Middleware Makes Sense
Presented by: Oleg Gorchkov, Systemgroup
Tom Wasik, Enersource
Presentation Objective

☐ Present current challenges faced by Enersource Hydro Mississauga in implementing Smart Metering Initiative

☐ Share EHM’s vision towards addressing those challenges through a middleware strategy

☐ Showcase strategic alignment with middleware technology platform and consulting partner
Presentation Outline

- EHM’s Smart Meter Initiative
- EHM’s Challenges and Needs
- EHM’s Middleware Strategy and Call to Action
- Why Middleware?
- What Middleware?
About Enersource Hydro Mississauga

- 90% City-owned and 10% by OMERS
- 5th largest LDC in Ontario
- System Peak - 1,622 MW
- 185,000 Customers
- Revenue ~ $700M
Enersource Hydro Mississauga’s Smart Metering Initiative

- To date, Enersource has installed over 60k Elster EnergyAxis Smart Meters utilizing Rogers Cellular IP Based Communications.
- SM Deployment managed by a Mobile Workforce Management by Fieldworker.
- Enersource has Piloted Smart Meter System for Individual Suite Metering in Condominiums.
- Expedited by the introduction of TOU, Enersource is implementing a new billing system.
Customer Care & Communication

Customer Education

Smart Avenues DVD

Website
Challenges and Needs

- Risk of selecting an incorrect/inoperable system
- At 185k SM, 99% success reading rate ~ 1,850 failures/day. Be prepared to address exceptions.
- Regulations and system specifications are dynamic and consistently updated (MDM/R, new CIS, AMI etc.)
- Systems must be automated and run consistently.
- New mindset – large volume of interval data for low consumption volume consumers.
- Don’t leave it all to the end. If you assume another system does the function, be sure..
Don’t Wait - Take Action

- Build a flexible infrastructure now that will adapt to changes in regulatory requirements and business processes
- Use a middleware platform with proven experience
- Select a partner – Systemgroup inc., that understands process and application integration
- Build what you know and plan for the future
Why Middleware?

- The “substation” of automating dataflow and matching disparate system interfaces, internal or external
- Single tool for automating business processes and application integration
- Eliminates the point-to-point connectivity of applications
- Provides “impedance matching” between different data structures and communication protocols
- Provides visibility into an integrated business process
The Integration Challenge

Point-to-Point
Hard-wired
Enersource SM Integration Scope
Using Middleware

Enterprise Integration Service Bus (ESB, powered by BizTalk)

Database

AS/400 CIS

Oracle CC&B (new)

MV90

HTTP

XML

Associated Systems

Smart Metering

Elster MAS

Field Force

JD Edwards Financials

KUBRA Print House

Royal Bank

IESO

EDP

FTP

AS2

HTTP XML Text File

DB2/400

Text File
Enersource Process Integration

Itron MV-RS

AMI
Elster MAS

Meter Staging Database

BizTalk Enterprise Integration Services (ESB)

Other Processes

MDM/R

CIS
Middleware Platform – BizTalk

- Enables Service Oriented Architecture (SOA) and powers Enterprise Service Bus (ESB)
- Rich support for standard communication protocols and formats, (i.e. XML, FTP, HTTP, SOAP, EDI, SQL)
- Data transformation and mapping
- Orchestrating business processes and activity monitoring
- Robust, scalable runtime infrastructure with administration and monitoring