



Information Technology and Facilities Report

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Vice President & CIO

ERCOT Board of Directors

June 15, 2010

Agenda and Commentary

Highlights

- **New Data Centers:** Construction of the new data centers in Bastrop and Taylor continues to be on schedule and under budget. These data centers provide additional capacity needed for ongoing ERCOT operations. Highlights include the following:
 - Installation of permanent power at both locations was completed in May
 - Final integration and commissioning is planned to begin in early July, approximately one month ahead of original schedule
 - Taylor City Council approved requested property tax abatement for Taylor Computer 3.

- **Data Center Relocation**
 - Completed contract for Bastrop data center dark fiber installation
 - Major equipment vendor site/due diligence visits completed
 - First equipment Requests for Proposals scheduled for June release

- **Nodal CMM test:** The first test cycle for the Nodal Credit Monitoring and Management (CMM) application was run with credit information feeds from the Congestion Revenue Rights and Day Ahead Market. The test was completed with no major issues and met the planned objectives. CMM provides exposure and credit availability measures for Market Participants, and is a critical application for Nodal Go-Live.

Agenda and Commentary

Highlights

- **Network Model Management System (NMMS):** System has experienced multiple reoccurring restarts which impacts Market Participants and internal users. The restarts cause “work in progress” input data to be lost, requiring re-entry. Vendor engaged to provide on-site resources for problem isolation and resolution.
- **Data Management:** A plan was developed to reduce the Enterprise Information System (EIS) database size by 27 TB across all environments by retiring duplicate data. This will be accomplished by eliminating the storage of pre-parsed data; instead, code will be developed to parse the data on demand. Optimization of data storage reduces infrastructure costs and is a key part of the Information Lifecycle Management initiative.
- **Employee Benefits System:** IT worked with the vendor of the Finance & HR Enterprise Resource Planning system to resolve a vendor system issue that would have prevented Employee Benefits open enrollment. A patch was deployed successfully resulting in no impacts to ERCOT employees.

Agenda and Commentary (continued)

Highlights

- **Retail transaction processing unplanned outages**
 - 5/2 (166 Minutes) – A server was started incorrectly during system restoration after the prior weekend's planned maintenance effort, causing an outage of the application. Application services were restarted correctly to resolve the issue.
 - 5/7 (315 Minutes) – Disk space constraints during an EDI archiving process caused transaction failure resulting in outage of the application. Files were purged to retrieve disk space and monitoring was implemented to generate advance alerts. The vendor has been contacted for a permanent resolution.
 - 5/25 (179 Minutes) – A troubleshooting effort to enhance batch job performance on 5/24 caused incorrect closure of the day's batch run, resulting in batch restart failure on 5/25. The issue was resolved by database performance tuning and a reset of the batch job.
- **TML Report Explorer Degradation:** A code migration from the prior weekend's planned maintenance effort caused performance degradation of TML Report Explorer on 5/2 for 734 Minutes. Database query and indexing were tuned to improve the performance and resolve the issue.

Agenda and Commentary (continued)

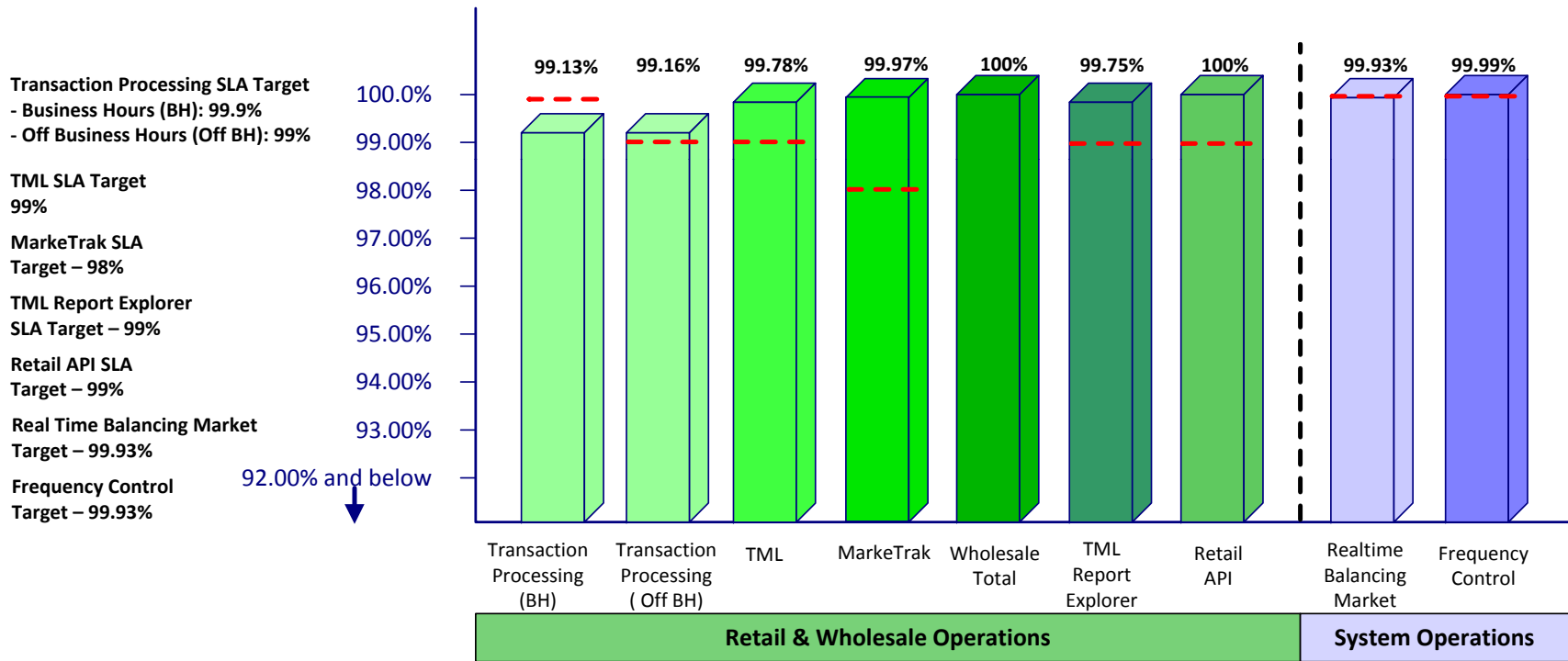
Highlights

- **Texas Market Link (TML) and TML Report Explorer unplanned outages:** Enterprise Application Integration (EAI) services became unresponsive causing application failure on 5/6 (36 Minutes), 5/12 (110 Minutes), 5/13 (28 Minutes) and 5/17 (121 Minutes). Application changes made during the prior planned release effort caused database performance which caused the application to fail. Services were recycled to restore the application. As part of the resolution steps taken, the application changes were rolled back and fixes to the changes are currently in testing phase.

- **EMMS Market Management System**
 - Long term problem causing missed Real Time Balancing markets resolved
 - Final change considered successful
 - Issue has not reoccurred and can not be recreated since last change applied.

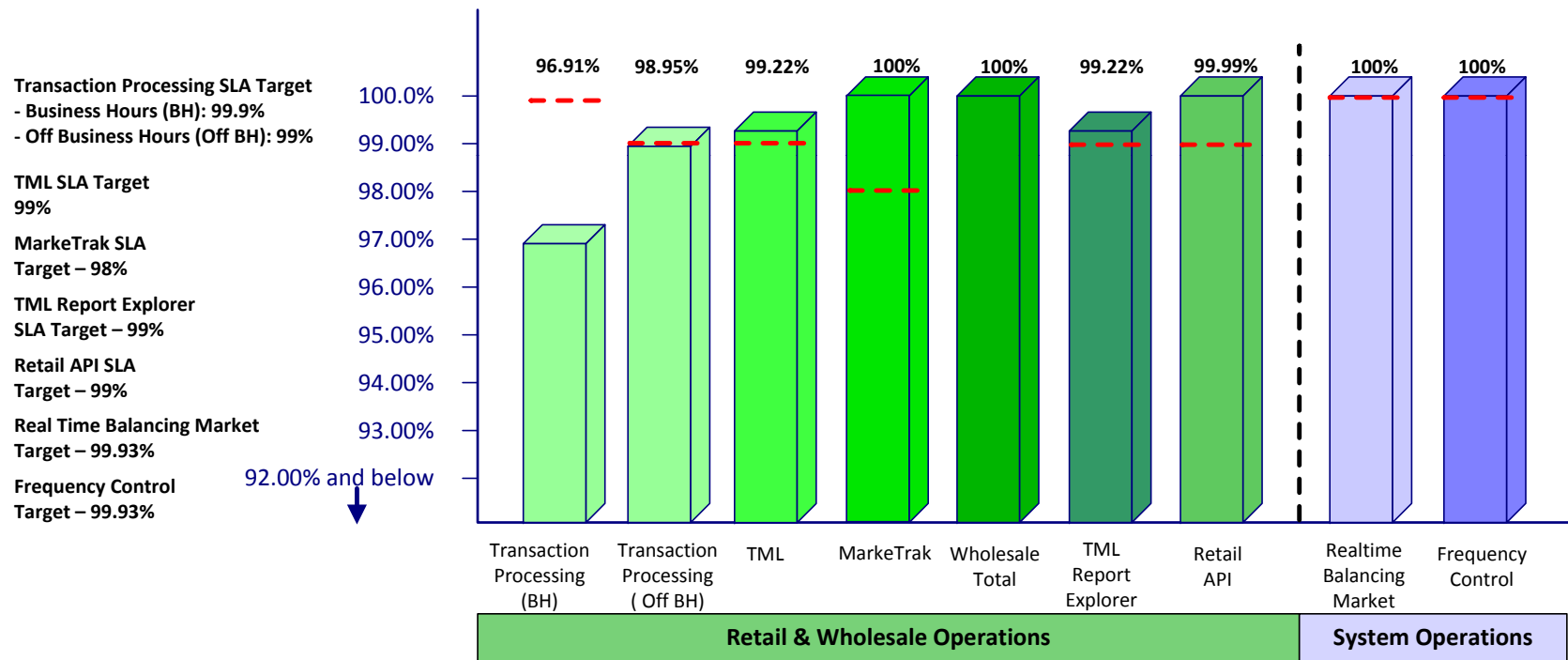
2010 Net Service Availability

2010 Net Service Availability Through May 31st, 2010



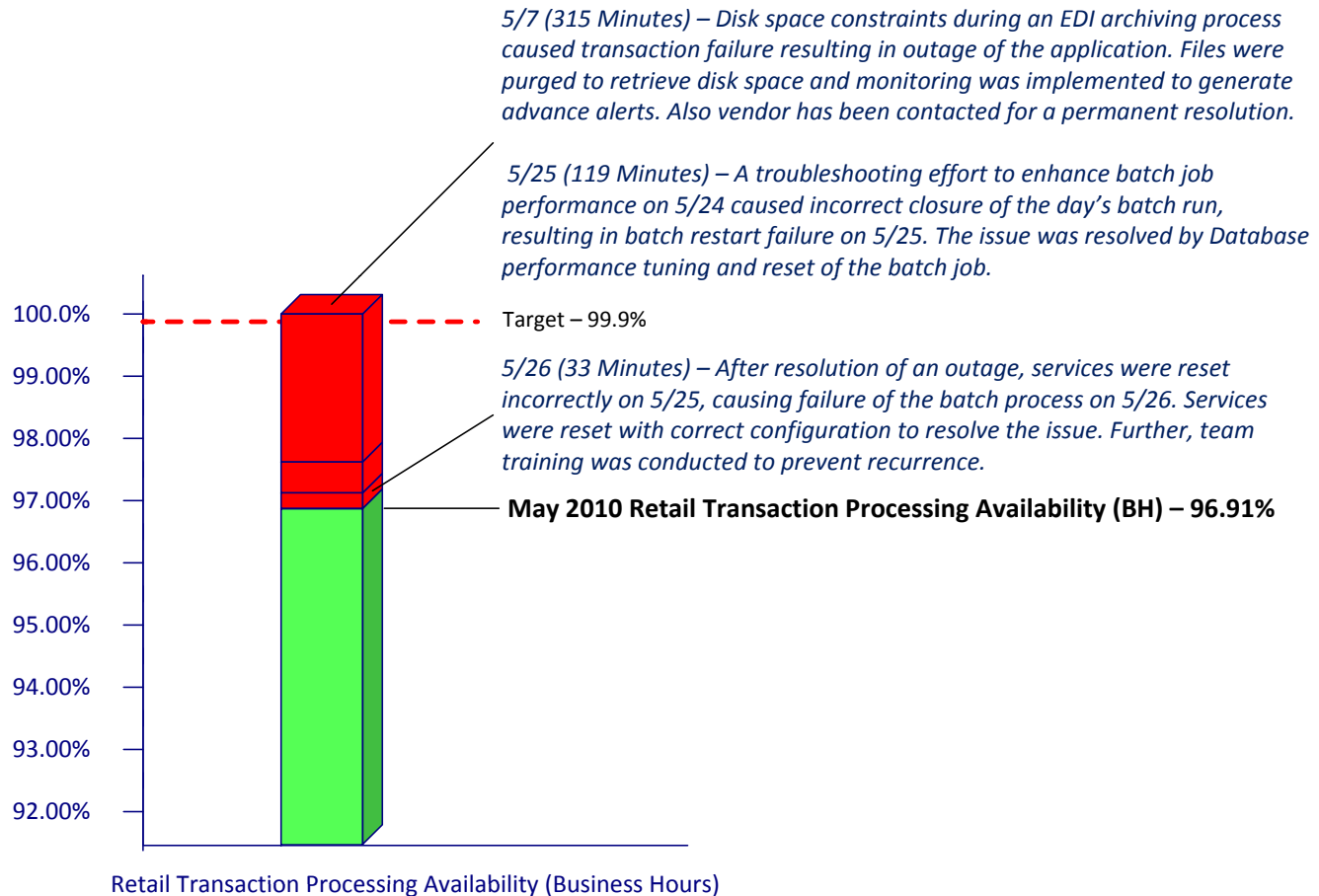
May 2010 Net Service Availability

May 2010 Net Service Availability



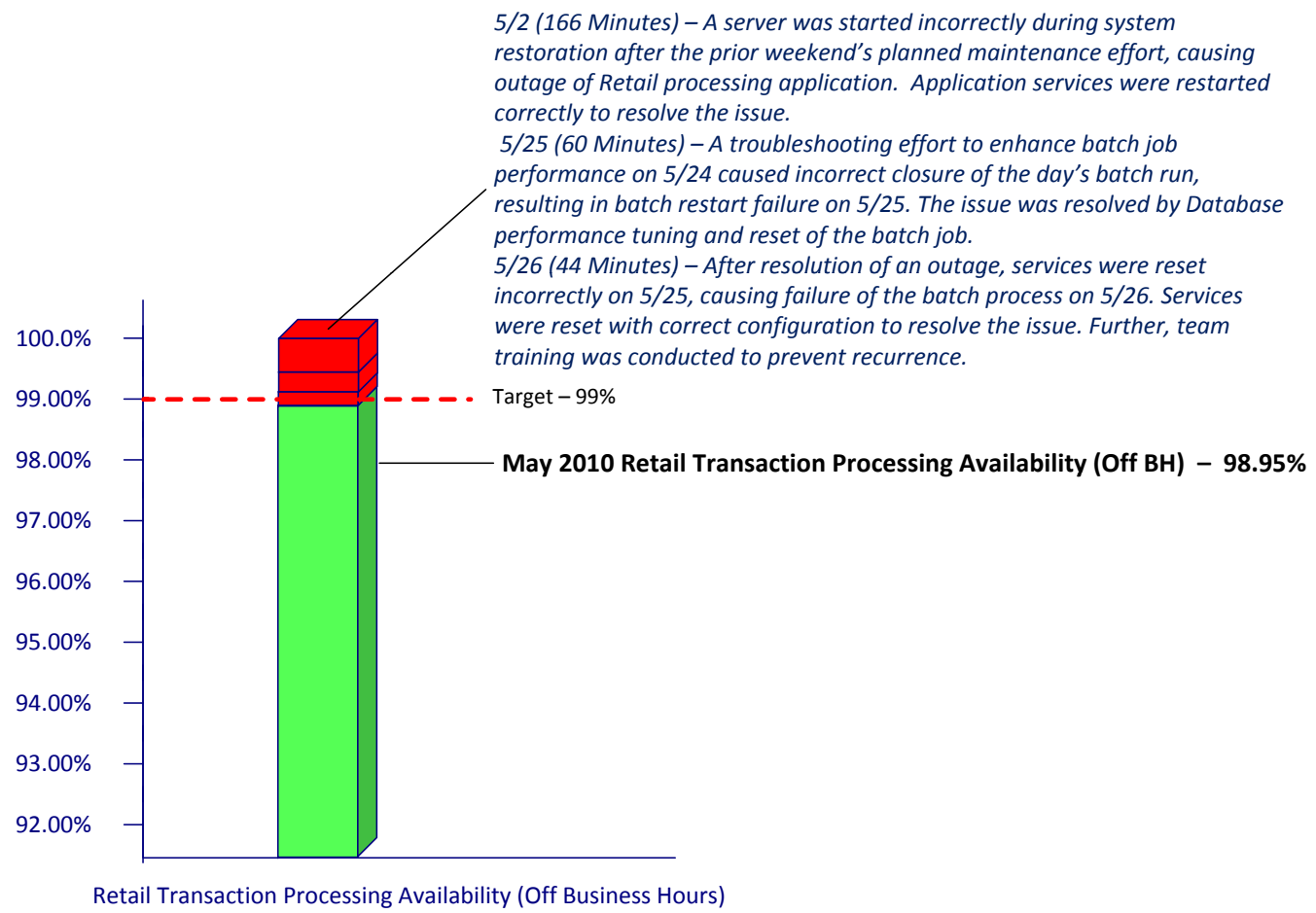
Retail Transaction Processing Availability Summary

May 2010 Retail Transaction Processing Availability Summary (Business Hours)



Retail Transaction Processing Availability Summary (contd.)

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

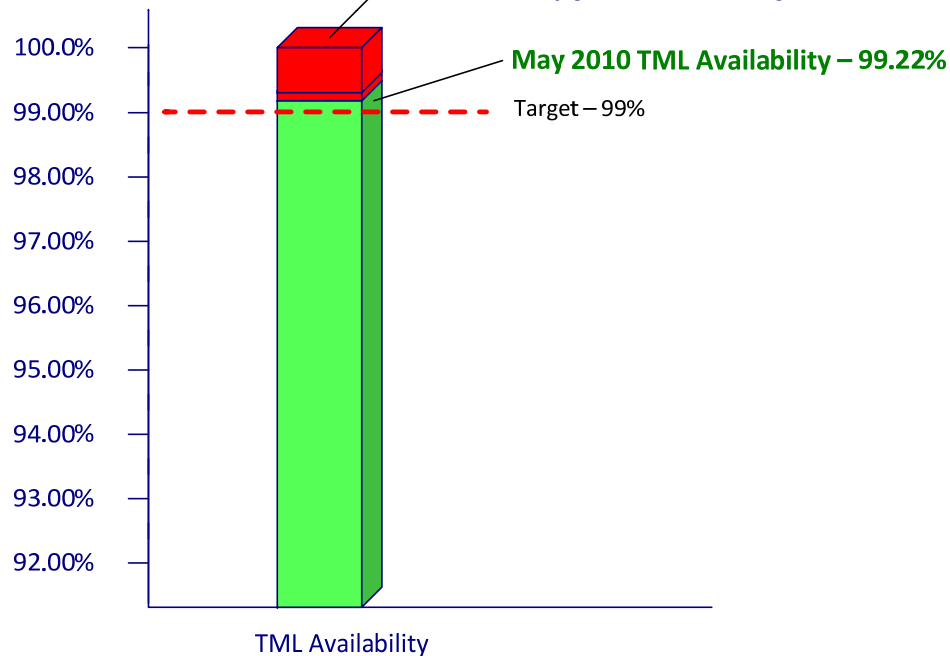


TML Availability Summary

May 2010 TML Availability Summary

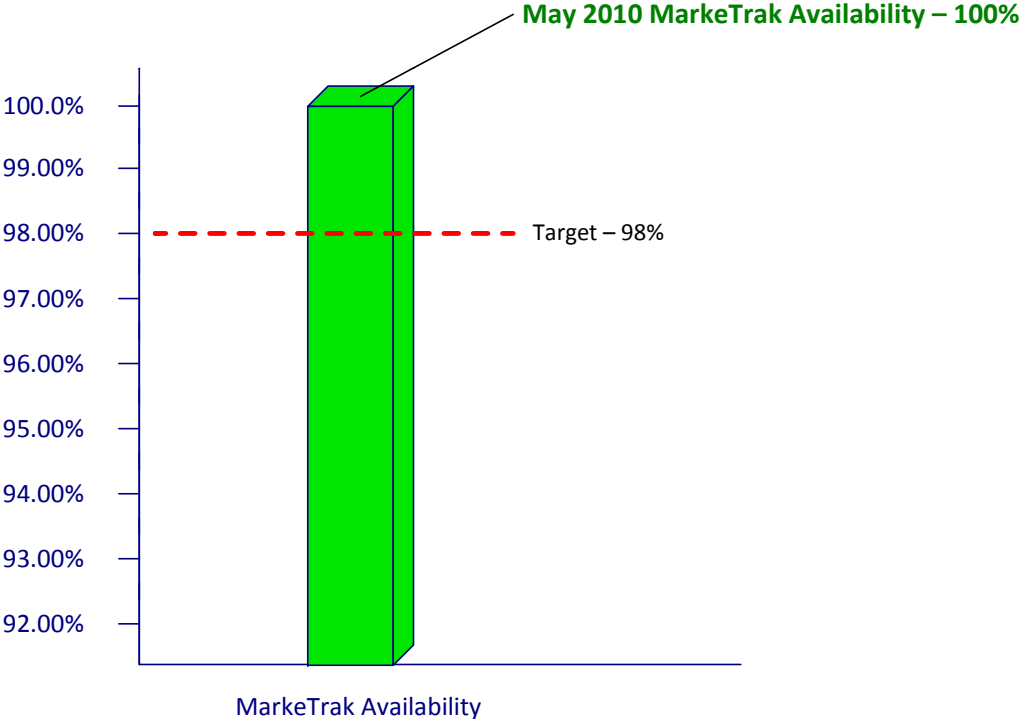
5/6 (36 Minutes), 5/12 (110 Minutes), 5/13 (28 Minutes) and 5/17 (121 Minutes): Enterprise Application Integration (EAI) services became unresponsive causing application failures. Application changes made during the prior planned release effort caused Database performance issues leading to EAI response failure. EAI services were recycled to restore the application. As a full resolution, application changes were rolled back; fixes to the changes are currently in testing phase.

5/17 (25 Minutes) – Database configuration problem caused failure of the application. Configuration was changed to resolve the issue.



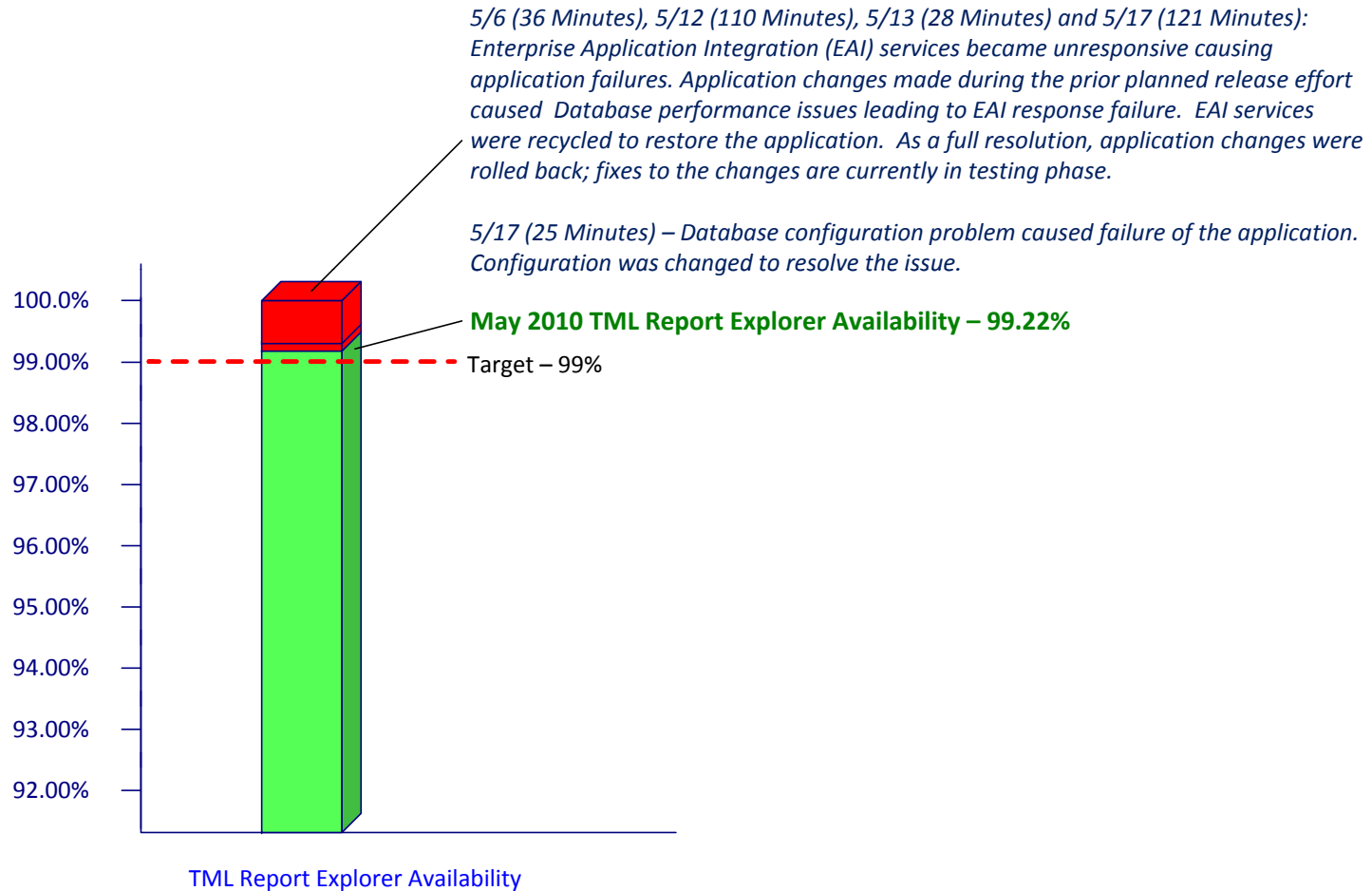
MarkeTrak Availability Summary

May 2010 MarkeTrak Availability Summary



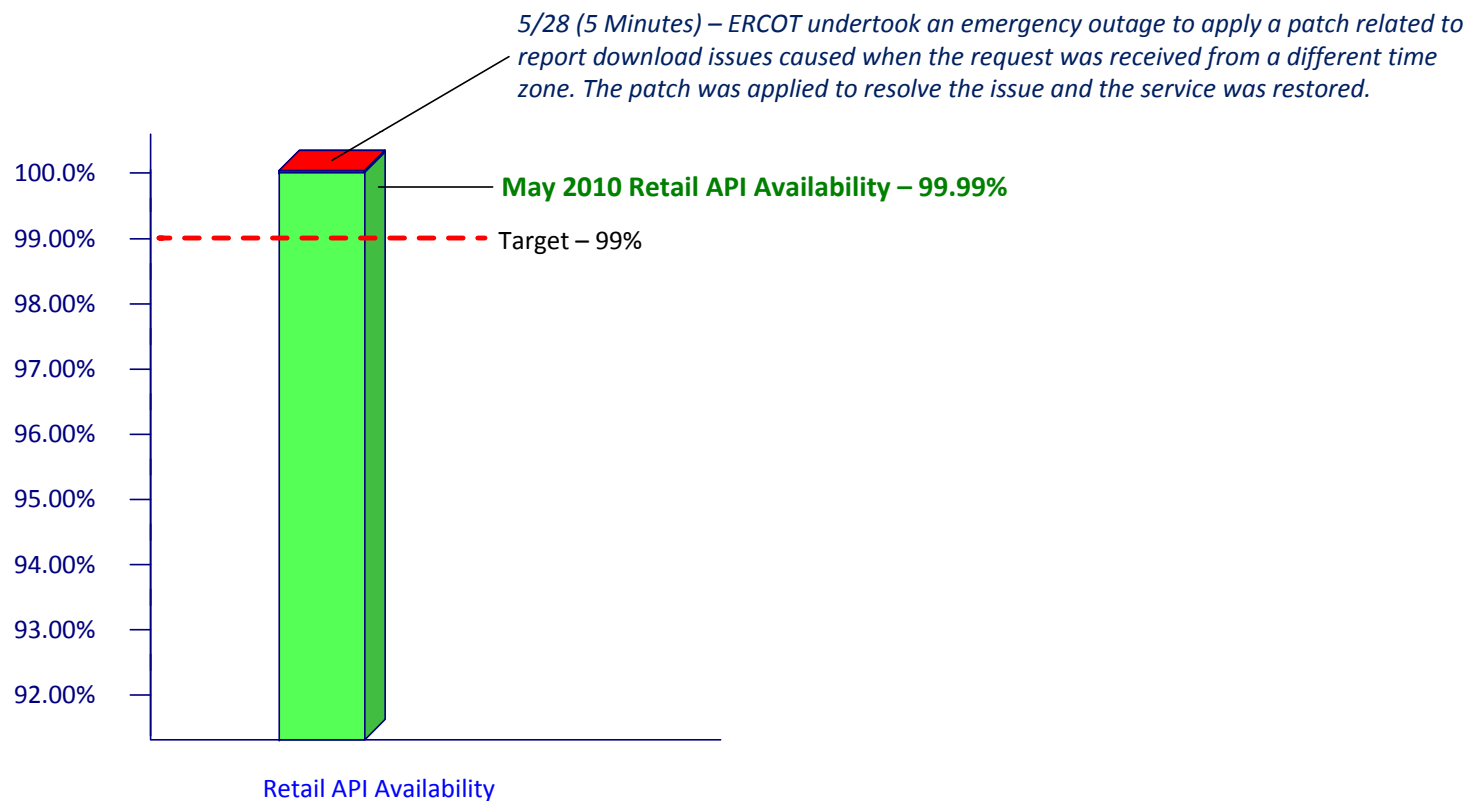
TML Report Explorer Availability Summary

May 2010 TML Report Explorer Availability Summary



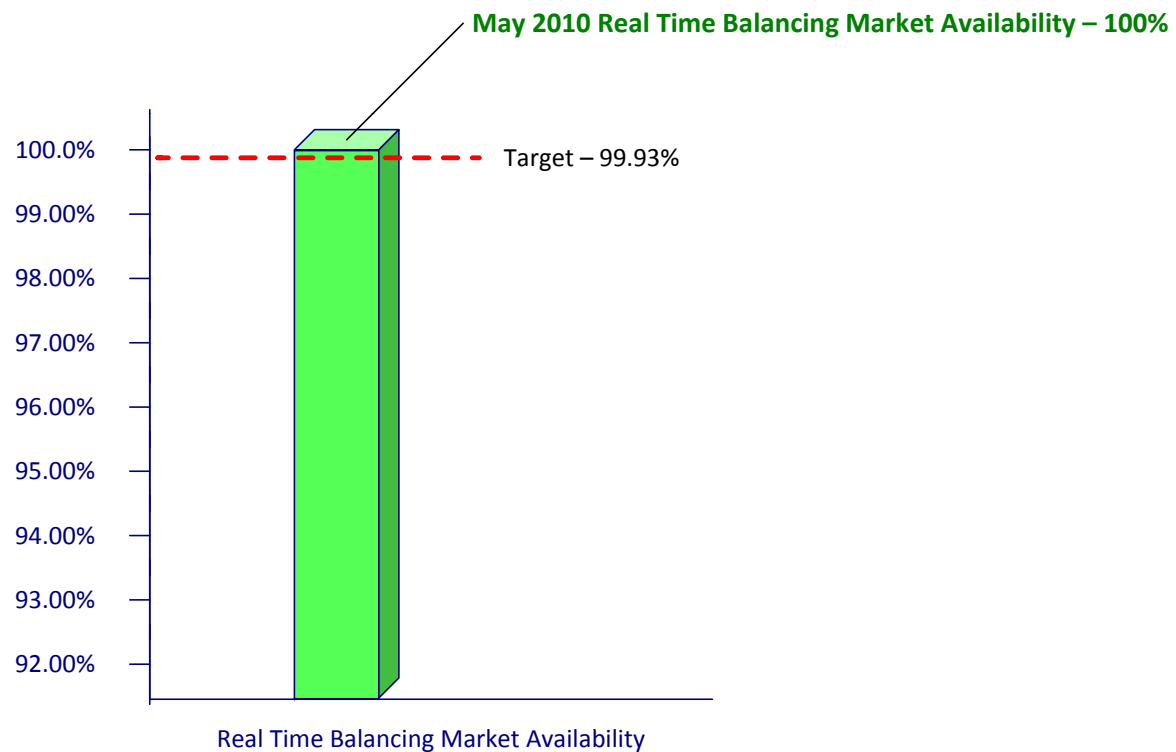
Retail API Availability Summary

May 2010 Retail API Availability Summary



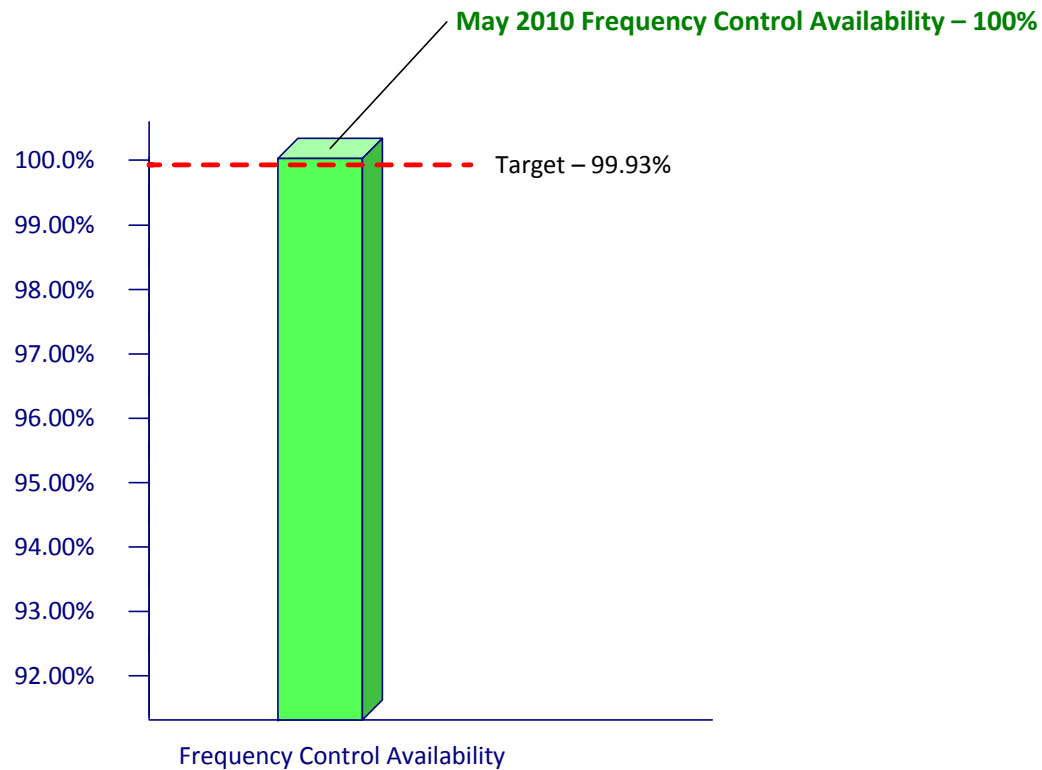
Real Time Balancing Market Availability Summary

May 2010 Real Time Balancing Market Availability Summary

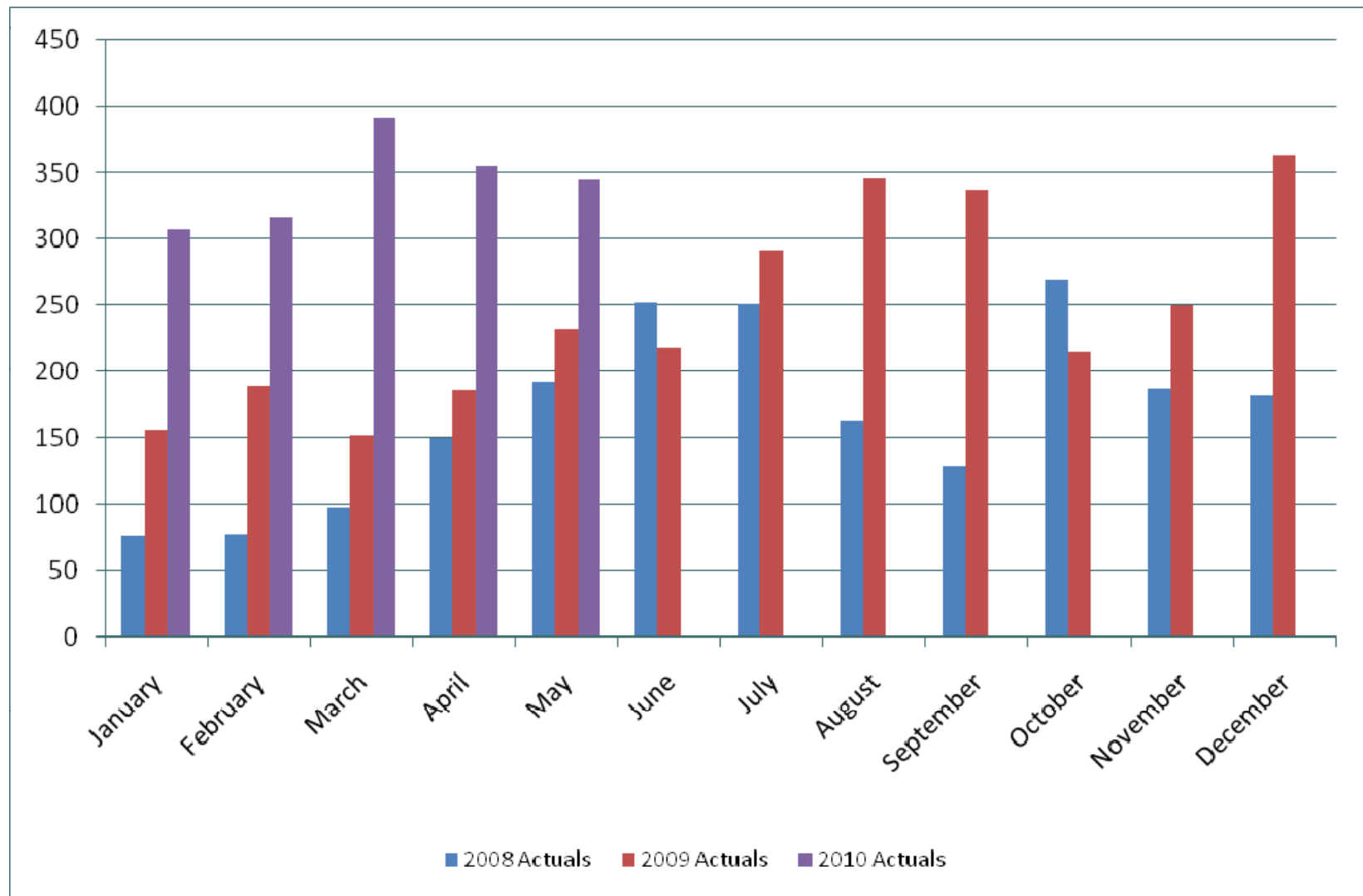


Frequency Control Availability Summary

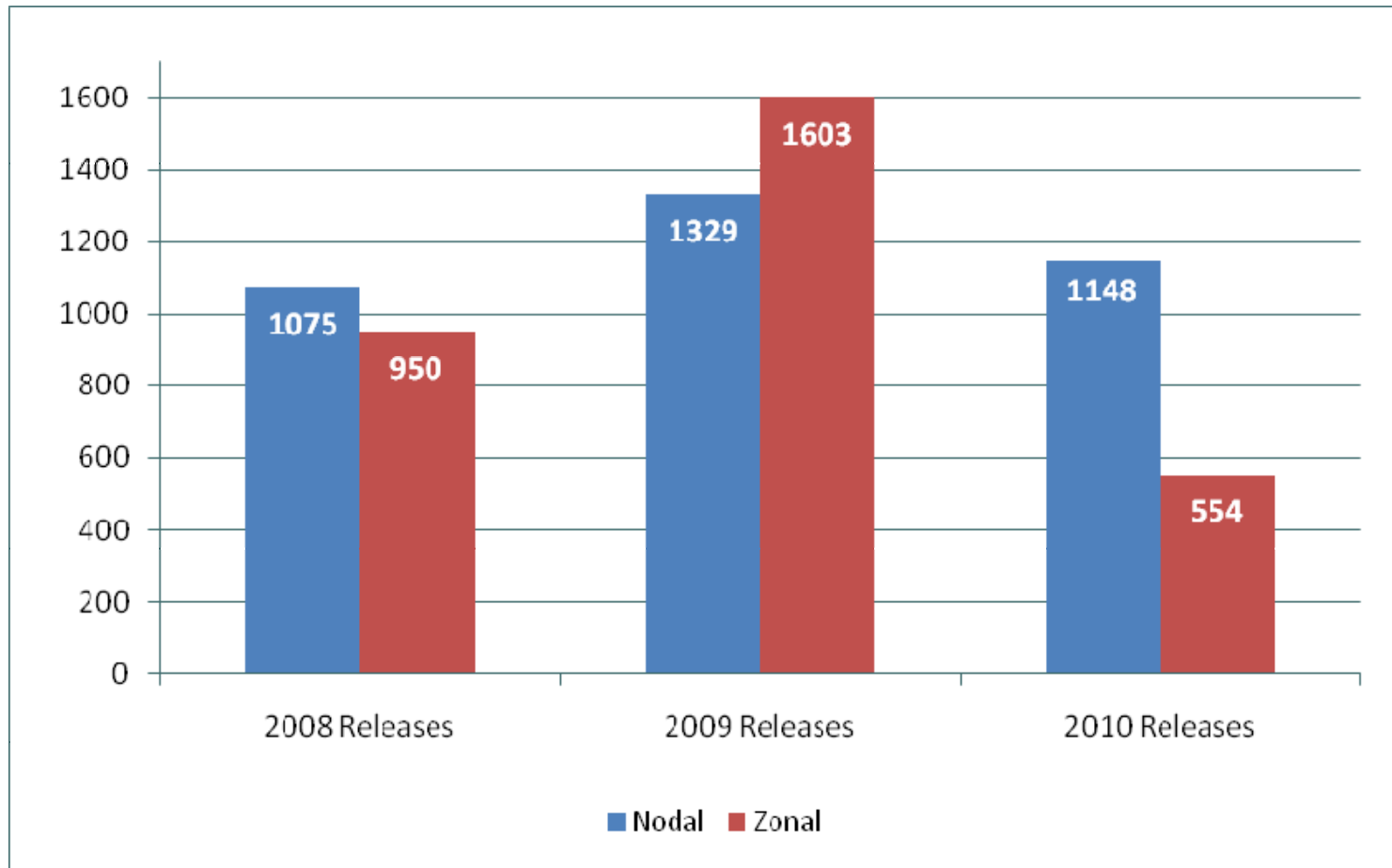
May 2010 Frequency Control Availability Summary



Release Management Metrics (3-Year Releases by Month)



Release Management Metrics (Nodal vs. Zonal Releases)



Note: 2010 metrics are YTD

ERCOT Public Website Metrics (May 2010)

Name↑	Reports	Status	Visits	Avg. Time on Site	Bounce Rate	Completed Goals	Visits % Change
http://faq.ercot.com UA-460876-6							
★ faq.ercot.com	View report	✓	1,161	00:01:55	49.01%	0	↑ 0.96%
http://nodal.ercot.com UA-460876-5							
★ nodal.ercot.com	View report	✓	13,735	00:03:58	34.97%	0	↑ 0.87%
http://planning.ercot.com UA-460876-7							
★ planning.ercot.com	View report	✓	2,244	00:04:46	18.36%	0	↑ 3.70%
http://search.ercot.com UA-460876-8							
★ search.ercot.com	View report	✓	5,251	00:03:02	49.97%	0	↑ 0.96%
http://www.ercot.com UA-460876-2							
★ www.ercot.com	View report	✓	103,841	00:02:32	60.26%	1	↑ 9.81%
Find profile:	<input type="text"/>						Show rows: 10

Legend

Bounce Rate: % of single page visits; **Completed Goals:** Measure of specific predefined actions completed by visitors;
% Change: % change in visits relative to previous month

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 – May 2010 Net Availability

May 2010 Net Availability for Nodal Production systems

