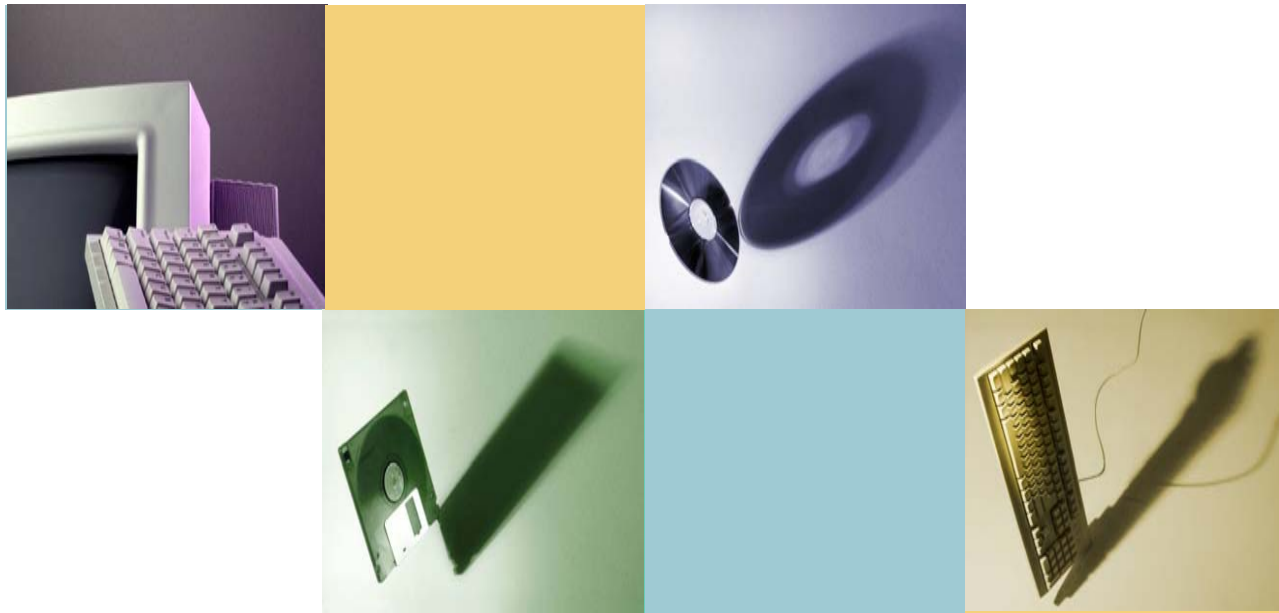


Belmont Municipal Light Department



Technology Needs

Presented to ITAC on November 13, 2008

Current Uses

- SCADA
 - **S**ystem **C**ontrol **A**nd **D**ata **A**cquisition
 - Provides for Remote Monitoring and Control of BMLD High Voltage Substations
 - Alarm Notification
 - Archives and Trends Electrical Data
 - Upgrade budgeted for 2009
 - BMLD Specific Application



Current Uses

- GIS System
 - BMLD has fully implemented GIS system
 - System Mapping
 - Portable Maps available on Toughbook laptops
 - Used for data survey
 - Interactive tracking of Circuit Switches
 - Asset Management



Current Uses

- CIS System
 - MUNIS Financial Package
 - Payroll
 - General Ledger
 - Inventory Tracking
 - MUNIS Utility Billing Package
 - Electric Billing
 - Water Billing
 - Meter Tracking



Current Uses

- Business Software
 - Microsoft Office
 - AutoCad
 - Meter Programming Systems
 - Digital Recorders
- BMLD Web Site



Current Uses

- Outside Network Services
 - Lock Box for UB collections
 - UB Bill Prints
 - Electronic Bill Payment



Future Needs

- Time of Use Billing
 - Regulatory Climate will require utilities to provide usage data in greater detail than monthly usage
 - Peak / Off Peak
 - Hourly
 - Presentation of usage data to customers
 - Next day
 - Real time



Future Needs

- Time-of-Use Metering
 - Meter stores and transmits interval data
 - Multiple daily reads at regular intervals
 - 20% penetration results in 2,000 meter points
- Wireless Network
 - Provides communication to meter/household
 - Fiber backbone could provide robust capability
 - Municipal Use Only



Future Needs

- Integrated Outage Management
 - Links SCADA – GIS – CIS for outage tracking and reporting
- System Analysis
- SCADA Links to ISO-NE/NEPOOL for transmission access



Future Needs

- Credit Card Payment
- On-Line Account Access/Payment
- FACT ACT (Fair Accurate Credit Transactions Act of 2007)
 - Regulation for Data Security/Identity Theft
 - Expected Compliance Date 5/1/09
 - Effects Water & Light UB Systems



Issues

- BMLD has specific technology systems that require network/systems expertise
 - Integration of technology systems.
 - Troubleshooting Processing/Reporting Errors
 - System Upgrades
 - BMLD only applications i.e. SCADA
- BMLD is responsible for the system operation
- BMLD has no control over system implementation/priorities



Issues

- IT Mission
 - IT staff is professional, knowledgeable and responsive
 - BMLD responsible for 25% of IT support requests
 - Department specific systems are unsupported
- Network Access and Security



Choices

- Do Nothing
 - Separate SCADA network
 - Time-of-Use Billing would not be achievable
 - Limited systems integration



Choices

- BMLD Stand-Alone Network
 - BMLD Manager has authority to implement
 - BMLD network clients at 40 Prince St.
 - Passive fiber link needed for substations
 - Time-of-Use pilot can be deployed
 - BMLD manages systems integration
 - Reduces IT work load by 25%
 - Data transfer with Town



Choices

- BMLD Manages Town Network
 - BMLD & Town business needs are similar
 - BMLD would act as network manager
 - BMLD would maintain BMLD domain servers/applications
 - Cost of network service shifted to BMLD
 - Town would be using excess capacity across existing fiber
 - BMLD would have metering points at municipal buildings



Choices continued

- Bandwidth and Division of Responsibility would need to be developed
- Network Performance is reported to BOS/MLB
 - Ensures priorities align
- Provides for continued data/resource sharing



Discussion



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