

Accelerating Edge to Cloud IoT Deployments with AWS IoT Greengrass

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Connect Beyond



Cradlepoint is a global leader in LTE and 5G wireless edge network solutions for branch, mobile, and IoT networks. Some key challenges Cradlepoint helps enterprise customers solve at scale include:

- **Real time applications** Mission critical, low latency, and compute intensive applications need real time agility and decision making at the edge.
- Massive sensor data The explosion of IoT devices constantly sending data to the cloud impacts total cost of ownership.
- **Security and privacy** In many scenarios, privacy regulations restrict the flow of sensitive data to the public cloud.
- Offline operations The ability to run applications locally in the absence of cloud connectivity.
- **Cost and complexity** Dedicated networking and compute increase CAPEX/OPEX and complexity of management.

NetCloud Edge Connector for AWS IoT Greengrass

Solution Architecture



Benefits

Cradlepoint NetCloud Edge Connector for AWS IoT Greengrass accelerates time to market for business critical IoT applications and services across a wide range of verticals.



Drive Business Outcomes with Edge Computing

- Enables wide range of edge compute use cases across several verticals.
- Generate actionable insights for mission critical applications closer to the source with low latency and fast results.
- Enable serverless applications that run locally, independent of cloud connectivity.

Enterprise Grade Security

Eliminate edge to the cloud security risks with authentication of sensitive data from devices. Securely access any AWS Service from the edge.



Time to Market

End-to-end orchestration of AWS IoT Greengrass at the edge quickly scales with NetCloud Manager — accelerating customer time to market and adoption of AWS cloud services.

Increase Operational Efficiency

- Dynamically shift workloads to the intelligent edge, lowering customers total cost of ownership.
- Consolidation of distinct systems onto a single platform streamlines cost and optimizes operational efficiency.

Cradlepoint

Cradlepoint's NetCloud Service delivers an agile, pervasive, and software-defined wireless edge over LTE and 5G cellular networks with resiliency, security, and control. Cradlepoint's edge computing framework accelerates the proliferation of AWS IoT Greengrass, extending services from the core to the edge — driving business outcomes for customers.

Features



NetCloud Manager for Best in Class Enterprise Wireless WAN

- Software-defined edge routers delivers predictable performance from the edge to AWS IoT Greengrass
- Wireless WAN management at scale
- Cloud to Cloud integration Flexible extensibility to AWS IoT Greengrass core
- Enterprise grade security authentication and data encryption from the wireless edge-to-cloud at scale eliminating security threats
- Container orchestration Framework to provision, deploy, monitor, and manage containers for AWS IoT Greengrass
- Respond to local events in near real-time
- Simplified device programming with container support

Example Use Cases



Retail

- Cold chain monitoring of perishable foods in restaurants for health regulations and optimizing supply chain.
- Enhanced shopping experience with localized marketing or AR/mixed reality apps for extended product information.



Smart Cities

- Monitoring and reporting air quality conditions to digital signage and video surveillance for anomaly detection.
- Leverage ML/AI for pattern detection at the edge.

Smart Building

Security zones with proximity sensors or video analytics at the edge – immediately triggering alarms when people enter high risk zones.



Manufacturing

- Predictive analytics at the edge helps plants reduce OPEX. Utilize data from sensors on equipment to identify and mitigate costly repairs in advance.
- Provide robust connectivity in large challenging environments with Private LTE.



Transportation

Ultra-low latency for autonomous driving vehicles – leveraging sensor data and computer vision to prevent collisions and process decisions at the source for passenger and pedestrian safety.

Get started with Cradlepoint solutions on AWS

Visit <u>https://cradlepoint.com/</u> to get started.



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