C3 AI AMI Operations

Ensure the Optimal Deployment and Operational Health of AMI Asset

A nascent market at the beginning of the 21st century, smart meter deployments have grown to over 310 million installed meters globally as of 2015. That number will more than triple by 2022, reaching nearly 1.1 billion – serving as the foundation for the advanced smart grid. As utilities and energy suppliers replace legacy meters with advanced meters, deploy new smart meters, or seek to optimize existing meter networks, they need efficient and end-to-end processes. Electricity providers require the capability to track progress and issues during smart meter installation and after deployment, provide visibility into real-time smart meter operation and performance to improve reliability, enable targeted issue resolution, and increase billing accuracy.

C3 AI® AMI Operations ensures the operational effectiveness of advanced metering infrastructure (AMI) and automatic meter reading (AMR) networks during their deployment and throughout the ongoing operation of a utility's meter infrastructure—reducing operational costs, safeguarding revenues, and improving customer satisfaction. During smart meter deployment, C3 AI AMI Operations identifies and reconciles issues, prioritizes remediation efforts, and enables the effective management of third-party vendors. By analyzing data from multiple systems, the application ensures the rapid identification, resolution, and reduction of installation errors. During the ongoing operation of the AMI network, C3 AI AMI Operations uses advanced machine learning algorithms that continuously improve over time to identify meter and network health issues at increasing precision, predict potential meter failures, and ensure the efficient execution of maintenance work.



Using the C3 AI AMI Operations dashboard, utility operators can track meter and network installation, deployment, and health problems; identify, prioritize, and expedite resolution to problems; and enable preventive maintenance.



Feature Summary

Executive Dashboard

Access a summary of meter status, deployment progress, regions of concern, and meters with health issues.

AMI Asset Deployment

Identify AMI and AMR deployment issues, diagnose the source of meter malfunction, optimize field service, and forecast future deployment progress.

AMI Asset Reconciliation

Ensure AMI asset installation information is correct and consistent across utility data systems (AMI head-end, customer information, meter data management, workforce management, billing, asset management, and GIS).

- Network Health and Meter Exceptions Monitor and analyze physical integrity, functionality, and communication of AMI assets; optimize field service and issue resolution.
- · Alerts and Notifications

Receive alerts of real-time critical events from AMI network assets, including faults, communication bottlenecks, voltage discrepancies, and security breaches.

- Geospatial Analytics and Intelligence
 Visualize planned AMI deployment, actual
 deployment and provisioning progress,
 meter operational issues and trends, and
 service work priorities.
- **Reporting and Ad-Hoc Analyses** Present analyses and summarize results using pre-formatted and custom reports, including failure analysis, health analysis, identified and realized value, and financial performance against budget.

C3 AI AMI Operations Reduces Deployment and Maintenance Costs, Increases AMI Asset Availability, and Improves Customer Satisfaction

Benefits of C3 AI AMI Operations during the meter lifespan include:

- Review meter and network health reports analyzing data from multiple sources and systems, such as AMI head-end, meter data management, and customer systems
- Visualize meter asset health in an interactive, geospatial view showing meter assets, asset health metrics, and tooltips with detailed information about each meter.
- Access and analyze AMI network data to identify and fix network problems and affected meters
- Generate a prioritized list of assets projected to fail; service assets to ensure continuous reads, accurate billing, and reduced 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
- Create AMI operational health performance reports summarizing performance against key metrics, in order to support planning, internal reviews, and external information requests

Benefits of C3 AI AMI Operations during meter deployment include:

- Remotely identify meter configuration and location mismatches to ensure that the right meter is at the correct location and configured to specifications, enabling proper billing and usage readings
- Identify and assess meter reconciliation issues to resolve provisioning errors with billing, customer, asset, or communications systems
- Automatically generate prioritized list of meters 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, installation vendor, hop count, location, and operational status
- Regularly receive and track performance reports from deployment and installation vendors.

C3 AI AMI Operations delivers value to the utility or energy provider through:

- Increased revenue due to the rapid resolution of malfunctioning smart meters
- Reduced maintenance costs through accurate identification, assessment and prioritization of meter issues; increased preventive maintenance; efficient maintenance scheduling; and rapid identification of installation vendor issues.
- Improved customer satisfaction through reduced service interruptions, reduced billing errors during transition to smart meters, and accurate service scheduling.



C3 AI AMI Operations provides users with ample asset, health, geographic, and workflow detail for targeted follow-up.

Proven Results in 8-12 Weeks

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