

Cloud BMS Platform-as-a-Service

neeve

Product
Data Sheet

Neeve managed cloud offerings simplify management complexity and improve security by providing a fully-managed cloud environment for OT applications.

Neeve's cloud infrastructure centralizes BMS in the cloud, simplifies secure remote access, licensing, and provides high availability and scalability. Using the Secure Link or Secure Edge Neeve nodes for secure cloud to premises connectivity, BMS users can remotely access building networks, controllers, and devices.

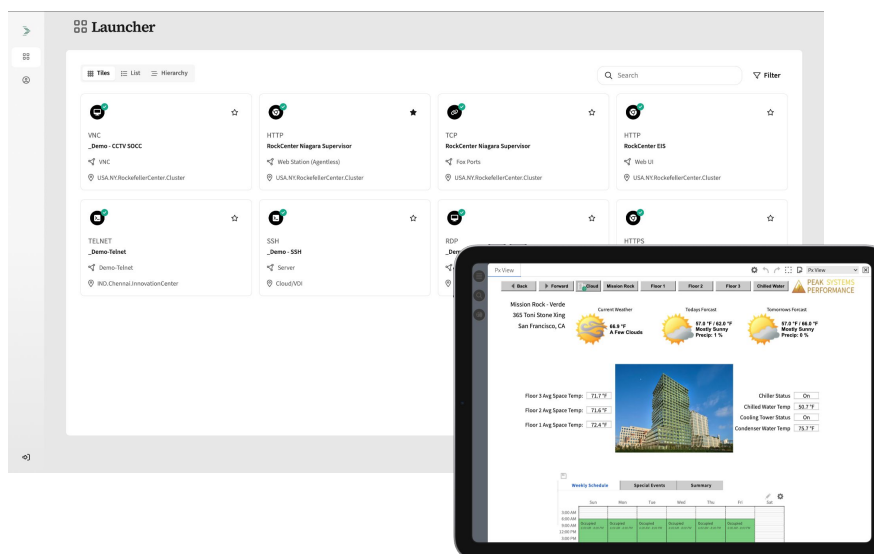
Cloud BMS Platform-as-a-Service (PaaS) is Tridium Niagara as a fully managed offering where Neeve handles all the cloud infrastructure, software licensing and upgrades.

Use Cases

- Move your BMS head-end to the cloud, reducing hardware footprint and need for on-site visits.
- Run a master supervisor in the cloud to aggregate data and control across a portfolio of on-premise BMS systems
- Pull data from multiple buildings with Niagara to feed an independent data layer in the cloud for analytics and AI

Features

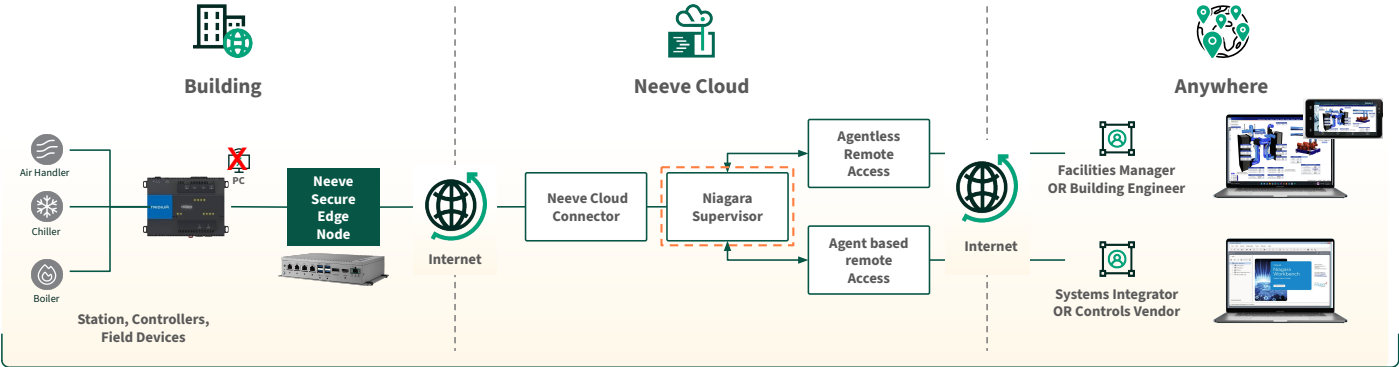
- Support for any Niagara license types
- Robust infrastructure with a minimum of 2 vCPUs and 8GB memory
- Niagara licensed and managed by Neeve
- 99.9% uptime with 4 hour disaster recovery
- Distributed data storage for high availability
- 100 GB per month data egress



Neeve Niagara N4 Cloud BMS Solution - Deployment Scenarios

The Neeve Cloud BMS solution provides users with secure remote connectivity to on-premise control systems through a Neeve Secure Edge or Link node, using industry standard end-to-end authentication and encryption techniques. The BMS software is securely and scalably hosted within Neeve’s Cloud, and user access to all web-based graphics and commissioning application is managed with fine grained privileges granted by an administrator. Following are typical deployment models using Niagara BMS components:

BMS Supervisor as a Fully Managed Cloud Service

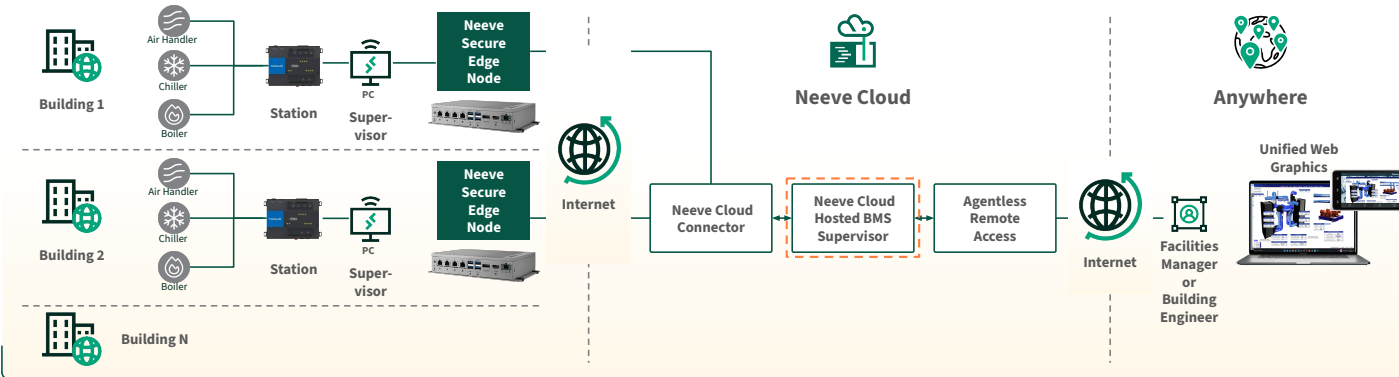


Benefits

1 Agentless Remote Access
Just open a web browser, login and click on a tile to securely access Web Graphics on the Supervisor

2 Agent- based Remote Access
Install a secure client on your laptop running the Commissioning Application, and connect to the Supervisor from anywhere, create/edit stations, graphics etc.

Unified Graphics with BMS Supervisor of Supervisors



Benefits

1 Unified Web Graphics access across a portfolio of buildings/sites, within a single pane of glass

2 Streamlined navigation across multiple stations and sites for easier monitoring and control

3 Cloud hosted Master Supervisor as a managed service, no additional administrative effort, hardware costs, can scale across dozens of sites

Technical Details

The Cloud BMS Platform-as-a-Service runs on Neeve's AWS cloud infrastructure as a fully managed, cloud-native solution.

Infrastructure & Architecture

- Containerization: Utilizes containerized Niagara N4 running within a Kubernetes cluster for improved availability and resiliency.
- Storage: Station data is stored within a network-attached AWS Elastic File System (EFS), shared across multiple AWS Availability Zones for high availability and redundancy.
- Monitoring: All underlying processes are continually monitored.

Failover & Availability

- Automatic Recovery: In the event of a Niagara N4 worker node failure, our systems automatically schedule a new instance on a healthy worker node in the same region.
- Data Continuity: The new node automatically attaches to the same EFS volume, ensuring continuity of configuration and data.
- Redundancy: Multi-zone redundancy provides a continuous backup, ensuring your data is available even if an entire AWS Availability Zone goes offline.
- Resiliency: Storage is distributed and self-healing to improve overall system resiliency.

Ordering Information

The Neeve Cloud BMS Platform-as-a-Service solution can be purchased from Neeve or its distributors using the SKU details below. It is also available via the AWS Marketplace for simplified billing via AWS.

SKUs	
Prerequisites	<p>Each building or site requires a Secure Link or Secure Edge device for connectivity. The minimum requirement is Secure Link 5:</p> <p>SL-LINK-5 SL-LINK-15 SE-BASIC SE-PRO</p>
Cloud BMS Platform-as-a-Service	<p>Fully managed Niagara 4 in the cloud including Niagara license. Available in a Small (S), Medium (M), or Large (L) option. Small - 2vCPU & 8 GB RAM. Medium - 4vCPU & 16 GB RAM. Large - 8vCPU & 32 GB RAM.</p> <p>PaaS-N4-SUP1S PaaS-N4-SUP1M PaaS-N4-SUP1L PaaS-N4-SUP10S PaaS-N4-SUP10M PaaS-N4-SUP10L PaaS-N4-SUP100S PaaS-N4-SUP100M PaaS-N4-SUP100L</p>
Additional Data Egress	<p>Data ingress is unlimited, but if you are sending data from the Neeve Cloud to other destinations there are 100 GB of data transfer included each month. Additional data transfer can be bought in 10GB packages as needed.</p> <p>CLOUD-ADD-EGRESS</p>