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IRIDIUM PTT

Push To Talk



1. PTT is a new way to use Iridium

Like LMR, UHF, VHF and MF radio services, Iridium PTT is meant to be used frequently. It is designed to allow customers to use Iridium PTT in their daily work routine as much as required without fear of high overage charges.

What do you need?

- Iridium 9575 PTT
(no Upgrade from
existing 9575)
- Talk group

2. How to operate?

- The user selects PTT mode from the menu – then ‘pushes’ the button ‘to talk’ to ALL the other users within a talk group
- The button can be depressed for a maximum of 20 seconds allowing that time to communicate your message.
- Using PTT does not require a SIM card, it will use the IMEI number of the device.
- Each device will support up to 15 Talk groups.
- The communication (which is AES256 encrypted) is transmitted across the existing Iridium satellite network.

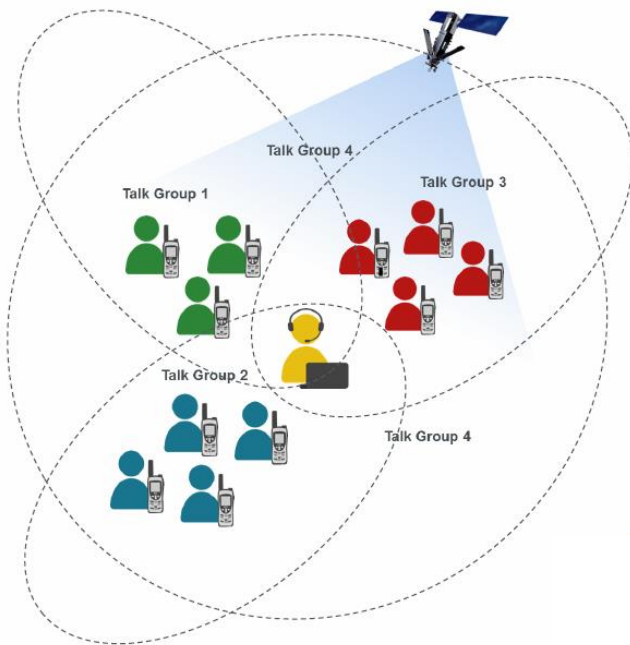
3. Talk groups / Shared Talk groups

- Circular or Square/Rectangular shaped coverage areas are created within the online ‘Command Centre’ by placing on to ‘Google’ maps & choosing your required size. Each shape is known as a ‘region’. A Talk group can consist of one large region or a maximum of 10 smaller regions.
- Circle - minimum region size - 75 KM radius / Maximum region size - up to chosen Talk group size
Square - minimum region size – 150 KM * 150 KM / Maximum region size - up to chosen Talk group size
- A Talk group can consist of one large region or a maximum of 10 smaller regions.
- A Talk group can consist of 10,000 devices, because PTT is a broadband service.

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- The "Trunking" concept inherent in the Iridium PTT service allows a large number of users to share Talk groups.
- Global, Federal and Regional agencies and organizations can respond to events such as emergencies and share Talk groups to communicate.
- Each device supports up to 15 Talk groups.

4. PTT pricing has two monthly fees

4.1.

Phone Charges

- Phones are charged a flat monthly fee regardless of the number of Talk groups defined for the phone or the total usage of that individual phone
- Customers can also add standard voice plans to a PTT phone for an additional fee.

4.2. Talk Group Charges

- Customers purchase a Talk group on a monthly fee, based on the size of the geography they want covered. See matrix below. Larger areas are available but unpublished. They will be discussed for specific partner opportunities
- Each Talk group can have up to 10 separate regions or could be one large region

| Talkgroup PTT Area | Area (km ²) | Aproximate Geografic Coverage | Diameter (km) |
|-----------------------|----------------------------|----------------------------------|------------------|
| Small | 100,000 | Iceland, S. Korea, Kentucky | 360 |
| Medium | 300,000 | Italy, Poland, Arizona | 620 |
| Large | 750,000 | Turkey, Chile, Texas | 980 |
| X-Large | 1,500,000 | | |
| Super | 2,250,000 | | |

Note: See next pages for illustrated sized of Small, Medium and Large Talk groups

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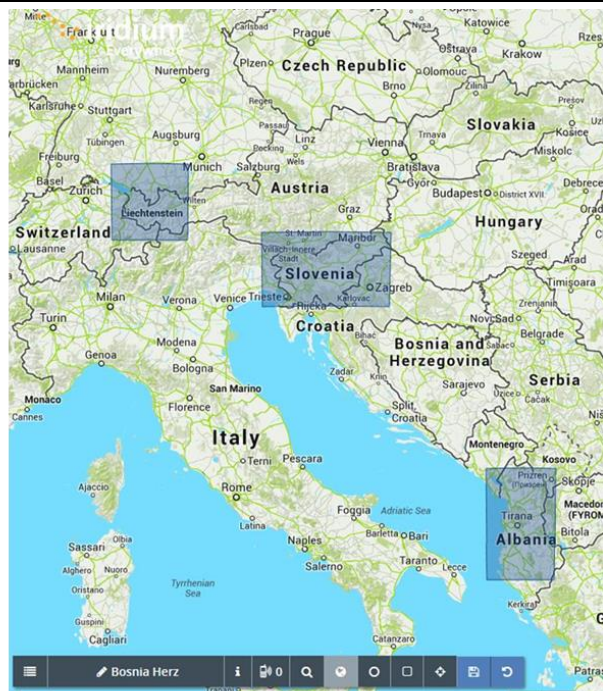
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5. Small Talk group: Up to 100,000 km²



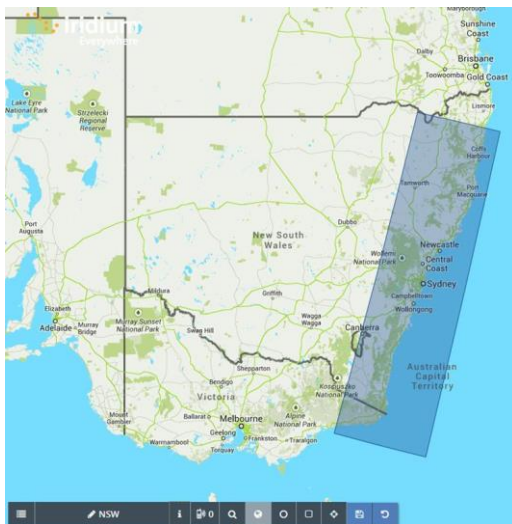
One Region



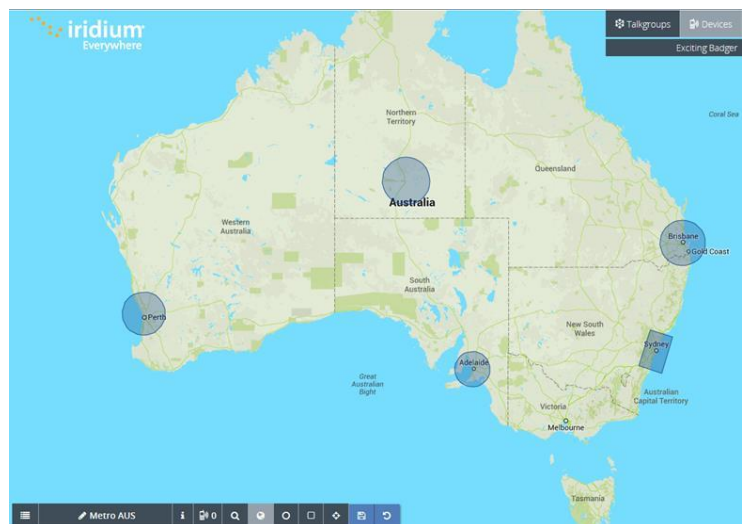
Three Regions

Illustration purposes only: Talk group can be one large region or up to ten smaller regions. This example shows three smaller regions.

6. Medium Talk group: Up to 300,000 km²



One Region



Five Regions

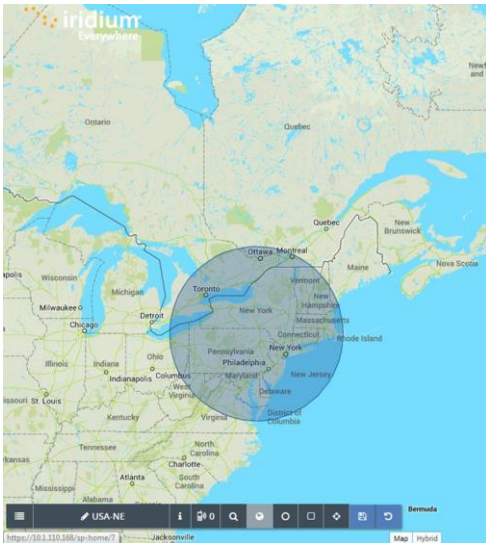
Illustration purposes only: Talk group can be one large region or up to ten smaller regions. This example shows five smaller regions.

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7. Large Talk group: Up to 750,000 km²



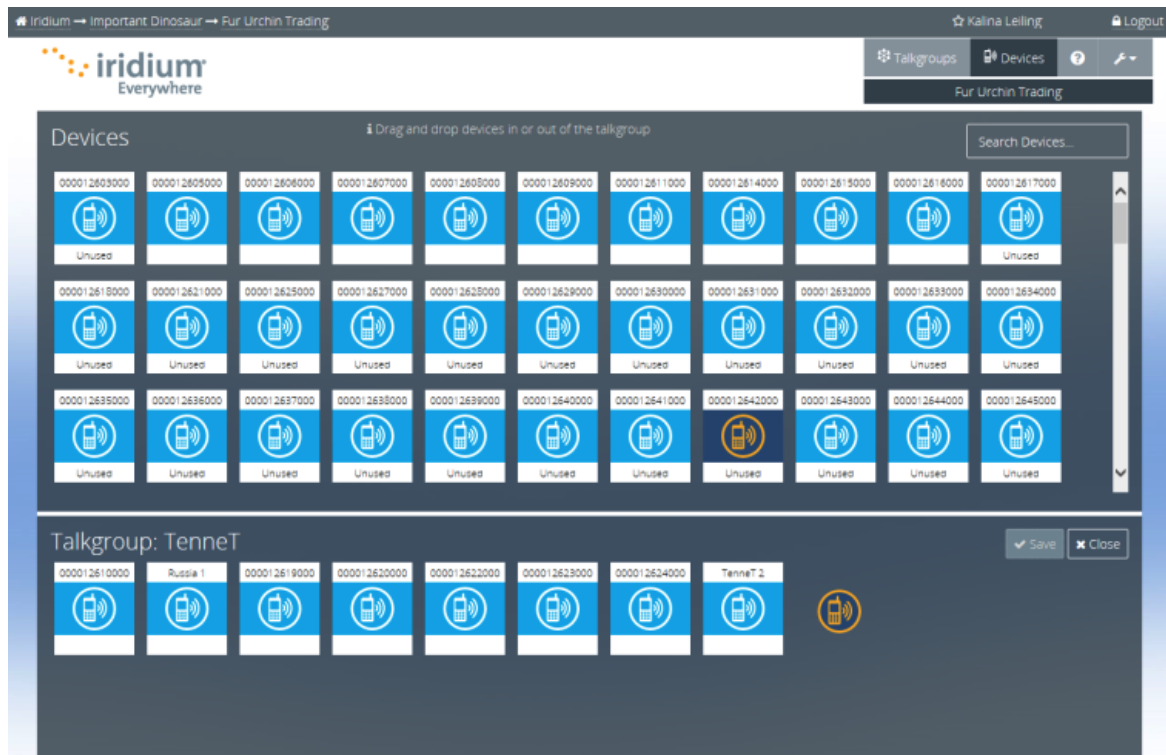
One Region



Ten Regions

Illustration purposes only: Talk group can be one large region or up to ten smaller regions. This example shows ten smaller regions.

After activating your Talk group/s provisioning is set up by you in the Iridium PTT–online command centre. This process is quick and simple to follow using 'Drag & Drop' configuration, with fast operation and real time changes.



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8. PTT Pricing Elements

Handset and Talk group charges are assessed separately.

8.1. Handset Monthly Fees

- Minimum contract period 3 month in tariff plan Global: \$122 which provides unlimited usage of handset for PTT Talk groups.
There are no per-handset usage charges for PTT
- Or with a minimum contract period of 12 month in tariff plan Global: \$82 which provides unlimited usage of handset for PTT Talk groups. There are no per-handset usage charges for PTT
- Minimum contract period 1 month in tariff plan Middle East: \$122.
- Using the Iridium 9575 PTT customers can add on a standard voice plan with current Iridium voice rates, see Appendix A.

8.2. Talk group Charges

- Based on size of Talk group geography and usage as defined on the previous page
- Usage, calculated in minutes, is defined by the total monthly use of a talk group. In CDR's (CallDataRecord) there is no breakdown to the device level.
- Pricing for additional usage and larger talk group areas increases based on geography size and minute bundles
- Overage rates increase as the Talk group size increases due to the increase in network resources used
- The tariff plan Global is having a minimum contract period of 3 calendar month, the tariff plan Middle East of one calendar month.

| Global | Monthly Usage Allowance (minutes) | |
|-------------------|---|---|
| Size of Talkgroup | Unlimited | |
| <i>Small</i> | \$ 0 for 5 or more devices in a talkgroup | \$80 for 4 or less devices in a talkgroup |
| <i>Medium</i> | \$ 80 | |
| <i>Large</i> | \$ 480 | |
| <i>X-Large</i> | \$ 1,150 | |
| <i>Super</i> | \$ 2,500 | |

| Middle East | Monthly Usage Allowance (minutes) | | | Overage (\$/ min) |
|--------------------|-----------------------------------|----------|-----------|-------------------|
| Size of Talkgroup | 600 | 6.000 | Unlimited | |
| <i>Small</i> | \$ 160 | \$ 440 | \$ 520 | \$ 0.38 |
| <i>Medium</i> | | \$ 880 | \$ 1,000 | \$ 0.58 |
| <i>Large</i> | | \$ 2,160 | \$ 2,400 | \$ 1.44 |
| <i>X-Large</i> | | | \$ 5,600 | |
| <i>Super</i> | | | \$ 12,800 | |

Definition of Middle East Region, see Appendix B

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Billing increment is 20 seconds. Prices are without VAT. You can buy more than one Talk group if need, eg. 2x Small = 200,000 km²

8.3. Talk group sessions cumulative timing

| | |
|------------------------------------|--|
| Session billing increment: | 20 seconds |
| max. talk time per device/ person: | 20 sec then floor is automatically opened to others |
| max. session time: | no limit |

| | |
|-------------|-------------------------------------|
| 1 session = | talktime(s) |
| | + pause time(s) |
| | +10 sec hang up |
| <hr/> | |
| | = usage sum |
| | rounded up to next 20 sec increment |
| | <u>= billing total sum,</u> |

Example 1

| | |
|---|----------------------|
| Handset 1 initiates session | 0 sec |
| Handset 1 speaks 5 sec | 5 sec |
| <u>no other speakers, session release</u> | <u>10 sec</u> |
| sum | 15 sec |
| <u>total rounded up and billed</u> | <u>20 sec</u> |

Example 2

| | |
|---|----------------------|
| Handset 1 initiates session | 0 sec |
| Handset 1 speaks 5 sec | 5 sec |
| Pause | 2 sec |
| Handset 2 speaks 5 sec | 5 sec |
| <u>no other speakers, session release</u> | <u>10 sec</u> |
| sum | 22 sec |
| <u>total rounded up and billed</u> | <u>40 sec</u> |

9. Example Pricing Scenarios with a minimum contract period of 12 month

| | Firefighters | Police | Disaster Recovery |
|---------------------------------------|--------------|-----------|-------------------|
| Handsets | 50 | 10 | 100 |
| Handset | \$ 82 | \$ 82 | \$ 82 |
| Monthly Handset Charges | \$4,100 | \$ 820 | \$ 8,200 |
| Talk group 1 with more than 5 devices | | | |
| Size | Small | Small | Unlimited |
| Usage | Unlimited | Unlimited | 600 |
| Monthly Charges Talk group 1 | \$ 0 | \$ 0 | \$ 0 |
| Talk group 2 with 4 devices | | | |
| Size | Small | Medium | Large |
| Usage | Unlimited | Unlimited | Unlimited |
| Monthly Charges Talk group 2 | \$ 0 | \$ 80 | \$ 480 |
| Talk group 3 with more than 5 devices | | | |
| Size | Medium | N/A | N/A |
| Usage | Unlimited | | |
| Monthly Charges Talk group 3 | \$ 0 | | |
| Total Talk group Cost | \$ 0 | \$ 80 | \$ 480 |
| Total Handset and Talk group Costs | \$ 4,100 | \$ 900 | \$ 8,680 |
| Average Cost per handset / month | \$ 82.00 | \$ 90.00 | \$ 86.80 |

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10. Example Pricing Scenarios with a minimum contract period of 3 month

| | Firefighters | Police | Disaster Recovery |
|---|------------------|------------------|-------------------|
| Handsets | 50 | 10 | 100 |
| Handset | \$ 122 | \$ 122 | \$ 122 |
| Monthly Handset Charges | \$6,100 | \$ 1,220 | \$ 12,200 |
| Talk group 1 with more than 5 devices | | | |
| Size | Small | Small | Small |
| Usage | Unlimited | Unlimited | Unlimited |
| Monthly Charges Talk group 1 | \$ 0 | \$ 0 | \$ 0 |
| Talk group 2 with 4 devices | | | |
| Size | Small | Medium | Large |
| Usage | Unlimited | Unlimited | Unlimited |
| Monthly Charges Talk group 2 | \$ 0 | \$ 80 | \$ 480 |
| Talk group 3 with more than 5 devices | | | |
| Size | Medium | N/A | N/A |
| Usage | Unlimited | | |
| Monthly Charges Talk group 3 | \$ 0 | | |
| Total Talk group Cost | \$ 0 | \$ 80 | \$ 480 |
| Total Handset and Talk group Costs | \$ 6,100 | \$ 1,300 | \$ 12,680 |
| Average Cost per handset / month | \$ 122.00 | \$ 130.00 | \$ 126.80 |

Prices without VAT

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Appendix A

| Iridium Postpaid Tariffs | Price in US\$ |
|---|-----------------|
| Activation fee | \$20,00 |
| Deactivation fee | \$0,00 |
| Voice Mailbox, incoming calls and SMS | \$0,00 |
| Monthly fee for tariff plan Global | \$37,00 |
| Monthly fee for tariff plan Middle East | \$54,00 |
| Calls to fixed and cell phones | \$1,60 / Minute |
| Voice call to Iridium | \$0,90 / Minute |
| Data call to Iridium (Direct Internet) / Fixed | \$1,60 / Minute |
| Iridium RUDICS data call (Circuit Switched) | \$1,60 / Minute |
| Checking Voicemail | \$0,90 / Minute |
| Calls to other satellite networks | \$9,95 / Minute |
| Sending SMS | \$0,50 / SMS |
| Incoming calls via "Iridium 2 stage dialing access" | \$1,80 / Minute |

Billing increment is 20 seconds.

Appendix B

Middle East Region

| LAC | Country | Region | LAC | Country | Region | LAC | Country | Region |
|-------|--------------------------------|----------------------|-------|--------------------------------|---------------------|-------|----------------------------|---------------|
| 22623 | Afghanistan (Islamic State of) | Quandahar | 6195 | Gaza Strip | Gaza Strip | 22704 | Turkey | Erzurum |
| 22627 | Jordan (Hashemite Kingdom of) | Al Balqa' | 6611 | Israel (State of) | Hazafon | 22705 | Turkey | Tokat |
| 22632 | Saudi Arabia (Kingdom of) | Al Qurayyat | 6612 | Israel (State of) | Hefa | 22719 | Turkey | Isparta |
| 22647 | Egypt (Arab Republic of) | Al Qahirah | 6613 | Israel (State of) | Hamerkaz | 23101 | Turkey | Cankiri |
| 22652 | Saudi Arabia (Kingdom of) | Ha'il | 6614 | Israel (State of) | Tel Aviv | 23113 | Turkey | Canakkale |
| 22653 | Kuwait (State of) | Al Kuwayt | 6615 | Israel (State of) | Hadarom | 23122 | Turkey | Diyarbakir |
| 22658 | Saudi Arabia (Kingdom of) | Ar Riyad | 6616 | Israel (State of) | Yerushalayim | 23130 | Turkey | Aydin |
| 22662 | Oman (Sultanate of) | Musandam | 6635 | West Bank | West Bank | 23134 | Turkey | Icel |
| 22664 | Bahrain (State of) | Al Mintaqah al Wusta | 22557 | Iran (Islamic Republic of) | Khorasan | 23151 | Iran (Islamic Republic of) | Tehran |
| 22666 | Qatar (State of) | Ash Shamal | 22568 | Afghanistan (Islamic State of) | Faryab | 23171 | Iran (Islamic Republic of) | Esfahan |
| 22674 | United Arab Emirates | Ash Shariqah | 22570 | Pakistan (Islamic Republic of) | North-west Frontier | 23183 | Iraq (Republic of) | Karbala' |
| 22675 | Pakistan (Islamic Republic of) | Sind | 22589 | Syria (Syrian Arab Republic) | Hims | 23214 | Saudi Arabia (Kingdom of) | Ash Sharqiyah |
| 22677 | Saudi Arabia (Kingdom of) | 'Asir | 22592 | Iraq (Republic of) | Diyala | 23233 | Oman (Sultanate of) | Masqat |
| 22679 | Yemen (Republic of) | Al Mahrah | 22594 | Afghanistan (Islamic State of) | Takhar | 23287 | Yemen (Republic of) | Aden |
| 22681 | Saudi Arabia (Kingdom of) | Makkah | 22599 | Lebanon | Al Biqa' | | | |
| 22683 | Yemen (Republic of) | San'a' | 22618 | Iraq (Republic of) | Babil | | | |

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