# Bentley®

How iTwin® IoT Works

Monitor, analyze, and optimize infrastructure health in real time

iTwin IoT helps you monitor and understand the health of critical infrastructure assets, such as bridges, railways, mines, and dams. It consolidates data from Internet of Things (IoT) sensors and other connected devices into a single platform for real-time visualization, analysis, and decision-making.

1

Acquire

Capture real-time condition data from your infrastructure assets using IoT sensors. Consolidate it into a unified platform—along with inputs from other time series data sources—to create a single source of truth for infrastructure health.
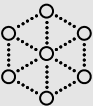
| IoT sensors | Mobile apps | IoT hubs | File sources | Data historians |

2

Transform

Convert raw sensor data into meaningful business intelligence by filtering, aggregating, and structuring it to show key performance indicators (KPIs), metrics, and trends.

3

Understand

Visualize your condition data in context with digital twins, charts, and intuitive dashboards. See what's happening across your assets— and where issues might arise.

4

Inform

Automatically receive alerts when thresholds are crossed or anomalies appear. Schedule custom reports to keep your team informed and decision-ready.

5

Analyze

Apply AI, engineering rules, and predictive analytics to identify trends and potential risks. Simulations and calibrated models help you test scenarios and forecast future conditions.

6

Insights

By combining real-time monitoring, advanced analytics, and contextual understanding, iTwin IoT delivers actionable insights into the health, performance, and risks of your infrastructure assets. Teams can make informed decisions, optimize maintenance strategies, reduce downtime, and extend asset life—driving smarter, safer, and more sustainable infrastructure operations.

| Informed decisions | Optimized maintenance | Reduced downtime | Extended asset life |