



Kodiak Broadband PTT

Re-defining PTT Communications

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Introduction

The Broadband Push-to-Talk (PTT) solution from Kodiak, a Motorola Solutions Company, sets the standard for instantaneous 1-to-many and 1-to-1 communications over LTE, 3G, and Wi-Fi networks.

Based on industry standards, Kodiak Broadband PTT distinguishes itself with high performance, carrier integration, rich features, broad choice of compatible devices, interoperability with two-way radio systems, and APIs for integration into 3rd-party productivity applications. Kodiak has by far the largest installed user base of standards-compliant broadband PTT service in the world.

Kodiak Broadband PTT is an ideal solution for mobile workforce communications, augmentation of two-way radio systems, and PTT-enablement of third-party productivity applications.



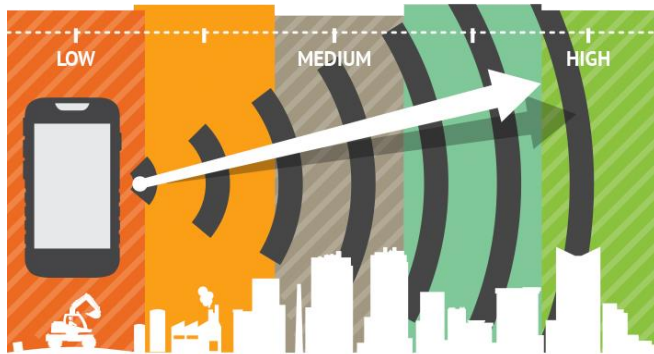
Transforming PTT to Broadband and Standards-Based Solution

Kodiak Broadband PTT delivers instantaneous 1-to-many and 1-to-1 voice communications cost-effectively over 4G/LTE, 3G, and Wi-Fi networks, and it is based upon the Open Mobile Alliance's (OMA) Push-to-Talk over Cellular (PoC) standard. This standard is also the foundation of OMA's Push to Communicate for Public Safety (PCPS) standard, which provides a commercial-ready baseline to 3GPP's MCPTT standard for mission-critical communications. Finally, Kodiak Broadband PTT features a cloud-hosted resilient platform with high scalability and reliability.

End customers in commercial and public safety sectors can get the following key benefits when they use Kodiak Broadband PTT:

- Ubiquitous nationwide wide-area coverage, leveraging the latest commercial carrier networks
- Effective in-building coverage via Wi-Fi

- PTT and mobile broadband data applications on a single device, enabling simplified, efficient, and cost-effective use of voice + data communications
- Augmentation of an existing two-way radio system to extend coverage, reserve or expand capacity, allow more workers to use PTT, and reduce communication costs
- Future-proof PTT investment and industrywide ecosystem support due to compliance with industry standards
- PTT platform tightly integrated with the carrier's network and daily operations, with option of being used for carrier-agnostic over-the-top PTT



Superior Performance and Advanced Features

Kodiak Broadband PTT solution delivers an enhanced user experience with superior performance and advanced features:

- **Sub-second call set-up** – Enables instant voice communication with a group or an individual with the push of a button
- **High voice quality** – Uses wideband AMR codec that provides a MOS score as high as 4.1-4.2.
- **Multimedia messaging** – Supports not only PTT voice but also messaging with text, picture, video, file, recorded voice, and location.
- **Location-based services on device** – Allows users to track team members' location, share their own location, set up geo-fencing, and receive an automatic alert when a fence is crossed.
- **Encryption based on AES 256** – Protects PTT users from unauthorized call interception or monitoring. Encryption is compliant with FIPS 140-2 Level 1 requirements, with FIPS validation.
- **Real-time presence** – Presence status includes Available, Do Not Disturb (DND), and Offline.

- **Multiple application modes** – Provides two client modes: PTT radio, which emulates experience with a traditional two-way radio, and a standard mode, which offers full client functionality interactions.
- **One-touch calling** – Allows the user to press the PTT key once to call a user-defined contact or group, regardless of the phone's current state (idle PTT application or locked device screen).
- **Voice message fallback** – Automatically records and sends a voice message when a user initiates a PTT call but the recipient is not available.
- **Late-join/re-join functionality** – Allows a user to easily join or re-join a group call after it is started.
- **Support for not only pre-defined but also ad-hoc group calling** – Provides the user with the capability to select multiple contacts and then initiate a group call on the fly.
- **Call preemption via supervisory override** – Allows a designated user to take over the PTT floor at any time, even when somebody else is talking.
- **PTT/Cellular Interaction** – Enables users to place a PTT call on hold to answer an incoming cellular call.
- **Broadcast calling** – Initiates a preemptive one-way call to a large group of people at the same time.
- **Talkgroup scanning with priority** – Allows a PTT user to select up to eight talk groups for monitoring, with three that can be set up as prioritized groups.
- **Alerts** – Provides the convenience of a quick alert to request a call back or display a missed call



Broad Choice of Client Devices and Accessories

With the industry's broadest PTT ecosystem and partnership with multiple leading device manufacturers, Kodiak makes it possible for end customers to choose client devices and accessories that make the most sense for their specific needs and budget available. The devices offered are all tested and certified by both Kodiak and carrier partners, ensuring compatibility and optimized performance.

Smartphones and tablets:

Use PTT and access critical data to enhance operational efficiency with a broad range of standard or ruggedized smart devices at a variety of price points, including both smartphones and tablets. Primary device operating systems supported include iOS and Android.

Specialty devices:

Whether it's a highly ruggedized handset with a dedicated PTT button or an intrinsically safe (IS) device with an embedded PTT client, users can choose the right tool for their job in a demanding environment.

Low-cost feature phones:

Kodiak Broadband PTT supports low-cost PTT handsets for field communications, fleet management, or other use cases requiring high-quality devices that are reliable and cost-effective as well.

Accessories:

Kodiak Broadband PTT comes with a wide range of compatible wired and wireless accessories from third-party manufacturers, including remote speaker microphones, headsets, ear pieces, lapel mics, hands-free car kits, and dispatch support devices.



Two-way Radio Interoperability

The Kodiak Broadband PTT solution includes InteropCloud, which supports cloud-based interoperability with two-way radio systems so that organizations can augment two-way radio communication, with the benefit of seamless communications between users carrying a radio and broadband PTT subscribers. Interoperability can be achieved with any two-way radio system. InteropCloud also supports interoperability between different two-way radio systems.

Benefits of interoperable broadband PTT for two-way radio augmentation include the following:

- Use PTT outside two-way radio coverage area
- Expand PTT system capacity quickly and cost-effectively
- Preserve two-way radio system resources
- Allow personnel without a radio to use PTT while at work

- Allow off-duty personnel to stay connected via PTT when necessary
- Allow PTT users to carry a single device for both PTT and mobile broadband data
- Support private 1:1 PTT calls efficiently



AES 256-based Encryption with FIPS 140-2 Compliance

Kodiak Broadband PTT offers security using the Advanced Encryption Standard (AES) 256 to protect PTT users from unauthorized interception and monitoring. With patented call set-up performance, encrypted PTT calls are just as fast and clear as non-encrypted PTT communications.

Complying with FIPS (The Federal Information Processing Standards) 140-2 Level 1 specifications, with FIPS validation, Kodiak Broadband PTT provides end users with assurance that communication security meets strict requirements established by the United States National Institute of Standards and Technology (NIST).



Efficient Contact and Group Management

Kodiak Broadband PTT allows corporate administrators to centrally manage contacts and groups through a powerful, Web-based Corporate Administrator Tool (CAT). With CAT, an administrator can easily assign or update contacts and groups for PTT users wherever they may be – in real time and over the air – eliminating the need for users to manually create and manage a PTT address book– saving both time and money for organizations of any size. Key features of CAT include:

- Manage a master list of all PTT subscribers within the organization and external PTT contacts
- Assign and update PTT contacts and groups, which are synchronized with user devices wirelessly, in real time
- Enable creation of new contacts and groups or change of an existing address book for each PTT user on the fly
- Assign and manage users for call preemption and some other features

If an organization has no more than 50 PTT users, it will benefit from auto pairing, which allows a subscriber's device to be automatically loaded with up to 50 PTT contacts within the same organization and a group that consists of all those contacts.

With the auto pairing feature, subscribers can start making PTT calls right after PTT service is provisioned and activated, without the need to use CAT for PTT address book assignment or learn how to add contacts/groups manually to the PTT client.

Kodiak Broadband PTT supports a large address book per client device:

- **1,300 contacts** – up to 1,000 administrator-managed contacts and 300 user-managed contacts
- **130 groups** – up to 100 administrator-managed groups and 30 user-managed groups
- **250 group members** – up to 250 pre-defined group members. The broadcast calling feature supports 500 group members.



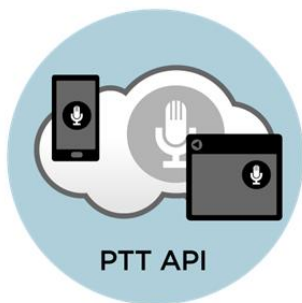
Integrated Dispatch Application

Leveraging the benefits of instant communications, Kodiak Broadband PTT comes with an integrated dispatch application (PC-based or Web-based). The application allows a dispatcher to communicate with the field work force with PTT calls, monitor group communication activities, and view PTT subscribers' location via GPS. Key features of the integrated dispatch application include:

- PTT calling by the dispatcher
- Dispatcher override for PTT calls

- Multimedia messaging
- Presence
- Instant call-me alert
- Group monitoring
- GPS location mapping
- Call recording
- History and logging

One unique capability of the integrated dispatch application is that it provides two installation options: system-wide installation that allows any dispatcher to use any console station available or user-based installation that assigns a specific console station to a particular dispatcher. The availability of these two options supports different use cases, depending on end customers' needs.



APIs for Application Integration

Kodiak Application Programming Interface (API) makes it possible for third-party developers or integrators to add fast and easy PTT communication to their applications, with a convenient user interface. API types supported include plug-in API (browser-based), mobile deep linking (allowing a mobile application to launch the native Kodiak PTT client), mobile API (direct PTT integration into a mobile application without a plug-in), and dispatch API (with a plug-in).

The PTT APIs allow Kodiak to extend broadband PTT functionality into existing workforce management and productivity applications, increasing productivity by providing PTT within existing workflows. The following broadband PTT functions are available through Kodiak Broadband PTT APIs:

- **PTT Services:** Make and receive one-to-one calls, pre-defined group calls, and ad-hoc group calls.
- **Contact and group management:** download contact lists, groups and create ad-hoc groups.

- **Presence:** Find PTT users' presence information (Available, Off-line, or Do Not Disturb) instantly with real-time updates.
- **Instant alert:** Send or retrieve call-me alerts and missed-call alerts with real-time notifications.
- **Accessories:** Map any hot-key combination to PTT press/ release action.

Ready to Get Started?

To learn more about Kodiak Broadband PTT, please visit kodiakptt.com.