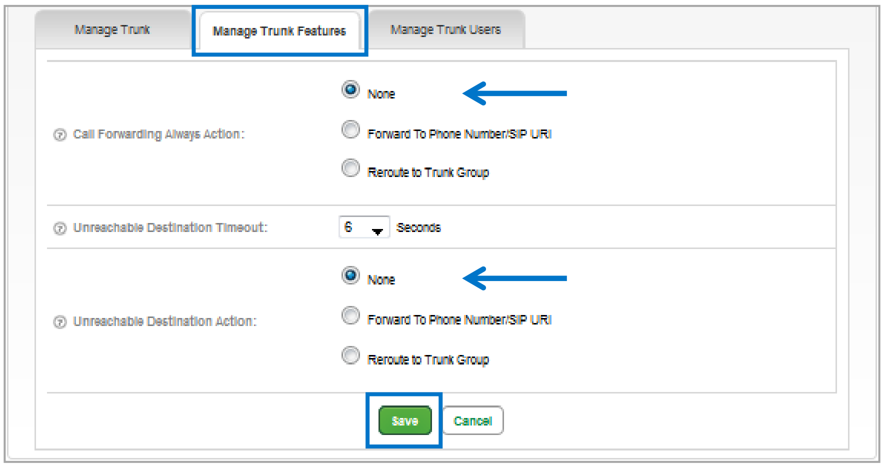
20. Click the **reroute to trunk group** radio button.
21. A dropdown box appears with a list of all trunk groups within your enterprise.
22. Select the **trunk group** you wish to reroute calls to from that list.
23. Click the **save** button to enable forwarding when your trunk group is unreachable, based on the number of seconds set for the **unreachable destination timeout** setting.



24. To disable both **call forwarding always** and **call forwarding unreachable**, these features must be set to **none**.
25. When making setting changes, click the **save** button.

PLEASE NOTE !

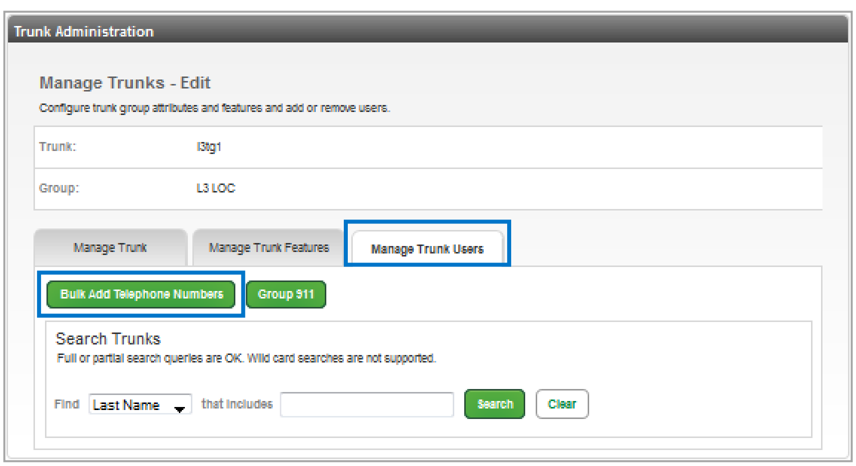
Note: These two features are not dependent on each other, and **do not** have to be enabled at the same time.



Manage trunk users

Manage trunk users lets you define which users or phone numbers are assigned to each trunk group.

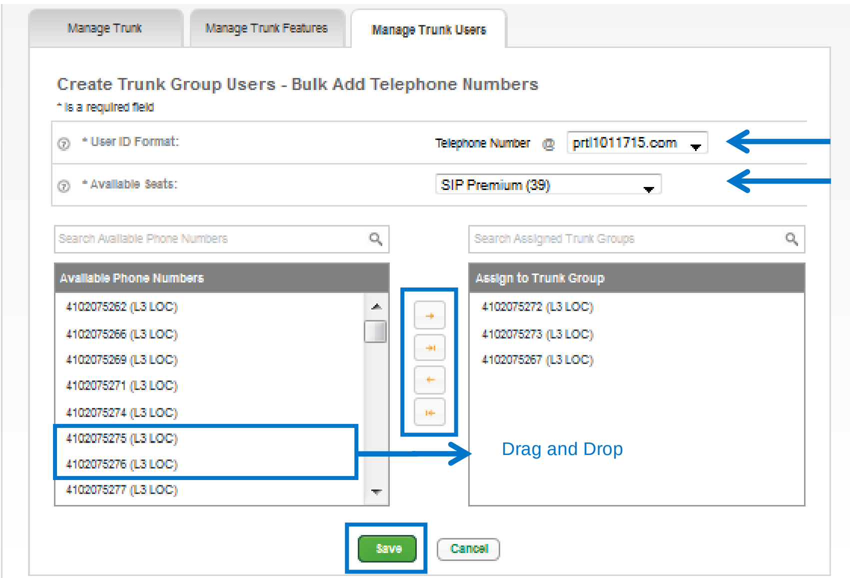
1. Click the **manage trunk users** tab.
2. To build and assign users to a trunk group, click the **bulk add telephone numbers** button.



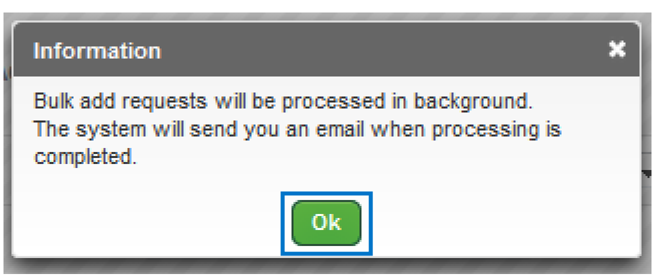
3. Select the appropriate domain from the **user ID format** dropdown box.

Note: There may be multiple domains listed within the dropdown box for you to select from. Be sure to select the same domain as assigned to the pilot user at the bottom of the **manage trunk** tab.

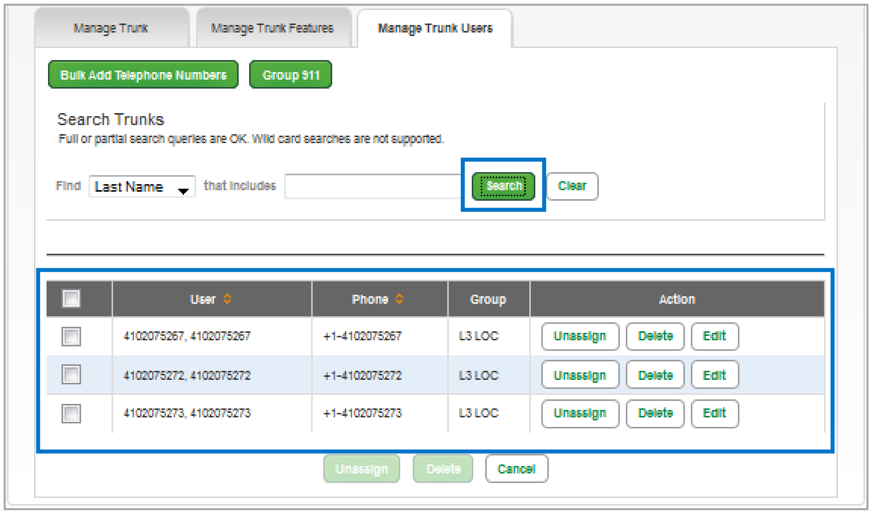
4. Select the seat type from the **available seats** dropdown box (available seat types will be based on your available inventory).
5. Select the number(s) you wish to assign to the selected seat(s) from the **available phone numbers** field.
6. Drag and drop the number(s) to the **assign to trunk group** field or use the arrows between the fields.
7. Click the **save** button.



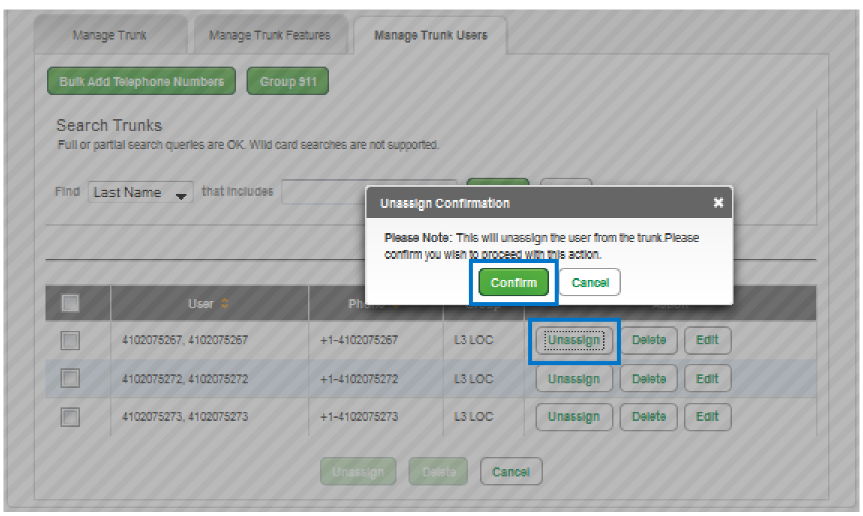
8. A window appears confirming that the seats are being processed.
9. An email will be sent to the primary administrator of record once processing is complete.
10. Click the **OK** button to return to the **manage trunk users** tab.



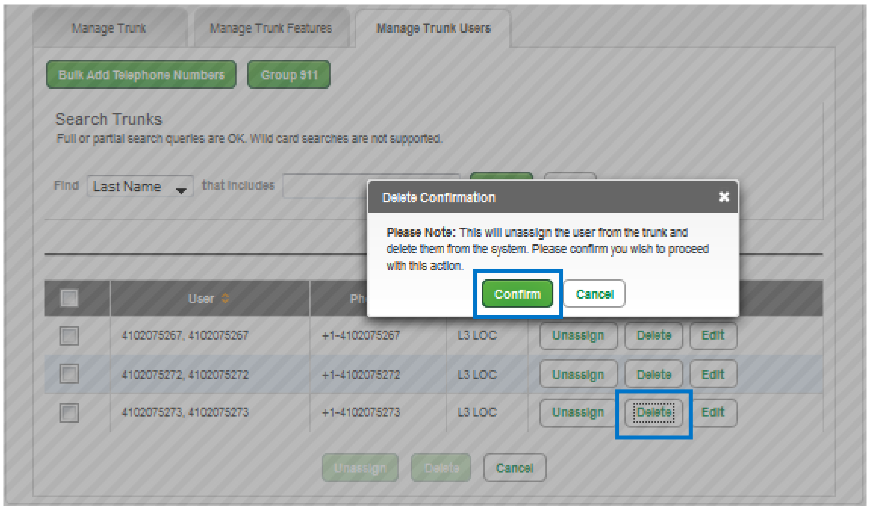
11. Return to the **manage trunk users** tab and the additional seat(s) will be available to **unassign**, **delete** or **edit**.



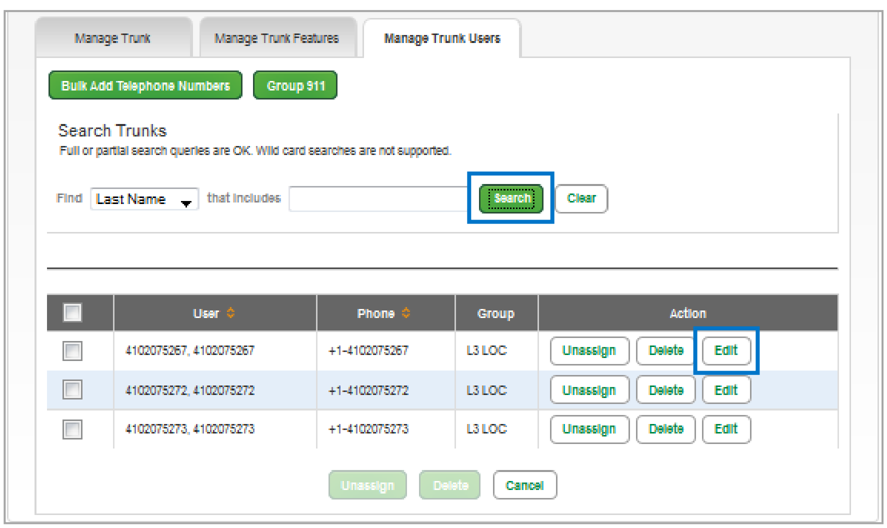
12. To unassign a user from a trunk group, click the **unassign** button.
13. An **unassign confirmation** window appears, click the **confirm** button if you want to proceed with unassigning that user from the trunk group.
14. Reassign that user to another trunk group by following the previous process.



15. To delete a user, click the **delete** button.
16. A **delete confirmation** window appears, click the **confirm** button if you want to proceed with the deletion of that user.
17. This will delete this user from the trunk group.
18. Click the **confirm** button to continue.

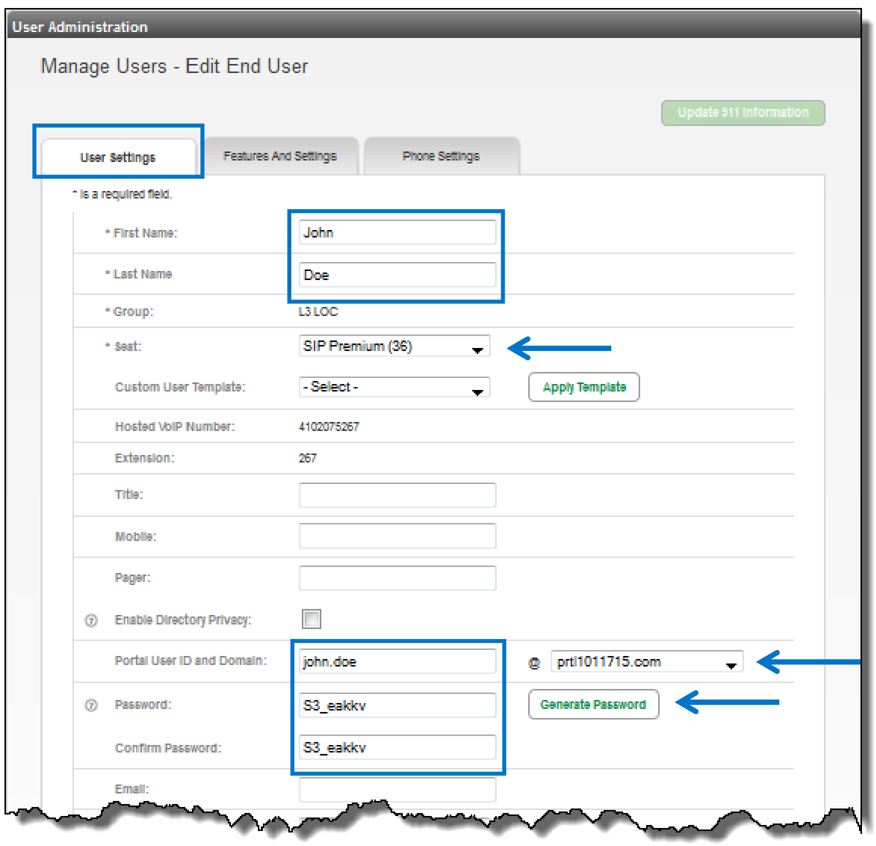


19. Click the **search** button to display all users assigned to a trunk group.
20. To edit a user, click the **edit** button.
21. This allows you to customize the user information and enable/disable features.

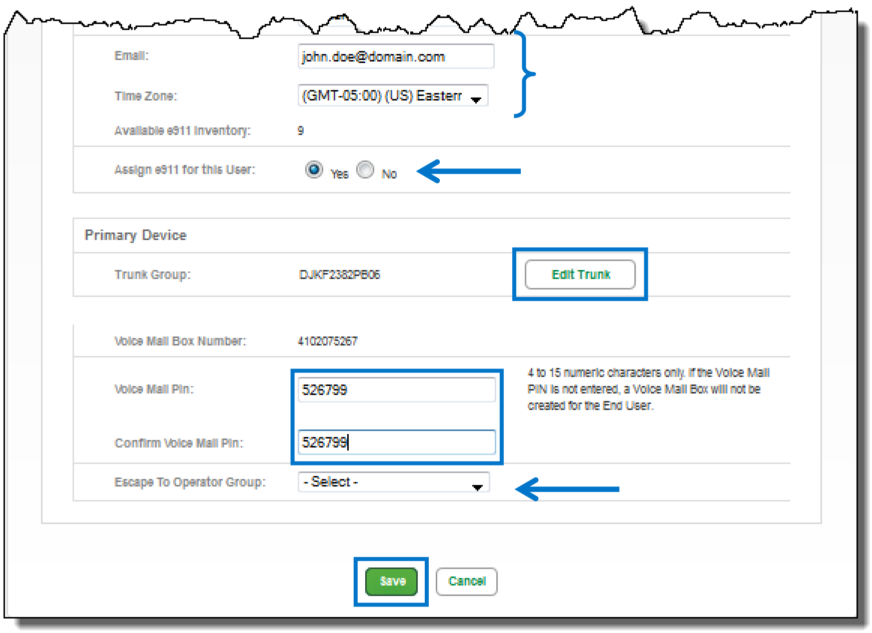


22. On the **user settings** tab, the **first name/last name** is prepopulated with the telephone number. These fields are editable and can be changed appropriately based on the user.
23. Make any changes, such as seat type, by clicking on the dropdown box.
24. Enter the **portal user ID** information and select the appropriate domain from the dropdown box.
25. Generate a password by clicking the **generate password** button or enter and confirm a password by typing in the appropriate fields.

Note: Only fields or features denoted with an "*" are required.

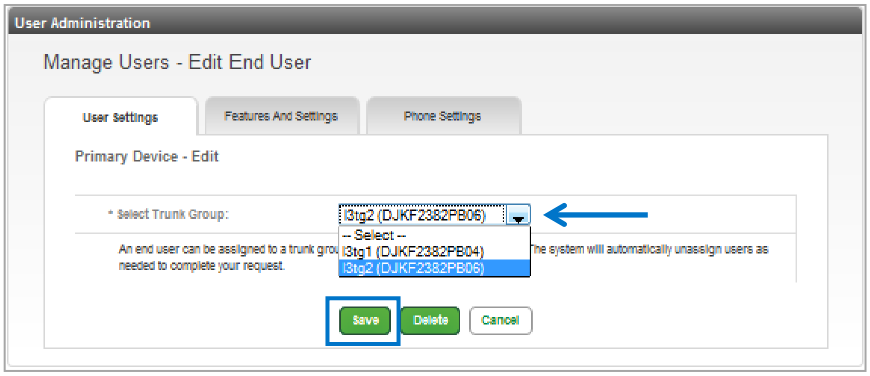


26. Enter the email address in the **email** field; this is the email address that will receive notification when this seat is built.
27. The **time zone** will be preselected based on the group, change it by clicking on the dropdown box if necessary.
28. The default for **assign E911 for this user** is **no**. If this setting is not changed, the user will be using the address registered to the trunk they're assigned to.
29. If the user is mobile or is at a location other than where the trunk is registered, click the **yes** radio button. Their e911 location can be managed and modified in the end user portal.
30. Enter the voicemail password in the **voice mail PIN** field.
31. Confirm the voicemail password in the **confirm voice mail PIN** field.
32. If **escape to operator** groups are pre-determined, select one for the user from the **escape to operator group** dropdown box if necessary.
33. Once all information is populated, click the **save** button.
34. To easily move one user from one trunk group to another, click the **edit** trunk button. This will be described next.



35. From the **select trunk group** dropdown box, select the trunk group you wish to move the user to.
36. This can be done in bulk under **trunk administration --> manage trunks -->** click **edit** for the trunk you want to manage **-->** click the **manage trunk users** tab to manage/change multiple users from one trunk group to another.

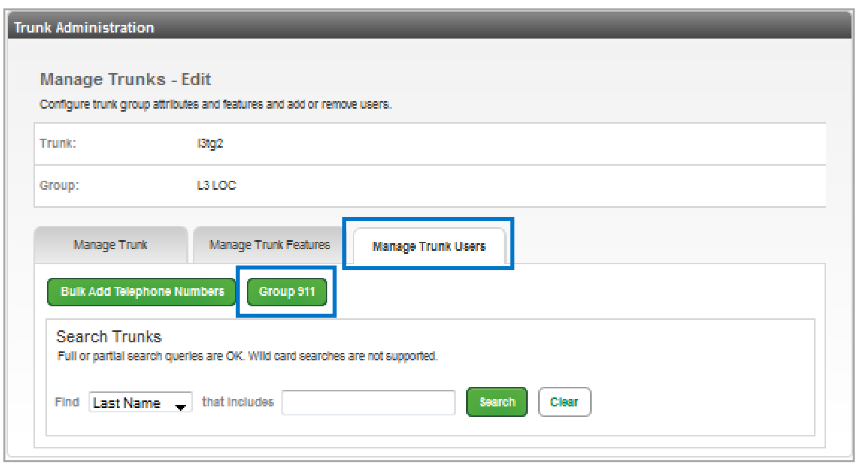
37. Click the **save** button to confirm the move from one trunk group to another.



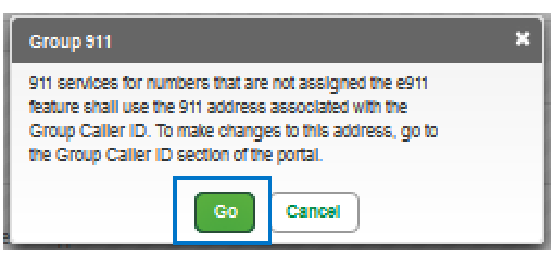
Group 911

Managing the 911 address of a trunk group is handled under **managed services** from the main menu. Or do the following.

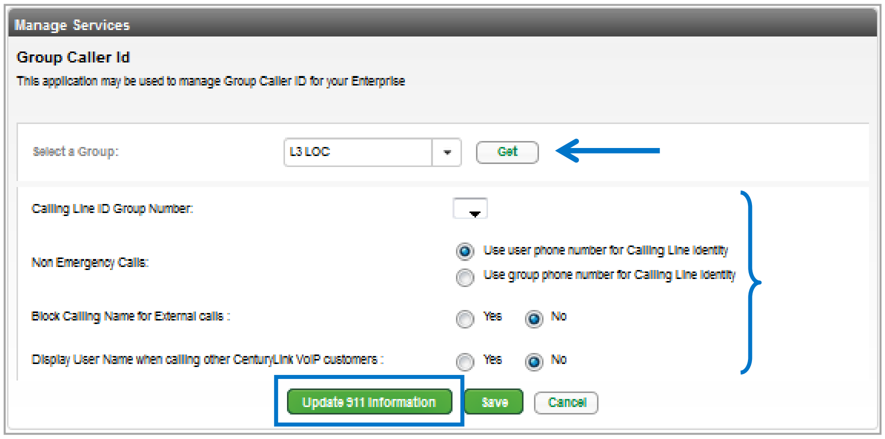
1. Click the **manage trunk users** tab.
2. Click the **group 911** button.



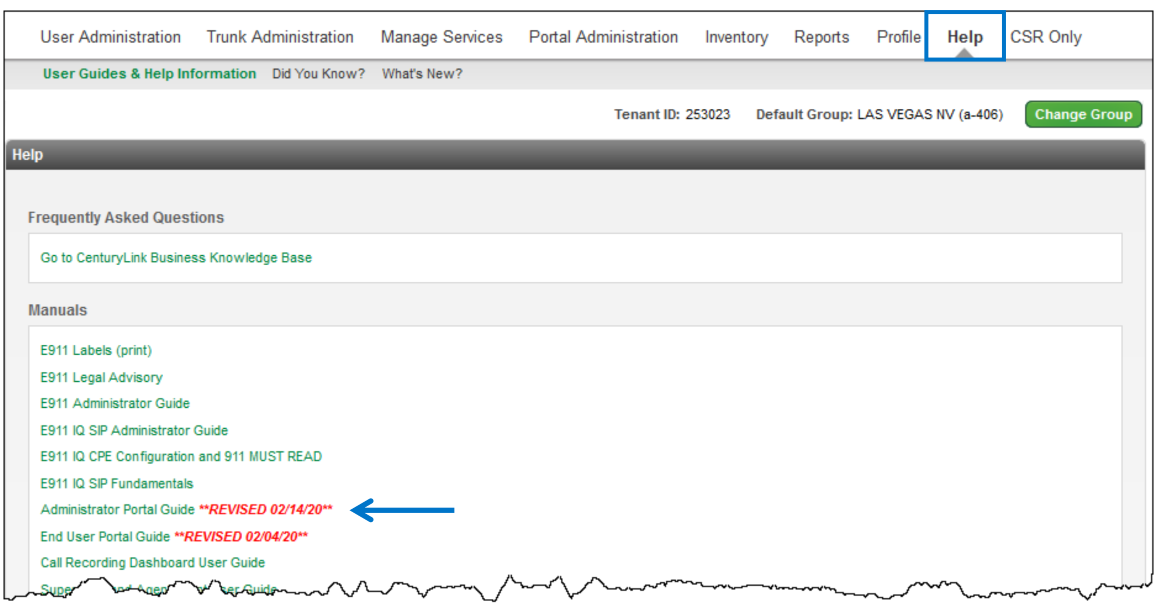
3. You'll be presented with a window stating you're being redirected to the **group caller ID** options under manage services.
4. Click the **go** button to proceed with your 911 modifications.



5. Change the group you want to manage, by selecting the group from the **select a group** dropdown box and click the **get** button.
6. Choose to make group settings such as **non-emergency calls** or **blocking calling name for external callers**.
7. Click the **save** button to save any feature changes.
8. Click the **update 911 information** button to change the address that is registered with emergency services.



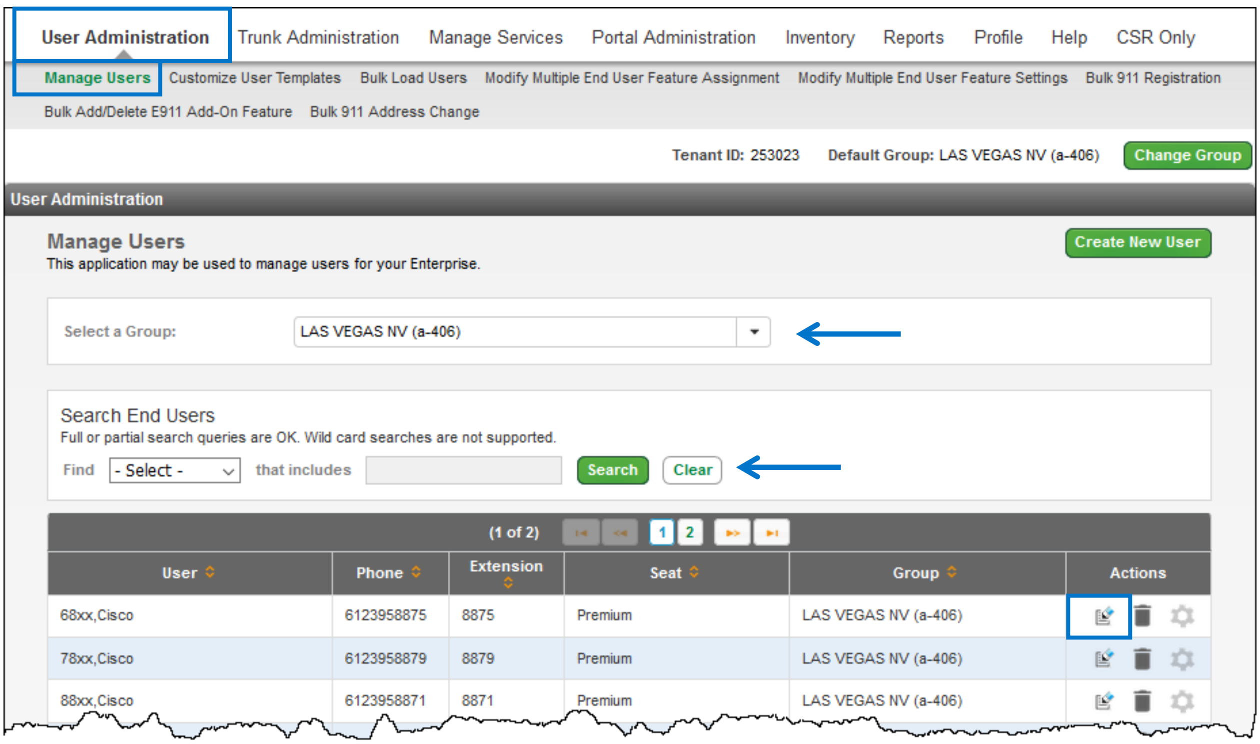
9. For full details on how to manage 911 locations and submit registration changes, refer to the administrator portal guide which can be found under **help** from the main menu.
10. The administrator portal guide is revised as portal enhancements are made and the revision date is changed to correspond to each release date.
11. Always refer to your portal for the latest version of the guide.



Managing and editing user features

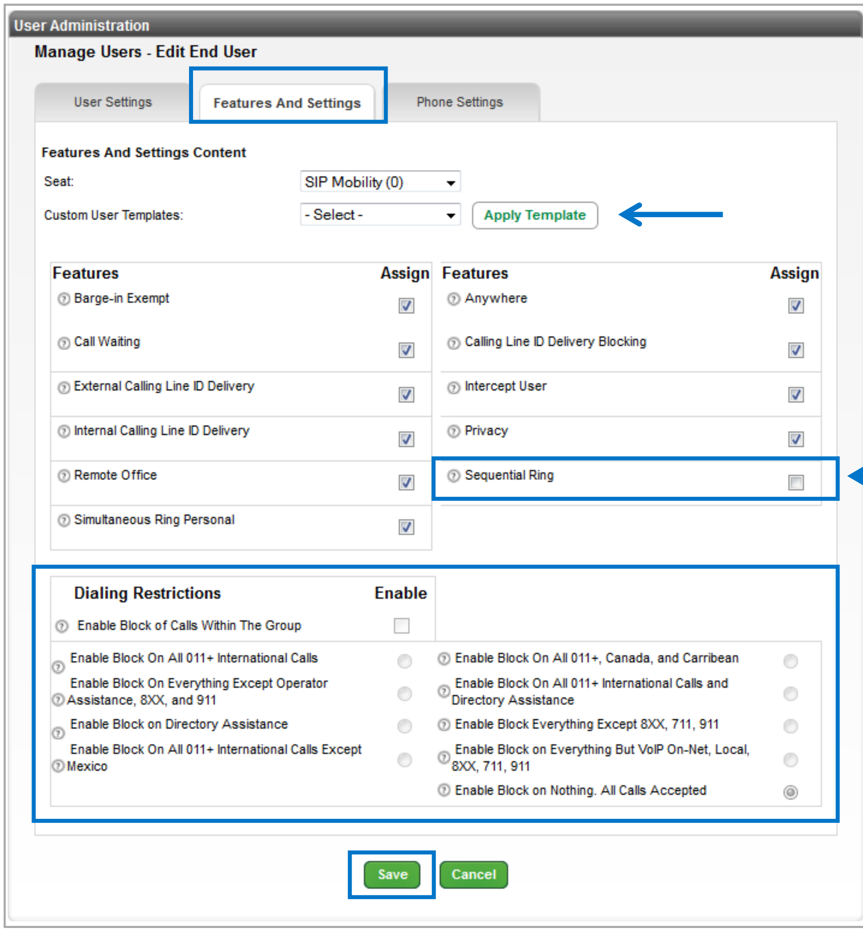
Features can be enabled/disabled for various features and functions associated to your end users, based on their seat type.

1. Click **user administration** from the main menu
2. Click **manage users** from the sub menu.
3. If you have multiple locations, select your location from the **select a group** dropdown box.
4. If you have several users in that group, use the search fields to narrow your search.
5. Click on **edit** for the user that you wish to manage.



12. Click the **features and settings** tab.
13. The type of features available to that user is based on the seat type.
14. If custom templates have been created, click the **custom user template** dropdown box and select the template you wish to assign to this user, and click the **apply template** button (optional).
15. By default, all features for that seat type are enabled; the administrator can disable any feature, per seat, by unchecking the check box for that feature.
16. **Dial restrictions** can also be changed based on the requirements of that user.
17. **Enable block on nothing, all calls accepted** is selected by default.

18. To change that setting, click the **radio** button for the dial plan appropriate for that user or seat type.
19. Click the **save** button.



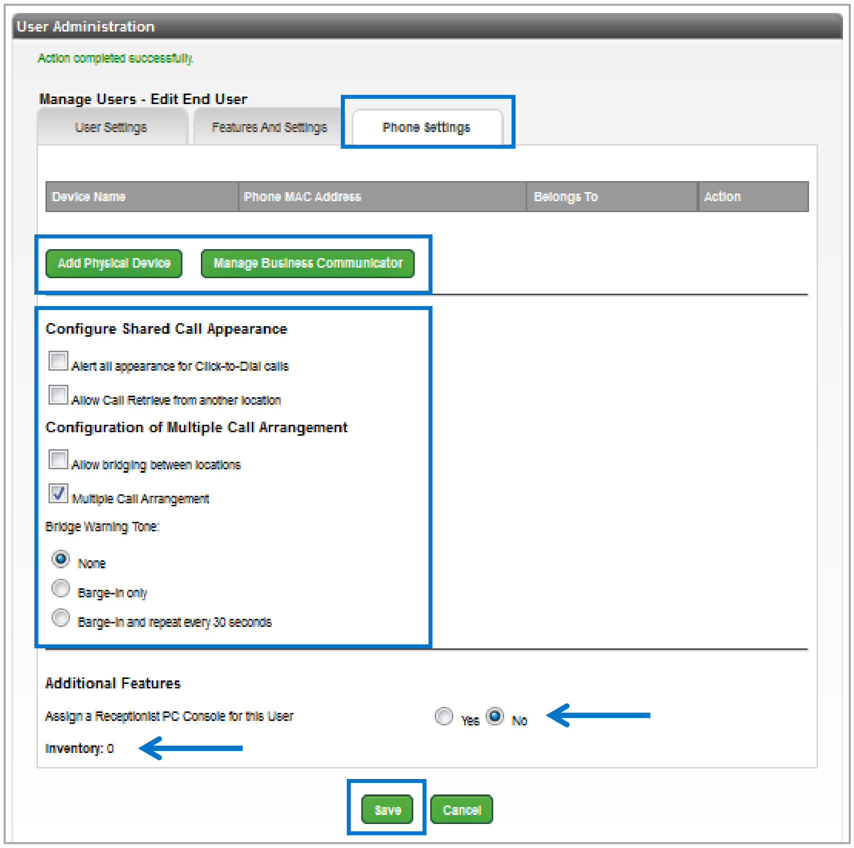
20. Click the **phone settings** tab.
21. Click the appropriate button to **add physical device** or **business communicator** softphone.
22. If you don't have softphones in inventory, you'll receive an error message that you need to order more.

PLEASE NOTE

Note: For details on adding/deleting and managing Business Communicator, refer to the administrator portal guide found under **help** from the main menu.

23. Make additional feature changes, including adding a **receptionist PC console** by clicking the **yes** radio button next to **assign a receptionist PC console for this user**.

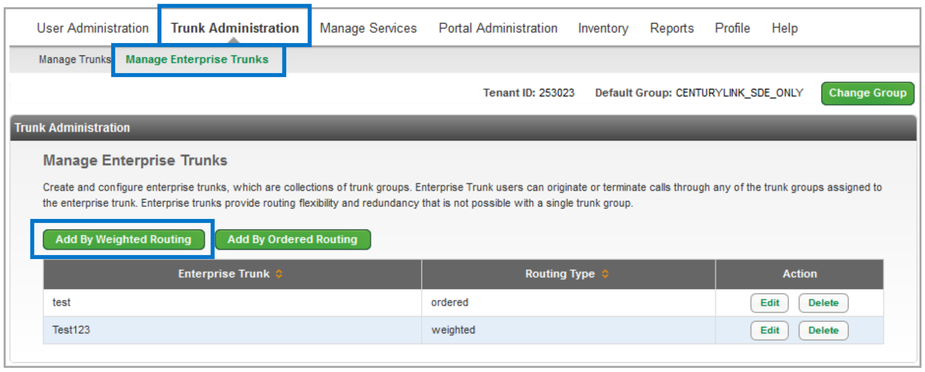
24. You can only assign this feature if one is available within inventory.
25. Click the **save** button.



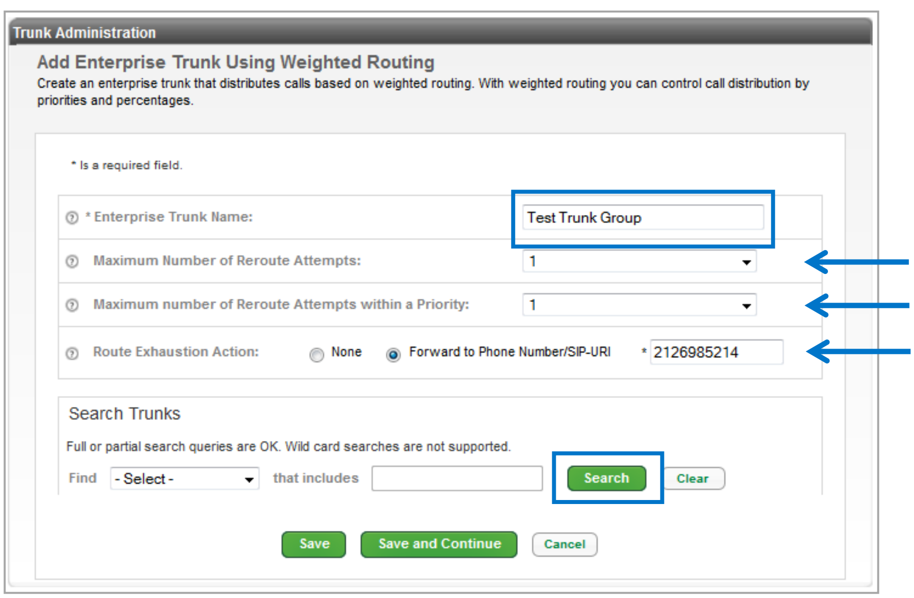
Manage enterprise trunks

Manage enterprise trunks allows you to create and configure enterprise trunks, which are collections of trunk groups. Enterprise trunk users can originate or terminate calls through any of the trunk groups assigned to the enterprise trunk. Enterprise trunks provide routing flexibility and redundancy that is not possible with a single trunk group.

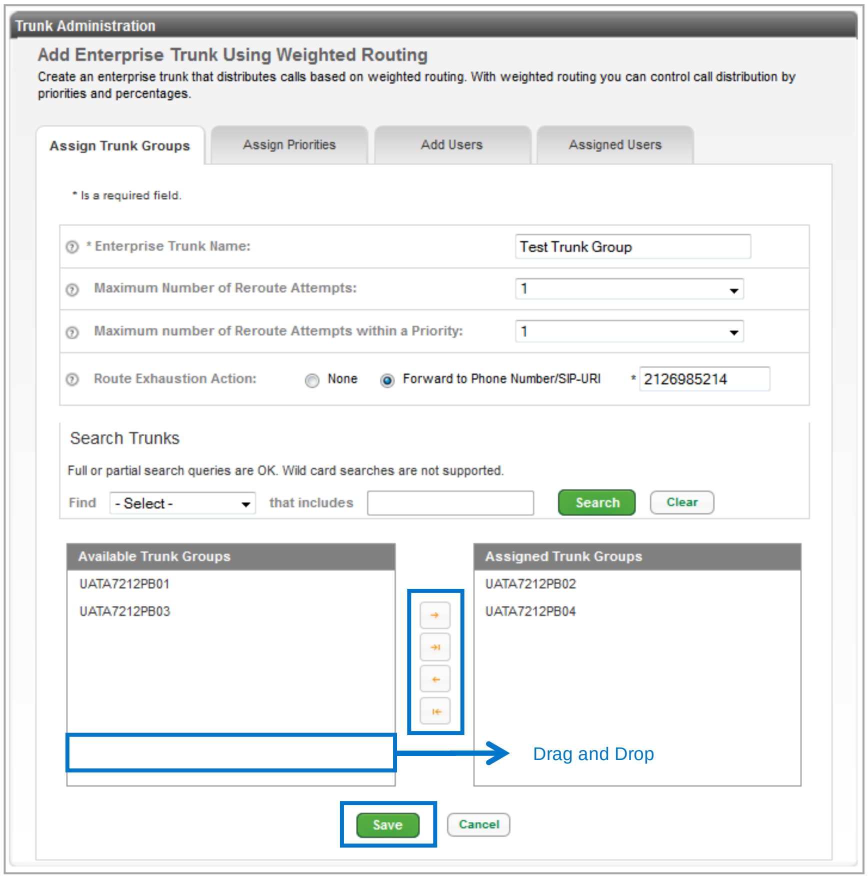
1. Click **trunk administration** from the main menu.
2. Click **manage enterprise trunks** from the sub menu.
3. Click the **add by weighted routing** button.



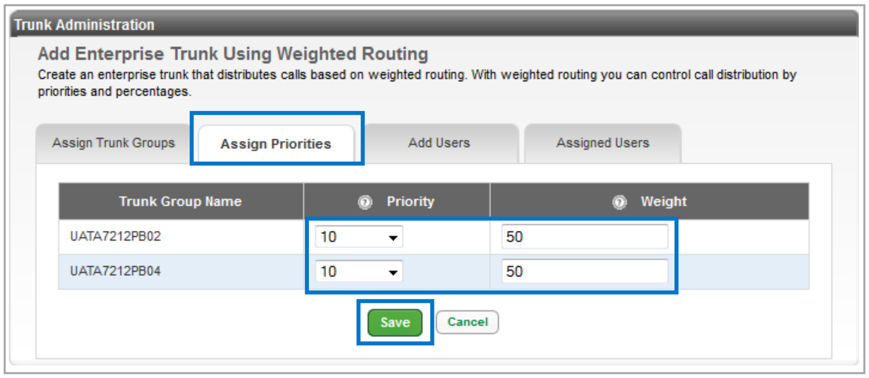
4. Enter a name for your trunk group in the **enterprise trunk name** field.
5. From the dropdown boxes, select the **maximum number of reroute attempts** and **maximum number of reroute attempts within a priority** from 1-3.
6. To activate a **route exhaustion action**, click the **forward to phone number/SIP URL** radio button.
7. This provides a field for you to input the **10-digit phone number**, or **SIP URL**.
8. Click the **search** button to list the trunks within that group.



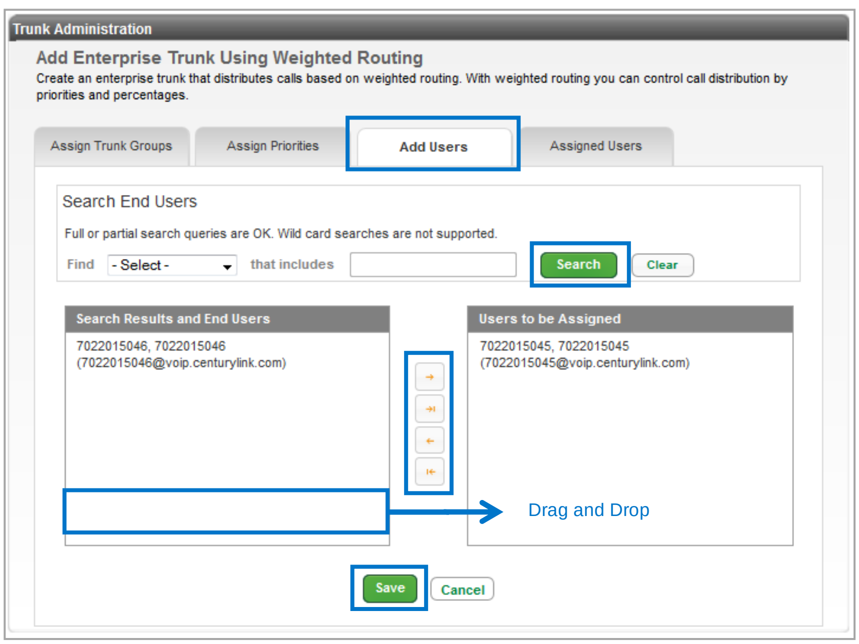
9. All trunks within that group are listed in the **available trunk group** field.
10. To apply these routing options to the appropriate trunk group(s), select the trunk group from the **available trunk groups** field, and drag and drop it to the **assigned trunk groups** field.
11. You can also highlight a trunk group in either field then use the arrow keys to move the group between fields.
12. Click the **save** button.



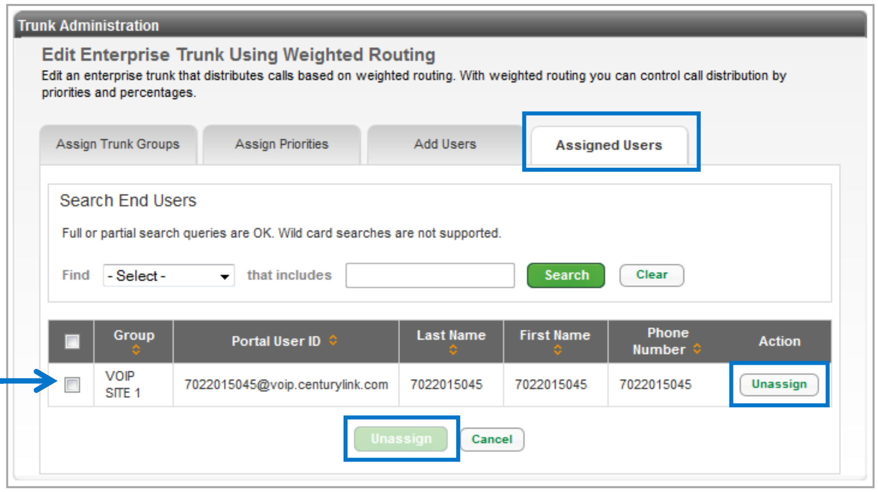
13. Click the **assign priorities** tab to distribute calls based on weighted routing.
14. Input a **priority** and **weight** in the appropriate field.
15. Hover over the "**?**" to read the parameters for **priority** and **weight**.
16. Click the **save** button.



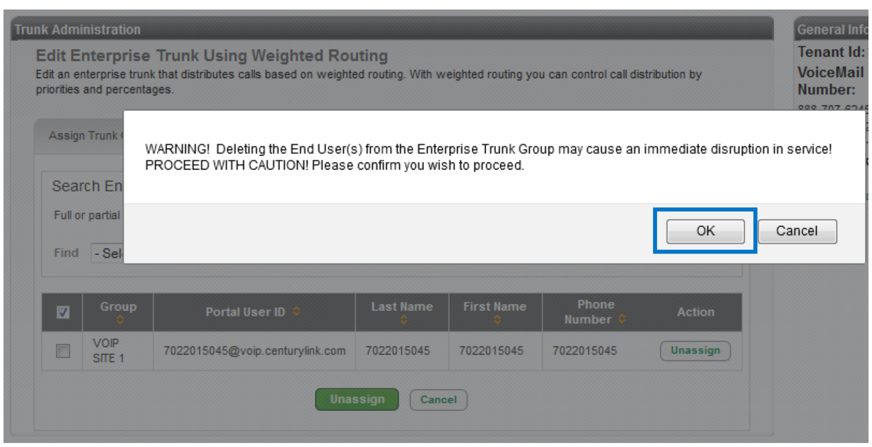
17. To add users to a trunk group, click the **add users** tab.
18. Click the **search** button.
19. All available users are listed in the **search results and end users** field.
20. Drag and drop users from the **search results and end users** field to the **users to be assigned** field.
21. You can also highlight a user in either field then move them between fields with the arrow keys.
22. Click the **save** button



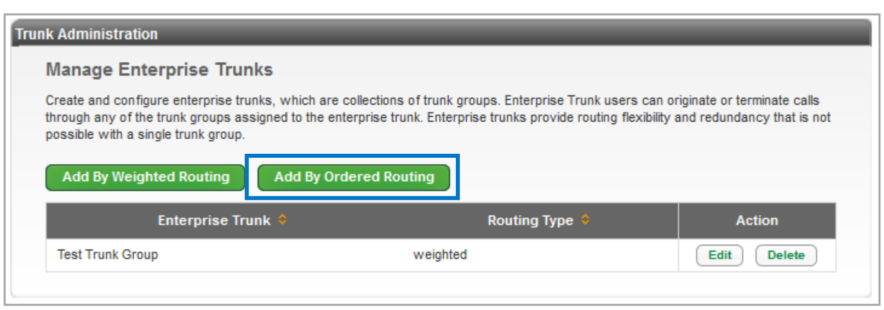
23. Click the **assigned users** tab, individuals added within add users, are listed here.
24. To unassign a user, click the **unassign** button next to a specific user, or click the check box next to multiple users, and click the **unassign** button at the bottom.



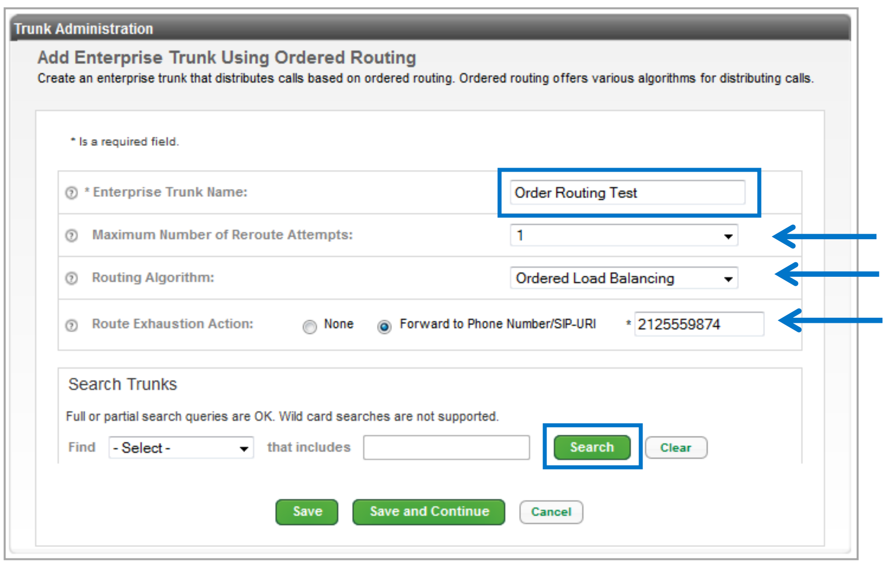
25. You receive a WARNING! indicating deleting a user may cause immediate disruption to service.
26. Click the **OK** button to proceed or click the **cancel** button.



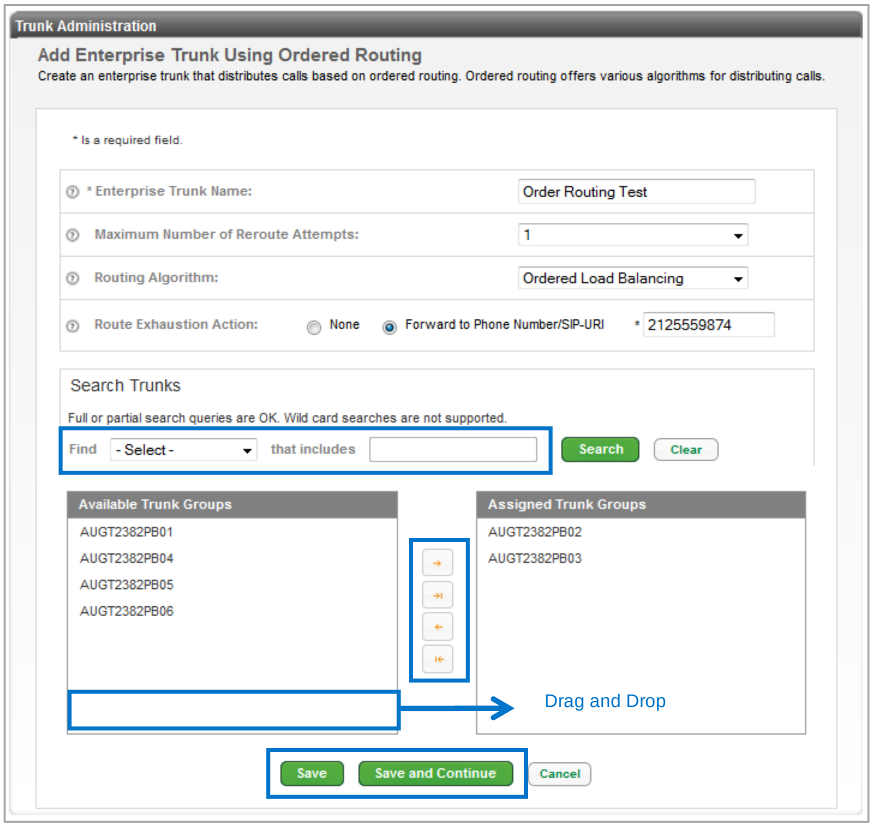
27. Click the **add by ordered routing** button to create an enterprise trunk that distributes calls based on various algorithms.



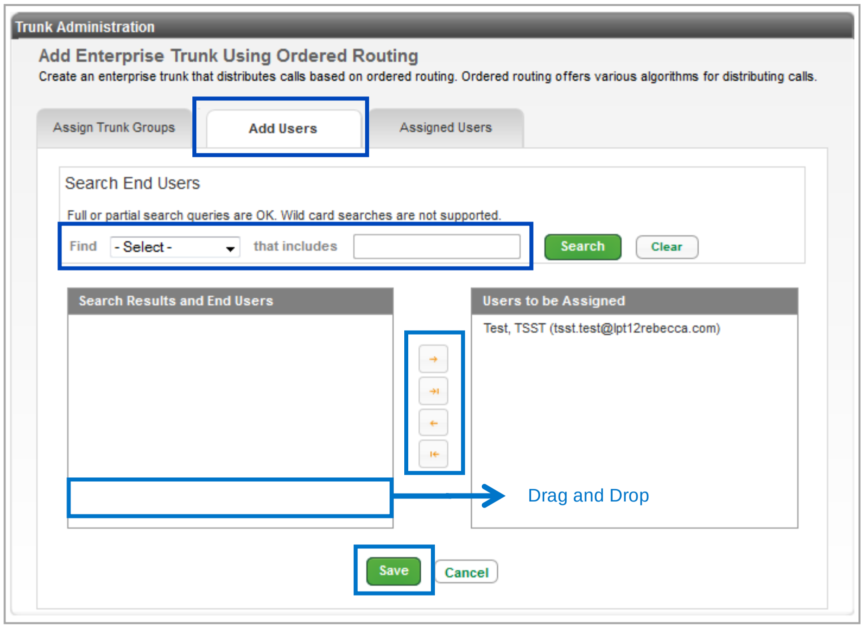
28. Enter a name for your ordered route in the **enterprise trunk name** field.
29. Select the **maximum number of reroute attempts** from the dropdown box.
30. Select the routing option from the **routing algorithm** dropdown box; hover of the "**?**" for a description of each option:
    - **Ordered load balancing** – the trunk groups are ordered and the application server selects each trunk group in turn following a round-robin algorithm
    - **Overflow** – the trunk groups are ordered and the application server selects the first trunk group
    - **Most idle** – the application server selects the trunk group that has the fewest number of current originating or terminating calls
    - **Least idle** – the application server selects the trunk group that has the greatest number of current originating or terminating calls
    - **Weighted overflow** – each trunk group has a priority and a weight; starting with the trunk groups that have the highest priority (the lowest numerical value), the application server selects a trunk group at the priority according to a weighted random pick
31. Select **none** for the **route exhaustion action** or click the **forward to phone number/SIP-URI** radio button and enter a valid number or SIP-URI in the field.
32. Click the **search** button.



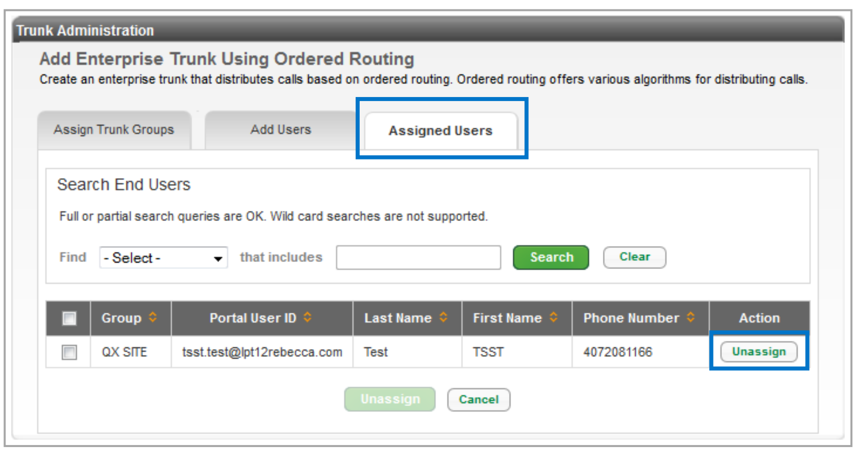
33. Find the trunk you wish to apply these setting to in the **available trunk group** field.
34. Remember, if you have several trunks within your enterprise, you can narrow that search by utilizing the **search trunks** field and search by trunk name, alias trunk name, or group. Enter your search or partial search in the "**that includes**" field and click the **search** button.
35. Drag and drop the appropriate trunk groups from the **available trunk groups** field to the **assigned trunk groups** field.
36. You can also highlight a trunk group in either field then move them between fields with the arrow keys.
37. Click the **save** button to save your settings and edit those changes at another time or click the **save and continue** button to continue programming your trunk groups.



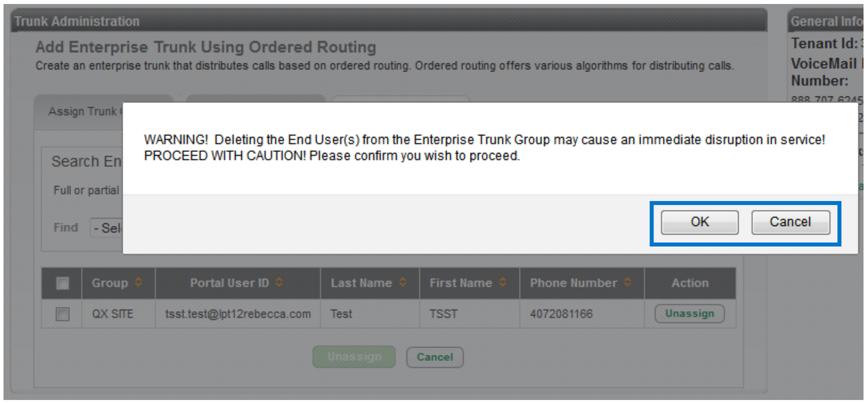
38. From the **add users** tab, click the **search** button to populate the list of users in the **search results and end users** field.
39. Drag and drop the appropriate users from the **search results and end users** field to the **users to be assigned** field.
40. You can also highlight a user in either field then move them between fields with the arrow keys.
41. Click the **save** button.



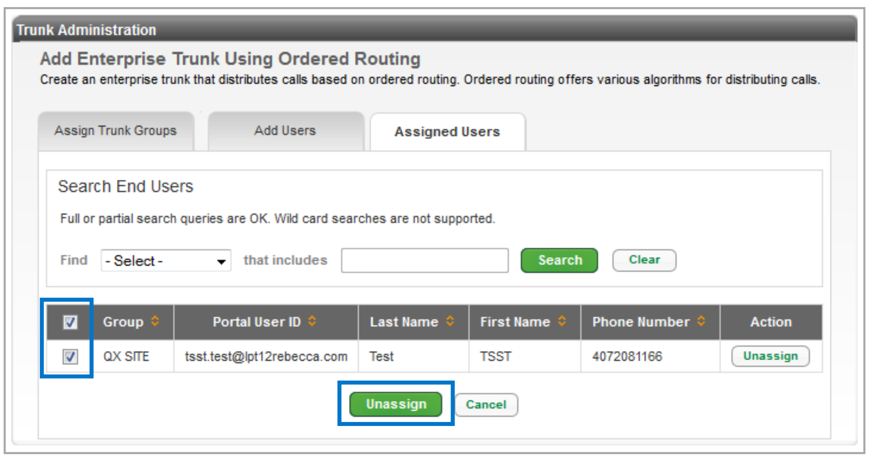
42. Click the **assigned users** tab.
43. The list of users assigned to that **enterprise trunk ordered routing** appears.
44. Click the **unassign** button to remove a user from the route.



45. A warning message appears stating that deleting users from and enterprise trunk group may disrupt service.
46. Click **OK** to continue with the unassignment or click the **cancel** button.



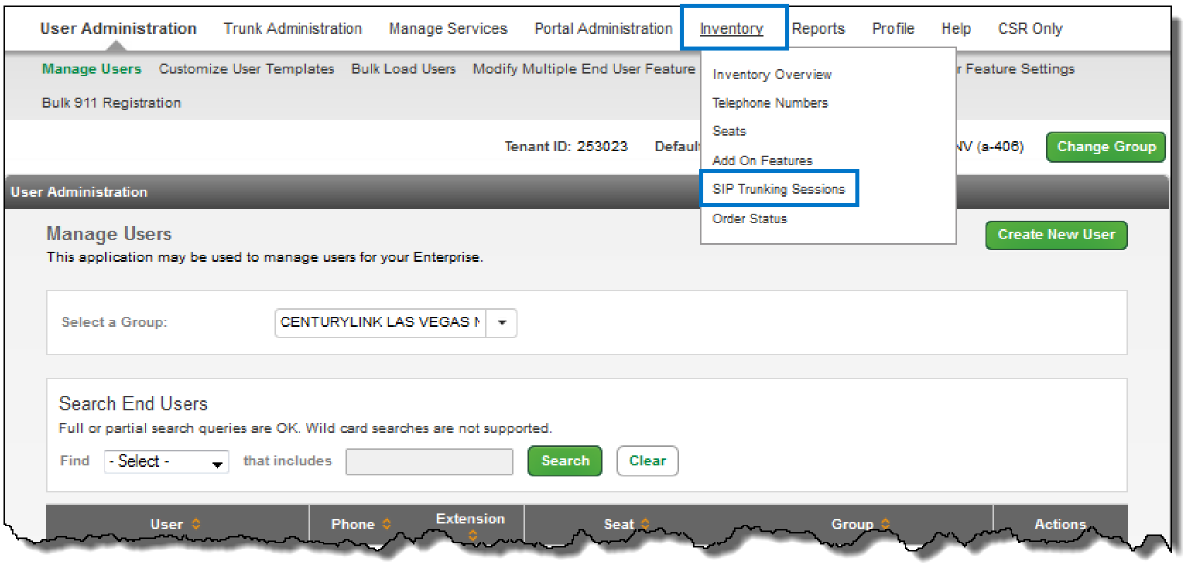
47. To unassign multiple users, click the **check box** in the column heading, or shift or ctrl-click to select the check box next to specific users.
48. Once all users are selected, click the **unassign** button.



Inventory

PLEASE NOTE !

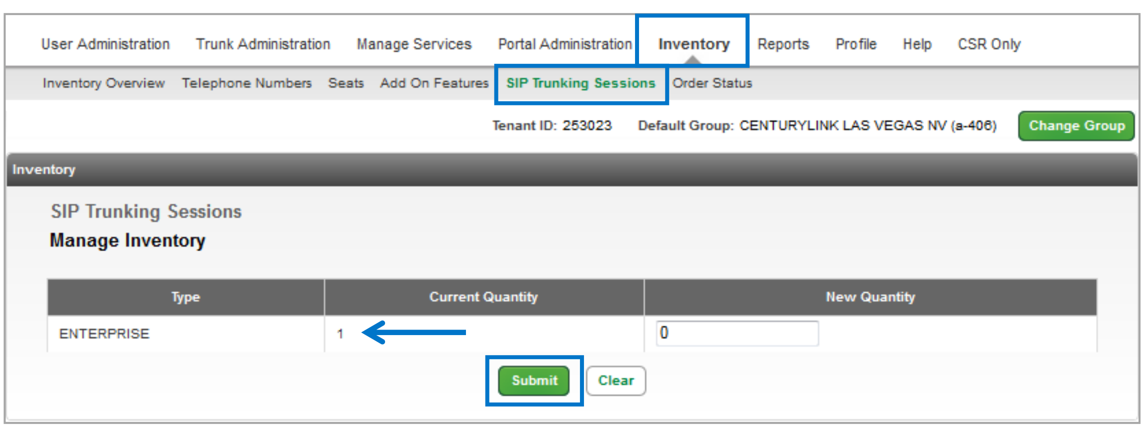
Note: If you don't have Lumen SIP trunking you won't see reference to SIP trunking sessions within the **inventory** section. For full details on the remaining **inventory** options, refer to the administrator portal guide.



SIP trunking sessions

SIP trunking sessions are synonymous with call paths. There are costs associated to adding sessions, refer to your contract for session pricing. When increasing your SIP sessions, also keep in mind the speed of your circuit. Overextending the number of sessions to exceed the capacity of your circuit, could be impactful to your voice quality.

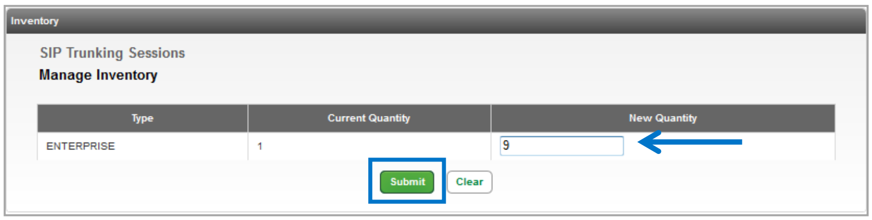
1. Click **inventory** from the main menu.
2. Click **SIP trunking sessions** from the sub menu.
3. Your current quantity of SIP sessions will be noted in the **current quantity** column.



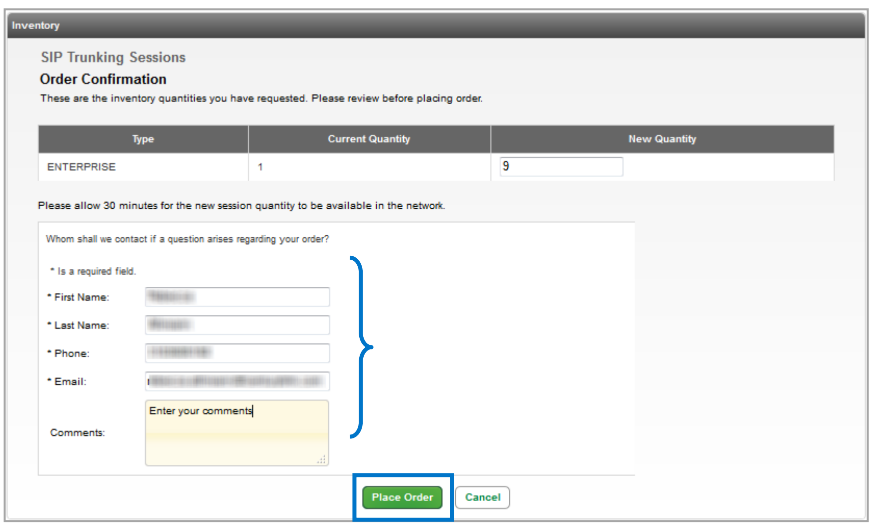
4. To modify the number of SIP Sessions, enter the new total in the **new quantity** field.

Note: The new quantity will be total sessions, not in addition to the current quantity.

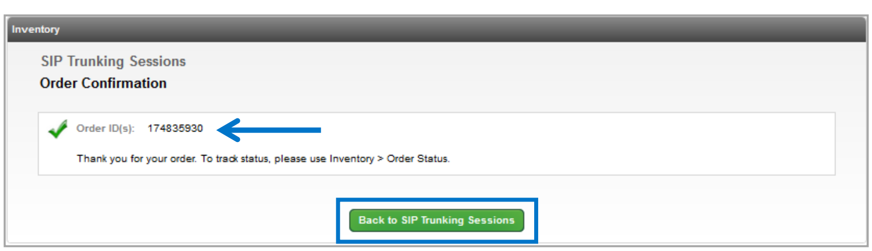
5. Click the **submit** button.



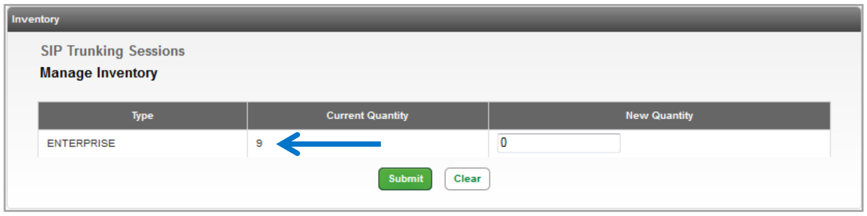
6. The information on the **order confirmation** screen pre-populates with the primary administrator's contact information.
7. Change information accordingly including any comments you wish to enter as pertains to this order.
8. An email confirming your order is sent to the email address entered in the **email** field. Another email will be received when the order is completed.
9. Press the **place order** button.



10. You'll receive an order confirmation including an **order ID** number.
11. Please allow at least **30 minutes** for your order to process.
12. Click the **back to SIP trunking sessions** button.



13. Return to SIP trunking sessions and observe your new quantity.



Help

Within **help**, you have access to various training tools and documents such as user guides, quick reference guides and short training decks.

1. Click **help** from the main menu.
2. Within the **help** page, you'll be able to find items such as **training documentation** and **user guides**.
3. Click the desired link to launch self-help documentation.
4. This feature will be continually updated as new features become available or are enhanced.