



Iridium Push-to-Talk Command Center Administrator Guide for Subscriber Organizations

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USING THE IRIDIUM PUSH-TO-TALK COMMAND CENTER

Iridium has developed this guide to assist you with using the PTT Command Center to manage your Push-to-Talk Service. The address for the Iridium Push-to-Talk Command Center is http://ptt.iridium.com.

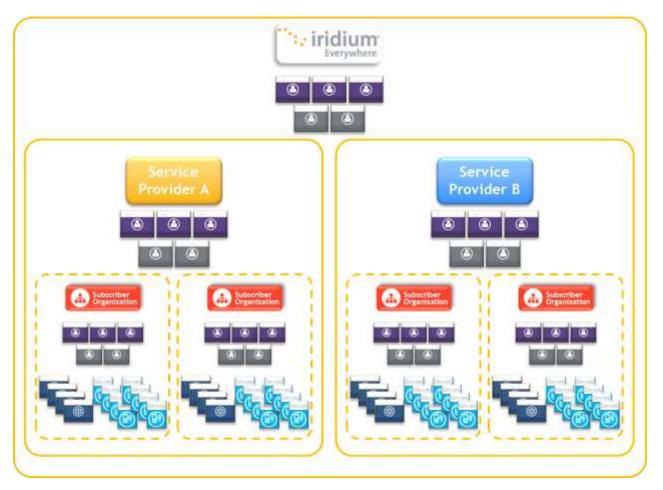
Any questions or feedback on the contents of this document may be directed to tier2support@iridium.com.

PTT COMMAND CENTER USER CREDENTIALS, HIERARCHY AND ROLES

The PTT Command Center is a tool for PTT Service Providers (SPs), their distributors and end customers to manage the configuration of their talkgroups and devices. The first step to understanding what the Iridium PTT Command Center can do is to become familiar with the terms below.

Term	Definition	lcon
SuperAdmin	Top level admin that manages Command Center Admins and can perform all configuration tasks.	Actividades (Constitution of the Constitution
Admin	Standard level admin that performs all configuration tasks but may not add new Admins to the Command Center.	
Subscriber Organization (SO)	The lowest level of the hierarchy and the entity where talkgroups and devices reside for PTT service. This is typically the level at which the end-user customer manages aspects of their PTT service.	Subscriber Organization
Talkgroups (TG)	Talkgroups are collection of devices authorized to communicate with each other within the defined geographic regions managed within the Command Center. Talkgroups are ordered by maximum geographic area permitted for allocation to the talkgroup's coverage.	
Devices	The handsets and other PTT devices ordered under a specific Subscriber Organization.	Devices

There are three levels of hierarchy within the Iridium PTT Command Center: the Iridium level, the Service Provider level and the Subscriber Organization level. The figure below illustrates this relationship.

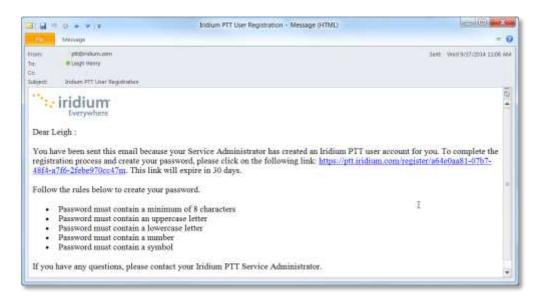


Each level (Iridium, Service Provider and Subscriber Organization) may have both Admin types. There can be no more than 25 administrators for a given entity. For example, Service Provider A can have up 25 Admin users. Each Subscriber Organization can have up to 25 Admin users.

The first Admin on a Subscriber Organization is set up by your Service Provider. Similar to example above, this user will be the initial SuperAdmin at the Subscriber Organization level and is granted top-level administrative access. The first SuperAdmin is responsible for the setup and management of the other Admin users at the Subscriber Organization level. All Admins at this level can see their Admins and the resources assigned to their account.

NEW ADMINISTRATOR REGISTRATION

The PTT Command Center Admin user name must be a valid e-mail address. When an Admin user is added to the PTT Command Center, an email invitation is generated and sent to the email address provided. The invitation contains a special validation link which takes the user to the portal to complete the registration process.





The new Admin must create a password following the <u>rules</u> provided and must and agree to the Terms of Use to complete registration.



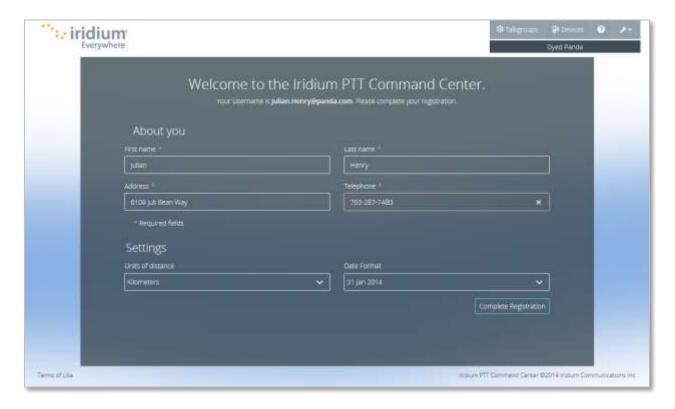
The next step is to login with the new credentials and complete the user profile. A registration confirmation email will be sent to the Admin.





FIRST LOGIN

The first time a new Admin logs into the PTT Command Center, he or she will be presented with the Welcome Screen. All fields marked with an asterisk (*) are required to complete the user profile. The Admin may also change the Units of distance and/or the Date Format on this screen. Note that any format of address and phone number is acceptable.



COMMAND CENTER NAVIGATION

TALKGROUP SUMMARY PAGE

The Talkgroup Summary page is the Subscriber Organization home page. Below is an example of the tile view. It provides a high-level display of the talkgroups and their defined regions.



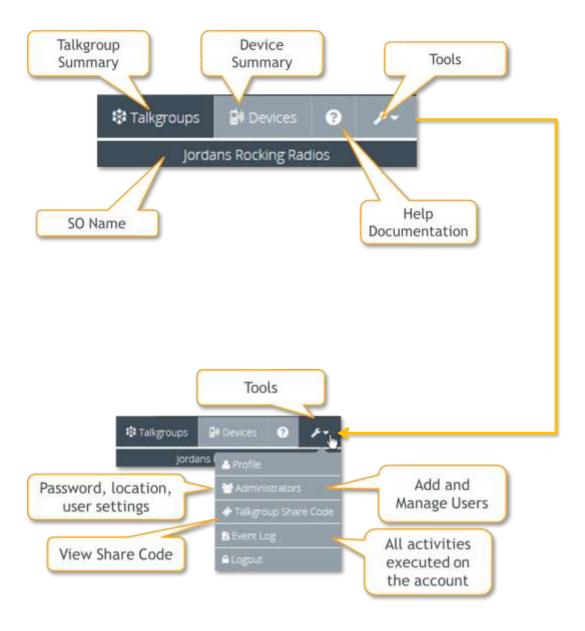
The Talkgroup summary is also available in a "table view" and a "world view". The table view is a simple list of the available talkgroups and their attributes. The user can toggle between these views using the icons shown.



The world view shows all the regions selected for all talkgroups in the account.



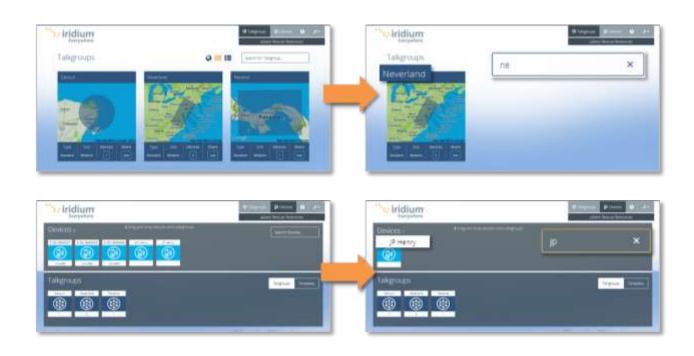
Upon a successful login, the user will see the main navigation bar is on the top right of the screen. The navigation bar with the "tools" displayed is shown below.



SEARCH

Robust *search* capabilities are available throughout the Iridium PTT Command Center. Search is "type-to-match" and results are immediately filtered based upon the characters entered in the Search box. The table below shows the fields that are examined in each section.

Section	Fields that are searched
Talkgroup Summary	Name, Type, Size
Device Summary	Name, IMEI, Device Status and Comments



TALKGROUPS

The Talkgroup is the most important element of the PTT Command Center. The Talkgroup defines the geographic area(s) where communication is enabled. PTT devices are added to talkgroups, permitting communication between the devices. Talkgroups are provisioned in the billing system and assigned to a Subscriber Organization by the Service Provider in SPNet Pro. They are then automatically added into the PTT Command Center where they are managed by the SP or the end-user.

TALKGROUP STATES

Talkgroups can have different states or statuses. Those that not fully configured or are in a share state are labeled for easy identification.

Incomplete

An incomplete talkgroup has no regions defined. It may or may not have devices.

Shared

A *shared* talkgroup is one that you have shared with another Subscriber Organization so they may communicate with your members.

Shared with you

A *shared with you* talkgroup is owned and shared by another Subscriber Organization so you may communicate with their members.

Downsized

A *downsized* talkgroup occurs when the talkgroup size is decreased in the billing system (e.g., medium to small) and the defined regions exceed the new size limitation. It will remain inactive until the regions are adjusted to fit the new talkgroup size limits.

SETTING UP A TALKGROUP - THE TALKGROUP ACTION BAR

Click on the Talkgroup tile to update its configuration. By default, a map will appear along with two navigation bars. The top right navigation provides a toggle between the Talkgroup and Device Summary screens. The bottom left Talkgroup Action Bar contains all the actions available for configuring a Talkgroup. Each is explained below.



TABLE VIEW



Opens a Table View of Talkgroup. Regions can be added and configured on this page using specific latitude and longitude coordinates. If the end user does not have access to Google Maps (e.g. blocked for security reasons), this view is used to create and manage talkgroup regions.

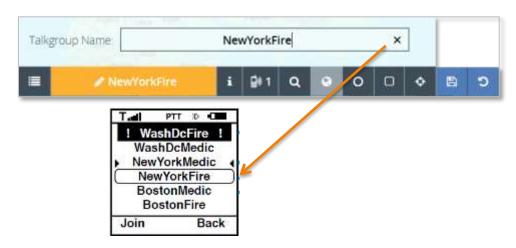


NAME



Click this button to name (or rename) the Talkgroup. This is the name that will appear in the device Talkgroup list. There is a limit of 12 characters.

BEST PRACTICE: Name the Talkgroup something descriptive that will help the end user easily identify it on their device. Stay away from generic names like TG1, TG2, etc. to minimize confusion in the field.



INFORMATION



Provides a summary of Type, Size, Total Area Used and Total Area Available. This is where to look if you need to know how much area is used and remaining within a Talkgroup.



DEVICES



Shows how many devices are associated with the talkgroup. It opens the Talkgroup Device Summary page where devices can be added, edited or removed.



SEARCH



Use the search button to zoom into a specific location or region on the map (e.g., France, Pennsylvania, Chicago, North Atlantic, etc.).



COPY GEOGRAPHY



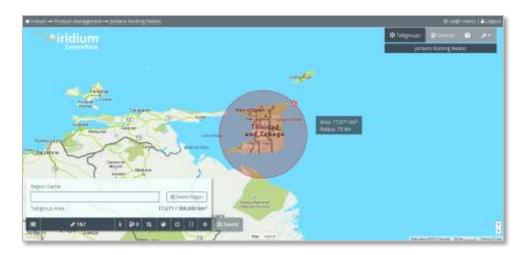
Offers an easy way to copy existing regions from one talkgroup to another. Be careful when using this feature because it will overwrite existing talkgroup settings.



CIRCULAR REGION



Places a circular geographic region with a default radius of 75 km on the map. A region can be moved by clicking inside the shape and dragging it to a new location. It can be resized by clicking on the small white arrow in the red circle and dragging it in or out to make it smaller or larger. A maximum number of 10 regions (size permitting) can be created within a single Talkgroup.



RECTANGULAR REGION



Places a rectangular region with a default length of 243 km and a default width of 150 km on the map. A region can be moved by clicking inside the shape and dragging it to a new location.

A region can be resized by clicking on the small white arrow in the red circle and dragging it in or out to make it smaller or larger. Rectangular regions can be rotated by clicking and dragging the rotation arrow.

A maximum number of 10 regions (size permitting) can be created within a single talkgroup.



AUTOFIT TO REGION



Zooms out (or in) to show all the regions defined in a talkgroup on one screen.

SAVE



Saves changes made to the Talkgroup.

UNDO



Reverses all changes made to the Talkgroup since the last time it was saved.

TIPS ON TALKGROUPS

- To delete a region from a talkgroup, click on it and then click on the **Delete Region** button on the Action Bar. Save the talkgroup.
- To name or re-name a region, click on the region and enter a name in the box provided on the Action Bar. Save the talkgroup.
- To name or re-name a talkgroup, go the talkgroup detail page. Click on the pencil on the Action Bar. Enter a name in the box provided. Save the talkgroup.

DEVICES

Devices, typically handsets or radios, use Talkgroups to communicate within a closed user community. Devices are provisioned in the billing system and assigned to a Subscriber Organization by the Service Provider in SPNet Pro. They are then automatically added into the PTT Command Center where they can be configured by the SP or the end-user.

DEVICE SUMMARY PAGE

This area in the Command Center shows the user all the devices and all of the talkgroups available to the Subscriber Organization. Devices can be dragged in and out of Talkgroups on an as need basis.

ADD DEVICES TO A TALKGROUP

To add one device to a talkgroup, click and drag the device down over the talkgroup tile and then release the mouse button. You will see the bottom of the screen change from displaying all available talkgroups to the one that was just updated. Save the talkgroup.



To add multiple devices to a talkgroup, hold down the shift key and click on the devices to be added; drag the group of devices down to the talkgroup tile and then release the mouse button. You will see the bottom of the screen change from displaying all available talkgroups to the one that was just updated. Save the talkgroup.

REMOVE DEVICES FROM A TALKGROUP

To remove one device from a talkgroup, click on the talkgroup tile to display its devices. Click and drag the device up to the Devices area and release the mouse button. The device will be added back to the device list and will be removed from the talkgroup. Save the talkgroup.



To remove multiple devices from a talkgroup, click on the talkgroup tile to display its devices. Hold down the shift key and click on the devices to be removed; drag the group of devices up to the Devices area and release the mouse button. The devices will be added back to the device list and will be removed from the talkgroup. Save the talkgroup.

DEVICE DETAIL PAGE

To edit the settings of a particular device, click the name area at the top of the tile. This will open the Device Detail page. The page is divided into three sections: *Device Detail*, *Device Talkgroups* and *Talkgroups*. All options configured here are sent to the device Over-the-Air (OTA) and are applied when the device registers on the Iridium network.





DEVICE DETAIL SECTION

NAME

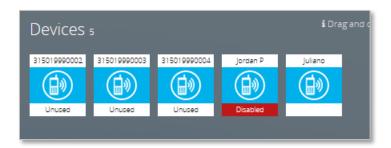
This is where the name of the device is entered. This name will appear to others in the same talkgroup when the user is speaking. If there is no assigned name, the last 12 digits of the IMEI will be used.

PRIORITY TALKGROUP

A Priority Talkgroup will always have priority over any other active talkgroup. For example, if there are 5 other active talkgroups and the Priority Talkgroup is invoked, it will always take the floor over the others. At least one Device Talkgroup must be available to assign a Priority Talkgroup.

DEVICE STATUS

Choices are enabled or disabled. Use this to temporarily disable the device on the network. You can easily tell from the device list when a device has been disabled.



COMMENTS

This is a freeform text area that is searchable. Use it to enter asset tags or any other information you may want to associate with a particular user or device.

SAVE AS DEVICE TEMPLATE

This is a great feature for applying the same settings to multiple devices at one time. Select the options for the device and then click on this button to save them as a template. To apply the template settings, multiple devices are selected and dropped on the template.

TALKGROUPS SECTION

These are all of the talkgroups that are available on the account.

DEVICE TALKGROUPS SECTION

The 15 circles in this section represent the 15 "talkgroup slots" on the device. Drag and Drop talkgroups from the lower portion of the screen onto the desired slot location. The order of the talkgroups here (1 through 15) determines the order they appear in the device's talkgroup list.

TIPS ON DEVICE DETAIL

- A talkgroup can be added to multiple slots (see PA below).
- Blank slots will not be displayed in the device. For example, if slots 1, 3, and 5 are assigned a talkgroup (see above), slots 2 and 4 will be ignored and will not appear blank in the device's talkgroup list.
- Dropping a talkgroup onto a slot that is already assigned will overwrite the assignment. It **does not** move the existing assignment to another available slot or shuffle it around.
- Drag Device Talkgroups out of the 15 circles/slots and back to the Talkgroup area to remove them from the device's talkgroup list
- To clear all the Device Talkgroups from the device, click on the x Clear Talkgroups button.



TEMPLATES

CREATING TEMPLATES

Templates are extremely useful for applying the same device settings to multiple devices at one time. Templates can be created two ways. A template can be created from an existing device configuration by clicking on the **Save As Device Template** button in the Device Detail (see <u>Save As Device Template</u>) or a new one can be created in the Templates area.

At the bottom of the Device Summary page, clicking on the **Templates** button will display the Templates summary.



Click on **+Create Template** to create a new template. Select the options to be copied to the devices, enter a new template name and save the template.



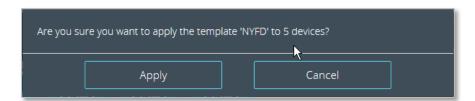
USING TEMPLATES TO CONFIGURE MULTIPLE DEVICES

At the bottom of the Device Summary page, click on the *Templates* button. This opens the Template summary.

At the top of the page, select the device or devices to be configured. Hold down the shift key and click on the devices to select multiple devices at one time.



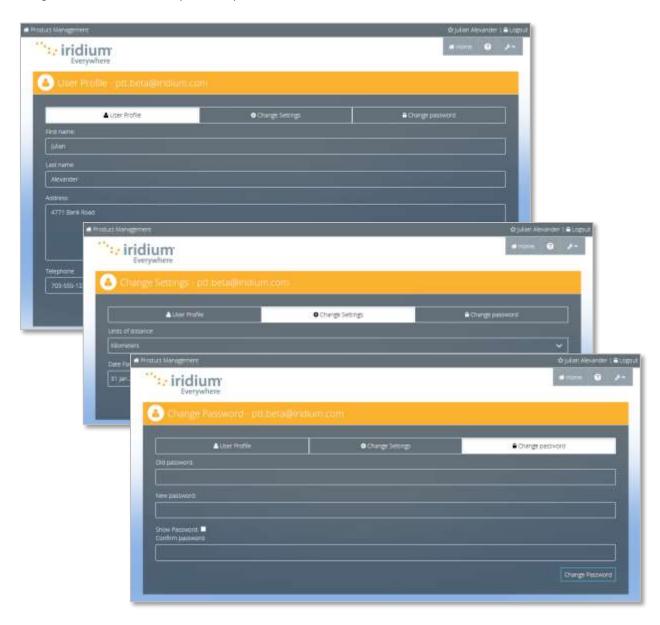
Drag the devices and drop them onto the desired template tile. A confirmation message will appear because this action will overwrite any existing settings on the devices you have selected. You must confirm that this is the desired action. To continue click the **Apply** button.



TOOLS

PROFILE

This is your personal profile where you can update your address, change distance format (kilometers or miles), change date format and reset your own password.



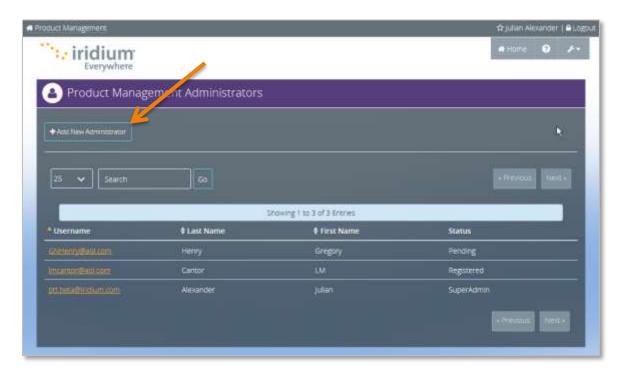


New passwords must follow the <u>rules</u> shown in <u>Appendix A</u>.

ADMINISTRATORS

VIEWING A LIST OF ADMINISTRATORS

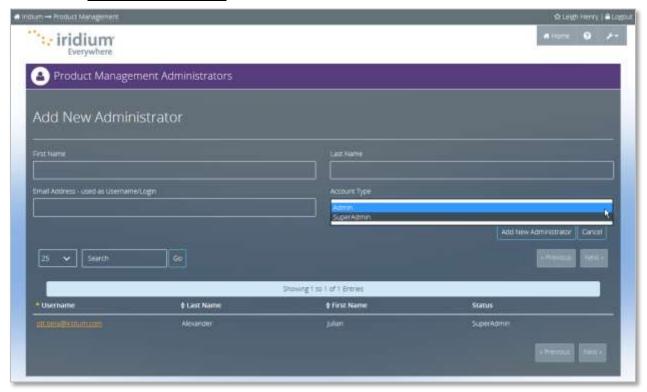
Each level of the PTT Command Center has an Administrator maintenance section. All Admin types can view the list of Admin users. Only SuperAdmin users have the +Add New Administrator button.



Admin Status	Definition/Description
Active	Fully registered Admin user
Pending	A newly added Admin or SuperAdmin who has not clicked on the email link.
Registered	A newly added Admin or SuperAdmin who has completed the first part of the registration
	process.
SuperAdmin	Fully registered SuperAdmin user.
Suspended	Suspended Admin or SuperAdmin user

ADD NEW ADMINISTRATOR

Clicking on the +Add New Administrator button will open the And New Administrator page. All fields are required.



When an Admin user is added to the PTT Command Center, an email invitation is generated and sent to the email address provided. The invitation contains a special validation link which takes the user to the portal to complete the registration process. If the link is not clicked within 30 days of the initial registration it will expire.

ADMINISTRATOR MANAGEMENT

Both Admin types have permission to view all administrator profiles on the account. Only SuperAdmin have permission to make changes to the profile information, reset a password, suspend or delete a user. Click on the Username to view an admin's profile details.

All information fields can be updated except the *Username*. If a new email address is required for a user, set up a new Admin and delete the old one.

CANCELLING AND RESENDING REGISTRATION INVITATIONS

If the email registration invitation is not received by the recipient or the 30-day registration window has been exceeded, the invitation can be resent. Click on the Username in the admin list to view the user's profile details.

To cancel a registration invitation, click on the **Cancel Invite** button. Confirm the status change.

To resend a registration invitation, click on the **Resend Invite** button. Confirm the status change.

To completely remove a registration invitation from the system, click the Delete button. Confirm the status change.



SUSPEND/UNSUSPEND/DELETE AN ADMIN USER

Click on the Username in the admin list to view the user's profile details.

To suspend an active user, click on the **Suspend** button. Confirm the status change. This will *temporarily* suspend the user's access to the system.

To unsuspend a suspended user and restore their access, click on the *Unsuspend* button. Confirm the status change.

To delete a suspended or unsuspended, user click the Delete button. . Confirm the status change.





Note: Deleting a user will completely remove the user from the system.

ADMIN PASSWORD RESET

Forgotten passwords can be easily be reset by the individual admin by clicking the 'Forgot your password?' link on the PTT login page. SuperAdministrators have the ability to perform a password reset on behalf of a user.

Click on the Username in the admin list to view the user's profile details.

To reset a user's password, click on the **Reset Password** button. Confirm the status change.

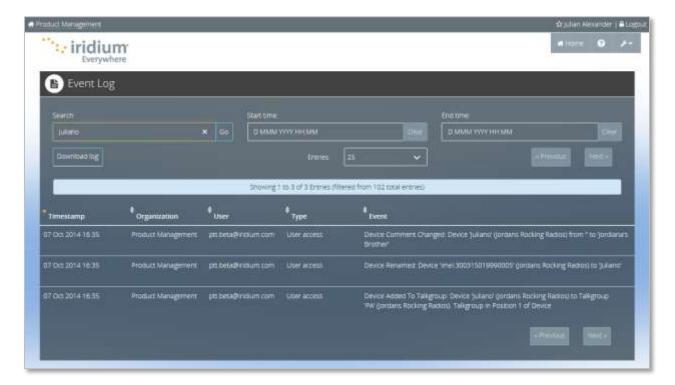
An email confirmation is generated and sent to the email address of the user. The confirmation contains a special validation link which takes the user to the portal to complete the password reset process. If the link is not clicked within 7 days of the password reset it will expire. The same password cannot be used.



EVENT LOG

The event log captures all administration activity for a rolling 90 days. This includes the addition, modification and deletion of Subscriber Organizations, talkgroups and devices.

Use the Search capability to filter the contents of the log. In the example below, there are a total of 102 entries in the log, but it is showing only the three that match the search "Juliano". The event log can be downloaded as a Comma Separated Value (CSV) file by clicking the **Download log** button.



ADVANCED SETTINGS

TALKGROUP SHARES

This feature enables Subscriber Organizations to share one or more talkgroups for a fixed period of time. Talkgroups can be shared between Subscriber Organizations under the same Service Provider or under different Service Providers. This capability has to be enabled by Iridium administrators.

The key premise is that the Subscriber Organizations who desire to share talkgroups have a working relationship outside of the boundaries of the Command Center. Each Subscriber Organization has a Talkgroup Share Code. If Subscriber Organization A would like to have access to a talkgroup owned by Subscriber Organization B, the Talkgroup Share Code is provided to B. This can be done by email or another means of communication outside of the Command Center. This allows the "sharing" Subscriber Organization to make their talkgroup available to the "receiving" Subscriber Organization that wants to use it for a period of time.

TALKGROUP SHARE CODE

This is an 8-character, consonant-only system generated code that never changes. If sharing has been enabled for the Subscriber Organization, the Share Code can be found by clicking on the **Tools** button in the upper right navigation bar and then selecting Talkgroup Share Code. The code will be displayed as illustrated below.



This code is provided to the "sharing" Subscriber Organization to authorize access to the talkgroup.

SHARING A TALKGROUP

From the Talkgroup Summary page, locate the talkgroup to be shared and click on the **Add** button under Share.



A box will appear to enter the Talkgroup Share Code of the Subscriber Organization that will receive sharing rights. The code is validated by the system and the name of the Subscriber Organization will appear. You can also enter the name of the Subscriber Organization if you have shared with that entity in the past.

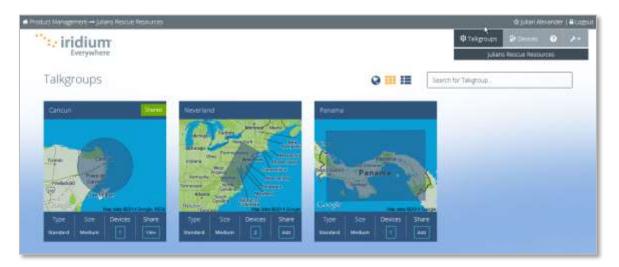


The "sharing" Subscriber Organization must specify a date that the share will begin, a date that the share will end and can specify the number of devices the other entity can add to the talkgroup. These settings can be updated at any time.

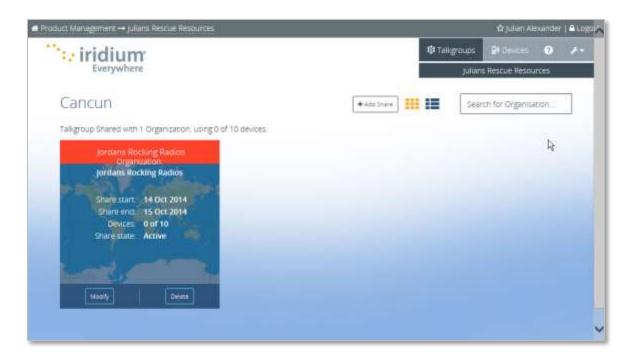


VIEWING SHARE DETAILS (TALKGROUP OWNER)

This is how a *Shared Talkgroup* will appear on the Talkgroup Summary page. To see and edit the details of the share, click the *View* button under Share.



Error! Reference source not found. shows the details of the share. This is where the Talkgroup owner can update the dates and the number of allowed devices in the share. The share can be deleted by clicking on the **Delete** button.



The screen below shows a Shared Talkgroup on the Device Summary page. Clicking on the name of the Shared Talkgroup will drill down into additional detail.

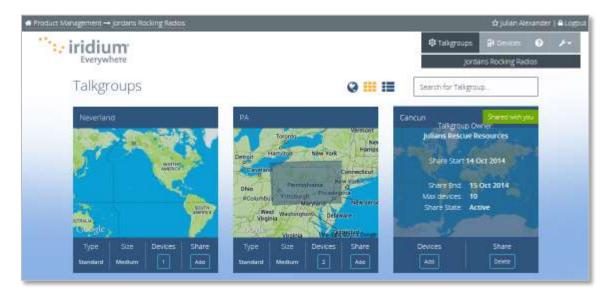


Shared Talkgroup details show the devices associated with the talkgroup, which Subscriber Organizations it is shared with, and the number of devices added by the other Subscriber Organizations.



VIEWING SHARE DETAILS (TALKGROUP SHARER)

This is how a 'Shared with you' Talkgroup appears on the Talkgroup Summary page. Devices are added to the share by clicking on the Add button.



The screen below illustrates a 'Shared with You Talkgroup' on the Device Summary page of a share recipient.



Shared Talkgroup details specify the name of the Talkgroup Owner, the devices that the Share Recipient has added to the Shared Talkgroup the number of devices assigned and the number of devices allowed.



APPENDIX A

PASSWORD CREATION RULES

Follow the rules below to create a password for the PTT Command Center. The password must contain:

- a minimum of 8 characters
- an uppercase letter
- a lowercase letter
- a number
- a symbol/special character (e.g., ! @ # \$ % & *)

When changing a password or resetting a lost/forgotten password, the system will not allow you to use any of your previous 9 passwords.