

# THURAYA PUSH-TO-TALK

## Keeping Mobile Workforces Connected and Safe

### Frequently Asked Questions

#### Introduction:

The Thuraya Push-To-Talk (PTT) solution has been developed by Thuraya in collaboration with Cobham SATCOM, to help users manage communications seamlessly and as cost-effectively as possible. It keeps your mobile workforce connected and extends the range of voice communications beyond line-of-sight (BLOS), regardless of where the workgroups are based. Apart from streamlining communications efficiently, Thuraya PTT enhances privacy, workforce productivity and collaboration.

#### What is Thuraya PTT?

Thuraya Push-To-Talk is a solution to set up a private network that integrates Thuraya Satellite Broadband/3G/LTE/LAN backhaul and land mobile radios (LMR) to provide seamless voice and data communications.

#### What products are used in the Thuraya PTT solution?

The Thuraya PTT solution can be used with any of the below Thuraya broadband products (depending on user requirement):

- Thuraya IP+
- Thuraya IP Voyager
- Thuraya IP Commander
- Thuraya MCD voyager
- Thuraya Orion IP

The solution can use a mix of the above products along with the Explorer Mobile Gateway from Cobham SATCOM.

#### Who are the target customers?

The target customers are mainly the ones who need critical communication links

- Government, Public Safety and Police
- Relief Organizations, NGO & AID, Connected Ambulances and Fire Brigades
- Energy, Utility and Oil & Gas
- Coastguards & Maritime Patrol
- Mining
- Transportation, Logistics and Railways
- Military
- Security

#### What is the value proposition for Thuraya PTT ?

- Increased coverage with amalgamation of 2-way Radio, Cellular & L-Band Satellite
- Interoperability among different groups with simple integration of their existing radio – analog, DMR, P25, UHF, VHT and Tetra with L-Band Satellite

- Compatibility with many different brands of land mobile radios
- Seamless switching between satellite, cellular and LAN ensuring no loss of connectivity
- 256-bit AES Voice and Data encryption
- Lowers expensive terrestrial infrastructure costs
- Real-time data

## **How are PTT calls made on Thuraya PTT ?**

The PTT calls are made through the Push-To-Talk handset which comes with Explorer Mobile Gateway, which is connected to either a Thuraya satellite broadband terminal or/and to the Donor Radio Network.

## **Is there a portal for managing and configuring the PTT setup?**

The Thuraya PTT solution is supported by the PRISM portal, where the entire configuration of the Mobile Gateway is done. The features include provisioning the mobile gateway, creating groups, assigning the terminals in different groups, tracking, voice recording, etc.

## **Where is the PRISM portal server located?**

The PRISM portal server is hosted in AWS Bahrain.

## **How much bandwidth is required per call and how many bytes are consumed for one minute of PTT call?**

Each PTT call consumes 8-9 kilobits per second when talking/listening. For a one-minute PTT call approximately 67 Kilobytes will be consumed.

## **What is the average time of a PTT call?**

The average time of a PTT call will be 6-8 seconds per talk.

## **What is the average MB consumed by the customer on a monthly basis?**

Most of the PTT customers consume 10-12 MB/month.

## **What type of encryption can be made available for PTT voice?**

Thuraya PTT can provide 256 bit AES encryption.

## **Is the encryption provided with Thuraya PTT FIPS compliant?**

No, the encryption is not FIPS compliant.

## **What is the end to end Latency of a PTT call?**

The end-to-end latency of a PTT call round-trip is approximately 1-2 seconds (this includes all buffers and processing etc).

## **What codec is used for over the air transmission?**

The codec used is AMBE+2.

## **Does Cobham need to certify the radio system the customer is using?**

Any radio can be connected; it does not have to be certified by Cobham. The only requirement is that a 4-wire/E&M integration should be possible with the particular radio. Audio-levels and more can be adjusted on the PRISM portal.

## **When Thuraya broadband terminal is integrated with Explorer Mobile Gateway how does Cobham make sure the broadband terminal is registered on Thuraya's Network and has an IP connection? Do you use any AT command to keep the IP session alive?**

Cobham uses AT-commands + terminal manufacturer APIs to establish and maintain connection. Also, a variant of ping is sent over the link to maintain the session.

## **Does Cobham have any plan to deploy a Mobile App solution to connect to the PRISM Portal.**

The Mobile App for PRISM will be available only for the next generation broadband products.

## **If the End User would like to use their own radio & encryption system, how will Thuraya PTT treat the user's encryption?**

User Encryption will be maintained from the user portal to local donor radio. Cable integration between GW and donor radio will be analogue, and gateway will re-encrypt and send audio via PRISM AES-256-bit encryption.

## **How long is the typical sales lead time for any PTT projects?**

The lead time depends on the requirement from the customer. For simple voice-radio integration, it will take only few months. But if it is an integration project, the lead time might be longer, especially for government projects. For private companies, this is usually shorter.

## **What are the different radio systems interfaced in different projects with the Explorer Mobile Gateway?**

To date, the following Radio Systems have been interfaced in projects - other systems which are not in the below list can also be integrated with the Explorer mobile gateway. Other radio systems which are not in the below list can also be integrated with Explorer Mobile Gateway

- Motorola CDM 1250/1550
- Motorola XTL 2500
- Motorola XTL 5000
- Motorola APX 8500
- Motorola XPR 5550
- Motorola DGM 5500
- Motorola DM 4600
- Tait TM 9400
- Hytera MD788
- ICOM IC-F6062D
- Kenwood NX720GE
- Kenwood TK7360
- Motorola GM340
- Motorola GM360
- Motorola GM380
- SAILOR 6248
- SAILOR 6249
- Sepura SRG3900
- Tait TM9400
- Vertex VX2200
- Wireless Pacific X10DR

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