Outage Management System Overview

June 9, 2009
An outage Management System (OMS) is a computer system and software used by system operators to reduce outage times and help allocate resources for system restoration.

- Geographic Information System (GIS) based.
- Could incorporate Automated meter reading (AMR) or metering infrastructure (AMI) systems.
- Could use information from System Control and Data Acquisition Systems (SCADA).
- Could incorporate data collected at call centers from Customer Information Systems (CIS) or Interactive Voice Response Systems (IVR).
- Can use information from line crews during large outages.
Trends

Utilities are increasingly using Outage Management Systems to aid in handling system repair.

Systems have grown over the years from an amalgamation of smaller systems designed for other uses.
- Trouble Tickets
- AMR Systems
- Sometimes “home grown”
- Were not designed to handle wide-scale outages.

Newer integrated outage management systems better integrate a variety of data.
- Contain algorithms to track outages and repair status.
- Can better handle large outages
How it Works

- Telephone Calls
- SCADA
- AMR/AMI
- LINE CREWS FIELD INSPECTIONS
- OMS
- Geographic Information System Display
- Operations /Customer Service
- CREWS DISPATCHED
- Customers informed
How It Can Help

- Integrates coordinates and displays data from many sources.
- Includes computer algorithms to aid the decision making process.
  - Helps in assessing where troubles exist and how extensive the outage is.
  - Helps to identify which customers are affected.
  - Helps prioritize restoration efforts.
  - Helps in calculating restoration time.
  - Helps manage crews and other resources.
- Keeps track of critical infrastructure such as 911 centers and fire departments so restoration can be prioritized.
- One step on the way to the “smart grid.”
What is Needed for an Effective OMS System?

Utilities may need to re-think how they respond to trouble calls and issue work tickets.
- How are calls handled? By operations or customer service?
- How are trouble calls routed to the correct person so action may be taken?
- Training is needed for all employees involved in its use.

Good communication within the utility.
- There may be multiple customer service centers.
- There may be multiple SCADA and AMI systems.
- All the correct data must get to everyone who needs it.

In a widespread outage the utility backbone must be available.
- SCADA, AMI and other data is highly dependent on telephone, fiber optic, satellite, and radio systems.
- These systems may not be controlled by or repairable by the electric utility.
- Coordination with local telephone/communications companies is vital.
Thanks

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