



# Kodiak Broadband PTT for Manufacturing

## An Application Brief

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## Overview of U.S. Manufacturing Industry

Manufacturing plays a vital role in the U.S. economy. This industry comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. Based on most recent data from the US Bureau of Labor Statistics and National Association of Manufacturers, key facts of the U.S. manufacturing industry include the following:

- 12.4 million employees
- More than 345,000 establishments
- \$2.18 trillion industry output

## Key Communication Challenges for Manufacturing

The manufacturing industry in the U.S. shares some common challenges that apply to any manufacturer across the globe. In addition, U.S. manufacturers face a high structural cost burden, in comparison with counterparts in most countries in the world. From an operational standpoint, key challenges within the U.S. manufacturing industry include:

Overall Business Challenges	Communication Challenges
<ul style="list-style-type: none"><li>• Line-side up time and production yield</li><li>• Employee productivity</li><li>• Work order management</li><li>• Process management</li><li>• Quality control</li><li>• Asset maintenance and management</li><li>• Inventory management</li><li>• Operating profit</li></ul>	<ul style="list-style-type: none"><li>• Reaching the right employee or group any time</li><li>• Mobile access to real-time data</li><li>• Application integration on the same device</li><li>• System interoperability</li><li>• Communication cost control</li></ul>

## Traditional Communication Solutions for Manufacturing

Although employees in a manufacturing company typically work inside a fixed premise, most of them do not spend the day or a night shift behind a desk. Thus, mobile communication technology plays a pivotal role in operations management in a manufacturing environment. The manufacturing industry has used multiple voice and data communication solutions that include the following:

- PBX/wire line phones
- Legacy text paging system
- Two-way radio

- Wi-Fi voice
- Regular cellular phone service
- Tablet

Existing Communications Solutions in Manufacturing Industry		
	Supported	Not Supported
Wireline PBX	<ul style="list-style-type: none"> <li>• Voice communication on the desktop</li> </ul>	<ul style="list-style-type: none"> <li>• Mobile voice</li> <li>• Instant voice</li> <li>• Computing/data applications</li> </ul>
Pager	<ul style="list-style-type: none"> <li>• One-way text messaging</li> </ul>	<ul style="list-style-type: none"> <li>• Voice communication</li> <li>• Computing/data applications</li> </ul>
Two-way radio	<ul style="list-style-type: none"> <li>• Instant mobile voice communication</li> <li>• Limited messaging</li> </ul>	<ul style="list-style-type: none"> <li>• Computing</li> <li>• Broadband data</li> </ul>
VoIP Wi-Fi device	<ul style="list-style-type: none"> <li>• Instant mobile voice communication</li> </ul>	<ul style="list-style-type: none"> <li>• Mobile computing</li> <li>• Broadband data</li> </ul>
Regular cell phone (with regular services)	<ul style="list-style-type: none"> <li>• Cellular voice</li> <li>• Messaging</li> <li>• Mobile data and others</li> </ul>	<ul style="list-style-type: none"> <li>• Instant voice</li> <li>• Group call</li> </ul>
Tablet	<ul style="list-style-type: none"> <li>• Mobile computing/data</li> </ul>	<ul style="list-style-type: none"> <li>• Voice communication</li> </ul>

Organizations within the manufacturing industry face the problem of having to deploy different devices for different applications that are difficult to integrate for mobile access. Some employees have to carry multiple devices in order to do their job. For example, a shop floor supervisor may need to use a two-way radio to receive an emergency call from a machine operator, a smartphone to access relevant data and to contact upper management about the emergency situation, and then a two-way radio again to communicate back to the machine operator. This type of “human bridging” is neither cost-effective nor efficient.

To control communication costs, organizations have limited the distribution of devices running on different networks to a small number of employees who need those most, making other employees use an alternative communication solution. The benefit of such cost control, however, is diminished by the need for some employees to carry multiple devices, the associated capital and operational expenses of providing/managing multiple isolated communication systems, and negative impact on productivity.

## Kodiak Broadband PTT for Manufacturing

To solve the problem outlined above, the manufacturing industry needs a new, high-performance mobile solution that can integrate instant voice, broadband data, productivity applications, and business processes, all on a single device. This solution should be able to meet the diverse needs of the workforce, preserve existing investments, reduce communication costs, and increase operational efficiency. Broadband PTT solution from Kodiak, a Motorola

Solutions Company, enables such a consolidated communication service. More specifically, it supports the following:

- **Communication over the latest cellular networks and W-Fi.** Cellular networks supported include 4G LTE, 4G HSPA+, and 3G. Support for Wi-Fi ensures effective in-building coverage.
- **Simplicity of service deployment and management.** With hosted service, Kodiak eliminates the need for on-site equipment installation, network management or maintenance, and in-house or outsourced user support.
- **Dynamic creation and update of contact list and group list.** Kodiak Broadband PTT comes with a powerful Web-based corporate administrator tool that allows a PTT address book to be created or updated on the fly and synced to individual users' devices wirelessly, in real time.
- **Broad device choices, including the latest smartphones, feature phones, tablets, and specialty devices.** Smartphone/tablet operating systems supported by Kodiak include Android and iOS. Ruggedized specialty handsets with a dedicated PTT button and Intrinsically Safe feature are available.
- **Multiple PTT calling types, with call override.** Users can make 1:1 private calls, pre-defined group calls, ad hoc group calls, and broadcast calls. The supervisory override feature allows a supervisor or any other designated person to take over the voice channel at any time.
- **Secure multimedia messaging and location tracking features that enhance operational efficiency.** Kodiak Broadband PTT supports secure multimedia messaging (with text, picture, video, file, and recorded voice), location mapping on device, and geofencing, all of which enhance operational efficiency.
- **Multiple application modes.** Kodiak Broadband PTT offers two application modes: PTT radio mode, which provides a single and easy-to-use screen that emulates LMR experience, and a standard mode, which offers full client functionality interactions.
- **Interoperability between two-way radio and cellular networks.** The interoperability capability allows continued use of an existing two-way radio system and expansion of coverage or capacity cost-effectively.
- **Significant cost savings.** Kodiak Broadband PTT, through its carrier partners, provides two pricing options: a low-cost PTT-only plan or a small nominal fee on top of an existing cellular voice/data plan, giving end customers significant cost savings.

Kodiak Broadband PTT delivers numerous benefits, including:

- Minimizing the need to manage multiple communication services
- Eliminating the need for employees to carry multiple devices
- Optimizing network coverage both inside and outside the premise
- Improving communication efficiency and effectiveness
- Leveraging the latest and greatest mobile technologies

- Continuing use of existing two-way radios
- Reducing communication costs

## Key Use Cases for Kodiak Broadband PTT

Kodiak Broadband PTT delivers not only the traditional core capabilities of PTT (instant 1:1 and group calls) but also integration of mobile broadband data applications, delivered through the most diverse wireless networks to the broadest choice of devices. With Kodiak Broadband PTT, users can reach the right person or group at any time anywhere and have real-time access to mobile data or productivity applications relevant to their role or functions, all on a single device.

	What PTT Voice Is Used For	Typical Device	Non-PTT Voice Application
Executive	<ul style="list-style-type: none"> <li>• Emergency situations</li> <li>• Discrete communications</li> </ul>	<ul style="list-style-type: none"> <li>• Smartphone</li> </ul>	<ul style="list-style-type: none"> <li>• Messaging</li> <li>• Mobile data &amp; productivity apps</li> </ul>
Plant /Production Manager	<ul style="list-style-type: none"> <li>• Planning</li> <li>• Assigning Tasks</li> <li>• Status reporting</li> <li>• Discrete communications</li> </ul>	<ul style="list-style-type: none"> <li>• Smartphone</li> </ul>	<ul style="list-style-type: none"> <li>• Messaging</li> <li>• Mobile data &amp; productivity apps</li> </ul>
Foreman/ Supervisor	<ul style="list-style-type: none"> <li>• Assigning tasks</li> <li>• Status reporting</li> <li>• Discrete communications</li> </ul>	<ul style="list-style-type: none"> <li>• Smartphone</li> </ul>	<ul style="list-style-type: none"> <li>• Messaging</li> <li>• Mobile data &amp; productivity apps</li> </ul>
Machine Operator/ Assembler	<ul style="list-style-type: none"> <li>• General communications</li> <li>• Emergency situations</li> <li>• Status reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Feature phone</li> <li>• Tablet</li> </ul>	<ul style="list-style-type: none"> <li>• Messaging</li> <li>• Mobile data</li> </ul>
Shipping/Receiving	<ul style="list-style-type: none"> <li>• Receiving work orders</li> <li>• Task/status reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Feature phone</li> <li>• Tablet</li> </ul>	<ul style="list-style-type: none"> <li>• Messaging</li> <li>• Productivity apps</li> </ul>
Stockroom/ inventory	<ul style="list-style-type: none"> <li>• Assigning tasks</li> <li>• Status reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Smartphone</li> <li>• Feature phone</li> </ul>	<ul style="list-style-type: none"> <li>• Messaging</li> <li>• Productivity apps</li> </ul>
Quality Control	<ul style="list-style-type: none"> <li>• Alerts/inspections</li> <li>• Status reporting</li> <li>• Discrete communications</li> </ul>	<ul style="list-style-type: none"> <li>• Smartphone</li> </ul>	<ul style="list-style-type: none"> <li>• Messaging</li> <li>• Productivity apps</li> </ul>
Maintenance/ Field Service	<ul style="list-style-type: none"> <li>• Alerts/inspections</li> <li>• Assigning tasks</li> <li>• Status reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Smartphone</li> </ul>	<ul style="list-style-type: none"> <li>• Messaging</li> <li>• Mobile data &amp; productivity apps</li> </ul>

## Summary

Kodiak Broadband PTT is an ideal carrier-integrated mobile communication solution. It allows users to access instant voice and mobile broadband data services on a single device, with ubiquitous network coverage. For more information, visit [Kodiakptt.com](http://Kodiakptt.com).