Dell Technologies

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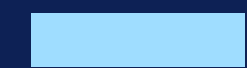# Accelerating AI innovation for Telecom

From the Telecom edge to the data center

Contents

Executive summary

For Communications Service Providers (CSPs), artificial intelligence (AI) is generating new opportunities that will shape the future success of their networks and operations. At present, modern networks face a "beyond human scale" challenge – one where humans simply can't monitor, optimize and fix network and business functions in real time, 24/7. However, AI can automate these processes to improve network performance, operational efficiency gains and customer retention. Moreover, it can enable many new revenue-generating use cases for CSPs that inspire substantial business growth.

Adopting AI early is key to maintaining competitive advantage for CSPs, giving them the foundation to create self-optimizing networks, modernize OSS & BSS systems and capitalize upon emerging technologies such as intelligent chatbots.

Discover how CSPs can accelerate their AI journey with an ecosystem of innovative technology capable of transforming ideas into measurable outcomes.

By integrating wireless connectivity, AI & Telecom computing from edge to core, CSPs & businesses can lay a robust foundation for innovation & operational optimization.[1]

Dell AI for Telecom

To unlock AI's greatest value, CSPs need the ability to act upon their data in real-time – and that advantage can be gained through an AI-ready infrastructure harnessing the edge, Telecom data center and beyond. Dell AI for Telecom provides CSPs with the tailored Dell infrastructure hardware, software, partner ecosystem solutions, services and expertise to accelerate their AI adoption and help create innovative, revenue-generating services.

Working closely with industry leaders such as Intel, Dell Technologies enables CSPs to:

Run any AI workload, anywhere

Accelerate AI business outcomes

Optimize network performance

Edge AI

As CSP demand grows for verified solutions that meet their customers' AI needs, Intel and Dell have developed a selection of optimized Edge AI applications with extensive network connectivity – all running on Dell PowerEdge XR8000 servers powered by Intel® Xeon® processors.

Dell PowerEdge XR8000:
Designed for telecom, engineered for all conditions.

- Enables CSPs to run any workload, anywhere. They run natively on CPUs with integrated inferencing capabilities, leveraging Intel® Xeon® AMX instruction sets.

- Ruggedized chassis holds up to four sleds, addressing edge, core and RAN workloads in a single chassis, enabling you to scale as your workloads change.

- NEBS Level 3 certification delivers continuous, undisrupted operation in extreme and space-limited environments.

Intel® Xeon® processors:
Delivering leadership performance and efficiency.

- AI acceleration in every core, and high performance for the widest range of workloads.

- Performance-cores (P-cores) with built-in AMX (Advanced Matrix Multiplication) instruction sets excel at AI inferencing and other intensive processes.

- Optimized for a wide range of workloads, Intel® Xeon® processors offer the largest ecosystem, a familiar toolset and the ability to scale from edge to cloud.

Using Edge AI, CSPs can enjoy:

Optimized & Verified Edge AI Applications:
ISV applications have been developed, verified and optimized for Intel architecture and Dell PowerEdge XR8000 platforms in small, medium and large sizes (available in various sled options) as per CSP requirements.

Better Total Cost of Ownership (TCO):
Intel and Dell ensure the XR8000 servers are optimized for Edge AI, network and other applications, resulting in lower power consumption, cost, and improved scalability.

Multiple Connectivity Options:
These Edge AI applications are optimized for wired, Wi-Fi, and Private 5G network environments, providing flexibility and reliability.

Ease of Deployment & Market Readiness:
Edge AI applications are connectivity tuned for the XR8000, enabling customers to select the optimal AI system sizes and applications to deliver the most impactful business outcomes.

Vertical Expertise and Global Reach:
Dell and Intel's extensive ecosystem ensures solutions can be tailored for numerous industry verticals and use cases.

Telecom Network Operations Use Cases

1. Intent-Based RAN Assistant

Telecom use case

Building and maintaining efficient networks can be an inefficient process due to the knowledge gap between radio frequency domain experts and software engineers. Intent-based GenAI tool RANGPT seamlessly bridges the divide by enabling engineers to generate simple applications and scripts. The vast reduction in time it takes to write, test and deploy code has improved engineer productivity and enhanced performance across design, O&M and field operations.

A GenAI tool powered by AiRA Technologies, RANGPT enables CSP network engineers to intelligently pool data and generate simple applications and scripts based upon intent. The tool also tests, registers and deploys code, in turn accelerating application development and driving network operational efficiencies.

Partnership benefits

- **Trusted Dell infrastructure:** Access the broadest portfolio of pre-validated solutions and ruggedized hardware to support data center workloads at scale. Cybersecurity is embedded from design to deployment, ensuring you can innovate with peace of mind.

- **Intel architecture:** Designed for performance and efficiency, Intel's processors and accelerators are built to handle high-demand applications such as AI in CSP data centers.

- **Turnkey, scalable solution:** Built to integrate with existing systems and devices, enabling seamless and cost-effective deployment.

Customer benefits

- **Accelerates deployments:** Intent-based interface generates and tests applications and scripts based upon operator requests, automatically links them to relevant libraries, and reduces application deployment from months to hours.

- **Enhances productivity and user experience:** Improves productivity of network and radio frequency engineers by 15-20%, enhancing performance across design, O&M and field operations.

- **Observability and analysis:** Intelligently pools data from multiple sources, enabling network engineers to perform analytical and troubleshooting tasks.

Hardware/software stack

Dell PowerEdge XE9680 servers

Intel® Xeon® Scalable processor

Intel® Gaudi 3® AI Accelerators

AiRA Technologies RANGPT

Dell ProDeploy, ProSupport

The co-founder and CTO of a Tier 1 Operator reported a 27% reduction in energy consumption across an 11-site cluster multiband LTE network by using RANGPT – all without impacting user QoS (average throughput per user).

2. Network Traffic Analysis and Optimization

Telecom use case

CSPs need increased visibility of their data traffic, enabling analysis that creates smarter, faster, more effective and sustainable networks. Opanga RAIN™ powers a range of applications that provide operators with the ability to increase network efficiency, deliver faster speeds from existing hardware and reduce energy consumption.

RAN software is rapidly deployed into the mobile core (either edge or centralized), allowing operators to gain visibility of previously unavailable data traffic. CSPs can utilize this traffic analysis to dramatically increase their network efficiency.

Partnership benefits

- **Trusted Dell infrastructure:** Access the broadest portfolio of pre-validated solutions and ruggedized hardware to support data center workloads at scale. Cybersecurity is embedded from design to deployment, ensuring you can innovate with peace of mind.

- **Intel architecture:** Designed for performance and efficiency, Intel's processors and accelerators are built to handle high-demand applications such as AI in CSP data centers.

- **Turnkey, scalable solution:** Built to integrate with existing systems and devices, enabling seamless and cost-effective deployment.

Customer benefits

- **Network intelligence:** Provides actionable data to increase network efficiency, enhance user speeds and optimize network configuration, planning and automation.

- **Network optimization:** Delivers faster overall user speeds, with existing hardware, by reducing congested site detection of Elephant Flows and use of Radio Aware TCP-O.

- **Energy reduction:** Utilizing real-time CX metrics to control spectrum energization with existing hardware.

Hardware/software stack

Dell PowerEdge XR8000 servers

Dell PowerEdge R670 servers

Intel® Xeon® Scalable processor

Opanga RAIN™ Network Optimization

Dell ProDeploy, ProSupport

"RAN Optimization software, that can be deployed rapidly in the mobile core, is mission critical to our being able to provide the best-in-class mobile experience for our customers."

– Jochen Bockfeld, Director Core & Network Services at Telefonica Germany

Enterprise Edge Use Cases

3. AIoT-Powered Site Security for Safer Venues

Telecom use case

For CSPs' enterprise customers, site management is important as they strive to maintain secure operations across multiple locations. They need the ability to view their equipment and sites from one centralized location, identify potential hazards and deliver insights that improve decision making during unfolding events.

DeepInsights™ combines an IoT software suite with Open AI to integrate AI models, automate logic and enable visualization, in turn creating safer venues. Centralized management provides complete visibility of locations from edge devices, with automation that streamlines security operations. The scalable solution enables CSPs to extend coverage to new sites as they roll out.

Partnership benefits

- **Trusted Dell infrastructure:** Access the broadest portfolio of optimized, verified Edge AI applications and ruggedized hardware to support edge workloads at scale. Cybersecurity is embedded from design to deployment, ensuring CSPs can innovate with peace of mind.
- **Intel architecture:** Designed for performance and efficiency, Intel's processors are built to handle high-demand applications such as AI, whether at the edge or core.
- **Optimized and verified solution:** Dell and Intel provide a growing catalog of pre-tested and validated Edge AI solutions for CSPs to leverage with their enterprise offerings.
- **Turnkey, scalable edge application:** Built to unify existing IoT systems and devices, providing complete visibility through a centralized application from EPIC.IO.
- **Rapid deployment:** Deploy at scale with trusted partners.

Customer benefits

- **Strengthens security at the edge:** Use cases include posture detection improvement; vehicle and licence plate recognition; heatmaps; detection of people, crowds, garbage, tents and fires.
- **Enhances decision making:** Unified surveillance and automation deliver timely, informed insights via advanced analytics to transform decision making.
- **Cost efficient:** 19% average cost savings from SIM management.
- **Scalable:** Extend coverage to new or existing sites with ease via an interoperable, device-agnostic solution.

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

Intel® Xeon® Scalable processors

Intel Distribution of OpenVINO Toolkit

Epic IO DeepInsights (Video Analytics Application)

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

- **Manufacturing:** Robotics automation, worker safety, inventory management, predictive maintenance, temperature/leak monitoring, product defect monitoring, access controls, pump monitoring.

- **Energy:** Site security for critical infrastructure, theft and vandalism reduction, waste disposal management, asset management, worker compliance, remote site access and security, perimeter security, leak detection.

- **Health/Life Sciences:** Asset tracking, air quality monitoring, patient safety, occupancy management, leak detection, slip/fall detection, bio-hazard container monitoring, thermal screening.

- **Retail:** Queue management, parking lot occupancy management, loss prevention, cold storage management, temperate screening.

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112 TB of surveillance, access control and automation event data captured last year. 1+ billion media objects captured by customers using DeepInsights™ Site Security platform.

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4. Vision AI for Smart Manufacturing

Telecom use case

CSPs' manufacturing customers are always looking for new ways to enhance quality and efficiency in their factories. Creating a smart factory that integrates new digital technologies can drive these efficiencies. Combining IoT devices with computer vision and AI, manufacturers can automate and optimize processes in real time, detect potential defects or interruptions on the production line, and much more.

Chooch Vision AI offers computer vision-based incident prediction and detection. Manufacturers can build computer vision solutions in minutes, enabling smart processes that avoid production interruptions and improve productivity. Anomalies are caught using object detection and image recognition at the edge or cloud, faster than humans can – enhancing efficiency for manufacturers.

Partnership benefits

- **Turnkey solution:** Vision AI is ready to deploy out of the box, and is adaptable to edge use cases of any sector or industry.

- **Optimized and verified solution:** Dell and Intel provide a growing catalog of pre-tested and validated Edge AI solutions for CSPs to leverage with their enterprise offerings.

- **Faster time to market:** Enables system integrators to rapidly deploy models at scale.

Customer benefits

- **Accelerates compute vision deployment:** AI Vision Studio builds computer vision solutions in minutes.

- **Pre-trained models:** ReadyNow™ AI models offer ready-to-deploy object detection and image recognition, helping manufacturers accelerate their smart factory deployments.

- **Enhances productivity:** Processes images and video data at the edge or cloud, faster and with more accuracy than humans can – helping to avoid production interruptions.

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

intel **XEON**

Intel® Xeon® Scalable processors

OpenVINO™

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Intel Distribution of OpenVINO Toolkit

Chooch Vision AI

DELL Technologies
ProDeploy

DELL Technologies
ProSupport
24x7 Support
Predictive & Proactive
NBD Onsite

SI Full Stack Deployment and Managed Services

Dell ProDeploy, ProSupport

Example Use cases:

- **Manufacturing:** Inventory management, usage tracking, theft detection, anomaly detection, defects in products, predictive maintenance, workforce compliance, safety compliance, loitering detection, forklift monitoring, collision escalation.

- **Energy:** Infra intruder detection, equipment protection and infra object of interest security, worker safety, PPE compliance.

- **Health/Life Sciences:** Workplace employee health and safety monitoring, PPE compliance, controlled substance disbursement monitoring.

- **Retail:** Auto-process future orders, workforce safety and compliance, loitering detection, monitoring of vape usage and lying down, inventory management of on-shelf and related spaces, automated tracking of usage, theft detection.

- **Defense:** Geospatial imagery processing for before/after change analysis, vehicle and people detection identification.

A co-founder and CEO reported their company was able to innovate by placing lightweight inference engines in self-hosted and edge environments, and then fuse traditional computer vision models with LLMs.

5. AI-Powered Mission Critical Communication

Telecom use case

In industries where operations pose a risk to human safety, IoT devices can be deployed into potentially hazardous environments to complete these tasks instead. Human to machine communication can enable users to maintain precise control of their devices, in turn improving worker safety and security.

FlexEdge™ uses an AI/ML based framework to enable human to machine communication for the voice command and control of IoT devices, including cameras, drones and robots. FlexEdge™ delivers standards-compliant edge communication software for voice and video calling over public and private networks, while supporting Mission-Critical Push-to-Talk functionality.

Partnership benefits

- **Turnkey solution:** FlexEdge™ is ready to deploy out of the box, and is adaptable to edge use cases of any sector or industry.
- **Optimized and verified solution:** Dell and Intel provide a growing catalog of pre-tested and validated Edge AI solutions for CSPs to leverage with their enterprise offerings.
- **Faster time to market:** Enables system integrators to rapidly deploy models at scale.

Customer benefits

- **Enhances mission critical communications:** AI and machine learning enables human to machine communications for resilient communications across use cases.
- **Improves worker safety:** IoT devices can be deployed into hazardous environments such as mines, reducing risk to human life.
- **Security:** Voice authentication delivers secure communications for any industry vertical.

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

Intel® Xeon® Scalable processors

Intel Distribution of OpenVINO Toolkit

FlexEDGE (Ecrio Communication Pack)

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

- **Manufacturing:** Mission-critical push-to-talk, voice-activated hands-free machine management, condition monitoring with anomaly detection, predictive maintenance.

- **Energy:** Notification/response to hazardous conditions, smart grid management, condition monitoring, pipelines/wind turbines monitoring, remote energy asset monitoring, safety & compliance enforcement.

- **Health/Life Sciences:** AI-enabled speech-to-text, text-to-speech, seamless communication between doctors/patients, patient vitals monitoring and reporting.

- **Retail:** Voice-activated controls, secure communication, queue monitoring, checkout delays monitoring and notification.

- **Defense:** Secure communication, situational awareness, voice authentication, secure video analytics, voice command recognition/enhanced decision making with real-time video monitoring for emergency response and perimeter safety.

Winner of the National Security Innovation Network's (NSIN) Catastrophic Communications Challenge, July 2024

6. Real-Time AI-Powered Crowd Analytics

Telecom use case

For CSP enterprise customers, monitoring individual and crowd behaviour at their premises is key to maintaining safe and secure operations. The ability to count, track and analyze people can drive business propositions across multiple verticals, from understanding the main direction of footfall in a smart city or stadium, to tracking queues in an amusement park or convention center.

WaitTime uses camera feeds to count, track and analyze individual and group behaviour. The end-to-end deployment combines video analytics with existing cameras to generate real-time insights. These can be used to optimize operations, while enabling communication via dashboards, digital and mobile displays.

Partnership benefits

- **Trusted Dell infrastructure:** Access the broadest portfolio of pre-validated solutions and ruggedized hardware to support edge workloads at scale. Cybersecurity is embedded from design to deployment, ensuring you can innovate with peace of mind.

- **Intel architecture:** Designed for performance and efficiency, Intel's processors are built to handle high-demand applications such as AI at the edge.

- **Optimized and verified solution:** Dell and Intel provide a growing catalog of pre-tested and validated Edge AI solutions for CSPs to leverage with their enterprise offerings.

- **Turnkey, scalable edge application:** End-to-end deployment works with existing cameras to accelerate operations.

- **Rapid deployment:** Deploy at scale with trusted partners.

Customer benefits

- **Improves safety:** Use cases include real-time large event control that monitors footfall in key areas, with the ability to remotely manage crowds via screens and devices.

- **Enhances customer experience:** Enables transformative new processes such as queue busting that reduce wait times at transport hubs.

- **Monetization:** Enterprises can offer analytics as a service that monitors hall traffic at convention centers.

- **Scalable:** Extend coverage to new or existing sites with ease as new devices are brought online.

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WaitTime™

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

Intel® Xeon® Scalable processors

Intel Distribution of OpenVINO Toolkit

WaitTime solution

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

- **Sports and Entertainment:** Concessions queues, footfall in zones, ingress/egress queues.
- **Retail:** Cross intelligent property management (analytics-as-a-service), footfall in zones and at ingress/egress points.
- **Amusement Parks:** Queue management (including guest platform).
- **Smart City:** Large event management, footfall in key areas.
- **Transportation:** Footfall analytics, queue busting.
- **Convention Centers:** Hall traffic, analytics as a service to shows.

Successfully deployed in stadiums used by the Denver Broncos, Miami Heat, LA Dodgers and Detroit Pistons, and facilities including Melbourne Cricket Ground, Levis Stadium, T-Mobile Arena and The Ohio State University. Other deployments include the Mall of America, NEC UK, Kyoto Research Park and the city of Manchester.

7. AI-Powered Smart Transportation

Telecom use case

For CSP transportation customers, public and private transport needs to be monitored to ensure journeys are completed efficiently and safely. AI applications with deep learning algorithms can be leveraged to improve transportation monitoring.

A.I. Smart Total delivers AI solutions that create more efficient transport systems. It uses AI and deep learning for smart video analysis, helping to monitor vehicles, traffic, parking and pedestrian traffic.

Partnership benefits

- **Turnkey solution:** A.I. Smart Total is ready to deploy out of the box, and is adaptable to edge use cases of any sector or industry.

- **Partnerships:** Leverage Dell and Intel expertise for efficient operations

- **Faster time to market:** Enable system integrators to rapidly deploy models at scale.

Customer benefits

- **AI Rail:** Uses advanced AI and deep learning algorithms to detect obstacles on tracks, monitor rail crossings and deactivate trains when required.

- **AI-based licence plate recognition:** Uses an innovative engine based on semantic technologies, the solution can detect vehicle licence plates up to a maximum speed of 230 km/h.

- **Smart parking:** Space occupancy management tool that can detect partially visible parking spaces.

- **AI smart analytics:** A multi-platform application that can be installed on more than 20 different hardware platforms including cameras (edge), small processing systems (embedded devices), workstations and servers.

Hardware/software stack

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A.I. Tech
The Vision of the future. Now.

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

intel. XEON

Intel® Xeon® Scalable processors

OpenVINO™

A.I. Tech
The Vision of the future. Now.

Intel Distribution of OpenVINO Toolkit

A.I. Smart Total solution

DELL Technologies ProDeploy

DELL Technologies ProSupport
24x7 Support
Predictive & Proactive
NBD Onsite

SI Full Stack Deployment and Managed Services

Dell ProDeploy, ProSupport

Example Use cases:

- **Manufacturing:** Spill monitoring, worker safety, intrusion detection, PPE compliance, smoke/fire detection.

- **Energy:** Real-time smoke/fire detection, worker safety, energy efficiency monitoring.

- **Health/Life Sciences:** Sterile area monitoring, tripwire detection, smoke/fire detection, abandoned objects detection.

- **Retail:** Customer characterization, loitering control, high accuracy crowd counting for thousands, vandalism control.

- **Transportation:** Crown monitoring, surveillance, vehicle authorization, license plate recognition.

Already deployed a number of successful use cases globally, including vehicle traffic analysis in Cape Town city center, crowd counting in Puerto Rican national parks, and restricted area monitoring at Sky TV premises.

8. People Analytics: Footfall, Individual, Crowd

Telecom use case

Using video analysis for people counting & movement can help CSP enterprise customers develop analytics solutions spanning spatial utilization, operational optimization, customer engagement and strategic decision making. These solutions can be deployed for cross-vertical domains including retail, smart cities and transportation. Facial recognition can also be used for identification and access management.

TensorGo uses video analytics of existing camera feeds to monitor footfall, individuals and crowds, while offering solutions packs that incorporate other functions. Smart cities can count vehicles and detect park spaces; retail can detect burglaries, vandalism or abuse; while transportation can integrate biometric identification, safety compliance, people tracking and licence plate recognition. Enterprises can monetize their investment through the creation of different deployment and subscription models.

Partnership benefits

- **Trusted Dell infrastructure:** Access the broadest portfolio of pre-validated solutions and ruggedized hardware to support edge workloads at scale. Cybersecurity is embedded from design to deployment, ensuring you can innovate with peace of mind.

- **Intel architecture:** Designed for performance and efficiency, Intel's processors are built to handle high-demand applications such as AI at the edge.

- **Tested and validated solution:** Dell and Intel provide a growing catalog of pre-tested and validated Edge AI solutions for CSPs to leverage with their enterprise offerings.

- **Turnkey, scalable edge application:** End-to-end deployment works with existing cameras to accelerate time to online.

- **Rapid deployment:** Deploy at scale with trusted partners.

Customer benefits

- **Accelerates deployment:** Video analytics use existing cameras to streamline operations.

- **Monetization:** Enables the launch of subscription models such as pay-per-use or pricing based on data volume, hours used or inferencing.

- **Flexible integration:** Supports multiple deployment models, including bundled AI/ML & engineering services or PaaS/BaaS offerings.

- **Customization:** API services offer custom solution building to meet unique use cases.

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TensorGo

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

intel XEON
Intel® Xeon® Scalable processors

OpenVINO™
Intel Distribution of OpenVINO Toolkit

TensorGo
TensorGo AI Analytics applications

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DELL Technologies ProSupport 24x7 Support Predictive & Proactive NBD Onsite

SI Full Stack Deployment and Managed Services

Dell ProDeploy, ProSupport

Example Use cases:

*Multiple solution packs available

- **Smart City:** Crowd count, people tracking, vehicle counting, footfall analysis, parking space detection.

- **Health/Life Sciences:** Heart rate, SPO2, stress level, HRV, respiration rate.

- **Retail:** Crowd dynamics, burglary, vandalism, shooting, stealing, abuse, arson detection, parking space detection.

- **Transportation:** Biometric identification, behavioural analysis, safety compliance, crowd count, footfall analysis, people tracking, license plate recognition.

9. AI-Powered Worker Safety and Hazard Detection

Telecom use case

CSP customers across a range of verticals need to optimize their processes through real-time video analytics. AI can automate defect detection and quality inspection to enhance product quality, keep workers and sites safe through hazard detection, or monitor the movement of people at borders or in retail environments.

BrainFrame is a smart vision platform that enables any application to leverage AI for real-time video analysis. BrainFrame uses OpenVisionCapsules, an open-source deep-learning model, to define standardized input, output and configuration for AI algorithms. It allows for easy wrapping and packaging of deep-learning models so that they can be easily deployed and configured for fast integration into other software.

Partnership benefits

- **Trusted Dell infrastructure:** Access the broadest portfolio of pre-validated solutions and ruggedized hardware to support edge workloads at scale. Cybersecurity is embedded from design to deployment, ensuring you can innovate with peace of mind.

- **Intel architecture:** Designed for performance and efficiency, Intel's processors are built to handle high-demand applications such as AI at the edge.

- **Optimized and verified solution:** Dell and Intel provide a growing catalog of pre-tested and validated Edge AI solutions for CSPs to leverage with their enterprise offerings.

- **Turnkey, scalable edge application:** End-to-end deployment works with existing cameras to accelerate time to online.

- **Rapid deployment:** Deploy at scale with trusted partners.

Customer benefits

- **Enhances worker safety:** Computer vision monitors sites for hazards, and checks employees for PPE conformance.

- **Accelerates deployment:** Video analytics use existing cameras to streamline deployment, with the ability to use existing/new IP cameras to build applications.

- **Monetization:** Enables the launch of subscription models such as pay-per-use or pricing based on data volume, hours used, & inferencing.

- **Flexible integration:** Supports multiple deployment models, including bundled AI/ML & engineering services or PaaS/BaaS offerings.

- **Customization:** API services can custom-build solutions to meet unique use cases.

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Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

Intel® Xeon® Scalable processors

OpenVINO™

Intel Distribution of OpenVINO Toolkit

AƟTU

AOTU BrainFrame (Edge AI application)

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

- **Manufacturing:** Factory Safety, worker safety, production line anomaly detection, PPE conformance.

- **Smart Buildings:** Building parking safety.

- **Retail:** Store traffic analytics, vision-based video analytics, PPE conformance.

- **Energy/Utilities:** Energy grid safety, geo-fencing, grid access controls.

- **Defense:** Border control, people movement.

By using BrainFrame, customers reported a **90%** reduction in safety violations and **60%** reduction in costs.

10. Intelligent Video Analytics for Retail, Transportation and Ports

Telecom use case

CSP customers across a range of verticals require the ability to integrate video analytics into their existing CCTV data, helping to identify potential hazards or suspicious events.

IVAR's state-of-the-art AI utilizes existing CCTV video data to effectively identify people, vehicles and objects, detect suspicious events and provide actionable analytics – all through a single dashboard.

Partnership benefits

- **Trusted Dell Infrastructure:** Access the broadest portfolio of pre-validated solutions and ruggedized hardware to support edge workload at scale. Cybersecurity is embedded from design to deployment, ensuring you can innovate with peace of mind.
- **Intel architecture:** Designed for performance and efficiency, Intel's processors are built to handle high-demand applications such as AI at the edge.
- **Optimized and verified solution:** Dell and Intel provide a growing catalogue of pre-tested and validated edge AI solutions for CSPs to leverage with their enterprise offerings.
- **Turnkey, scalable edge application:** End-to-end deployment works with existing CCTV video data to accelerate time to online.
- **Rapid deployment:** Deploy at scale with trusted partners.

Customer benefits

- **Enhanced safety and security:** Potential hazards can be identified and acted upon quickly, reducing risk to personnel at the deployment location.
- **Optimized for cost and performance:** Integrates with pre-existing CCTV cameras and data.
- **Improved crime prevention and investigations:** Acts as a deterrent to criminal activity, while facial and license plate recognition can assist with investigations.
- **Optimized traffic and congestion management:** Traffic behavior monitoring can help reduce journey times.
- **Faster responses at the edge:** Reduced latency enables real-time monitoring and decision making.

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

Intel® Xeon® Scalable processors

Gorilla IVAR™

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

- **Retail:** Consumer trend monitoring, statistical customer behavior reporting, front-of-store consumer monitoring.

- **Transportation:** Red light violation tracking, traffic behavior monitoring, record and view violations, license plate recognition, real-time violation alerts, parking management, reduced parking space searches, real-time analytics from bodycams.

- **Ports:** Seafarers and pirate prevention, suspicious behavior assessment, identity verification, actionable insights from bodycams, real-time cargo monitoring.

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11. AI-Powered Video Analytics for Worker, Transportation and Site Safety

Telecom use case

Surveillance software is used across many verticals to maintain site security. However, CSPs' customers may need to scale the application to the requirements of their site (or sites), while including customized analytics and archiving.

Axxon One is an on-prem video management solution which combines capable AI video analytics with a versatile system architecture and highly customizable and configurable user interface. Powerful AI tools can be applied to existing infrastructure.

Partnership benefits

- **Trusted Dell Infrastructure:** Access the broadest portfolio of pre-validated solutions and ruggedized hardware to support edge workload at scale. Cybersecurity is embedded from design to deployment, ensuring you can innovate with peace of mind.

- **Intel architecture:** Designed for performance and efficiency, Intel's processors are built to handle high-demand applications such as AI at the edge.

- **Optimized and verified solution:** Dell and Intel provide a growing catalogue of pre-tested and validated edge AI solutions for CSPs to leverage with their enterprise offerings.

- **Turnkey, scalable edge application:** End-to-end deployment can apply powerful AI tools to existing infrastructure.

- **Rapid deployment:** Deploy at scale with trusted partners.

Customer benefits

- **Powerful and flexible real-time detection analytics:** AI video analytics can be customized to meet a variety of use cases while using current systems.

- **Faster results:** Archived footage can be investigated via AI to accelerate search queries.

- **Scalable and customizable:** Versatile system architecture can create everything from small and large video surveillance installations to multi-location deployments. Compatible with any Open Network Video Interface Forum (ONVIF) device.

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

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Intel® Xeon® Scalable processors

axxonsoft

Axxon One

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DELL Technologies **ProSupport** 24x7 Support Predictive & Proactive NBD Onsite

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

- **Manufacturing & Energy:** Machine and parameter security, geo-fencing, critical infrastructure security, worker safety, real-time alerts and AI driven analytics.

- **Retail:** Real-time video-based decision making, worker safety & health, asset security, PPE compliance, customer safety, queue management.

- **Transportation:** Trespass incidence reporting, line crossing hazard detection, security breaches, animal intrusions.

- **Education:** Gunshot detection, glass break-ins, siren and aggression monitoring.

12. Inventory Visibility and Management

Telecom use case

Organizations across retail, manufacturing and health/life sciences need end-to-end visibility of their supply chain to enhance availability and sales. By combining augmented analytics with generative AI, they can identify issues in real-time and take the appropriate corrective actions – leading to optimized processes that reduce costs and wastage.

C5i Discovery Inventory Visibility Solution identifies inventory issues and recommends proactive corrective actions. Its augmented analytics platform uses generative AI to drive decision intelligence through personalized, actionable insights and conversational AI.

Partnership benefits

- **Trusted Dell Infrastructure:** Access the broadest portfolio of pre-validated solutions and ruggedized hardware to support edge workload at scale. Cybersecurity is embedded from design to deployment, ensuring you can innovate with peace of mind.

- **Intel architecture:** Designed for performance and efficiency, Intel's processors are built to handle high-demand applications such as AI at the edge.

- **Optimized and verified solution:** Dell and Intel provide a growing catalogue of pre-tested and validated edge AI solutions for CSPs to leverage with their enterprise offerings.

- **Turnkey, scalable edge application:** End-to-end deployment can apply powerful AI tools to existing infrastructure.

- **Rapid deployment:** Deploy at scale with trusted partners.

Customer benefits

- **Drives decision intelligence:** Actionable insights and conversational AI can drive outcomes such as increased sales.

- **Improves inventory visibility:** Near real-time alerts can highlight issues relating to stock levels, fill rates, warehouse capacity and more.

- **Reduces waste:** Maintaining base levels of stock and SKU tracking ensures businesses don't carry unnecessary goods.

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

Intel® Xeon® Scalable processors

C5i Discovery

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

- **Manufacturing:** Finished goods waste reduction, supply chain analytics.
- **Health/Life Sciences:** Time-to-sight reduction, behavioral analytics.
- **Retail:** Finished goods waste reduction, predictive behavior and analytics.

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Organizations deploying C5i Discovery saw a **~5%** to **25%** increase in sales by improving fill rates, alongside a **~30%** reduction in inventory carrying costs.

13. LiDAR-Powered Geospatial Security

Security & Retail use case

Monitoring is important for CSP customers in charge of security-conscious sites such as critical infrastructure, banking, manufacturing plants and more. Protecting these sites 24/7 requires infrastructure that can detect and monitor personnel and property day and night, accounting for rapidly changing light and weather conditions. During operational hours, the multi-purpose sensor collects business intelligence data to improve daily operations and efficiency.

SAIMOS Video Analytics is a server-side analytics solution that enables real-time video and geospatial monitoring for effective surveillance. Its 3D LiDAR capabilities enhance situational awareness, with real-time data processing that accelerates decision making and responses to unfolding events. The solution seamlessly integrates with edge AI infrastructure to make sites safer sooner.

Partnership benefits

- **Turnkey solution:** SAIMOS Video Analytics is ready to deploy out of the box, and is adaptable to edge use cases of any sector or industry.

- **Optimized and verified solution:** Dell and Intel provide a growing catalog of pre-tested and verified Edge AI solutions for CSPs to leverage with their enterprise offerings.

- **Faster time to market:** Enables system integrators to rapidly deploy models at scale.

Customer benefits

- **Enhanced situational awareness:** Advanced geospatial monitoring capabilities enable effective surveillance and situational awareness, driving use cases such as intrusion detection, crowd analytics, heatmapping, occupancy, asset protection and more.

- **Improves decision making:** Real-time data processing and analytics enables optimization of daily operations.

- **Scalable:** Integrates seamlessly with existing edge AI infrastructure for improved performance and capabilities.

- **Cost efficient:** Intel CPUs offer greater cost efficiency and scalability.

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

SAIMOS Video Analytics

Intel Distribution of OpenVINO Toolkit

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

- **Retail:** Crowd analytics, heatmapping (frequency and retention), occupancy, queue detection, facial recognition and analytics.

- **Smart & Safe City:** Asset protection, traffic information, crowd analytics, heatmapping, LPR, space optimization, loitering, law enforcement, etc.

- **Critical Infrastructure (Airports, Railways, Roads & Highways, Oil & Gas, etc.):** Object counting, occupancy, proximity detection, perimeter protection/intrusion.

- **Transportation:** License Plate Recognition (LPR), parking, city and highway traffic, people counting, cross camera object tracking, queue management, heatmaps.

14. AI-Powered Facial Analytics

Telecom use case

CSP customers looking to upgrade their security posture previously experienced the time and cost-intensive prospect of replacing pre-existing network-based camera systems. However, AI-powered facial and behavioral analytics can be integrated with current video management systems to authorize entry to restricted areas, monitor staff or suspicious activity, or collect data about specific demographics.

FaceMe enables organizations to enhance their existing security camera systems with facial recognition capabilities. It integrates with 1080P IP network cameras to enable services such as access control, eliminating the need for access cards that could potentially compromise security if lost. FaceMe can also collect data about behaviors and demographics, enabling site managers to predict actions and optimize their responses.

Partnership benefits

- **Turnkey solution:** FaceMe is ready to deploy out of the box, and is adaptable to edge use cases of any sector or industry.
- **Optimized and verified solution:** Dell and Intel provide a growing catalog of pre-tested and validated Edge AI solutions for CSPs to leverage with their enterprise offerings.
- **Faster time to market:** Enables system integrators to rapidly deploy models at scale.

Customer benefits

- **Improves identification and verification:** Advanced facial recognition capabilities can be applied to existing security systems to power use cases such secure access control, customer blocklisting and contactless time attendance tracking.
- **Enhances decision making:** Facial, behavioral and demographic analytics can be used to enhance responses.
- **Upgrades security posture cost-effectively:** Integrates seamlessly with existing network-based camera systems for enhanced scalability.

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

FaceMe Solution

Intel Distribution of OpenVINO Toolkit

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

- **Manufacturing:** Workforce management, contactless time attendance tracking, access authorization via facial recognition, accurate liveness detection.

- **Energy:** Access control, accurate facial recognition with goggles/masks/poor backlight, accurate liveness detection (real person vs stolen card), PPE enforcement.

- **Health/Life Sciences:** Controlled substance access management, pharma management, streamlined drug delivery workflow.

- **Retail:** Fast employee recognition with masks, customer interest analysis via facial emotions tracking, reduce fraudulent access, visitor age, gender, emotions.

- **Hospitality:** Improve wait time, guest profile/credential setup, one-step check-ins.

17. AI-Powered Multi-Sensory Analytics

Telecom use case

For CSP enterprise and government customers responsible for logistics, operations and safety, monitoring sensory elements in real time can diagnose hazards or issues so that staff can then take preventative measures.

iOmniscient is an AI-based multi-sensory (video, sound and smell) analytics tool. It seamlessly integrates with existing infrastructure to privately track video and sound (smell requires the e-Nose extension), with temperature sensors powering tailored use cases from traffic incident management, medical and critical safety monitoring to customer behavior analytics. iOmniscient can improve safety, security and productivity across Smart Cities, transportation, retail and more.

Partnership benefits

- **Turnkey solution:** iOmniscient has the world's most comprehensive portfolio of applications suitable for 30 different industries according to a Gartner Report, and is ready to deploy out of the box.
- **Optimized and verified solution:** Dell and Intel provide a growing catalog of pre-tested and validated Edge AI solutions for CSPs to leverage with their enterprise offerings.
- **Faster time to market:** Enables system integrators to rapidly deploy models at scale.

Customer benefits

- **Improves accuracy:** This robust solution is designed to offer excellent results, with fewer false alarms.
- **Enhances resource efficiency:** Requires less cameras to operate, uses 90% less storage and bandwidth, and doesn't require GPUs.
- **Scalable:** Integrates seamlessly with any camera or microphone, making it suitable for various applications and environments.

DELL Technologies

intel.

iOmniscient Multi-Sensory Autonomous AI

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

iOmniscient solution

OpenVINO™

DELLTechnologies **ProDeploy**

DELLTechnologies **ProSupport** 24x7 Support Predictive & Proactive NBD Onsite

Intel Distribution of OpenVINO Toolkit

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

- **Manufacturing & Energy:** Improve continuous/batch process manufacturing, PPE compliance, gas leak detection, noise control, detection of slips/falls, fall detection from height, driver match, vehicle authorization, lost goods tracking, perishable goods expiration tracking, remote asset monitoring.

- **Health/Life Sciences:** Detect slips and falls, patient movement, improve care oversight, patient tracking, reduce drug thefts, cleanliness management.

- **Retail:** Retail safety, PPE compliance, customer behavior analytics, staff productivity, queue management, store traffic analytics, customer flow assessment.

- **DoD:** Long distance intrusion detection, detect and improve man-down response.

- **Transportation:** Traffic incident management, adaptive traffic optimization, pedestrian safety, infra/ asset management.

16. AI-Powered Customer & Quality Experiences

Telecom use case

Building managers for CSPs, as well as customers responsible for maintaining the safety and operations of venues, need infrastructure that can easily integrate AI and edge devices to streamline management and enhance visitor experiences.

Padmé's advanced AI solution enables configuration of a venue and its edge devices in just a few clicks. Venue managers can access a birds-eye view of a venue through a single dashboard, supported by analytics such as crowd counting, crowd surging, queue times and more. High-precision machine learning models reduce errors in data extraction and analysis, helping to deliver more efficient operations that enhance user experiences.

Partnership benefits

- **Turnkey solution:** Padmé is ready to deploy out of the box, and is adaptable to edge use cases of any sector or industry.

- **Optimized and verified solution:** Dell and Intel provide a growing catalog of pre-tested and validated Edge AI solutions for CSPs to leverage with their enterprise offerings.

- **Faster time to market:** Enables system integrators to rapidly deploy models at scale.

Customer benefits

- **Enhances user experiences:** A birds-eye view of the venue and its edge devices enables organizations to reduce queue times for customers.

- **Optimizes operations:** High-precision machine learning ensures reliability with data extraction and analysis, reducing labor costs and time spent on manual tasks. Reduced queues optimize space utilization and operational savings.

- **Scalable:** Integrates seamlessly with any IP camera, and can be tailored to specific customer needs.

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

Padmé solution

Intel Distribution of OpenVINO Toolkit

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

- **Manufacturing:** Conveyor belt item count: Count the number of items or identify damage or quality control for the items on the conveyor belt or production line.

- **Retail:** Store ingress/egress (footfall); Queue analysis; Aisle dwell time; Crowd density inside a store; Empty shelf alerts; Alert for access to forbidden areas; CCTV people detection off hours.

- **Health and Life Sciences:** Person proximity detection (like COVID restrictions); Access control; Presence of non-medical staff in reserved areas (uniform detection); The crowd model can be used to analyze medical images.

- **Sports/ music venues:** Audience/crowd counting; Ingress egress; Car park ingress egress.

17. GenAI-Driven Customer Service & Content Delivery

Healthcare use case

Generate empowers healthcare professionals with a secure, on-device AI assistant that enhances clinical and operational efficiency – without risking patient data. From summarizing medical documents to retrieving policy guidelines or assisting with administrative workflows, Generate provides instant, private support right at the point of care. Its local deployment ensures HIPAA-compliant data handling while freeing up staff time for higher-value patient interactions.

Generate is a powerful LLM-driven solution that uses retrieval-augmented generation (RAG) to pull data from disparate sources and generate content in response. Generate comes standard with customizable AgenticAI "cards", which allows customers to memorize standardized processes in place to automate workflows. Generate's containerization gives CSPs and their customers the flexibility to deploy and train their own LLM in a private environment (on-premises, in the private cloud, or on an AI PC), removing the risk of any data leaks to outside platforms. With tools such as image and email response generators, organizations can enhance efficiency and improve response times.

Partnership benefits

- **Turnkey solution:** Generate is ready to deploy out of the box, and is adaptable to edge use cases of any sector or industry. Through customized "Card" creation, partners can also garner services opportunities with their clients.

- **Optimized and verified solution:** Dell and Intel provide a growing catalog of pre-tested and validated Edge AI solutions for CSPs to leverage with their enterprise offerings.

- **Faster time to market:** Enables system integrators to rapidly deploy models at scale.

Customer benefits

- **Optimizes operations:** LLM-driven solution uses RAG to accelerate data retrieval and generate more intelligent, contextual answers.

- **Improves accessibility:** A conversational interface makes deep document analysis easier to complete.

- **Enhances privacy:** Containerized private environment ensures no data leaks to outside platforms.

- **Scalable:** Integrates seamlessly with any third-party solution, with database search functions that can scale with the organization.

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

Interplay Generate solution

Intel Distribution of OpenVINO Toolkit

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

- **Manufacturing:** Generate training material, summarize equipment specifications, analyze shipping and logistics manifests.

- **Retail:** Brand-voiced customer service chats and emails, custom brand content, SMB private financial summaries, customized staff training.

- **Health and Life Sciences:** Private document analysis, secure staff training, IT firewalls respected for HIPAA compliance.

- **Energy:** Secure and private data analysis, secure document summaries, analyze logistics manifests.

18. AI-Enabled Process Automation

Telecom use case

For CSPs' manufacturing and construction customers, improving operational safety and efficiency is dependent upon monitoring their sites and processes in real time. From monitoring production parameters to identifying physical intrusions in hazardous zones, site managers can boost efficiency, productivity and safety.
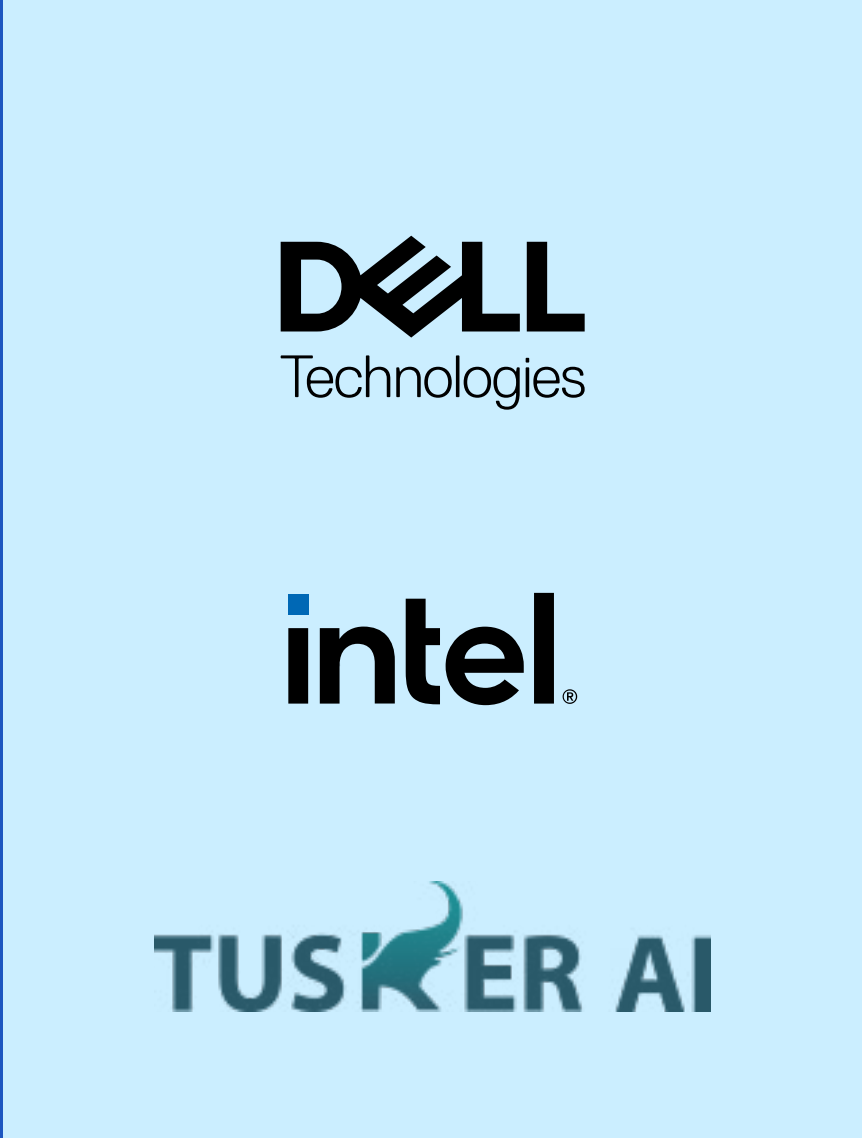
Tusker AI uses advanced image and video processing from edge devices to actively monitor processes and locations. Capable of turning visual data into measurable results, it can identify inefficiencies for workers to optimize workflows. It can also prevent unauthorized access to hazardous environments, improving plant safety by reducing the risk of accidents – ultimately creating more efficient, productive sites.

Partnership benefits

- **Turnkey solution:** Tusker AI is ready to deploy out of the box, and is adaptable to edge use cases of any sector or industry.

- **Optimized and verified solution:** Dell and Intel provide a growing catalog of pre-tested and validated Edge AI solutions for CSPs to leverage with their enterprise offerings.

- **Faster time to market:** Enables system integrators to rapidly deploy models at scale.

Customer benefits

- **Optimizes operations:** Monitors production parameters in real time, identifying inefficiencies and enabling workers to enhance productivity with AI-driven insights.

- **Enhances safety and security:** Prevents unauthorized access to hazardous zones that could cause accidents, while also monitoring worker activity and standard operating procedures.

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

Tusker AI solution

Intel Distribution of OpenVINO Toolkit

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

Manufacturing: The solution is specifically designed for manufacturing companies aiming to improve operational safety and efficiency.

- Intrusion detection

- Monitor restricted or hazardous areas

- Anomaly detection

- Worker productivity monitoring

- Productivity Index

- Workflow optimization

19. GenAI-Powered Audio Intelligence for Medical Transcription and Patient Interaction

Telecom use case

CSPs and other organizations that communicate with their customers are generating huge volumes of unstructured data with potential value. These organizations need a means of transforming these audio calls, emails and chats into structured analytics and business insights.

Lingo is an advanced AI-driven platform that derives insights from unstructured audio through state-of-the-art multilingual ASR, NLP, and LLM. It applies features such as proper vernacular meaning, sentiment analysis, intent recognition, topic extraction, and keywords and summarization, to enhance customer understanding, enabling businesses to track performance metrics and make data-driven decisions.

Partnership benefits

- **Turnkey solution:** Lingo is ready to deploy out of the box, and is adaptable to edge use cases of any sector or industry.
- **Optimized and verified solution:** Dell and Intel provide a growing catalog of pre-tested and validated Edge AI solutions for CSPs to leverage with their enterprise offerings.
- **Faster time to market:** Enables system integrators to rapidly deploy models at scale.

Customer benefits

- **Multilingual capabilities:** Improves communication and decision making through understanding of vernacular intent and other localized behaviors.
- **Enhances safety and security:** LLMs are hosted in a private environment to ensure complete end-to-end privacy management.
- **Scalable:** Integrates seamlessly with existing enterprise tools.

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

Lingo platform

Intel Distribution of OpenVINO Toolkit

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

- **Health/Life Sciences:** Enabling real-time patient interaction analysis for early intervention and AI-driven clinical decision-making.

- **Retail/E-commerce:** Deriving sales propensity analysis, and feedback insights by listening to conversations and insights from mails and chats.

- **CCaaS (Call Center as a Service):** Support real-time agent assist, performance tracking, and sentiment analysis to improve CSAT and NPS.

- **BFSI (Banking, Financial Services, and Insurance):** Enhance customer interactions by analyzing sales propensity, improving service prioritization, and ensuring compliance through call quality monitoring.

20. Gen AI-Powered Public Safety and Enterprise Operations

Telecom use case

CSPs and other organizations operating across non-carpeted environments need to extend connectivity to devices, radios and more, to maintain safe and intelligent operations.
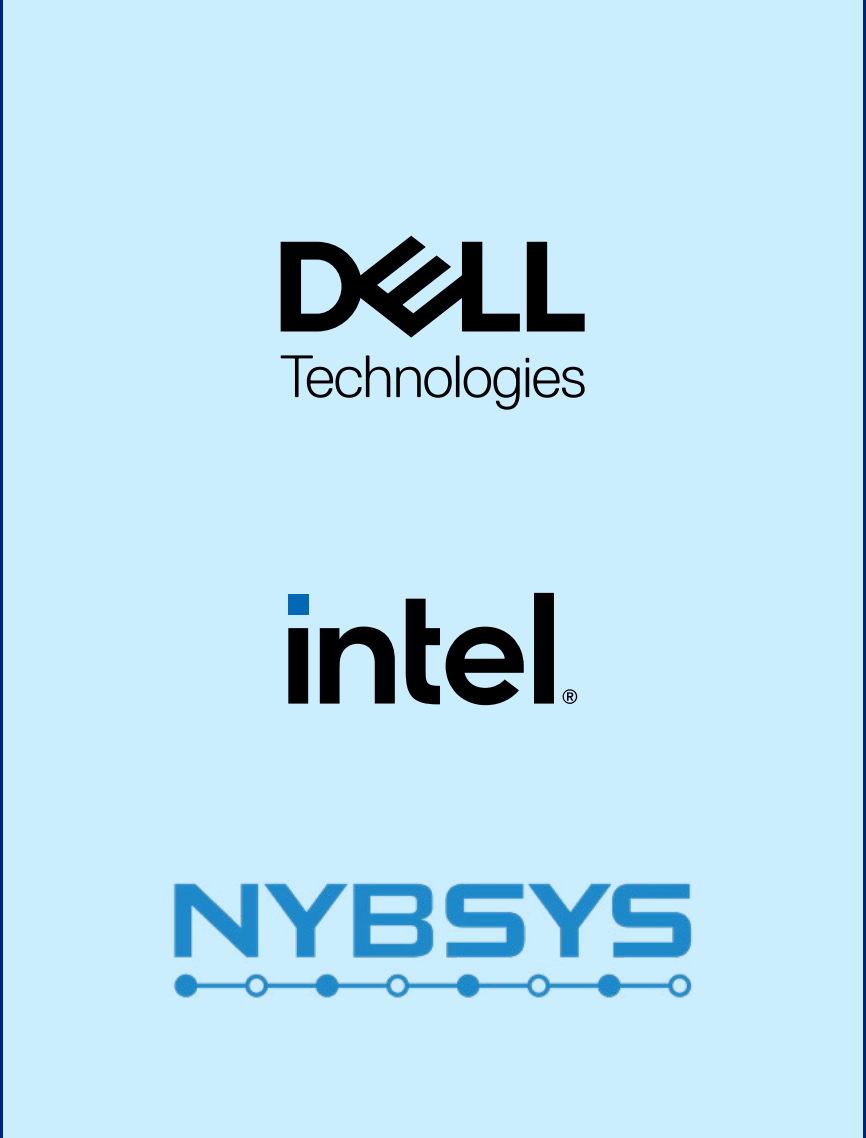
Sentra Gen-AI is a powerful AI solution that delivers operational communication and collaboration across a range of environments. It transforms industrial operations by using RAG and Smart Radio Control to extend connectivity, real-time location awareness, IIOT and dynamic network capabilities. This generates intelligent recommendations that optimize worker performance, reduce costs due to automation, and enhance customer satisfaction and operational efficiencies.

Partnership benefits

- **Turnkey solution:** Sentra Gen-AI is ready to deploy out of the box, and is adaptable to edge use cases of any sector or industry.

- **Optimized and verified solution:** Dell and Intel provide a growing catalog of pre-tested and validated Edge AI solutions for CSPs to leverage with their enterprise offerings.

- **Faster time to market:** Enables system integrators to rapidly deploy models at scale.

Customer benefits

- **Enhanced operational efficiency:** Transforms performance through intelligent recommendations, while inspiring greater worker-machine collaboration in non-carpeted and carpeted environments.

- **Personalized experiences:** GenAI-powered assistant bots can be used to suggest customer recommendations and create new sales opportunities.

- **Improved worker safety:** Real-time location awareness can reduce accidents.

- **Reduced costs:** Task automation and GenAI integration can streamline processes.

Hardware/software stack

Dell PowerEdge XR8000 servers (Edge App and Connectivity)

Sentra Gen-AI solution

Intel Distribution of OpenVINO Toolkit

Dell ProDeploy, ProSupport

SI Full Stack Deployment and Managed Services

Example Use cases:

- **Manufacturing:** Data from device location, IIoT signals ingested in vector DB in RAG with Sentra Gen-AI for worker assistance.

- **Energy:** Substations and sites for Oil and Natural Gas. SCADA signals ingestion into the RAG and Sentra Gen-AI for actionable guidance to workers.

- **Health/Life Sciences:** Patient concierge, operational collaboration using Sentra Gen-AI and RAG data ingestion from RTLS, PACS, and HIS.

- **Retail:** Sentra as AI sales agent, product recommendation, shelf location, inventory management.

- **Airports:** Customer AI agent for buying decisions, operational comms and facility management.

- **Mining:** Sentra Gen-AI lone worker safety, situational awareness and RAG from SCADA.

- **Water Utility Plants:** Operational collaboration using Sentra Gen-AI.

- **Commercial Ports:** Inland and coastal ports, precise locations, video streaming, device control using Sentra Gen-AI for operational collaboration.

- **Warehouses:** Sentra Gen-AI for operational collaboration.

- **Hospitality:** Sentra Gen-AI as AI Concierge service connected to in-room phones.

A Robust Foundation for Innovation and Operational Optimization

AI is quickly becoming integral to CSPs' success in the demanding telecom market, helping them to optimize their networks, maximize ROI and generate competitive advantage.
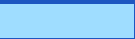
Working with Intel and other telecom partners, Dell AI for Telecom provides the technology, expertise and experience CSPs need to accelerate their AI adoption and achieve meaningful outcomes. They'll be able to:

Maximize network performance at the lowest possible cost from RAN to edge to core

Improve customer service and loyalty

Deliver greater value at the enterprise edge

Discover how CSPs can realize the full benefits of AI via a purpose-built ecosystem of Telecom and AI solutions today.

Learn More

[1]   https://community.intel.com/t5/Blogs/Tech-Innovation/Edge-5G/Intel-and-Dell-delivering-optimized-and-verified-Enterprise-AI/post/1635412

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