

MDMS – The Journey

Data \Rightarrow Information \Rightarrow Understanding

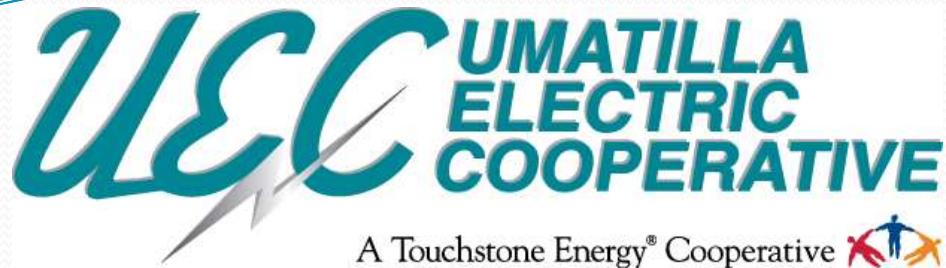


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- Nearly 2,124 miles of power lines in Eastern Oregon's Umatilla, Morrow and Union counties.
- Over 15,000 accounts of which over 80% are in the MDMS.

MDMS

- Implemented in Spring 2009, simultaneously with TWACS AMI.
- Daily data imports, no real-time VEE.
- Bill using
 - Total Usage
 - Peak/Off Peak (30 minute intervals)
 - KVAR
 - Peak Demand

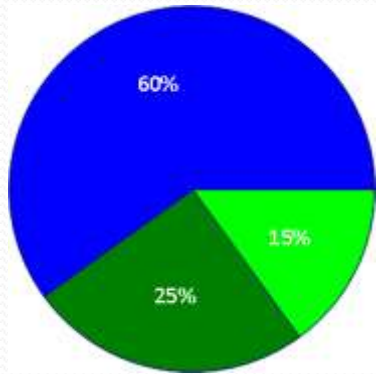
Lessons Learned

- Expectations v. Requirements
- Data Repository v. Information
- Scalability
- Design Considerations
- Technical Infrastructure
- Monitoring the System & Exception Handling
- People: The Critical Component
- Essential Day to Day MDMS Activities

Expectations v. Requirements

- Requirement
 - Billing Determinants for TWACS.
- Expectations
 - Member Access to Data.
 - Engineering Analysis.
 - Demand Management.
 - Import Data from Other Collection Systems.
 - Cost of Service Analysis.
 - Outage Management.

Data Repository v. Information



Information



Data Repository
w/ VEE

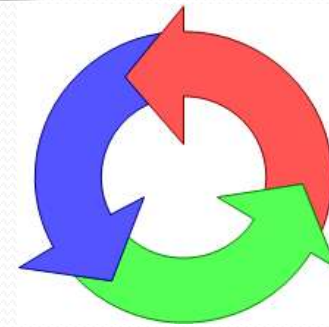
Scalability

- Product demonstrations rarely show the volume of errors/exceptions that might occur.
- Will the design & product support the ability to effectively and efficiently manage large amounts of data when things go awry?
- What tools/dashboard does the product have to help the staff determine the status of the data on any given day?

Scalability (cont).

- The inevitability of missing data
 - Collection systems expect the MDMS will tell you when and what data you are missing.
 - What will it take to put that data into some format so that the collection system can re-read that window of data again?
 - Who will develop those tools?

Design Considerations



- Clearly Documented Meter Life Cycle
 - More difficult if implementing AMI simultaneously
- Meter Data or Account Data?
 - Lack of account association should not limit functionality.
 - How should meters be logically grouped?
 - Consider current and future collection systems, particularly if AMI is a phased approach.
 - What defines the meter entity? Meter/Module or Meter/Account

Design Considerations (cont).

- How will the processing of “re-collected data” be handled? Are there configuration options?
- Load Analysis
 - Track historical location of meter with respect to substation, bus, feeder.
- Philosophy: Only collect data that has a defined purpose.

Technical Infrastructure

- Test and production systems.
- System Monitoring – Collection systems, MDMS.
- Change Management.
- Integration to CIS, GIS, Asset Management.
- Query and tool development.
- The cold realities of a rapid software release cycle.

People: The Critical Component



- Skill Sets

- Analytical and system thinkers.
- System/application administration v. end user activities.
- Database administrator.
- Strong conceptual product understanding.
- Working understanding of the data model/schema.
- Database queries/scripting.



- Does existing staff have the time to absorb the new roles/activities?

Essential Day to Day MDMS Activities

- Identify and address exceptions on a daily basis.
- Early detection of issues is critical:
 - Correct underlying problems with collection systems or data conversions.
 - Avoid having to re-VEE multiple days of data.



Questions?

Thank you