

# C3 Sensor Health

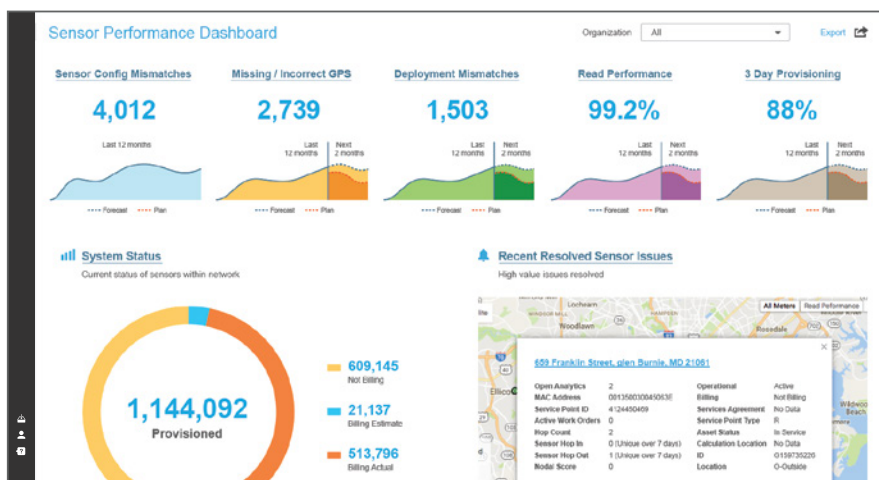
## Ensure Optimal Deployment and Operational Health of IoT Sensor Devices

Connected IoT devices have expanded globally across a range of industries including energy and utilities, manufacturing, transportation, retail, and healthcare. As enterprises increase their investments in IoT devices to drive analytic and predictive insights, they will need scalable and efficient systems that can ensure the integrity of their IoT data, track progress and issues during IoT sensor deployment, and efficiently identify malfunctioning devices or network problems. C3 Sensor Health™ ensures the operational effectiveness of IoT devices and network infrastructure during both the deployment and the operational life cycle of IoT devices. Using C3 Sensor Health, enterprises are able to reduce their IoT operational costs, safeguard revenues, and improve customer satisfaction.

During sensor deployment, C3 Sensor Health identifies and reconciles problems, prioritizes remediation efforts, and enables the effective management of third-party vendors. During the ongoing operation of the sensor network, C3 Sensor Health uses advanced machine learning algorithms that continuously improve over time to identify sensor issues with increasing precision, predict sensor failures, and ensure the efficient operation of the sensor network. In order to do this, C3 Sensor Health integrates and analyzes data from multiple disparate systems including IoT device data, head-end data from communication systems, asset management systems (AMS), global information systems (GIS), work order systems, customer relationship management systems (CRM), installation vendor data, and third-party data like weather.

### Feature Summary

- Executive Dashboard**  
 Visualize sensor status, deployment progress, and geographic regions of concern, and access a prioritized view of sensors with identified health issues.
- Sensor Deployment**  
 Identify sensor deployment issues, diagnose the source of sensor malfunctions, optimize field service, and forecast future deployment progress.
- Sensor Device Reconciliation**  
 Ensure device installation information is correct and consistent across source and cloud data systems including network communication, customer information, device data management, workforce management, asset management, and global information systems.
- Network Health and Sensor Exceptions**  
 Monitor and analyze physical integrity, functionality, and communication of sensor devices; optimize field service and issue resolution.
- Geospatial Analytics and Intelligence**  
 Visualize planned sensor deployment, actual deployment and provisioning progress, device operational issues and trends, and service work priorities.
- Reporting and Ad Hoc Analyses**  
 Present analyses and summarize results using preformatted and custom reports, including failure analysis, health analysis, identified and realized value, and financial performance against budget.



Using the C3 Sensor Health dashboard, analysts are able to track sensor and network installation, deployment, and health issues. Analytics are able to identify, prioritize, and expedite resolution to problems, and to IoT devices predictively.

# C3 Sensor Health Reduces Deployment and Maintenance Costs, Increases Sensor Device Availability, and Improves Customer Satisfaction

## Benefits of C3 Sensor Health during the device lifespan include:

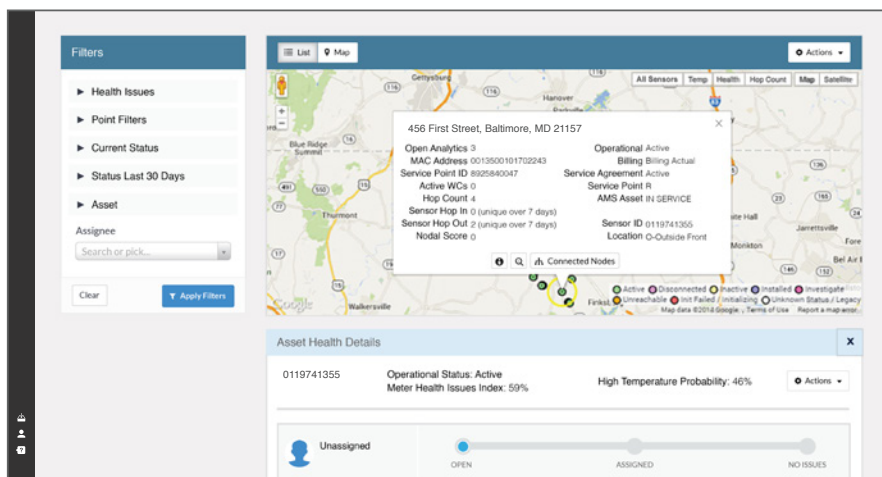
- Review sensor health reports analyzing data from multiple sources and systems, such as network communication, device data management, and customer systems.
- Visualize sensor device health in an interactive, geospatial view showing assets, device health metrics, and tooltips with detailed information about each device.
- Access and analyze network communication data to identify and fix network problems and affected meters.
- Generate a prioritized list of devices projected to malfunction, service devices to ensure continuous reads, and reduce maintenance expenses.
- Identify the root cause of failures; provide recommendations for solutions resolving the root cause and any related issues.
- Create a single, continuously updated, and prioritized work queue of installation and maintenance work orders, increasing field team efficiency and effectiveness.

## Benefits of C3 Sensor Health during device deployment include:

- Remotely identify sensor configuration and location mismatches to ensure that the right meter is at the correct location and configured to specifications, enabling proper readings.
- Identify and assess device reconciliation issues to resolve errors related to provisioning errors and problems with customer, asset, or communications systems.
- Automatically generate prioritized list of devices requiring field investigation, with a health index score and supporting details to facilitate diagnosis.
- Quickly visualize deployment progress in a geospatial view. View critical details about assets including manufacturer, communication details, location, and operational status.
- Regularly receive and track performance reports of deployment and provisioning performance.

## C3 Sensor Health delivers value to IoT device providers:

- Prioritize device maintenance by identifying malfunctioning sensors using machine learning.
- Reduce operational expenses through reconciliation of installation and provisioning issues, increased office and field investigation efficiency, and isolation of network problems.
- Greater customer satisfaction through reduced device interruptions, rapid resolution of configuration issues, and improved workflows to support service scheduling.



C3 Sensor Health provides users with relevant detail from disparate source systems to both help explain the prioritization of sensor and network assets, and facilitate a thorough assessment of the past, present, and projected future operational state of each monitored asset.

## Proven Results in Weeks, Not Years

Complete a low-cost, low-risk production trial of C3 Sensor Health™ in just 8–12 weeks. Validate the economic value before expanding into full production use. Learn more at [www.C3.ai](http://www.C3.ai).