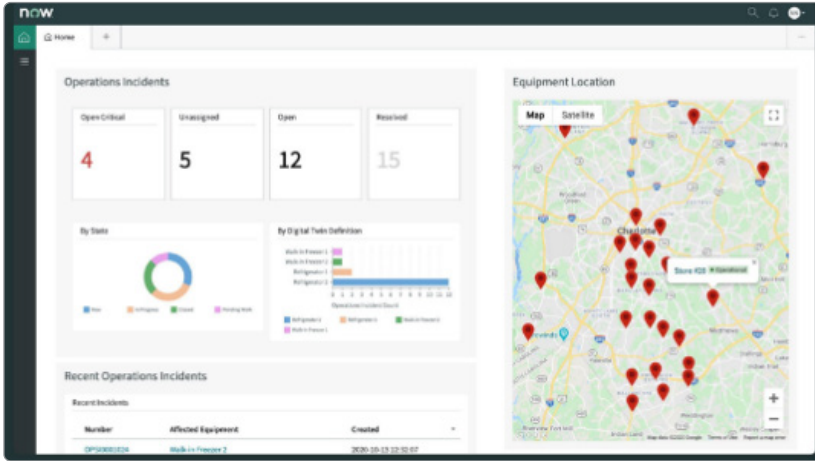


Using IoT to deliver proactive field service



Get near real-time updates on the health of your critical infrastructure in the Connected Operations Workspace

Identify and address operational incidents fast

The Internet of Things (IoT) is exploding, as businesses find new and innovative ways to use these devices to monitor, deliver, and optimize their operations to create a competitive advantage. [IDC predicts](#)¹ that by 2025 there will be 55.7 billion connected devices worldwide.

Unfortunately, all the data collected by all these devices often sits trapped in disparate silos, growing stale and unavailable for use to improve business performance and decision-making. As a result, organizations typically find out about issues (i.e. equipment failure) after they have occurred and the customer experience has been impacted.

To maximize the value of an organization's IoT investments, there needs to be an easier way to monitor and take action on IoT data. This requires centralizing its collection and making it accessible remotely to all relevant personnel, from operations to field maintenance teams, so it can be used to proactively identify and address operational incidents fast. ServiceNow® Field Service Management allows you to move beyond dashboards and data silos to automate issue resolution with IoT.

Improving business efficiency with IoT data

With ServiceNow Connected Operations, you can monitor assets remotely regardless of location, detect problems earlier, and take action to resolve issues faster. The IoT Bridge ingests data from remote sensors in near real-time and runs the information against rules, using the IoT Rule Engine, to identify potential issues. When a rule is triggered, action is taken, such as creating an Operations Incident for further investigation or remediation.

Integration with ServiceNow Field Service Management makes it easy to automatically create work orders directly from the Connected Operations Workspace. This replaces the need for time-consuming manual processes and keeps everyone on the same page, as all teams have comprehensive visibility into an issue. The result is greater asset uptime. With ServiceNow, you can:

- Increase visibility into equipment status and vital IoT data that can improve decision making across the business.
- Increase uptime of assets by identifying issues proactively, so they can be resolved quickly before they become problems.
- Improve the customer experience by resolving issues faster and optimizing service availability and delivery.

1. "IoT Growth Demands Rethinking of Long-Term Storage Strategies," says IDC, IDC, July 27, 2020.

Use case

TAPCO

Challenges

- No real-time visibility into the status of equipment that could impact a customer's experience
- Operational silos and disconnects make it difficult for maintenance teams to monitor and manage devices in the field
- Manual workflows delay progress and increase the time it takes to complete any necessary work

Solution

Field Service Management, Connected Operations

Results

- Enhanced visibility into equipment status
- Increased uptime by addressing issues before they can become problems
- Improved customer experience by optimizing service availability and delivery



We're leveraging the ServiceNow platform to revisit our IoT platform and service models. This is a game-changer for us.

– Jason Anderson, IT Director, TAPCO

Proactive field service with IoT workflow

ServiceNow Connected Operations can support a variety of industries and use cases. The following is an example for a grocery store chain:

- 1 Monitor operations** – A refrigeration company responsible for maintaining the cold storage and HVAC systems of a grocery chain’s stores nationwide uses Connected Operations to monitor the equipment. Data is collected in near real-time by the IoT Bridge to monitor the status of equipment at each store. The data is run against rules, using the IoT Rule Engine, to identify issues as soon as they arise.
- 2 Detect issues in near real-time** – An Operations Incident is automatically generated when one of the cold storage systems starts operating at a higher temperature than specified. The operations agent reviews the incident and reaches out to the onsite store manager to see if there is an explanation for the anomaly. The store manager confirms there are no doors or vents open or any other simple explanation.
- 3 Trigger work order** – With no immediate fix, the agent opens a high-priority work order from the Operations Incident with just a few clicks. The work order is broken down into tasks with relevant details from the Operations Incident to provide visibility to the field service team.
- 4 Dispatch field service technician** – The work order task is added to the dispatcher queue to be assigned to personnel based on the priority of the issue and the location, availability, and skills of the technicians. Dispatcher Workspace recommends the best available technician for the task, allowing the dispatcher to make the assignment quickly in a convenient drag-and-drop interface.
- 5 Notify technician** – The field technician is alerted on their phone they’ve been assigned a new high-priority task. They can accept it (or re-route it) and access the information they will need to succeed (task location, including map directions, background and IoT information on the refrigeration unit, and any related knowledge articles).
- 6 Complete work** – The technician repairs the cold storage unit and confirms the IoT sensor is reporting the correct temperature. The technician closes out the work order to update the incident. The operations agent can see the issue has been resolved in the Connected Operations Workspace.
- 7 Provide audit trail** – All the completed tasks and data are tracked for future reference, so it’s easy to pull data needed for trend analysis, reports, and audits to satisfy compliance requirements.

