

Case Study

Collecting Energy Data for the Enterprise

Situation:

Enterprises with large building infrastructures need to collect energy usage data into a central database for analysis of energy usage and for archiving purposes.

Objectives:

AFDtek's existing FasBAC for Energy product interfaced with the Carma Industries Meter Manager system of energy data gathering panels to provide real-time energy usage data to BACnet networks. In order to make the data available to the enterprise, AFDtek decided to enhance the feature set of FasBAC for Energy by adding the capability to write the data to an enterprise class database.

Challenges:

It was determined that there were two widely used databases in the enterprise, Microsoft SQL and Oracle. The product enhancement would need to work with either of these databases.

Data for the enterprise must be collected reliably. Gaps in data due to communications losses, hardware failures or application down time must be avoided.

Strategies and Solutions:

It was desirable from both a marketing perspective and for product management purposes that there would be a single version of FasBAC for Energy - Enterprise Edition that supported both brands of enterprise database. The systems integration solution was to use ODBC to make the database connections and use SQL to communicate with the database. Differences between Microsoft SQL and Oracle SQL are handled within the program. The type of database is selected at installation time by setting a program parameter.

Since data was being transferred from remote field mounted energy data gathering panels to the central database via multiple network paths and intermediaries, the potential for outages and resulting gaps in data was of real concern. To mitigate this risk, the program makes use of the logging feature of the Meter Manager system. With logging enabled, the Meter Manager system stores up to 30 days worth of energy data internally in the meter panel. When FasBAC for Energy stores data into the enterprise database, it compares the dates of the last data stored with the current date. If there is a gap, it will retrieve earlier data, if available, to fill the gap. A permanent gap would exist only if the data gathering panel itself were to be off for a period of time.

Project at a Glance

Client: Carma Industries Inc.

Field: Energy Monitoring Industry

Location: Peterborough

Project: Carma Meter Manager Interface

Date of Completion: October 2004

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