Securely Connecting a
World of Things

SIM Card　Cellular　Asavie IoT Connect　Cloud

ASAVIE \ IoT Connect

On demand service to scale and manage IoT networks securely

Asavie IoT Connect is an on-demand subscription-based service that provides businesses with private network connectivity for their cellular IoT devices. The intuitive portal based interface allows businesses to self-manage isolated private networks to remove IoT devices from the public Internet and eliminate exposure to cyber threats. Within minutes businesses can securely connect IoT devices to the cloud and/or to on-premise servers. The service delivers competitive advantages to enterprises through:

Faster time to market

Connecting to a production ready, secure and isolated network accelerates the deployment of IoT devices and roll out of services.

Reduced development effort

No need for security software development or install required on the IoT edge. Seamless trusted connection to simplify the integration of edge devices to cloud.

Lower cost of total ownership

Inbuilt management and reporting controls give oversight of data flows and eliminate unnecessary overages.

Operational efficiencies

Ease of in-life management and protection of IoT devices via remote connection to edge gateway and devices behind it to perform remote patch updates.

For more information

https://www.asavie.com/secure-iot-connectivity/

Challenge

Glanbia is the world's leading global performance nutrition and ingredients group with operations in 32 countries.
Glanbia needed to protect and guarantee the reliability of data feeds from farm supply points, to in plant manufacturing execution systems and to the delivery vehicles operated by field force personnel. They required secure bi-directional connectivity for asset management. Furthermore, they needed to track and monitor temperatures of refrigeration trucks, transporting ingredients and products.

Solution

❯ Private network taking machinery off the public internet, with the ability to interconnect multiple locations.

❯ Seamless connectivity, ease in provisioning and managing complex network technologies.

❯ Secure connectivity to cloud platforms (ease of migrating to Azure, AWS, IBM Watson) and support for remote access.

Benefits

❯ Reduce total cost of ownership, seamless connectivity between factory and field force.

❯ Greater control and visibility of what each connected device is doing on the network.

❯ Flexibility with ease of routing data to unique destinations with no impact or change to the device edge.

Challenge

Howard Energy Partners is a midstream energy company, owning and operating natural gas gathering and transportation pipelines, natural gas processing plants, rail facilities, liquid storage terminals, deep-water port facilities and other related assets.
Howard Energy Partners needed to protect mission critical routers from the ever present threat of cyber attack. They required a solution to secure data transmissions from remote sites, while implementing cost optimization of in-life device maintenance including software patching and updates.

Solution

❯ Private network on demand, off the public internet to, route between cloud and on-premise services.

❯ Flexible security configuration to, limit data transmission to whitelisted address space and web domains.

❯ Remote access for management of devices in isolated locations.

Benefits

❯ Increased network security, blocking unsolicited access requests which could lead to potential malware infections.

❯ Lower total cost of ownership by bringing data consumption costs in line with business objectives.

❯ Ease of management of remote patching and software updates reduced need for costly truck rolls to remote sites.

Challenge

EnerNOC (part of Enel) is one of the largest providers of energy intelligence software and services that empower business consumers to play an important role in the operation of the electric grid by reducing or shifting their electricity usage during peak periods in response to time-based rates or other forms of financial incentives. EnerNoc needed to aggregate data of energy demand and supply, while interconnecting building automation and management platforms to the cloud. They also required secure bi-directional connectivity between all sites and the cloud.

Solution

❯ Asavie IoT Connect delivered scalable private networks, ease of adding new data feeds.
❯ Network layer security policies permit only legitimate traffic in the private network.
❯ Secure bi-directional connectivity provided support for IT and OT maintenance and management of systems over the lifecycle of a deployment.

Benefits

❯ Secure and seamless interconnect of IT and OT systems made for simplified adoption and roll out of the service.
❯ EnerNOC's engineering teams remain focused on delivering business value to energy management service, instead of learning how to managing secure networing.
❯ Lower cost of total ownership with minimized number of on-site visits for software maintenance.

Challenge

Solo Energy is a new 'energy storage-as-a-service' utility business which controls and aggregates battery storage systems, to create a distributed energy storage network operating as a centrally controllable Virtual Power Plant.

Solo Energy needed to aggregate data from geo-dispersed locations into a secure private cloud application, which has a minimal IT footprint at the install sites, facilitating a simple "plug'n'play" solution. Furthermore, they needed secure remote access to manage the energy storage unit, free from cyber security threats.

Solution

❯ Block unsolicited traffic via a Private network off the public internet, free from cyber threat and malware.

❯ No software installs needed on the remote battery units.

❯ Asavie IoT Connect scaled a private static IP address range and provided remote access for in-life management of units.

Benefits

❯ Speed to market of the solution was facilitated by the ease of interconnecting battery units to the cloud management platform.

❯ Limited up-front expense, minimized devops effort in securing battery connectivity.

❯ Scale the Solo Energy service on-demand. The ease of turning up a new energy storage site, without the need to re-design the network connectivity each time.

Challenge

CardiLink gives manufacturers and owners of Automated External Defibrillators (AEDs) insights into device performance and location, with alert notifications to the end-user on the status of their life-saving medical device.

CardiLink required access to global connectivity, that securely connects units anywhere in the world. In line with industry regulations for medical systems, they needed a zero software footprint on the unit. Furthermore, they needed the ability to secure remote access to manage the solution from a centralized location.

Solution

❯ AED endpoints are authorized and authenticated into an isolated private network per manufacturer, per country, per AED fleet owner.

❯ Bi-directional network connectivity enables over the air management of AEDs from CardiLink monitoring service.

❯ In line with best practice guidelines, no software on the devices.

Benefits

❯ Ease of scaling, managing and adding unique networks in line with business requirements.

❯ Reduced in-life operational costs and site visits.

❯ No Asavie software required on the medical device, ease of demonstrating compliance with medical regulations.

Challenge

This **City Transport Authority** runs the day-to-day operation of the public transport and road networks in a large European metropolitan center. The authority operates under a mandate to build a more sustainable future and to make the city more environmentally friendly and safer for everyone.

The City Transport Authority needed to connect thousands of distributed vehicular assets, with minimal disruption and downtime. As a public body, the solution needed to demonstrate adherence to security regulations, which has the flexibility to support in-field data gathering while the vehicle is in service.

Solution

❯ Simplified install procedure, fitted in minutes.

❯ Data insights covering usage patterns with anomaly reporting and controls.

❯ Secure bi-directional connectivity, minimize vehicle downtime.

Benefits

❯ Reduce total cost of ownership, secure from day one.

❯ Minimal development effort, plug-and-play connectivity.

❯ Future proof by leveraging resources of mobile infrastructure and cloud.

Challenge

This **Hazardous Gas Monitoring** company delivers smart enabled manhole covers, for the detection of hazardous gases. City wide deployments of 4,000+ connected manholes.
The Hazardous Gas Monitoring company needed an easy to install and management solution for remote assets from a centralized location, which included the flexibility to group devices by city districts,. As the site locations are not readily accessible, they needed a way to remote access systems for maintenance.

Solution

❯ Highly available private network per district, flexibility to group SIMS to location.

❯ Secure connectivity to cloud platform, support for on-premise remote access to devices in manholes.

❯ Secure IP ACLs and DNS whitelisting eliminate risk of data misuse, IMEI-lock preventing device spoofing.

Benefits

❯ Public safety - monitored network 24/7 assuring minimal downtime of network services to connected devices.

❯ Reduce TCO due to the ease of turning up multiple segmented networks.

❯ Confidence in the data collection over multiple carrier networks.

Challenge

The **National Lottery Agent** with responsibility for managing the lottery systems, of over 15,000 connected outlets, requires highly available and reliable connectivity. The agent required a flexible connectivity solution to guarantee the security and reliability of data feeds from each store location. They also required an isolated private network to aggregate both cellular and non-cellar connectivity (fixed line). Furthermore, they required secure bi-directional connectivity for maintenance purposes.

BINGO

Solution

❯ Network management platform enabling ease of scale, and flexibility to add new service users as required.

❯ Private IP network segments, the ability to create user groups e.g. country, location, retail group schemes.

❯ Robust identity and access management ensuring no unauthorized devices attaching to the network.

Benefits

❯ High availability - managed as a service, 24/7 network operations.

❯ Greater flexibility to aggregate and manage data flows per service offering definitions (scratch card systems versus weekly draws).

❯ Confidence and trust in the data being collected.

About Asavie

Asavie unlocks the power of the global mobile infra-structure for enterprises. Our on-demand mobility and IoT services deliver increased productivity, improved insights and enhanced security to create a better mobile network experience for the digital business. Strategic distribution and technology partners include AT&T, AWS, Dell, IBM, Microsoft, Singtel, Telefonica, Verizon and Vodafone.

For more information check www.asavie.com

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Asavie is an ISO 27001 certified company.

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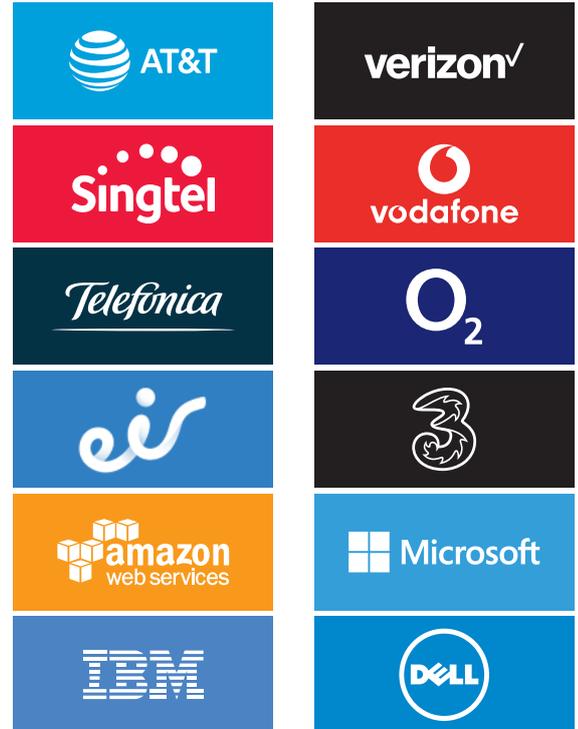
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