

Understanding Operational Data Stores

EDIST 2012



Agenda

- **What is an Operational Data Store?**
- **Why would you need one?**
- **Current Benefits**
- **Future Benefits**
- **Challenges**
- **Questions**

What is an Operational Data Store?

- **Central Repository**
 - Electrical Consumption & Quality Flags
 - Real-time Operational Alarms & Events
 - Voltage Information (Min, Max, Avg)
- **The “Hub” of LDC Smart Meter Information Processing**
 - Tells the ‘Whole’ Picture

Why?

- **AMI systems provide basic functionality according to the original functional specification**
- **Recognize that LDC's need more than that**
 - Not enough to just print a TOU Bill
 - Know Your AMI's Behaviour and Performance
 - Be Proactive NOT Reactive
 - Improve Outage Management
- **Tool to Turn 'Data' into 'Knowledge'**
- **Foundation to Achieve Improved Efficiencies**
 - Integration / Streamlining / Automation
- **We'll explain how ...**

Current Benefits

- **Seamless MDM/R Integration**
 - Automated Exception Processing with MDM/R
 - Integration with CIS for Proactive Management of MDM/R Exceptions
 - Streamlined Delivery of Meter Data Estimates to the MDM/R
 - Facilitates SYNC, USDP Requests, BQ Requests with the MDM/R
 - Provides for Integrated Dashboard Presentation by Cycle of Meter Read Data

Current Benefits

- **Meter & Network Health**

- Provides for Monitoring of AMI Meter/Network Health
- Ability to Verify Network Integrity Via Daily Compliance Measures
 - *SLA Levels Met / LDC's Specific 'Health' Checks*
- Real-time Monitoring of Operational Data Stream
- Streamlined Troubleshooting of Problems for Staff
 - *Problem Groups: Service / Communication / Outage / Billing*
- Webservices: 'Outage Detection' and 'Meter Reads'

Current Benefits

- **Integrated Outage Management Processes**
 - Facilitates Timely resolution of Operational Alarms and Outage Events
 - Integration with CIS Service Orders via ‘Dynamic Gateways’ for Visibility to Field Activity
 - Integration with GIS Asset Information: Meters > Transformer > Feeder Level for Outage Management Inquiries

Current Benefits

- **Support for MDM/R Test Environments**
 - Supply CMEP files for meter read data to MDM/R Test Environments
- **Data Archive**
 - Contractually Most AMI providers keep a Rolling Time Period of Old interval data (KHC 60 days)
 - After that, data is gone unless you are looking in the MDM/R GUI
 - ODS provides a mechanism to retain the consumption data at it's most granular level for LDC use

Current Benefits

- **Summary**

- Makes Life Easier for the LDC
- Stores and Retains Valuable AMI Data
- Makes it Possible to Efficiently Interpret and Understand the 'Avalanche' of Information
- Foundation for Smart Integration / Streamlining / Automation
- Promotes Organizational Cross Departmental Collaboration
- Strategically Positions the LDC to Achieve Optimal Return on AMI \$

- **So what's next?**

Future Benefits

- **Web Presentment**
 - Baked in support for mobile devices
 - Uses MDM/R Web Services to get the information directly from the MDM/R
 - Expected Q3 2012 in KHC
- **Advanced Business Tools**
 - Spreadsheet Overload
 - Utilities Kingston (KHC Services Affiliate) has started to look at ...
 - Part of a larger business tool improvement process ...
- **Piece of the Smart Grid Puzzle**
- **Infrastructure Planning / Load Analysis & Trending**

Challenges

- **Understanding the Potential of an ODS**
- **ODS Gateway Technology to facilitate a smooth Integration between LDC's Systems**
- **Real-Time Operational Data Stream**
- **Establishing New Business Processes Across Systems**
 - Smart / Efficient / Automated
- **Processing Large Volumes of Information in a Timely and Effective Manner to Make Data Useable**
 - Data Organization / Dashboard Presentation
 - User Configurable Business Rules for Automatic Generation of Meaningful Exception Events

Questions?

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