

# 5G Edge Partner Program

## Verizon New Business Incubation - Orchestration in a single pane of glass

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**Businesses across a wide variety of industries are seeking real-time data insights and process automation.** This demand is driving the adoption of IoT, computer vision, video and robotics point solutions.

However, businesses may struggle to drive real value from their IoT data, because massive amounts of data are collected from disconnected solutions and manual processes. These separate processes and solutions create a demand for a streamlined orchestration solution.

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### Applied intelligence for orchestration

Verizon New Business Incubation provides enterprises with end-to-end solutions that combine data from physical and digital spaces, apply artificial intelligence (AI) and machine learning (ML), and drive business outcomes.

Verizon New Business Incubation is designing solutions that can help automate processes and increase visibility to address some of the most urgent challenges companies face today: supply chain disruptions, labor shortages, inflation and more. We help integrate a customer's existing systems with Verizon New Business Incubation's new transformative solutions in a single pane of glass to deliver outcomes that help drive automation, orchestration, efficiency, intelligence, productivity and safety.



### Who we serve

Verizon New Business Incubation works across many industries to help provide business results using computer vision, location technology, robotics, digital twins and IoT with potential integrations into a customer's existing digital systems and big data.

#### Manufacturing

Improving process efficiency and addressing workforce shortage challenges by performing automated materials handling, robotics fleet management, process validation and quality control

#### Warehouse, Distribution and Transportation

Driving the potential for efficiencies and visibility across a customer's supply chain with solutions to help automate inventory management, track assets, reduce manual processes and improve fulfillment accuracy

#### Retail, Venue and Hospitality

Improving physical safety and visibility to enhance customer and employee experiences by designing and developing solutions to facilitate automated checkout, precise indoor location and wayfinding, behavior analysis and space utilization

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### Outcomes for your industry

#### Security and public safety

Deploy camera and video networks with analytics, automated workflows and standard operating procedures (SOPs) to improve situational awareness, near real-time intelligence and notification.

#### Workplace physical safety

Detect physical safety violations, increase compliance and create a digital archive of events by implementing computer vision to record compliance issues, document safety events and identify patterns that lead to safety incidents.

#### Quality control and process validation

Leverage computer vision and AI to detect and document anomalies in, and damage to, manufactured goods for quality improvement, process optimization and waste reduction. The solution can also be used with augmented reality (AR) to accelerate training.

## Inventory, cargo, returns and shipping management

Drive visibility into inventory location and condition, increase efficiency and decrease inventory loss by automating manual activities with integration into ERP and WFS systems. This creates a digital atlas of inventory locations and an archive of recorded events.

## Retail and venue analytics

Capture insight into customer behavior and product interactions with retail analytics integrations, workflows, SOPs, behavioral analysis, monitoring, autonomous stores or POS with the intention of reducing inventory loss and providing a touchless customer experience.

## Passenger and guest experience

Create frictionless experiences for guests, improve efficiency, and gain business insights by integrating sensor data with parking, POS, WMS, ticketing and mobile apps to automate workflows and SOPs.

## Intelligent building

Help optimize comfort, space usage and more by integrating sensor data such as occupancy and historic utilization to provide autonomous integration between analytics, facility systems and work order generation.

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## Solution components

### Orchestration platform

A set of modular microservices that can enable scalable business automation solutions. The platform allows sensor data to be ingested, analyzed and integrated with existing systems, while applying AI and ML for increased business intelligence.

### Computer vision

Artificial intelligence (AI) and machine learning (ML) applied to video and LiDAR to offer increased understanding of the 2D and 3D world

### Location services

Maps, wayfinding, indoor precise positioning and analytics

### Hardware

Sensors, edge hardware and robots from industry-leading OEM partners plus Verizon's subject matter expertise and support

## Video management

Federated architecture to allow for remote/standalone management and federation of multiple cameras or video management systems (VMS)

## Digital twin

Virtual representation of an object or system with near real-time, bi-directional data flow and the ability to simulate outcomes and make decisions powered by AI and ML

## Robotics management

Fleet management, robot automation and simulation of fleet operations

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## Verizon Orchestration Platform

The Orchestration Platform is the business application for connecting the technologies and platforms required for orchestrating, measuring and delivering Industry 4.0 for Enterprise customers.

- **Flexible architecture.** Modular and flexible to adapt to your business needs and evolving technology while supporting small, medium or large deployments
- **Easy integration.** Designed to manage the complexities and variations in your organization's tech stack as well as changes in your business
- **Scalability and growth.** Designed for flexibility and expansion – add new use cases and components without adding significant complexity to your operations
- **Network and cloud agnostic.** Support various types of network configuration and both cloud and/or on-premise architecture
- **Single pane of glass.** One central source for control, data insights and visualization across your industrial operations

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## Existing Deployments

### AMR Management

Helped a leading fashion-focused department store chain and online retailer in Germany deploy 35+ Autonomous Mobile Robots (AMRs) in its warehouses. Automated forklifts and shuttles handle 700+ transports per hour leading to better workflow flexibility, accessibility and cost optimization.

### **Automated Inventory Records**

Helped a leading manufacturer reduce waste, improve efficiency and eliminate manual scanning and counting in their warehouse with a computer vision solution that automatically records the movement of palletized inventory. A digital atlas with location data and associated product information is integrated into the ERP in near-real time for an up-to-date view of inventory and a single-pane-of-glass view of inventory and location.

### **Mobile Transportation Security**

Delivered a mobile video security solution on a US metropolitan transit authority bus fleet. The solution improved visibility, safety, security and event-based communication. It also maintains an indexed and searchable digital archive, and the system can scale to adapt to new demands and use cases.

### **Retail and Venue Analytics**

Helped a New York City attraction improve visibility into utilization, wait times and efficiency metrics with a computer vision solution. The solution anonymously counts people entering and exiting the experience, leading to increased same-day ticket sales while adhering to customer-provided safety standards and an improved guest experience with shorter wait times.

### **Motion Analytics**

Deployed motion analytics technology for one of the largest 3rd-party logistics (3PL) providers to help improve the order picking rate in their large warehouses. Verizon's motion analytics solution provides smart tools that allow 3PLs the ability to see asset location and dwell, congestion, and aisle utilization information in order to increase fulfillment efficiency.

### **Indoor Positioning**

Provided step-by-step, near real-time wayfinding and internal mapping for one installation in one of the largest malls in the world. Through integration into an easy-to-use app, Verizon's indoor positioning system provides mall visitors the ability to find their way in this 12 million square foot complex. Whether it is finding their car among the 14,000 parking spaces or their favorite store, visitors are accurately guided to their destination.

### **Smart Office**

Deployed a smart office solution on the corporate campus of one of the world's largest consulting firms.

The Verizon solution helps employees overcome common challenges for hybrid offices by integrating indoor positioning technology with scheduling tools (attendance planning, smart meetup, room/desk booking). The solution also provides personalized smartphone notifications and enables space utilization metrics to optimize the in-office experience.

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### **About the 5G Edge Partner Program**

The 5G Edge Partner Program aims to accelerate 5G Edge adoption and development by partnering with best-in-class, cross-industry application providers and developers who will change how we live, work and play.

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### **Why Verizon and New Business Incubation**

Verizon New Business Incubation solutions can take advantage of the power of Verizon 5G and MEC, which bring high bandwidth and low latency to deliver near real-time results. Solutions can be designed to support multiple architectures, including but not limited to on-premise, public or private 5G Edge.

#### **With Verizon, you can count on:**

- **Strong coverage.** Our 4G LTE network covers 327 million people; that's over 99% of the U.S. population
- **5G innovation.** Verizon 5G Ultra Wideband gives you ultrafast speeds, with low lag and massive capacity
- **Trusted security.** Managing over 500,000 security network and hosting devices gives us valuable insights into the digital landscape
- **Easy integration.** We've certified 900+ machine-to-machine (M2M) chipsets, modules and devices, and Verizon New Business Incubation solutions can tie directly into ThingSpace, Verizon Connect, Radr, VESA Media Broker and more

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### **Learn more**

Visit our website and get in touch with a Verizon New Business Incubation representative today to learn how you can get started with the orchestration solution that fits your company's individual needs.

[verizon.com/about/new-business-incubation](https://verizon.com/about/new-business-incubation)

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