

Smart Grid Services

Field Test Performance Management and System Performance Certification

A comprehensive and robust quality engineering approach is required for emerging smart metering and meter data management system (MDMS) solutions. The youth of the smart metering and MDMS technologies are a risk for utilities. These systems are central to the revenue stream of a utility. Project validation and verification processes must be exemplary in order to reduce utility risk.

Most smart metering projects include a field trial prior to full scale deployment. The primary goals of the field trial are to 1) verify one or more vendors' smart meter systems ability to achieve the benefits identified by the business case and 2) meet the functional and performance requirements agreed to in the vendor statement of work (SOW). The secondary goal of field testing is to provide the utility with hands-on experience of a smart meter system. The successful execution of a field test is typically a contract gate for proceeding with mass deployment.

Enspira Solutions Field Test Experience and Services

Enspira® Solutions, Inc. (Enspira) offers field test performance management services for utilities piloting and deploying smart metering/MDMS technology. Enspira has proven experience supporting utilities in smart metering/MDMS quality assurance and quality control, performance management and metrics. Enspira's Smart Meter Metrics Tool has been proven to deliver audit quality metrics at major North American utilities.

Our approach for lifecycle technology testing includes:

- Develop overall QA/QC and test strategy
- Develop system performance specifications for benefits validation
- Develop measurement and data analytics implementation and reporting specifications
- Develop control mechanisms and repositories for project artifacts
- Implement the Enspira Smart Meter Metrics Tool
- Support smart metering technology field test performance assessments

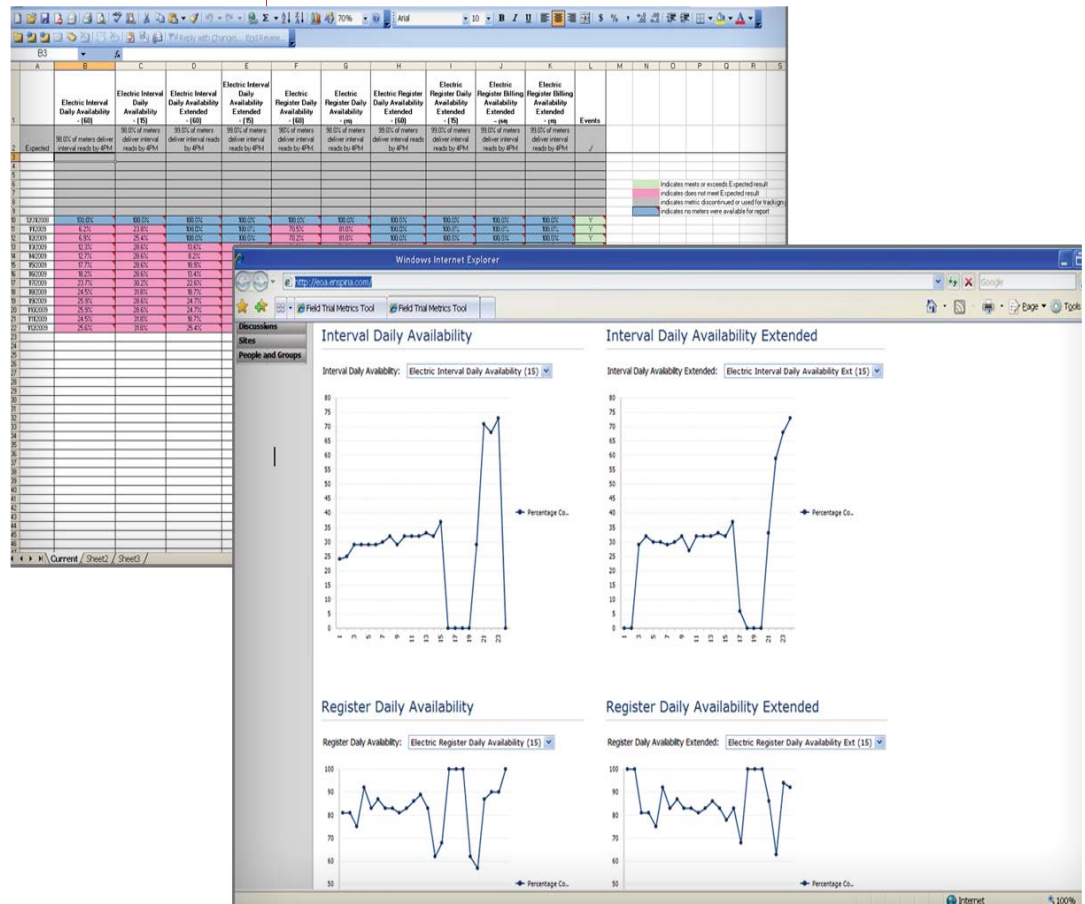
- Tests the availability and accessibility of the necessary data within the smart meter technology head-end(s) and validates that the interfacing mechanisms are usable within the utility's environment and the data is accurate based upon the evaluation criteria

The Enspira ESIntial™ Metrics Tool

Tools that analyze and display system performance data are quite valuable in testing the smart metering/MDMS solution. They are also proven to provide valuable data during the deployment phase of the solution, particularly in communicating results keeping stakeholders in the loop. Enspira has developed a smart meter metrics tool to provide the data analytics that communicates the results of the performance validation analytics for smart metering technology evaluation. The ESIntial Metrics Tool measures various types of smart meter data for availability and accuracy.

Enspira's metrics tool serves the following two primary purposes:

- Provides the utility with a source of key measures of technical performance data regarding the selected smart meter technology.



The preferred implementation of the ESIntial Metrics Tool is an environment hosted by Enspira accessed through email and a secure login for the utility. The tool runs via scheduled tasks on the Enspira server and the reports that are automatically generated are emailed to the utility. The utility also has access to the ESIntial secure web page to view a summary of the results. Utilities find this a cost-effective solution because they can leverage third party software license costs of the hosted solution. The monthly support and license fee includes a help desk, monitoring and optimizing the database, troubleshooting issues and any third party software license costs. The ESIntial Metrics Tool will require a separate software services and license agreement between Enspira and the customer.

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