



Information Technology Service Availability Metrics

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February 16, 2010

Agenda and Commentary

Modified SLA for Retail Market IT Services

- A modified Service Level Agreement (SLA) was negotiated with and approved by Market Participants in December 2009. This SLA is effective from January 2010. Per this SLA, the Availability Targets for Retail Transaction processing are as follows:
 - 99.9% of the time from 7am to 7pm, Monday through Friday, and outside of scheduled maintenance and release outage windows (*denoted as “Business Hours” in the following slides*)
 - 99% of the time from 7pm to 7am, Monday through Friday, and all day Saturday and Sunday, excluding scheduled maintenance and release outage windows (*denoted as “Off Business Hours” in the following slides*)
- Accordingly, Retail Transaction Processing availabilities for “Business Hours” and “Off Business Hours” are shown separately in the YTD and Monthly summary slides.

Agenda and Commentary (continued)

▪ **Retail and Wholesale Systems Performance**

- **Retail Transaction Processing**

- *Business Hours* – January performance was 99.62%
- *Off Business Hours* – January performance was 100%

- **TML** – January performance was 100%

- **MarkeTrak** – January performance was 99.86%

- **TML Report Explorer** – January performance was 99.88%

- **Retail API** – January performance was 100%

- **Wholesale Total** – January performance was 100%

▪ **Market and Grid Control Systems Performance**

- **Real Time Balancing Market (RTBM)** – January performance was 100%

- **Frequency Control (FC)** – January performance was 100%

Agenda and Commentary (continued)

- **Nodal Systems Performance**

- **Aggregate EMS** – January performance was 97.74%
- **Outage Scheduler** – January performance was 100%
- **NMMS** – January performance was 98.44%
- **CRR** – January performance was 100%

Agenda and Commentary (continued)

SLA Impacting issues

- **Retail Transaction Processing (Business Hours)**
 - 1/28 (58 Minutes) – An emergency outage was initiated to address a Retail Transaction Processing degradation that followed a maintenance release consisting of a vendor product upgrade (see next slide for details). During this emergency outage, the application was reverted back to an earlier version, to resolve the degradation.

Agenda and Commentary (continued)

Other issues

▪ **Texas Market Link (TML) degradation**

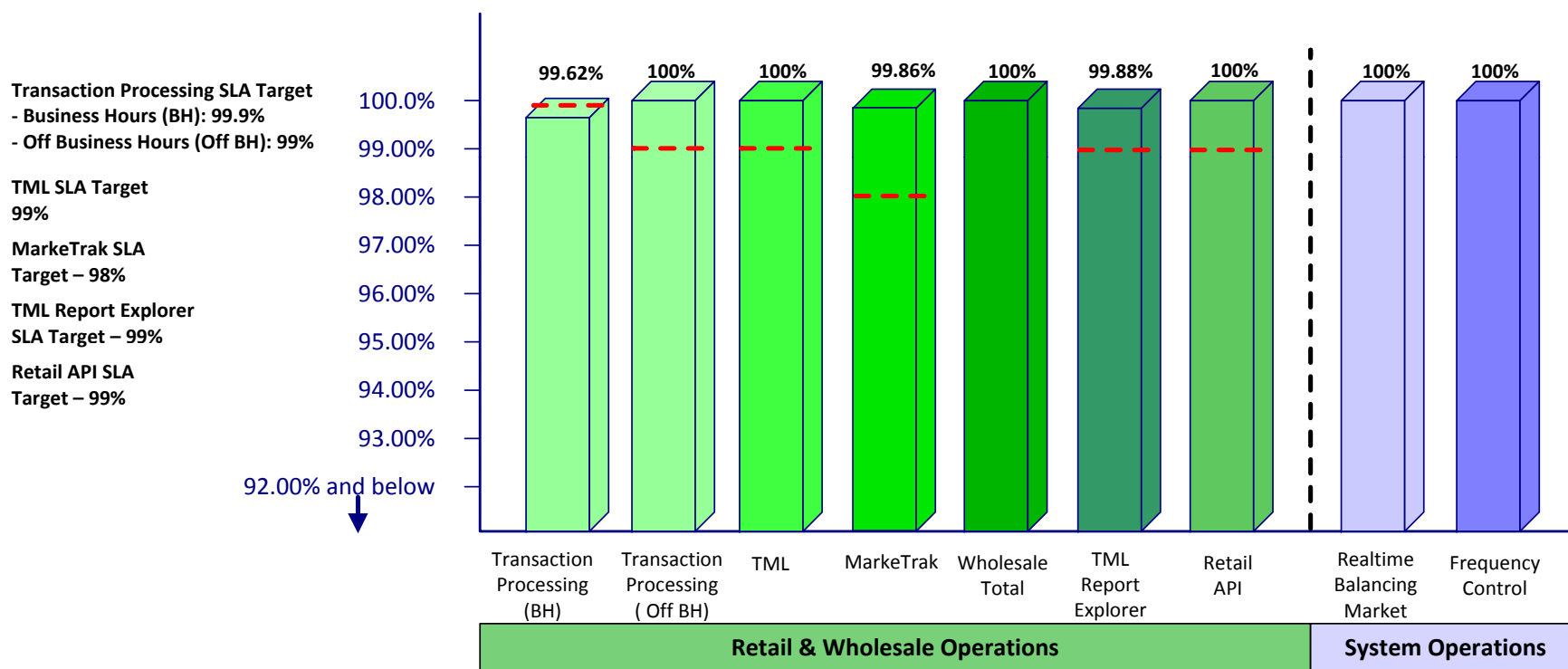
- 1/5 to 1/23 (Intermittent) – Market Participants were unable to download extracts from TML due to unknown reasons. ERCOT made configuration changes to the Enterprise Application Integration (EAI) server, and refreshed Database Statistics (a query optimizer) to correct the issue.

▪ **Retail Transaction Processing degradation**

- 1/24 to 1/28 (1468 Minutes) – The retail release on 1/24 included an upgrade to the EDI file transfer application, a vendor product. The upgrade consisted of a change to an algorithm from native C to Java. Upon completion of the upgrade, there were intermittent EDI transaction failures, with the following impact: During the degradation period, there were 11,300 out-of-protocol transactions (2.56% of total) affecting 25 MPs. The issue was resolved on 1/28 by initiating an emergency outage and reverting the application to an earlier version.

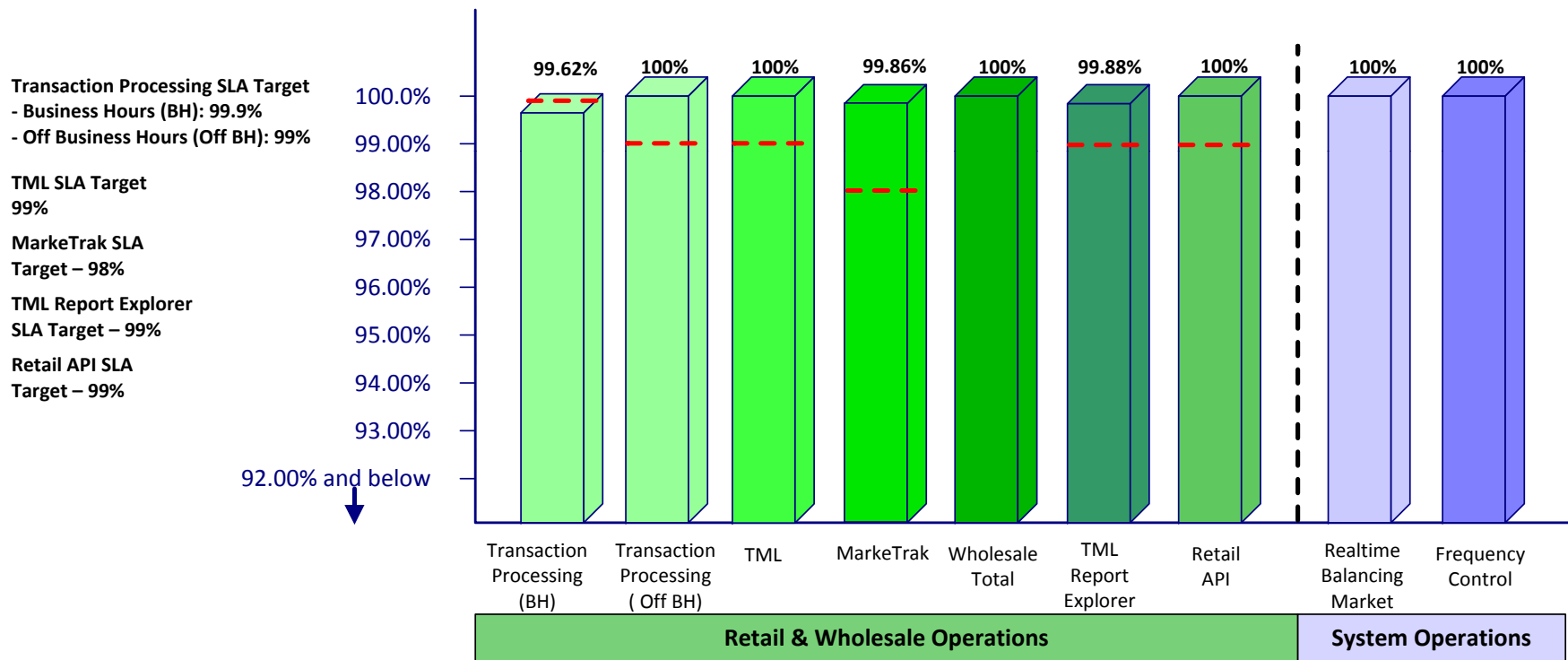
2010 Net Service Availability

2010 Net Service Availability Through January 31st, 2010



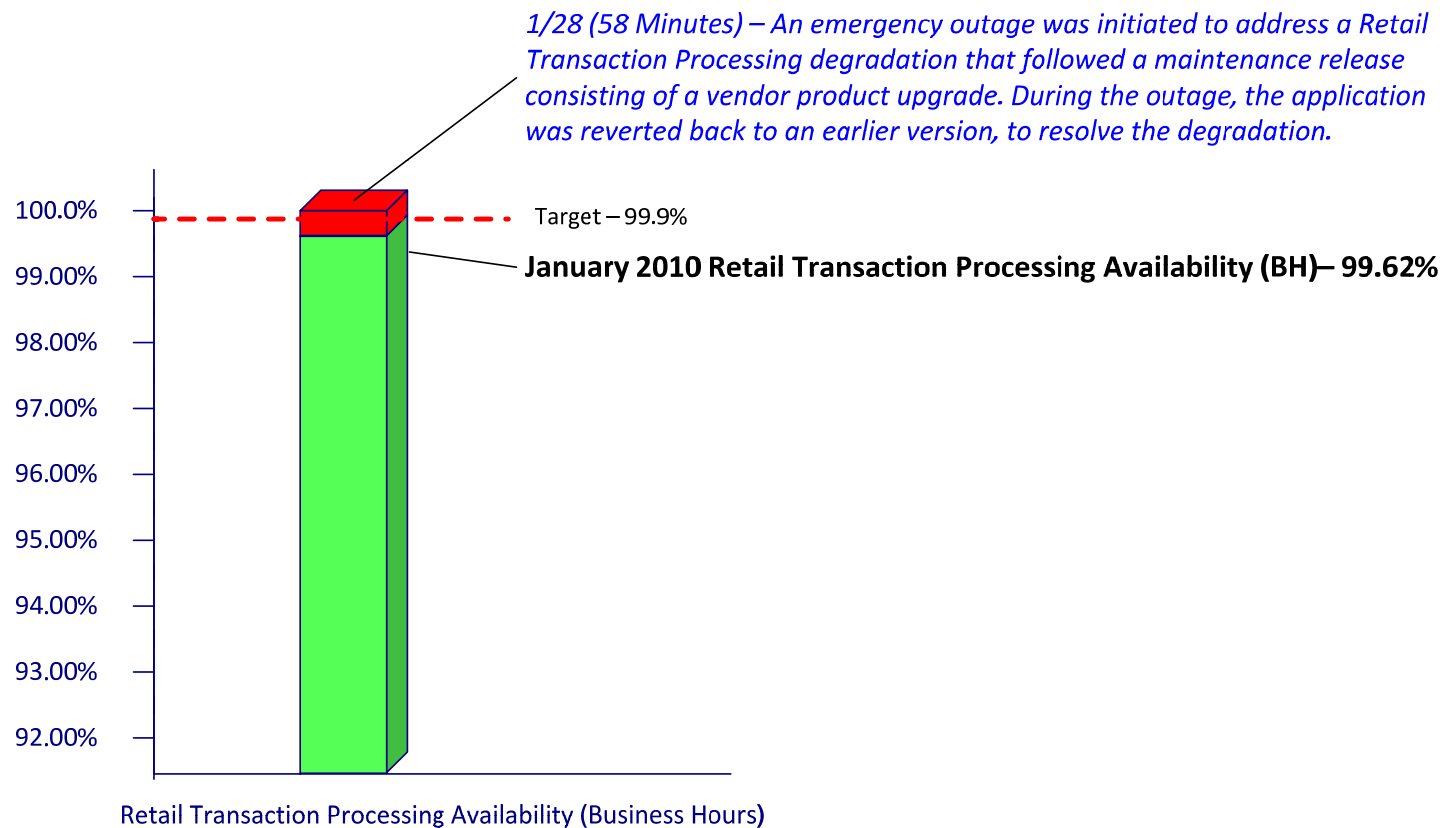
January 2010 Net Service Availability

January 2010 Net Service Availability



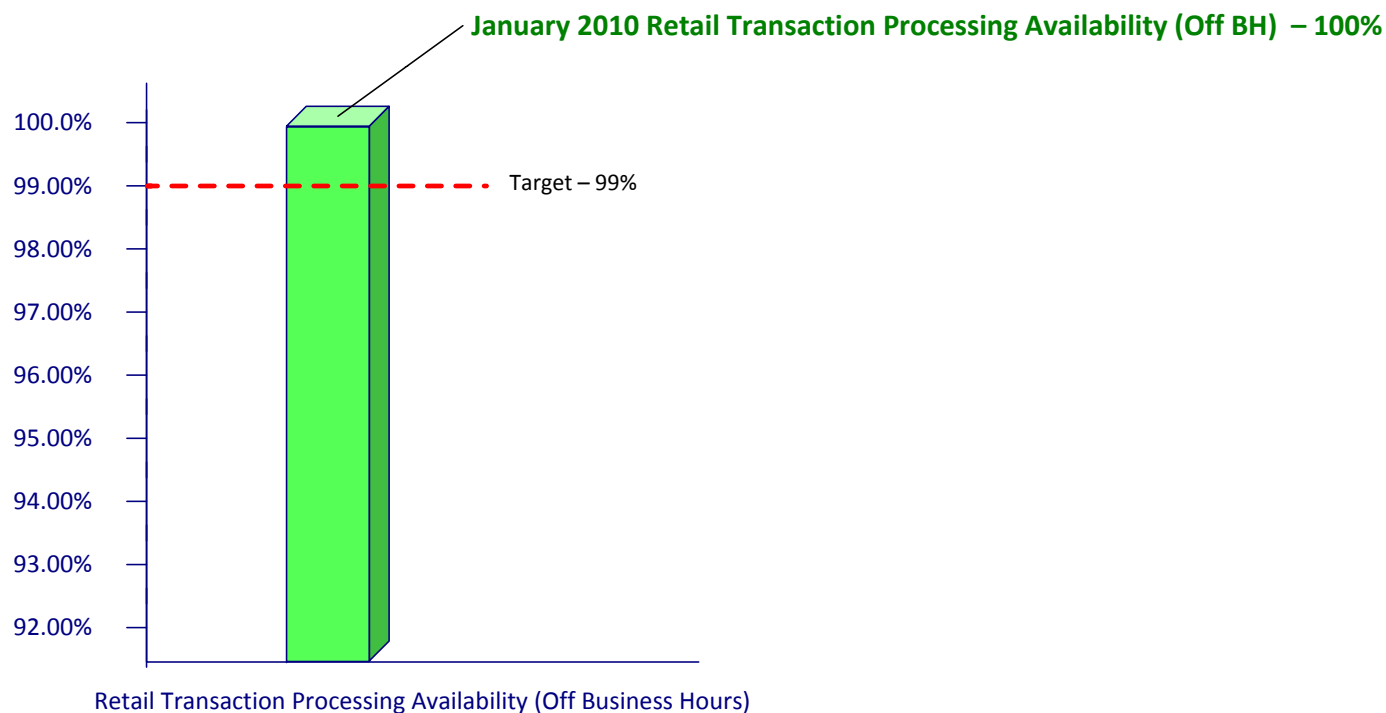
Retail Transaction Processing Availability Summary

January 2010 Retail Transaction Processing Availability Summary (Business Hours)



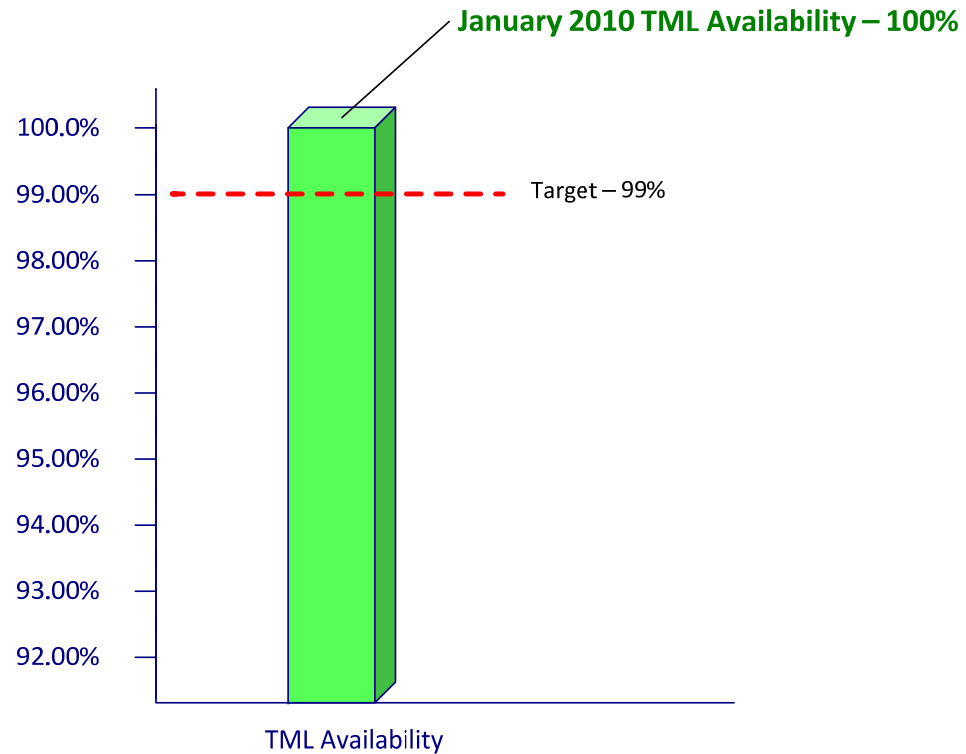
Retail Transaction Processing Availability Summary (contd.)

January 2010 Retail Transaction Processing Availability Summary (Off Business Hours)



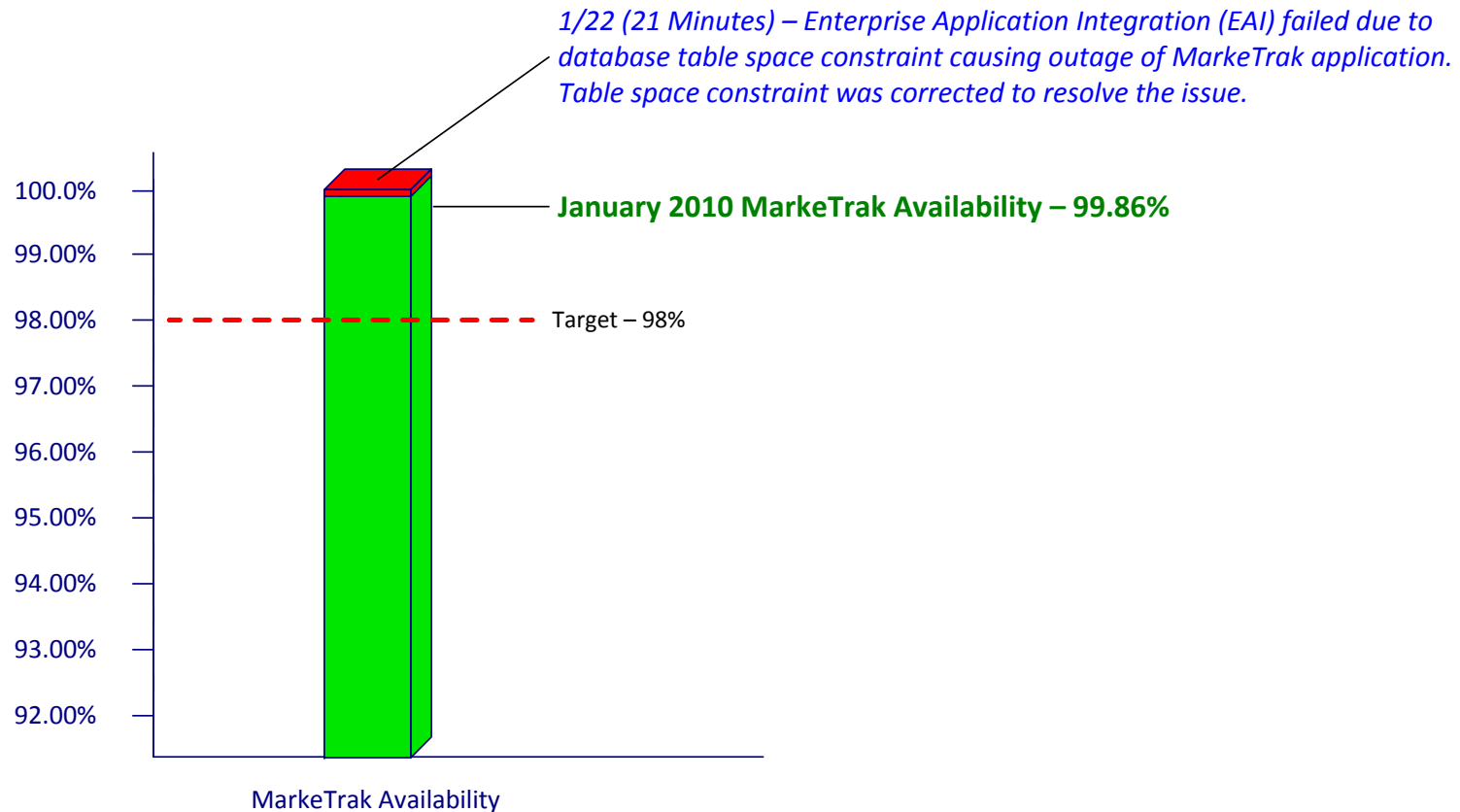
TML Availability Summary

January 2010 TML Availability Summary



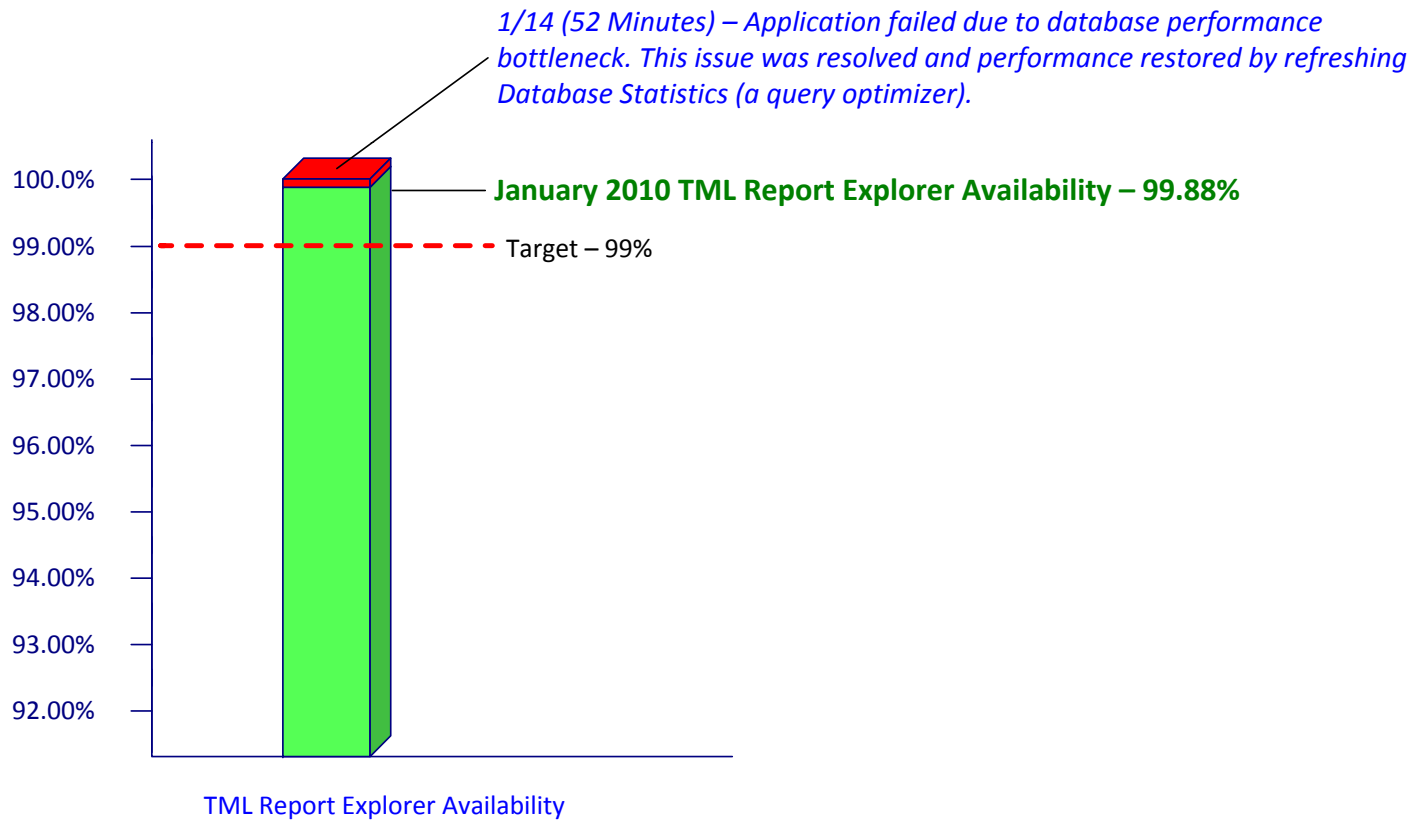
MarkeTrak Availability Summary

January 2010 MarkeTrak Availability Summary



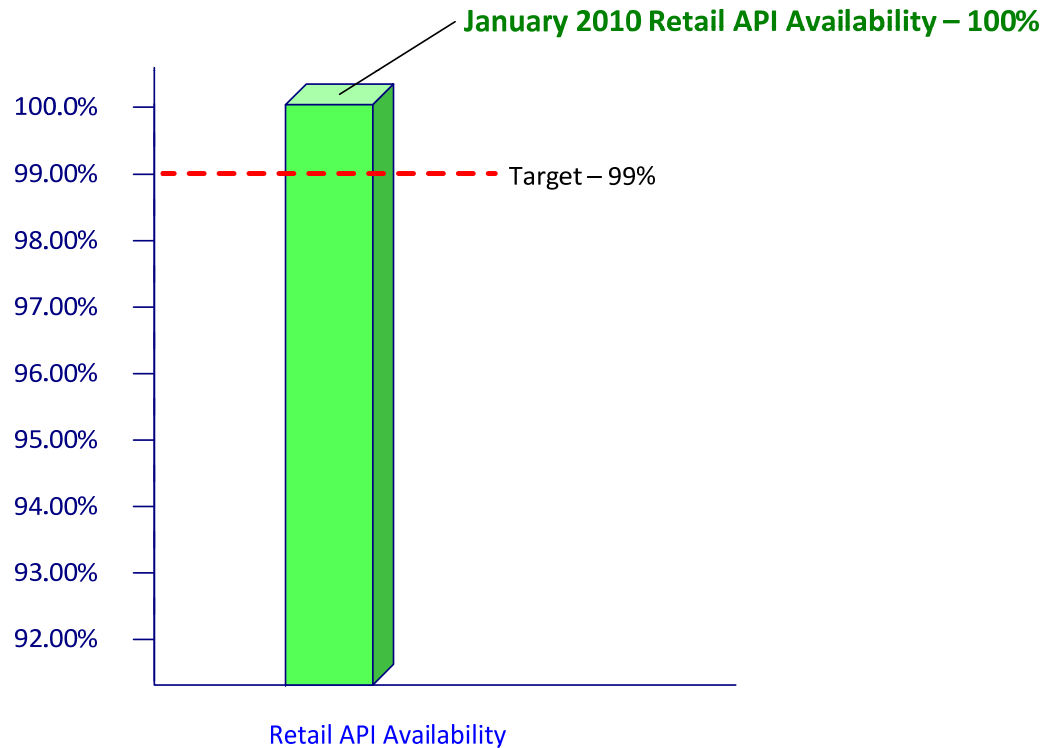
TML Report Explorer Availability Summary

January 2010 TML Report Explorer Availability Summary



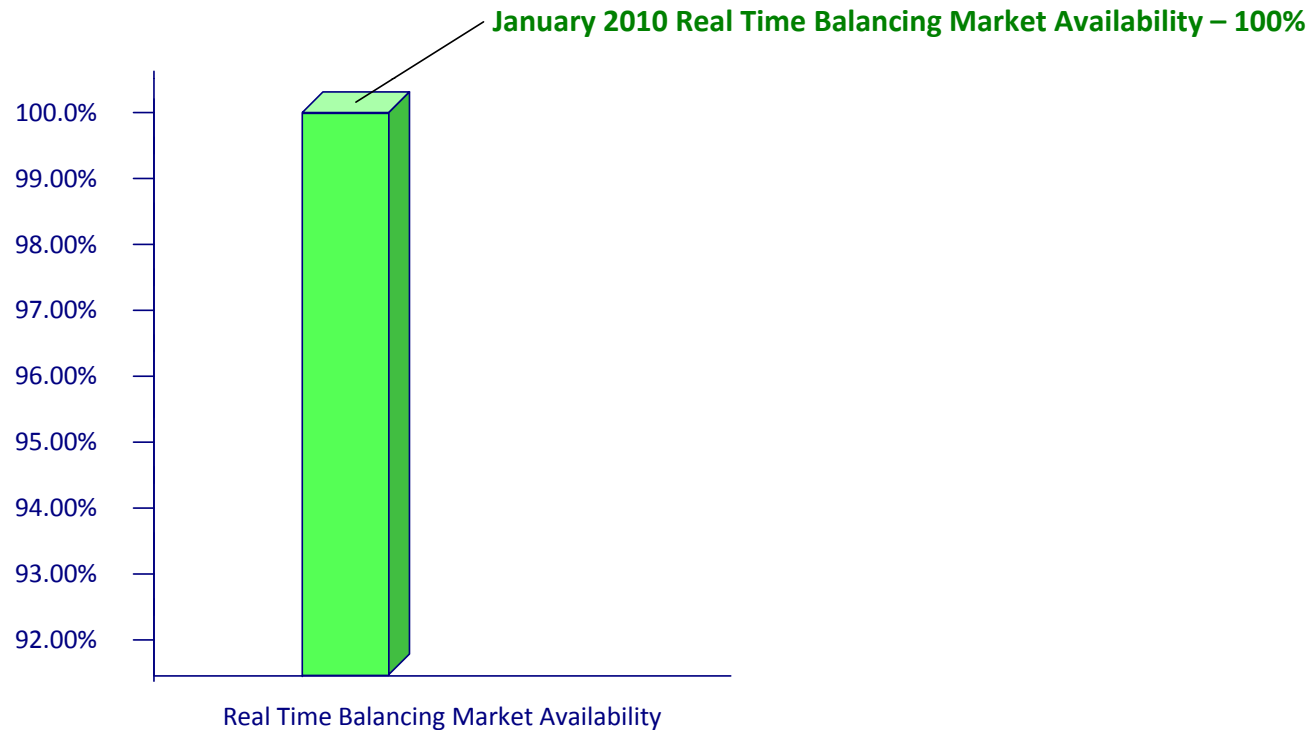
Retail API Availability Summary

January 2010 Retail API Availability Summary



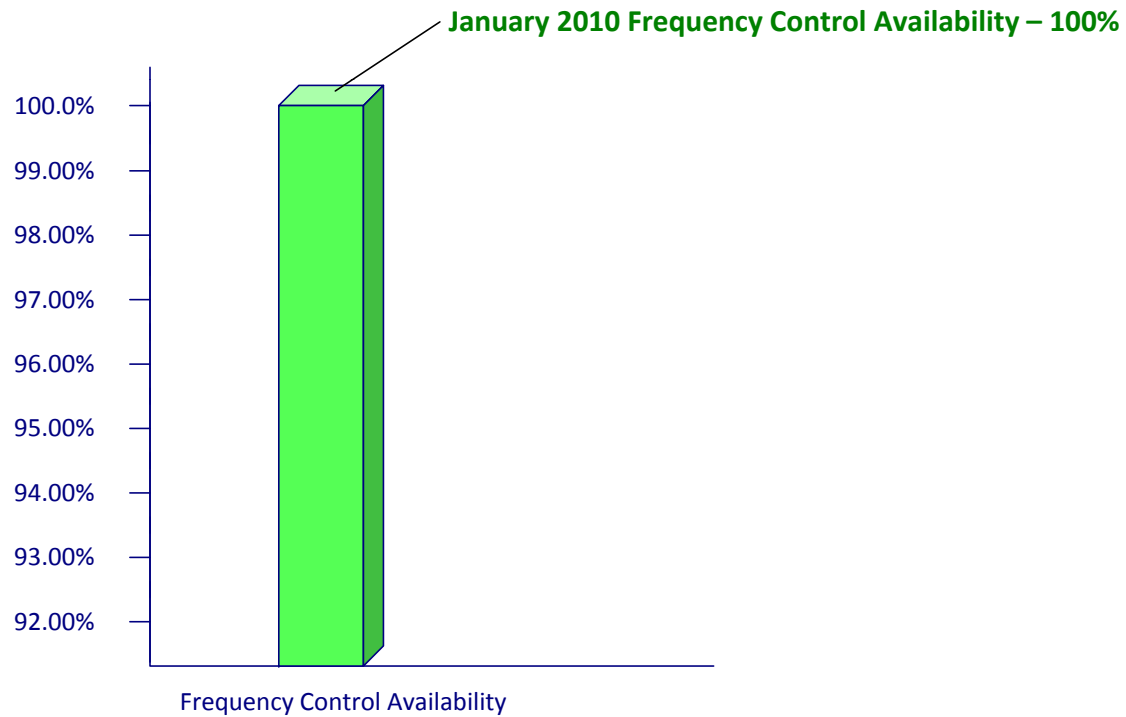
Real Time Balancing Market Availability Summary

January 2010 Real Time Balancing Market Availability Summary



Frequency Control Availability Summary

January 2010 Frequency Control Availability Summary

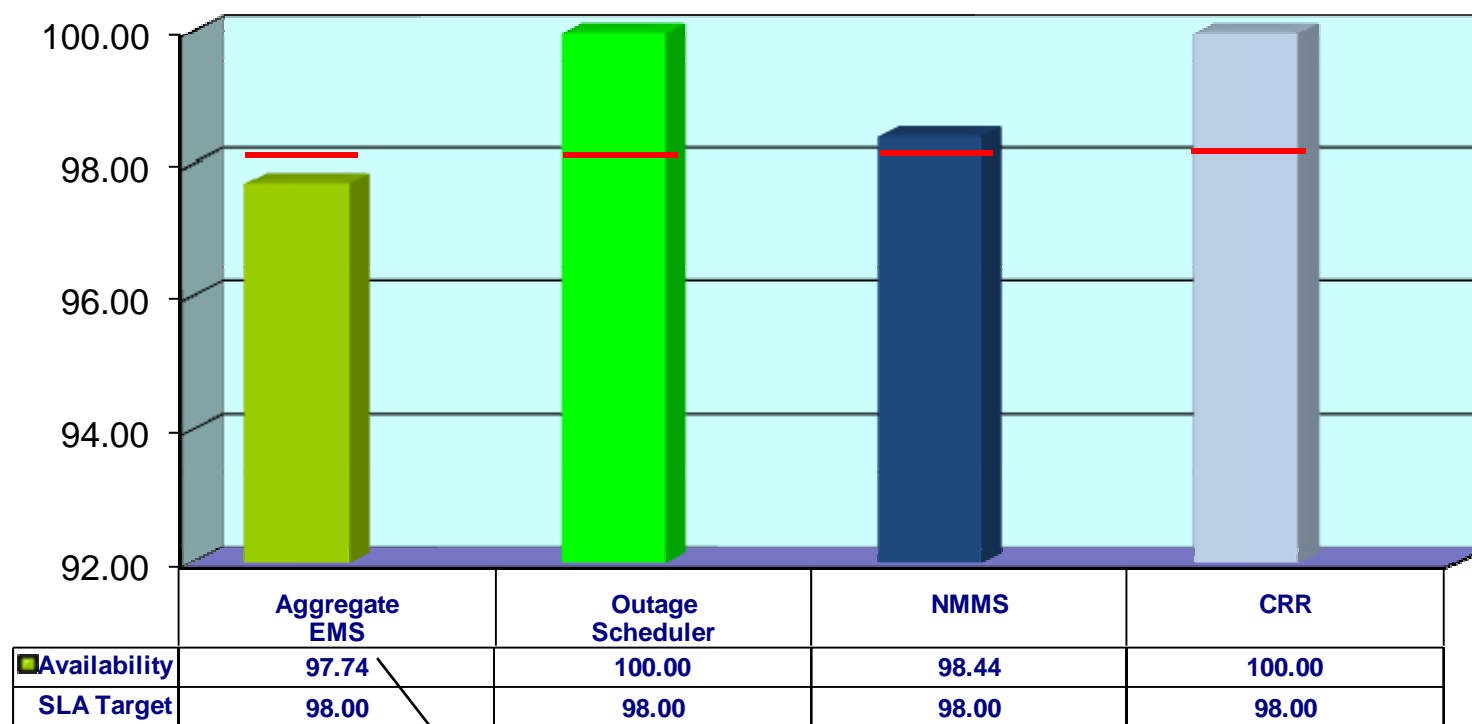


Metrics Guide – Nodal Production

- **Aggregate Energy Management System (EMS)**
 - Measure of the availability of the software that provides real time grid control capability. Calculated as average of deployed & monitored components availability
- **Outage Scheduler**
 - Measure of the availability of the software to manage the submission, modification, deletion of schedules for various types of transmission and generation systems outages
- **Network Model Management System (NMMS)**
 - Measure of the availability of the software to manage the ERCOT network model. Calculated as availability of model management core engine (IMM)
- **Congestion Revenue Rights (CRR)**
 - Measure of the availability of the software to manage the financial instruments that help Market Participants hedge against losses due to transmission constraints

Nodal Production – January 2010 Net Availability

January 2010 Net Availability for Nodal Production systems



Issue Description: 01/09 and 01/10 (945 Minutes) - EMS failed due to a combination of two reasons. *Sampler*, a critical component that provides data interface to MMS, failed due to the overflow of message queue; also, Memory Replication Services (MRS), a key service for failover, was degraded. Root cause is not known. The issue is being investigated by the vendor.