



## Microland enables contagion mitigation and operations resilience for an America based top ten global provider of transportation and logistics services with a highly scalable solution on Universal Contact Tracing (UCT) deployed on Azure

XPO Logistics is a top ten American transportation and contract logistics company that manages supply chains for 50,000 customers worldwide, including 69 of the Fortune 100, with operations across 30 countries.

The coronavirus pandemic has radically changed demand patterns for products and services across sectors, while exposing points of fragility in global supply chains and service networks. The pressure was huge in the 3PL (Third-Party Logistics) providers market as the distribution has been disrupted on a global scale, requiring transformative and creative efforts to continue operations while maintaining a well-staffed team and providing a safe work environment by introducing new protocols on social distancing at warehouses, disinfecting work areas, and providing protective gear. The operations leaders at XPO were seeking to reinvent the way they work and thus position themselves for the new normal.

XPO logistics was looking for an out-of-the-box, highly scalable solution which will maintain strict employee privacy and one which does not need cellular phone for monitoring and can be deployed with least resistance from employees.

### Stepping up to meet the new business dynamics

Microland's [Smart Facilities](#) solution suite offers multiple use cases including **Universal Contact Tracing (UCT)**, Predictive Cleaning, Air Quality Monitoring, Occupancy Insights, ensuring resilience and sustenance in facility operations. XPO Logistics goals were specifically tied to an immediate enabler for contagion mitigation and therefore, the UCT modules was deployed to achieve XPO Logistics objectives.



This solution, developed in partnership with [Microshare](#), features an operational expenditure (OPEX) based, **intrusion-free (does not depend on the customer's infrastructure)**, **easy to deploy solution**, offering an immersive visual experience and **real-time actionable insights** to ensure a safe and comfortable environment for warehouse employees and the ability to monitor and maintain safety protocols for the Logistics and Response teams at the large warehouses of XPO Logistics.

## Delivering on the program objectives for XPO Logistics with Microsoft Azure IOT ecosystem

With Azure IOT platform led solution approach, a unique plug-&-play SaaS based, highly scalable solution including wearables, plug-in BLE scanners and plug-in LoRa Gateways along with analytics and visualizations was implemented. The Azure IoT platform offered a robust, resilient, and scalable foundation which helped in designing the platform led solution approach and allowed to **focus on the functional elements** of the solutions without worrying about core infrastructure elements that had to be deployed. The solution also leveraged Azure AD integration and Azure Defender to ensure secured access and extended detection and response (XDR) capabilities.

### Microsoft Azure IOT solution components

- **Azure IOT Hub** integrated with LoRaWAN gateway receiving all the events. IoT Hub ingests events from devices, acting as a secure message broker (via MQTT) between devices and backend services.
- **Azure Blob Storage** is used to securely store raw device data.
- **Azure Function** serverless compute service lets us run event-triggered code without having to explicitly provision or manage infrastructure enabling applications to run at scale.
- **Azure App Service** to build and host high availability, scaling web apps, mobile back ends, and RESTful APIs in the programming language of our choice without managing infrastructure.
- **Azure Active Directory** for security and users / group management.
- **Front Door** as a global scalable entry point.
- **Azure Defender** to ensure secure access and extended detection and response (XDR)
- **SendGrid** for email notifications

The result was a rapid **deployment** cycle of about **2 - 3 weeks** from receipt of hardware to insights being delivered with real-time intelligence on facility safety and to monitor and maintain safety protocols at the large warehouses of XPO. The solution equipped XPO to better manage the outbreaks by **pseudonymously recording proximity events** of personnel or visitors around their facilities. This then allowed specific isolation and contact tracing protocol to be followed for those who have had direct contact and additionally providing **insights on affected locations** that need **deep cleaning and sanitization** thus allowing the client to **refocus on the business operations with real-time intelligence on facility safety**.

## Insights and outcomes

For the past **6 months**, this solution has been in place allowing for continuity of operations despite the pandemic.

Contact tracing enabled a targeted approach rather than imposing a blanket shutdown at business operation sites at XPO and helped COVID response team to isolate those potentially infected with a **faster Mean Time to Respond (MTTR)**. This being a workplace-only solution, with no reliance on cellphones/GPS (and related privacy concerns) attracts better acceptances. Microland built this solution in an OPEX based model which helps customers like XPO **without** any heavy **capital expenditure (CAPEX)** in the times of fragile economic conditions.

Deployed Warehouses	2
Employees Monitored	7000
Target Warehouse Zones	37
Contact Events Monitored	1 Million +
Confirmed cases Traced	130



*“Augmented by Microland’s superb dashboard visualizations, Microshare’s Universal Contact Tracing wearables have kept the employees and loved ones of XPO Logistics’ UK safe from outbreaks of COVID-19. XPO have been delighted by the result.*



*During the five-month period that UCT has been deployed, XPO has sent about 130 employees home after the system defined possible exposure to someone reporting COVID-19 symptoms. The swift and transparent ability to quarantine affected workers minimized the risk of a wider outbreak and prevented expensive shutdowns of XPO’s 24/7 warehouse facilities. XPO reports that its productivity during the pandemic period was largely unaffected as a result.”*

*- Charles Paumelle, Co-Founder and Chief Product Officer , Microshare*

## Tailored for Smart Facilities Management in the new normal

While the pandemic is expected to be a relatively short-lived event, it has unleashed a force of transformation that is only going to get bigger and faster. Facility managers are expected to be measured by aggressive goals around health & safety, environmental footprint, and cost efficiency, reporting against published standards and goals.

Our vision is to develop this suite of Smart Facilities solution to build a comprehensive digital twin of facilities to help enterprises become resilient and dynamic with the ability to operate in a the new normal.



The roadmap is structured around building the use cases around two key tracks:

- A. Space Management:** Leveraging technology, we are looking at enabling enterprises to understand & manage in-space utilization, decentralize and put more emphasis on remote measurement, telematics, and analytics to bring to focus operating patterns of a facility.
- COVID-19 Response - Implement safety measures like Social Distancing & UCT
  - Adopt enhanced cleaning practices
  - Manage in-space utilization, draw insights on help with redesigning of spaces
- B. Environmental:** Considering Carbon neutral focus at global stage, we are focusing on auditable and on demand IoT data comprising utilities usage – energy, fuel, water, etc., occupant satisfaction plus a wide range of other Environmental, Social, and Governance (ESG) metrics including carbon footprint.
- Environment Monitoring - Indoor AQI, water leaks, energy monitoring
  - Predictive cleaning
  - Occupant comfort and feedback

### About Microland

Microland's delivery of digital is all about making technology do more and intrude less. As we help enterprises move to nextGen technologies, we make sure this embrace of brilliance is predictable, reliable and stable.

Incorporated in 1989 and headquartered in Bengaluru, India, Microland comprises more than 4,500+ digital specialists across offices and delivery centers in Asia, Australia, Europe, Middle East and North America.