Multispeak, OMS, & Customer Service — What’s the link?

Presented by
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Director of Information Systems
Central EMC

National Rural Electric Cooperative Association
MultiSpeak®
Central EMC is……

- Located in North Carolina
- Rural Electric Cooperative
- 17,500 customers
  - 95% Residential
- 9 Substations
  - 2,050 Miles of line
- 63 Employees
- Service Growth: 5%
Located

[Map showing locations of Chatham, Moore, Lee, and Harnett counties]
Hurricane Fran created the need to reschedule the board meetings, and I hope the new meeting dates do not create significant problems. Fran caused problems for 24 systems in the state, ranging from scattered to total system outages. Comparisons of Fran and Hugo reveal that Hugo caused 180,000 outages and Fran 323,000. Hugo caused damage in 29 counties while 51 counties were declared disaster areas following Fran, and the winds in Charlotte from Hugo were matched in Raleigh by Fran.
Central’s First OMS System
Could give no information to customers about the outage

Printed outage tickets from CIS and put them in piles by pole number

CSR’s were only someone for customers to call and vent to

Very unorganized
PORCHE arrived in 1997
Continued…

- Improved organization
- Customers could call automated system to report outages
- Held outage history
- Could provide automated reports to management
- Had to export Customer list from SEDC
Over the next few years...

- Added additional software, mapping, AMR, Partner
- Customers still complained about no information during outages
- Systems were great but...
- Created custom links and ways to work with the data.
Continued...

- Introduced to Dispatch in 2004
- Installed in 2005
- Saw an immediate impact on Customer Service
How?

- We were able to share data across our organization in ways that weren’t possible before.
- We Integrated IVR/AMR/CIS all with Dispatch via Multispeak links
IVR/AMR/CIS/ integrated into Dispatch
How does it work?
Enabling the AMR/OMS interface

Enter the web address and user credentials for the OMS vendor

<table>
<thead>
<tr>
<th>Outage Management Integration</th>
<th>Web Service calls will be made to the URL listed below to retrieve or send Outage Management System Data.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable Outage Management Integration</td>
<td>The URL used in making Web Service calls to the Outage Management System.</td>
</tr>
<tr>
<td>Username</td>
<td>milsoft</td>
</tr>
<tr>
<td>Password</td>
<td>milsoft</td>
</tr>
<tr>
<td>Interface Tests</td>
<td>PingURL, GetMethods</td>
</tr>
<tr>
<td>Host Integration</td>
<td><a href="http://turtle/TS2/webapi/OD_OA.asmx">http://turtle/TS2/webapi/OD_OA.asmx</a></td>
</tr>
</tbody>
</table>
Select the increments the substations should be polled

- TS1 Outage Detection Polling: Every 1 hour
- Update Endpoint Ranges: Weekly
- Warehouse Update Process: Daily at 1 hour
- Weekly Maintenance: Weekly

Options: 1 hour, 1 minute, 2 minutes, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 1 hour 30 minutes, 2 hours, 2 hours 30 minutes, 3 hours, 4 hours, 5 hours, 6 hours, 12 hours, 24 hours
What determines an outage?

Signal Quality Range Over Number of Endpoints

Substation Processing Unit: J5VONE

SPU Average: 7379.07 Phase A: 9556.45 Phase B: 4531.85 Phase C: 8186.33
Our Configuration

- We only poll our stations during storm situations to compare outage calls to system data.
- We poll every 30 mins or when we want to determine if an area has been restored.
- We do not have our substations call us.
Things to consider

- Will you be using AMR as your primary outage reporting or as a supplement?
- Is this for major storms and clean up only?
- Would it be better left off until you want to invoke the command?
- Do you want your substations calling you or would you rather call the substations?

KEEP YOUR AMR DATABASE CLEAN AND UP TO DATE!!!!
Enabling the OMS to AMR interface

**AMR Data Importer**

- **URL of AMR system:** http://turtle/ts2/webapi/MR_EA.asmx
- Import AMR vendor tags (determines which meters have AMR)
  - Before importing, clear existing AMR vendor tags containing: **Hunt**
- Import outage events occurring from **10/28/2005** to **10/28/2005**
  - Before importing, clear existing outage events if vendor tag contains: **Hunt**
- Import AMR meter readings
  - Import meter readings from this date: **11/7/2005**
  - Import most recent meter readings
  - Import kW demand directly into calculated load
  - Before importing, clear existing calculated load if vendor tag contains:
  - Import kW demand into this billing load group:
  - Clear existing billing load from a consumer before applying AMR billing load

**If a meter does not report kVAR data...**
- Do not change %PF
- Assume consumer %PF to be: **100**

**Buttons:**
- **Run**
- **Close**
- **Cancel**
Making it work
Our Setup

- Outage calls come from 3 sources: AMR, IVR, & Customer Service Reps
- This data is all compiled on the OMS map
- Our Dispatch center is not manned 24/7 so we only turn AMR on when we are working storms
- We can poll our stations in about 20 mins
- AMR is always communicating to SPU's, detects outages based on signal strength drop
<table>
<thead>
<tr>
<th><strong>TS2 Endpoint s/n</strong></th>
<th>16910977</th>
<th><strong>Status</strong></th>
<th>Archived</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPU</strong></td>
<td></td>
<td><strong>Current Channel</strong></td>
<td>0</td>
</tr>
<tr>
<td><strong>Firmware Version</strong></td>
<td>12</td>
<td><strong>Meter Dial Digits / Kh</strong></td>
<td>5 / 7.2</td>
</tr>
<tr>
<td><strong>Initial/Latest kWh</strong></td>
<td>47575/79539</td>
<td><strong>Latest Signal Quality</strong></td>
<td>0.7767</td>
</tr>
<tr>
<td><strong>Last Good Packet</strong></td>
<td>7/26/2006 12:00 AM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Account Number</strong></th>
<th></th>
<th><strong>Customer ID</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Location</strong></td>
<td></td>
<td><strong>Map Location</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Billing Cycle</strong></td>
<td></td>
<td><strong>Grid Location</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CIS Data</strong></td>
<td>MCLEAN HARGIE LEE, 1204 MURCHISON TOWN RD Phone: 919-499-6615</td>
<td><strong>Last OA Predicted Outage</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Command Groups</strong></td>
<td>Model Family</td>
<td>TS2 Standard AMR Model Family (0580)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Configuration</td>
<td>Hunt 0580 Configuration A</td>
<td></td>
</tr>
</tbody>
</table>

**Status Groups**

| Name (Group type) | No status groups |
Verifying the Outage
Verification Process

- Verification is done when the lineman confirms the outage element.
- This changes prompts on the IVR side automatically.
- Helps Dispatchers see where crews are
- Changes prompts on the IVR side
- Let’s CSR’s see if crews are working on outages
Restoring the outage
- Calls Customers for verification
- Holds AMR outages and checks them for restoration events
Sharing OMS/AMR data
Management View

Outage Viewer Details - Microsoft Internet Explorer

Address: http://10.200.18.127:80/Outages

**MILSOFT Utility Solutions**

**TR.18135**

Outage Details

**Outage Data: Calls Received**

<table>
<thead>
<tr>
<th>Time Of Initial Call</th>
<th>Contact</th>
<th>Customer Type</th>
<th>Phone</th>
<th>Address1</th>
<th>Address2</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
<th>Call Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/11/2006 8:36:00 PM</td>
<td>GETZANDANNR ALPH</td>
<td>919-923-3922</td>
<td>OUTBUILDINGS</td>
<td>D11D-3</td>
<td>CAMERON</td>
<td>NC</td>
<td>283260000</td>
<td>AMR</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Other Multispeak Links

- **CIS\AMR**
  - Hunt meters are deployed automatically when meters are changed on the SEDC side
  - Customer service reps can click on Hunt link from within SEDC and view specific meter information.
What’s next?

- SCADA implementation 2007
- Mobile Data?
Return on Investment

- The savings from the reduced time spent on outage report preparation need to be added, bringing the total annual DisSPatch OMS savings to $81,892.35.
- The return on investment for DisSPatch OMS, is 164.3%.
- The payback period is 14.32 months.
What’s the real ROI?

Customer Satisfaction
Central Electric Membership Corporation
A Touchstone Energy Cooperative

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