EXTERNAL

REPORT

Power to Ontario.
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Smart Metering Entity (SME)
MDM/R Report
1st Quarter 2014
January to March

Issue 3.0 - April 30, 2014

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1. Introduction

1.1 Purpose

The purpose of this report is to provide a quarterly update to the Ontario Energy Board on the ongoing operations of the Meter Data Management and Repository (MDM/R). This report includes the following updates:

- MDM/R Operation and Processing Performance;
- MDM/R Service Levels for both Critical and Non-Critical Services as set out in Appendix A of the "MDM/R Terms of Service";
- Initiatives and Software Testing;
- Additional Risks and Issues; and,
- Roles and Responsibilities of the SME as set out in Article 2.2 of the "Smart Metering Agreement for Distributors"

1.2 How to Use this Document

This report presents information and status updates on MDM/R operation and processing performance (in Section 2), MDM/R Service Levels (in Section 3), and Initiatives and Software Testing (in Section 4). The report focuses on quarterly updates for the MDM/R including updates on the Roles and Responsibilities of the SME through the end of the indicated month. More information about the provincial Smart Metering Initiative and the MDM/R is available on the websites of the Ministry of Energy (http://www.mei.gov.on.ca/), the Ontario Energy Board (http://www.oeb.gov.on.ca/OEB/Industry) and the IESO/SME website (http://www.smi-ieso.ca/).

Each section provides updates as required by the Ontario Energy Board in connection with MDM/R operations and performance, service level attainment, initiatives and software testing, as well as risks and issues.

2. MDM/R Operation and Processing Performance

2.1 Performance

The MDM/R production environment remains stable and reliable, processing reads from over 4 million meters for 72[1] LDCs on a daily basis. The SME continues to respond to and address LDC support, service requests, and issues in a timely manner.

For the reporting period January 1 to March 31, 2014, the MDM/R operated well, meeting or exceeding service levels for 100.00% of meter reads, 100.00% of billing quantity requests, and 100.00% of master data updates. Where there were processing delays, service was restored in a timely manner, or the delay was related to poor quality or timing of data submissions by one or more LDCs.

During the first quarter, the SME published LDC-specific performance metrics reports for the months of December, January and February 2014. These reports provide each LDC with data related to their organization's meter read, synchronization, and billing performance. Feedback from LDCs has been very positive on this initiative.

As part of the SME's outreach plan the SME completed three on-site visits during the first quarter. Feedback continues to be positive, so the SME plans to continue this outreach for the remainder of 2014.

The SME continues to observe improvements in the quality of LDC data submissions to the MDM/R, and continues to work with LDCs and their service providers to further improve the performance of meter read and billing processing.

As part of the scheduled SME Steering Committee meetings, a conference call was held on March 5, 2014 for the benefit of all LDCs. The SME continues to encourage all LDCs to participate during those pre-scheduled calls, as well as provide feedback and suggestions to the SME. The next call is currently scheduled for June 5, 2014.

2.2 Training

During the first quarter, the SME delivered one Basic Graphical User Interface training session. Feedback from participants has been very positive. The advanced course provides LDCs with a variety of scenarios for investigation and troubleshooting of meter read data submissions, synchronizations, and billing exceptions. For the complete training schedule, please visit the SME website.

2.3 Other Activities

The SME deployed enhancements to the MDM/R Service Desk tool to communicate more efficiently with LDCs. The SME continues to make improvements to this tool and processes based on feedback from LDCs and their agents.

During the first quarter, the SME has worked closely with the Ontario Power Authority (OPA) and several LDCs to provide the data extracts in support of the OPA's Phase 2 of their Time of Use (TOU) Study. To date, all the requests received for the 2013 consumption data have been fulfilled.

[1] *Enwin Utilities successfully cutover to the MDM/R Production environment on February 18, 2014.*

3. MDM/R Service Levels

The Service Level Performance Chart splits Service Level summaries into two parts:

Critical Service Level Summary, and;

Non-Critical Service Level Summary

The Critical Service Level Summary section includes processing metrics for Meter Read Data, Billing Quantity Response, MDM/R Master Directory, and the Graphical User Interface (GUI). The Non-Critical Service Level Summary section includes processing metrics for Service Desk Response Times. The table includes a Service Level breakdown for each month along with a quarterly summary[2].

		Jan-2014	Feb-2014	Mar-2014	1st Quarter
Critical Service Level Summary					
Meter Read Data Processing	# of Intervals Processed	**3,139,372,942**	**2,882,449,382**	**3,198,641,228**	**9,220,463,552**
	# of Intervals Processed within Service Level Time	**3,139,372,942**	**2,882,211,422**	**3,198,641,228**	**9,220,225,592**
	% Intervals Processed within Service Level Time	**100.00%**	**99.99%**	**100.00%**	**100.00%**
	# of Incidents with Single Delay > 45 mins and/ or # of Incidents resulting in Accumulated Delay > 240 mins	**5**	**0**	**0**	**5**
Billing Quantity Response Processing	# of BQ Requests Processed	**3,582,113**	**3,424,784**	**3,550,490**	**10,557,387**
	# of BQ Requests Processed within Service Level Time	**3,582,113**	**3,424,784**	**3,550,490**	**10,557,387**
	% Requests Processed within Service Level Time	**100.00%**	**100.00%**	**100.00%**	**100.00%**
	# of Incidents with Single Delay > 45 mins and/or # of Incidents resulting in Accumulated Delay > 240 mins	**0**	**0**	**0**	**0**
MDM/R Master Directory (MMD) Processing	# of Data Elements Processed	**1,495,322**	**5,460,970**	**1,605,229**	**8,561,521**
	# of Data Elements Processed within Service Level Time	**1,495,322**	**5,460,970**	**1,605,229**	**8,561,521**
	% Data Elements Processed within Service Level Time	**100.00%**	**100.00%**	**100.00%**	**100.00%**
	# of Incidents resulting in Data Elements Processed outside Service Level Time	**0**	**0**	**0**	**0**
MDM/R Graphical User	User Interface Availability	**100.00%**	**100.00%**	**100.00%**	**100.00%**
	# of Incidents resulting in non-availability of Service < 99.80%	**0**	**0**	**0**	**0**
Non-Critical Service Level Summary					
Service Desk Response Time	Response Time (90% of Sev 1 and Sev 2 incidents response time within 15 minutes)	**100.00%**	**100.00%**	**100.00%**	**100.00%**
	# of Incidents (Sev 1 and Sev 2) OSP responded after 15 mins	**0**	**0**	**0**	**0**

[2] *Percentages are rounded to the second decimal place for each metric.*

4. Initiatives and Software Testing

MDM/R Release 7.6 Upgrade and Measurement Canada 2012 Phase 2

This project will upgrade the MDM/R software to a more current version keeping it maintainable and supportable, and it will be combined with the delivery of the Measurement Canada 2012 Phase 2 solution functionality[3]. We are currently targeting to complete this project by the end of 2014.

The SME has taken delivery of the initial release of the upgraded software and testing is well underway. The SME will continue to provide updates to LDCs as the project progresses.

MDM/R Infrastructure Refresh

The project to cutover the MDM/R onto new infrastructure successfully completed on April 26, delivering improvements to the performance and operation of the MDM/R. The transition was smooth and executed in a scheduled maintenance outage of the MDM/R. The MDM/R Service Recipients received weekly communications, during the three weeks leading up to cutover, providing details of the outage and best practices for LDCs for the transition. The SME and the MDM/R OSP have initiatives underway for the ongoing and continued improvement in the performance and operation of the MDM/R.

MDM/R Data Access

The MDM/R Data Access Platform ("MDAP") concept emerged as a possible way of addressing the new and emerging needs for data access and analytics of electricity consumption data and pursuing the Ministry of Energy's (the "Ministry") objectives for deriving greater value for consumers, energy stakeholders and the province from MDM/R data. Specifically, high level objectives for MDAP would include:

- Enhancing the value of the electricity consumption data by adding attributes to existing data (e.g. meter location), as well as new data sources (e.g. weather),
- Providing new interfaces and functionality for data access by current users of the MDM/R,
- Supporting access for authorized new classes of users such as researchers, commercial enterprises and other third parties,
- Supporting authorized access to anonymized data for research purposes and analysis.

The Ministry and the SME have exchanged letters whereby the Ministry and the SME would work together to develop a business case for an MDM/R Data Access Platform (MDAP).

In order to protect the operational stability of the MDM/R and support the increasing volumes of data retrieval requests, the SME is in the process of implementing infrastructure reinforcements, including an MDM/R Data Mart. The Data Mart is purpose-designed synchronized copy of the MDM/R production database that will be used for fulfilling web service requests, data extract requests, and other ad-hoc queries without impacting the operation of the MDM/R. The project is well underway with completion targeted for the summer 2014. The MDM/R Data Mart has been architected such that it could, if deemed appropriate, be expanded in the future to support new and evolving requirements for the MDM/R Data Access Platform without stranding investments.

[3] *An overview of the Measurement Canada 2012 Phase 2 solution is provided in the SME MDM/R Report Issue 1.0 dated October 28, 2013.*

MDM/R LDC Merger Utility

In order to support the merger of LDCs, the SME was requested to provide a facility for the re-assignment of historical electricity consumption data in the MDM/R from one utility to another. This approach enables LDCs and their electricity consumers to be able to retrieve their historical consumption data from the consolidated utility. Commercial negotiations are underway with the MDM/R solution vendors to deliver the MDM/R LDC Merger Utility as soon as possible.

5. Additional Risks and Issues

There are no additional risks and issues to report.