

Information Technology Service Availability Metrics

ERCOT Board of Directors November 2008

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Agenda and Commentary

Retail and Wholesale Systems Performance

- Retail Transaction Processing service level target will not be met for 2008; however for the month of October, system availability was at 100%
- TML, MarkeTrak, TML Report Explorer, and Retail API year to date performance continues to be above the service level target
- Wholesale October system performance was 100%

Market and Grid Control Systems Performance

 Real Time Balancing Market (RTBM), Frequency Control (FC) – October performance was 99.866% and 100% respectively



Nodal Systems Performance

- H/W Infrastructure, Grid and Market system October aggregate performance levels were above service level targets
- MIS, Current Day Reports (CDR) and Financial Clearinghouse October aggregate performance levels were above service level targets

Retail System Issues

- Retail processing ERCOT was in the process of setting up the disaster recovery environment when the application was started in error. This resulted in a substantial number of out of date, duplicate and test transactions being sent directly to the market as production transactions
- MarkeTrak outage 225 minutes An SSL certificate issue caused an unplanned outage. System was restored with a temporary fix until a new certificate could be implemented on October 22nd



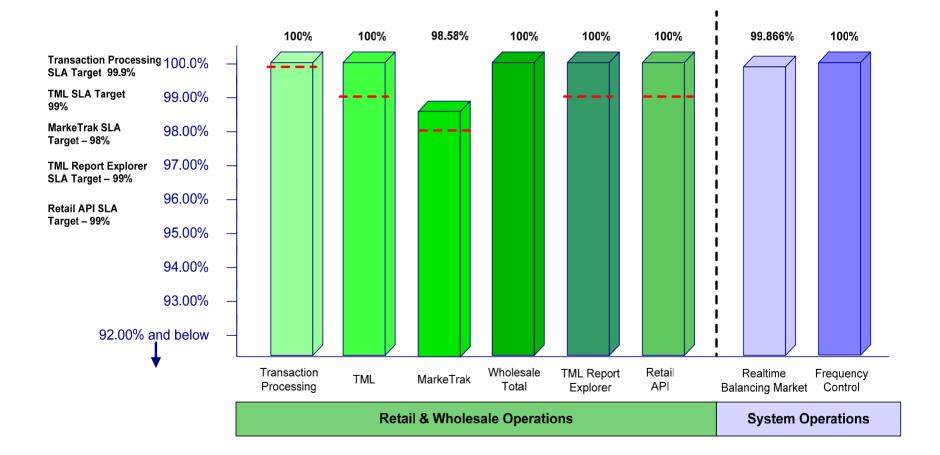
2008 Net Service Availability

2008 Net Service Availability

Through October 31st, 2008



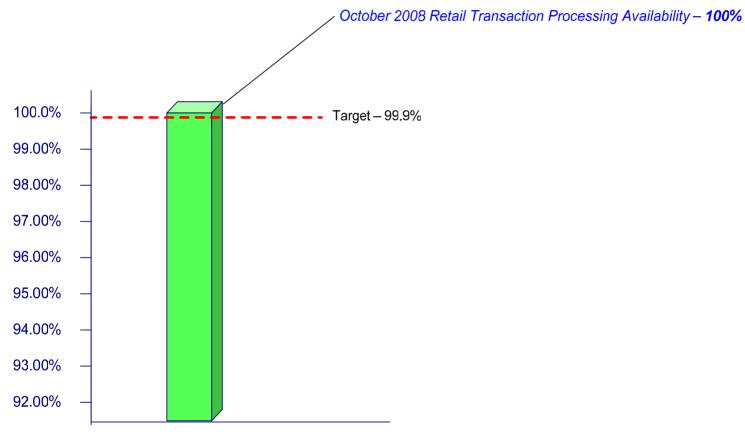
October 2008 Net Service Availability





Retail Transaction Processing Availability Summary

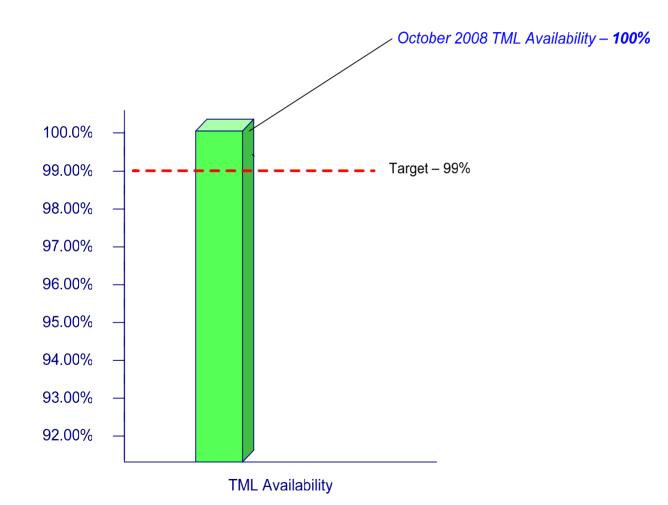
October Retail Transaction Processing Availability Summary







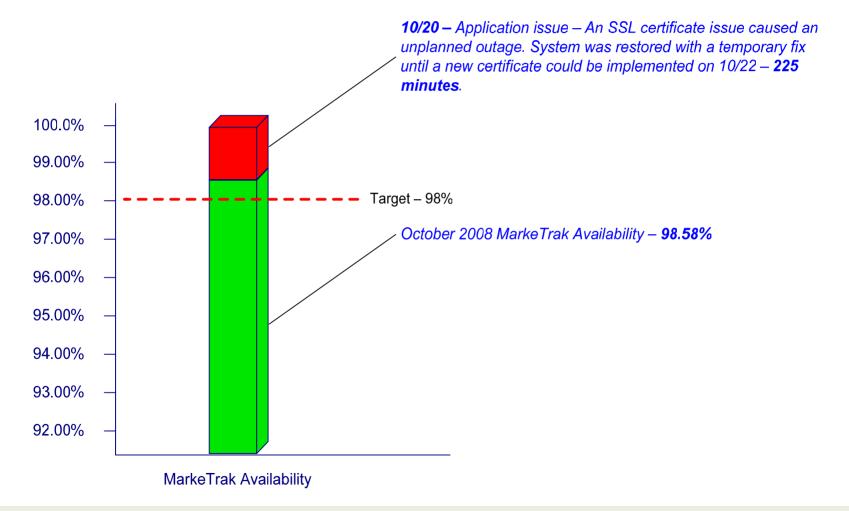
October 2008 TML Availability Summary



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MarkeTrak Availability Summary

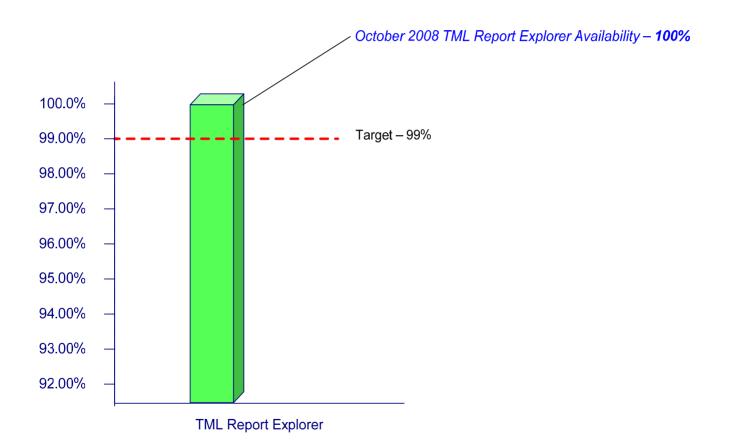
October 2008 MarkeTrak Availability Summary





TML Report Explorer Availability Summary

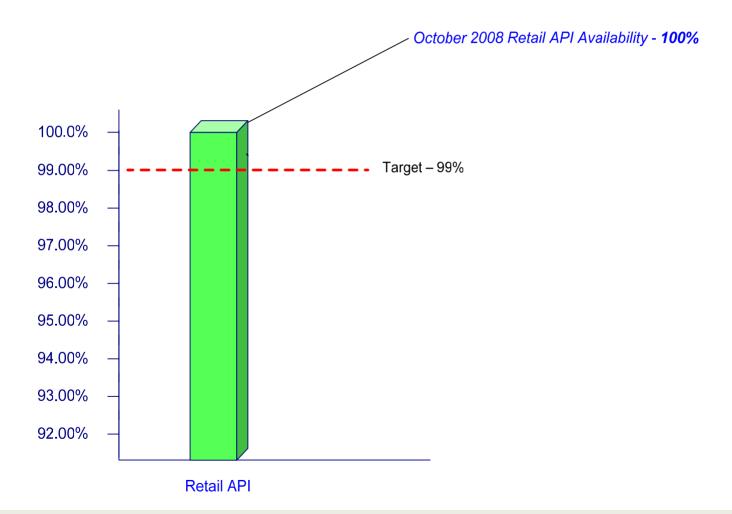
October 2008 TML Report Explorer Availability Summary





Retail API Availability Summary

October 2008 Retail API Availability Summary





• EDS Hardware Infrastructure

- Measure of the availability of the systems that compose the "Early Delivery Systems" where Nodal applications are deployed
- Aggregate Energy Management System (EMS)
 - Measure of the availability of software that provides real time grid control capability. Calculated as average of deployed & monitored components availability
- Aggregate Market Management System (MMS)
 - Measure of the availability of the software to economically deploy generation and manage day ahead, real time and ancillary services markets. 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)

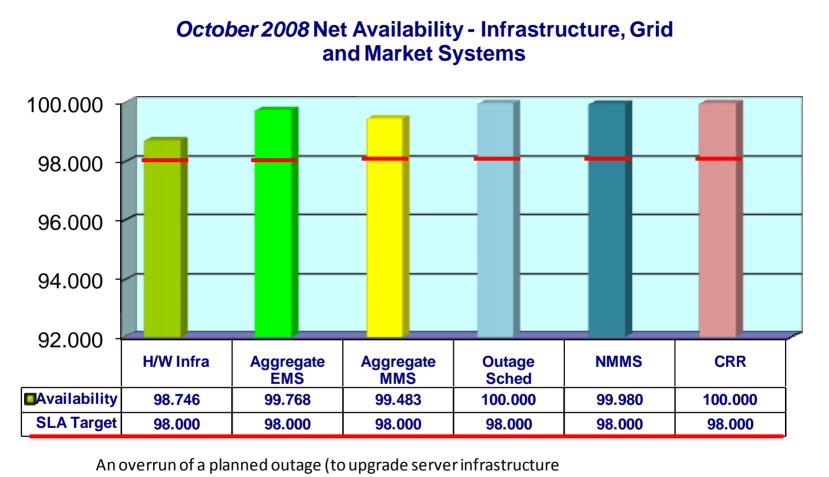
- Measure of the availability of software to manage the financial instruments that help Market Participants hedge against losses due to transmission constraints.
- Aggregate Market Information System (MIS)
 - Measure of the availability of software that provides web-based interfaces for Market Participants to interact with ERCOT markets. Calculated as average of deployed & monitored user-interface components availability
- Current Day Reports (CDR)
 - Measure of the availability of the software that allows Market Participants query and download reports related to grid and market operations in near real time

• Settlements & Billing (S&B)

- Measure of the availability of the software to financially settle Market Participant transactions and generate statements and invoices
- Credit Monitoring and Management (CMM)
 - Measure of the availability of the software to determine credit exposure of Market Participants to the ERCOT markets and continually monitor their ability to meet the credit standards



Nodal EDS Environment – October 2008 Net Availability



An overrun of a planned outage (to upgrade server infrastructure components) affected 15% of servers in the EDS environment, resulting in average performance of 98.746% for "H/W Infrastructure" service.



Nodal EDS Environment - October 2008 Net Availability (Contd.)

