Massachusetts Bay Transportation Authority

Massachusetts Bay Transportation Authority's The Ride Relies on Orion to Innovate Operations and Collaboration

Digital Transformation for Transportation Operations

Transportation organizations manage complex operations, dynamic environments, and a distributed workforce that is constantly on-the-go. **Massachusetts Bay Transportation Authority (MBTA)**, Greater Boston's public transportation service, faces these challenges every day with their paratransit service, The RIDE, which provides door-to-door transportation for passengers with temporary or permanent disabilities.

The RIDE managed up to **7,500 trips pre-COVID in its 22-hour operating day, seven days a week in 58 cities and towns** around the Greater Boston area. The RIDE's dispatchers and drivers manage and navigate dynamic, on-demand routes throughout Eastern Massachusetts, in rural and urban areas.

MBTA at a Glance:

- **7,500** trips a day at peak
- **22** hours/day
- **7** days/week
- **58** cities and towns served

MBTA uses Orion for:

- **30,000** messages processed every day
- **300,000** messages processed each week
- **Unlimited** ad hoc 1:1 or small groups

By automating radio checks, MBTA saves up to:

- **45 hours** per weekday driver each year
- **17 hours** per weekend driver each year
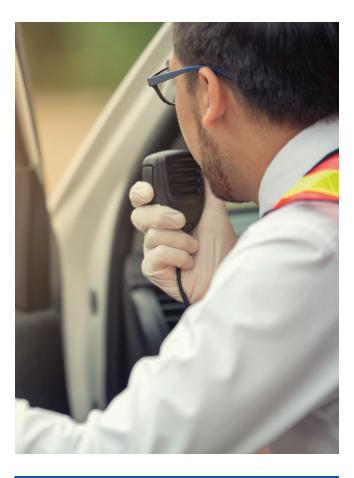- **$700,000** of annual ROI gains each year

> "We knew we needed a wholesale new way to do business without legacy radios and were ready to unlock the benefits of better, modern technology."
> - James A. Nihan, Manager of Paratransit Operations, MBTA-Office of Transportation Access

> "The Orion team was excellent to work with. They left no stone unturned and were truly engaged in making Orion the best solution for transportation organizations like MBTA."
>
> — Jim Nihan, MBTA

THE CHALLENGE

MBTA required new, intelligent technology to provide **centralized management, decision-making,** and **organizational visibility** of The RIDE's **dynamic transportation network. Aging radio technology** hindered operations and could not offer the necessary benefits of **digitally transforming The RIDE's fleet communications and operations.**

The radios at MBTA provided dispatch little intelligence about their drivers and passengers' location and status. The RIDE's **Control Center** lacked complete visibility of operations with **real-time location information** of the organization's dispersed drivers and passengers. MBTA's **Control Center, customer service representatives, and dispatchers** also needed to ensure drivers were productive and **completing routes** as assigned.

Additionally, radios were costly to maintain, unable to scale, and only supported a limited range. Radios prevented MBTA's ability to **add users on any device at any distance.** These limitations made communications **unreliable for drivers** operating in remote, unfamiliar areas. Support staff like mechanics, customer service, and safety personnel **experienced difficulties joining the collaboration environment** preventing effective cross-departmental communication.

Lastly, slow, **manual processes** stalled the higher-value productivity of MBTA's large fleet of vehicles and dispatchers. MBTA's drivers started each shift by conducting a manual **radio check** to ensure radios were online, requiring an individual manual response from dispatchers — which often **delayed driver start times.**

> "Our drivers need Orion in the event of an emergency. Orion really is a lifeline for them."
> - Jim Nihan, MBTA

- Limited operational control and organizational visibility
- Aging technology in need of replacement with modern alternatives
- Inadequate collaboration environment
- Slow, manual processes for dispatchers

THE SOLUTION

It was time to upgrade the fleet's communications system from legacy radios to the **Orion Collaboration Platform for Transportation.** MBTA's Command Center equipped dispatchers with Orion's **web-based Dispatch Console** and **750 vehicles with a tablet** enabling the Orion app. The **Samsung Tab A with GPS Lockbox** is installed in each vehicle with a digital speaker-mic that allows for easy sending and receiving of messages.

The Orion Collaboration Platform for Transportation offers:

Voice-First Communication for Incident Response

Orion ensures drivers can always reach dispatch with **PTT available on both the tablet app and web-based Dispatch Console.** During an incident or emergency, dispatchers create and move the driver into an **ad hoc 1:1 or limited group environment** with necessary personnel like supervisors, customer service representatives, emergency responders, or maintenance. The driver receives immediate, **undivided attention** while other drivers remain undistracted. All messages are archived for **safety, compliance, and incident reports.**

Automation for Processes

Orion's unique Process Automation Suite enables bots and workflows to **automate previously manual procedures like pre-ride vehicle inspections and radio checks** required for safety and compliance. Orion's **Status Check Bot** lives in the collaboration environment and automatically responds when drivers speak the words, "Radio Check." Drivers confirm they are online **without a manual response from dispatch.**

Operational Control with the Orion Management Console

The **Orion Management Console with Advanced Location Services** provides centralized **operational visibility, management, and decision-making.** MBTA's Control Center, managers, customer service representatives, and dispatchers see a **real-time view of operations** and driver location information in a **single web-based console.**

The Orion Management Console enables MBTA's **supervisors, customer service, and dispatchers** to confirm that drivers are on their assigned route and where they need to be at any given time. **Incident response is centrally managed** through the web-based Console. **Message Archiving** enables supervisors and dispatchers to download Message Logs and playback or view sent messages.

- Operational control and organizational visibility
- Dynamic voice-first communication groups
- Driver location and status
- Driver and passenger safety
- Automation with bot-driven radio checks

THE RESULTS

MBTA easily and quickly deployed Orion **over a 24-hour period.** The RIDE's Control Center of **150 supervisory users** instantly gained access to **Orion's web-based Dispatch Console,** and MBTA used mobile device management (MDM) to **immediately scale and push Orion to tablets installed in over 750 fleet vehicles.**

Here are the benefits MBTA's The RIDE gained with The Orion Collaboration Platform for Transportation:

Improved Incident Response and Customer Service Support

Ad-hoc groups help MBTA manage **dynamic situations** quickly and effectively, ensuring dispatchers can add all information and relevant personnel to **evolving or urgent conversations.** During **minor incidents** like an unexpected driver delay, **customer support operators** can quickly communicate 1:1 with the driver to assess the situation and gain the information needed to provide the customer with updates. In **urgent situations,** dispatchers rapidly communicate with drivers, provide updated routing information, or **deploy immediate assistance.**

Safety and Compliance

All messages are stored and recorded for review or future compliance needs. Orion makes incident reporting for compliance easier with automated archival of all information. MBTA's operations management can review, analyze, and evaluate incident information to **improve driver and passenger safety and prevent future incidents.**

Expanded Collaboration

Orion enabled MBTA's The RIDE to immediately **expand the collaboration environment** to include customer service, maintenance, safety, operations, and on-demand drivers — a task previously improbable with radios. Operations is better able to **manage the dynamic nature of MBTA's frontline workforce** by seamlessly including new group members when responding to **demand surges, unusual driver activity, or incidents.**

Elimination of Time-Consuming Manual Processes

MBTA uses Orion to **eliminate all manual radio checks,** saving MBTA up to **10 minutes for each driver** at the start of **each shift.** Over a year, this adds up to nearly **45 hours saved** for each weekday driver and **17 hours saved** for each weekend driver. Manual radio checks alone may save the MBTA an estimated **ROI of nearly $700,000 each year.**

Greater Operational Control

MBTA **centralized visibility** to enhance **real-time oversight, safety, and productivity organization-wide.** MBTA's Control Center, operations management, and supervisors can now use the **Orion Management Console** to drive more informed decision-making and improve driver productivity and the safety of both drivers and passengers. Orion's **Advanced Location Services** create complete visibility of dispersed drivers. Operations supervisors and managers can **record, playback, and archive all messages.**

Interoperability with Third-Party Software

Orion is an **open API platform,** allowing MBTA to run other apps like Adept and GoogleMaps to meet their organizational requirements. Along with Adept, Orion provides **real-time location information** to improve the **safety of drivers and customers.** Visibility into driver locations is also key to ensuring MBTA continues to **meet and exceed its on-time performance** for customer trips as part of meeting ADA requirements.
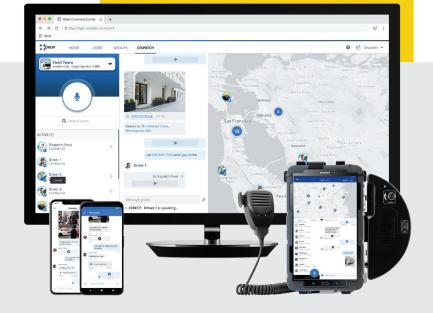
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Orion pioneered the voice-first intelligent collaboration platform so you can empower your deskless workers and create a connected workforce.

CONTACT US TODAY

About Orion

Orion is the leading voice-first, cloud-based Push-to-Talk 2.0 (PTT 2.0) intelligent communication platform. Orion's patented Voice Bots and platform integrations deliver value-added services, automate routine processes, respond instantaneously in critical situations, and amplify team member knowledge. The platform improves frontline team productivity, safety and compliance, and customer and staff engagement.

Orion was recently named a Top 10 Intelligent Transport Systems Solution Provider for 2021 by Logistics and Transportation Review, a Top 10 Industrial IoT Solution Provider 2020 by Manufacturing Technology Insights, and an IDC Innovator. Orion holds 55 patents that support its award-winning solutions. For more information, visit **www.orionlabs.io.**