



Hitachi Solutions

Hitachi Solutions IoT Service Hub

Create a Data-Driven Service Business to Improve Operational Efficiencies

Across the globe, businesses have traditionally been limited to managing the maintenance of their production assets based on equipment age or usage to stay ahead of costly failures. With the evolution of the Internet of Things (IoT), your business can now connect and monitor devices and analyze the data in real time to

create new predictive maintenance capabilities that can dramatically improve operational efficiencies - enabling a transformation to a data-driven services business. With the IoT Service Hub, your organization can transform the maintenance optimization process from one of react and replace to predict and prevent.

The Hitachi Solutions IoT Service Hub, built on proven Microsoft Technologies including Dynamics 365 Field Service, Azure IoT Suite, Power BI and R integrated with SQL Server, will enable your business to:

- ✓ Reduce equipment downtime by proactively monitoring equipment health in real time so service can be performed exactly at the time needed and before it is likely to fail
- ✓ Increase productive uptime by predictively identifying problems so repairs can be performed during scheduled production downtime rather than during peak periods
- ✓ Cut routine maintenance costs by performing condition-based maintenance that addresses high probability issues rather than performing costlier ad hoc maintenance — and ensure that device maintenance is within the warranty period for the device
- ✓ Increase asset lifespan by performing predictive maintenance before costly failures occur.
- ✓ Improve worker safety by monitoring equipment conditions and faults that can produce an alert or issue counter measures before an injury is sustained.
- ✓ Create new revenue streams by enabling performance-based service agreements or equipment-as-a-service offerings

Features and Capabilities

☐☐☐ Predictive Maintenance & Analytics

The predictive maintenance configuration is a combination of cloud-based software, data science and integration services that enables you to transform your maintenance model from react and replace to predict and prevent.

☐☐☐ Device Lifecycle Management

Through the use of the IoT Service Hub your business can now manage the entire lifecycle of your IoT devices from bi-directional communications with devices, secure and authenticated industry standard protocols all assessed from a user friendly interface within Dynamics 365. Device activity is fully integrated into the IoT Service Hub for the purposes of asset management as well as Technician and equipment scheduling.

☐☐☐ Simulated Devices

Now your business can look into the future. By simulating devices' behavior, you can see the performance of a predictive model in a controlled environment — testing the analytics model before implementing it in your business operations. This allows you to choose the right model configuration and understand how robust your solution will be by looking at the simulated results.

☐☐☐ Machine Learning

With the Hitachi Solutions IoT Service Hub, you have the ability to work from a ready-to-use library of algorithms, use them to create models on an Internet-connected computer and deploy a predictive solution quickly.

☐☐☐ Dashboards

Available as static or real-time displays. Real-time dashboards give you the ability to view analysis every second, minute or hour while static dashboards display every day or week depending on your needs and goals. All accessed from within the Dynamics 365 environment.

☐☐☐ Remote Monitoring

Your businesses can now monitor and maintain devices no matter where you are located, allowing a 360-degree view into the device lifecycle. The Hitachi Solutions IoT Service Hub can send commands to devices based on certain conditions. For example, it can send a command to a machine to shut down before it starts to overheat, and automatically create a work order in Dynamics 365 for Field Service to dispatch services to preempt a major failure.

☐☐☐ State Monitoring

The hub can monitor device changes in health and state and execute predetermined actions or activities. Alerts can be sent to the operator console within Dynamics 365 as well as mobile applications.

☐☐☐ Administration

Lifecycle management and administration of devices Plan, Provision, Configure, Monitor and Retire are all supported.

☐☐☐ Solution Portal

All managed within the Dynamics 365 environment providing secure and controlled access to only those authenticated. Other users such as technicians and administrative staff interact with the environment via their view or portal into Dynamics 365 for Field Service.