



Information Technology Service Availability Metrics

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November 17, 2009

Agenda and Commentary

▪ **Retail and Wholesale Systems Performance**

- **Retail Transaction Processing** – October performance was 100%
- **TML** – October performance was 100%
- **MarkeTrak** – October performance was 100%
- **TML Report Explorer** – October performance was 99.84%. This was above the service level target of 99%
- **Retail API** – October performance was 100%
- **Wholesale Total** – October performance was 100%

▪ **Market and Grid Control Systems Performance**

- **Real Time Balancing Market (RTBM), Frequency Control (FC)** – October performance levels were 99.966% and 99.783% respectively

Agenda and Commentary (continued)

▪ **Nodal Systems Performance**

- **Grid Management systems** – October performance levels exceeded service level targets
- **Market Management System and External Web Services (EWS)** - Market Trials 2.1 has made these systems available starting on 10/28
 - A faulty fiber cable caused EWS to become unavailable for 45 minutes on 10/29

Agenda and Commentary (continued)

▪ **Retail Transaction Processing issues**

Non-SLA Impacting

- 10/5 (300 minutes) – Registration application database tuning resulted in degraded performance. The tuning was performed as part of stabilization phase of the PR 80031_01 Retail Application Upgrades project. Further corrective measures restored performance.

▪ **Frequency Control outage**

- 10/12 (33 minutes) and 10/18 (64 minutes) – Performance improvements in the backup solution created memory and CPU constraints within the EMS servers. Early in the failure scenario, application database replication slowed causing the passive EMS to become out-of-date. When the active EMS subsequently failed, the passive EMS was unavailable to assume the active role, thus causing an outage to both the active and passive servers. ERCOT is currently developing an enhanced backup strategy.

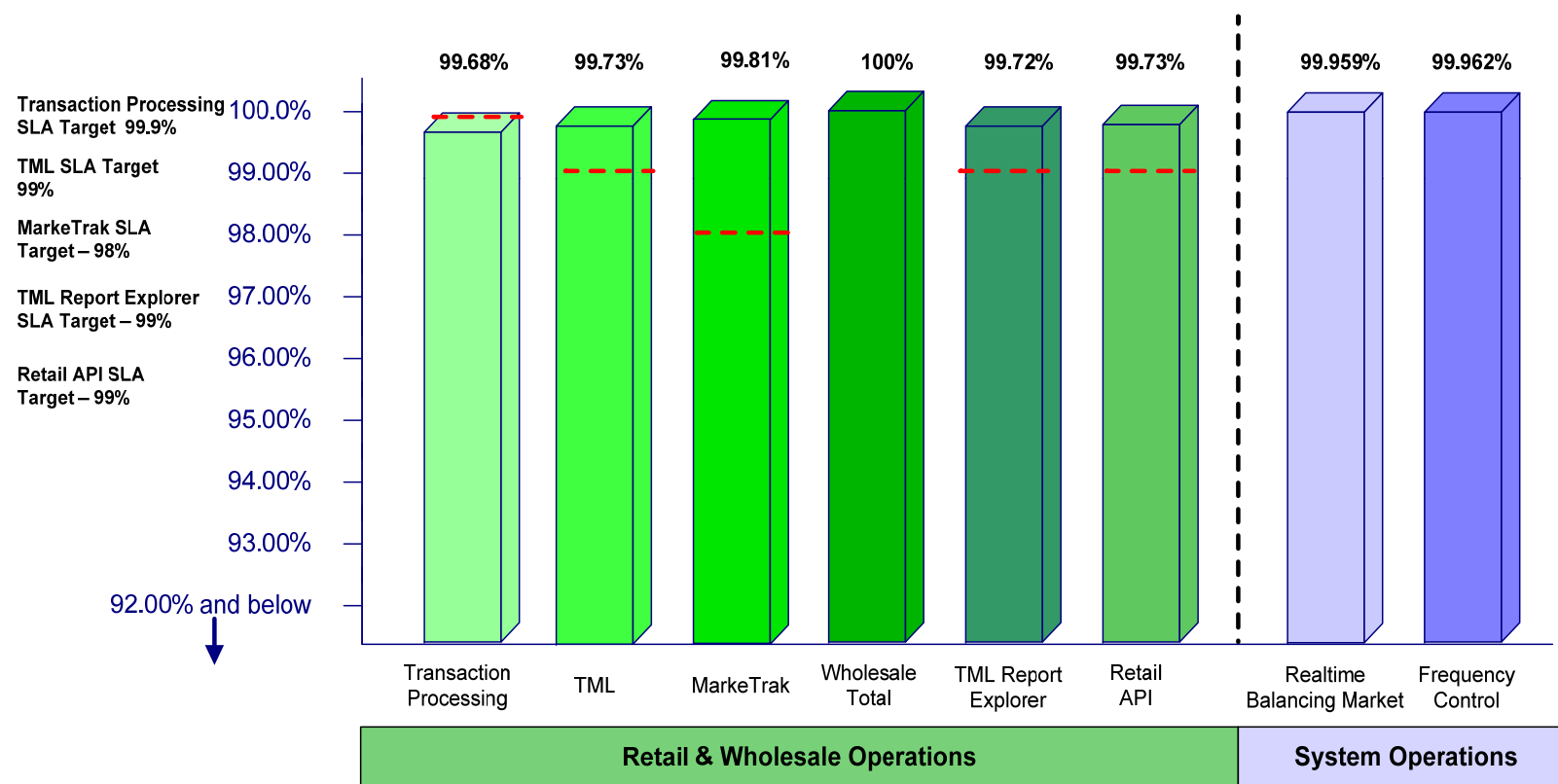
Agenda and Commentary (continued)

- **Austin data center issue**

- On 10/7, a fault with a Power Distribution Unit (PDU) during preventive maintenance testing caused a complete power outage in the Austin data center. This failure resulted in corruption in several iTest databases including those being used for AMIT testing. Applications and databases for AMIT testing were rebuilt by 10/22. The final iTest rebuild is scheduled to be completed on 11/11.

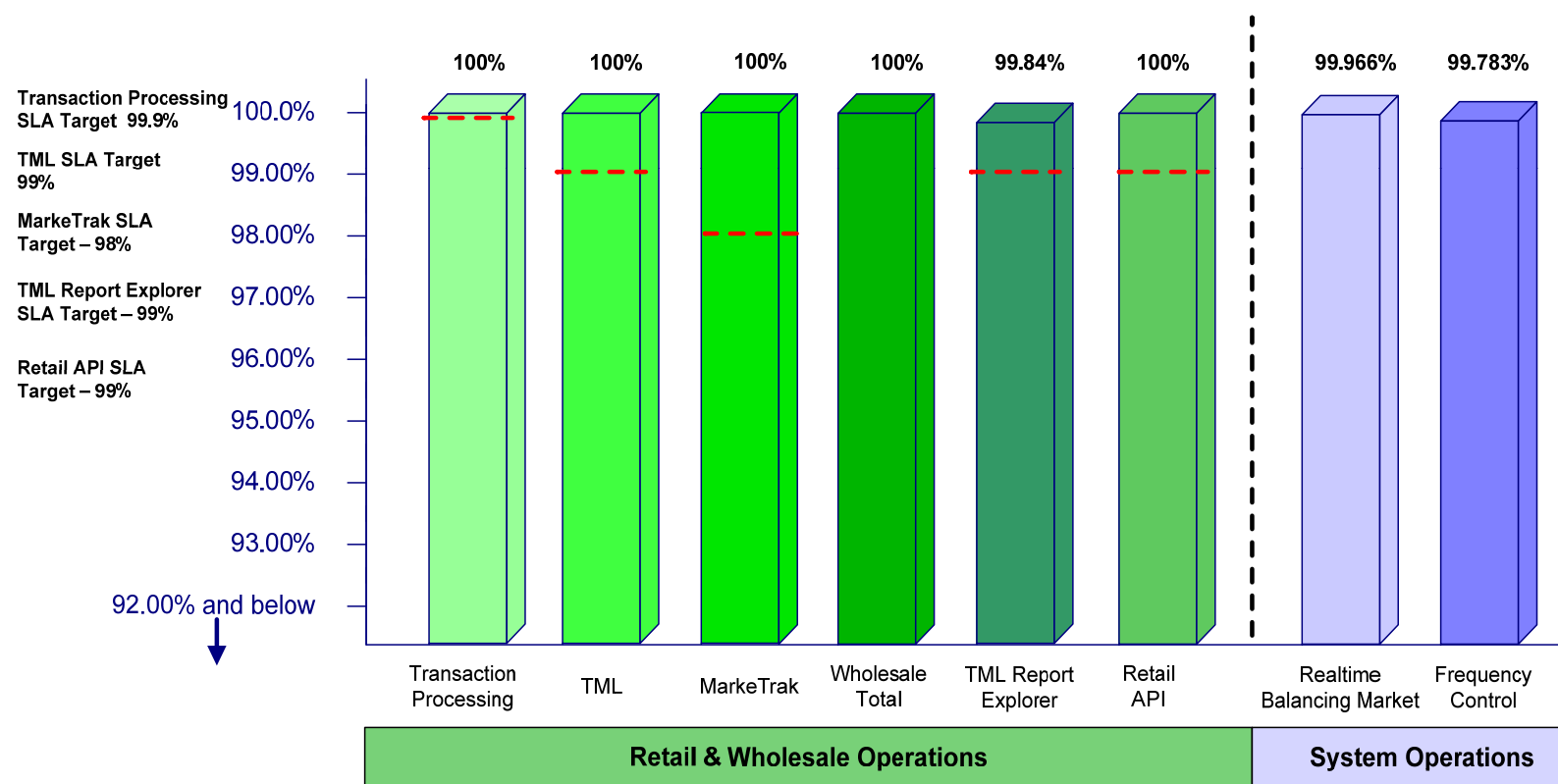
2009 Net Service Availability

2009 Net Service Availability Through October 30th, 2009



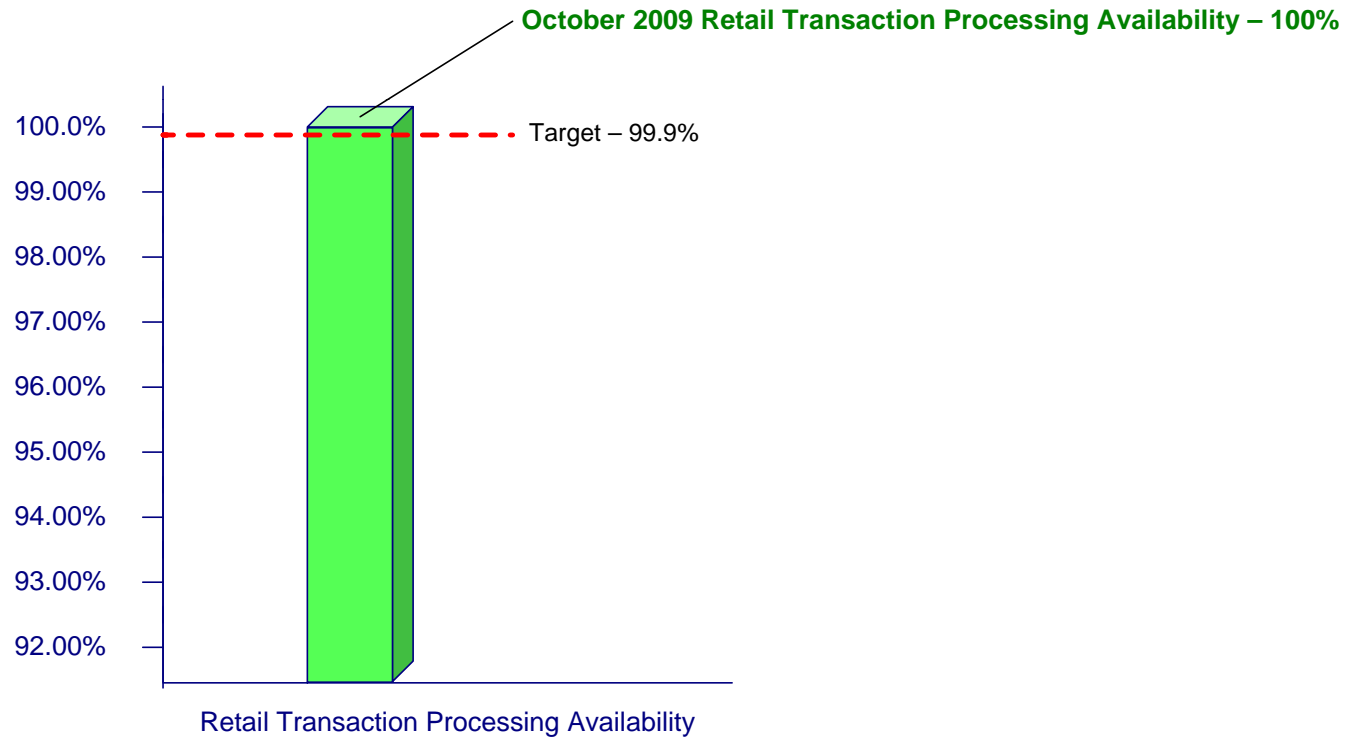
October 2009 Net Service Availability

October 2009 Net Service Availability



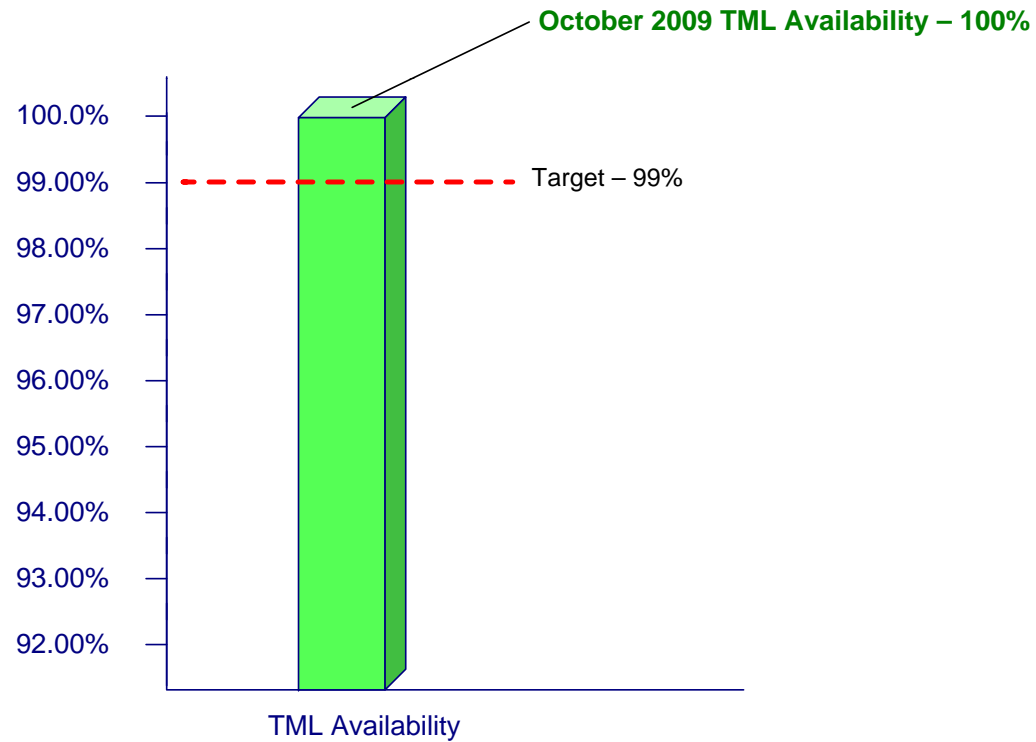
Retail Transaction Processing Availability Summary

October 2009 Retail Transaction Processing Availability Summary



TML Availability Summary

October 2009 TML Availability Summary



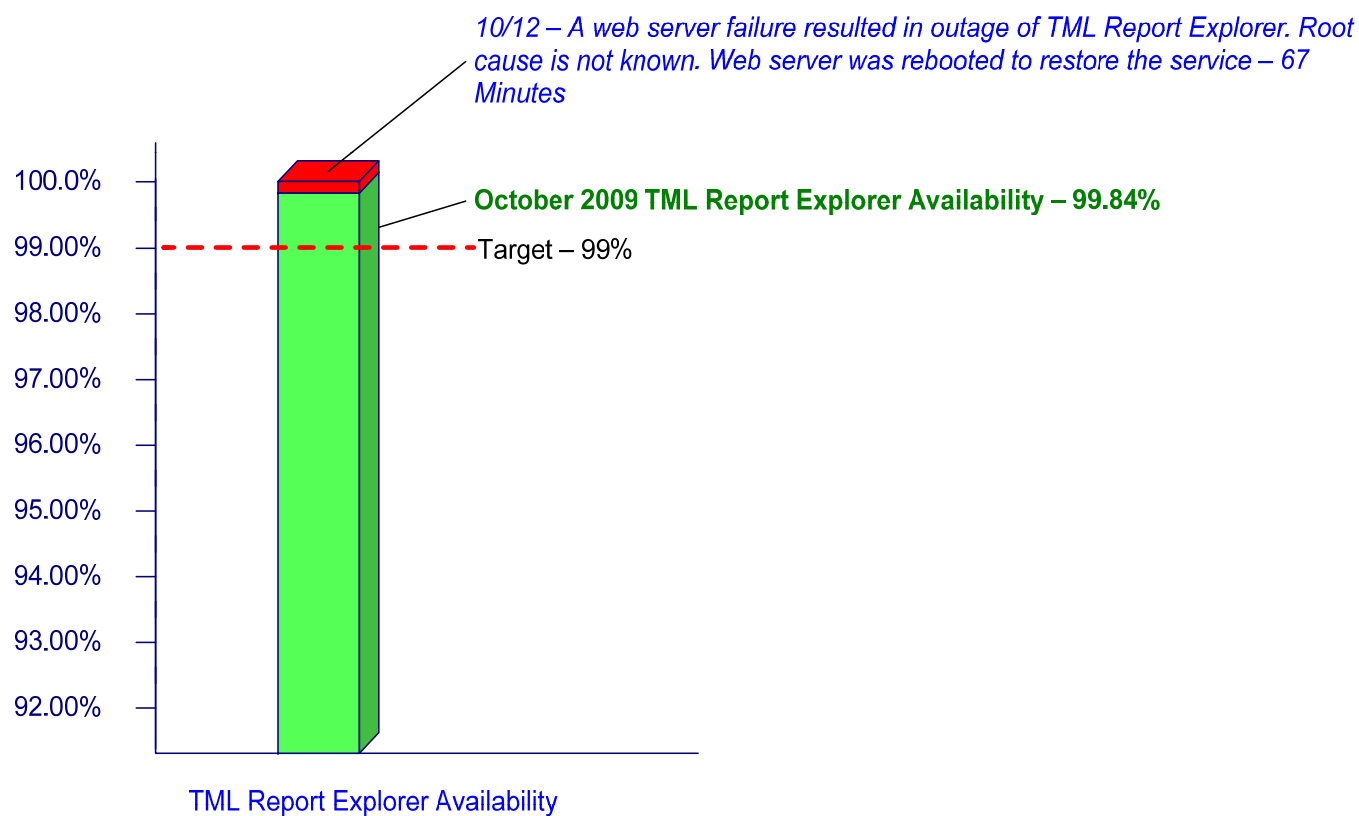
MarkeTrak Availability Summary

October 2009 MarkeTrak Availability Summary



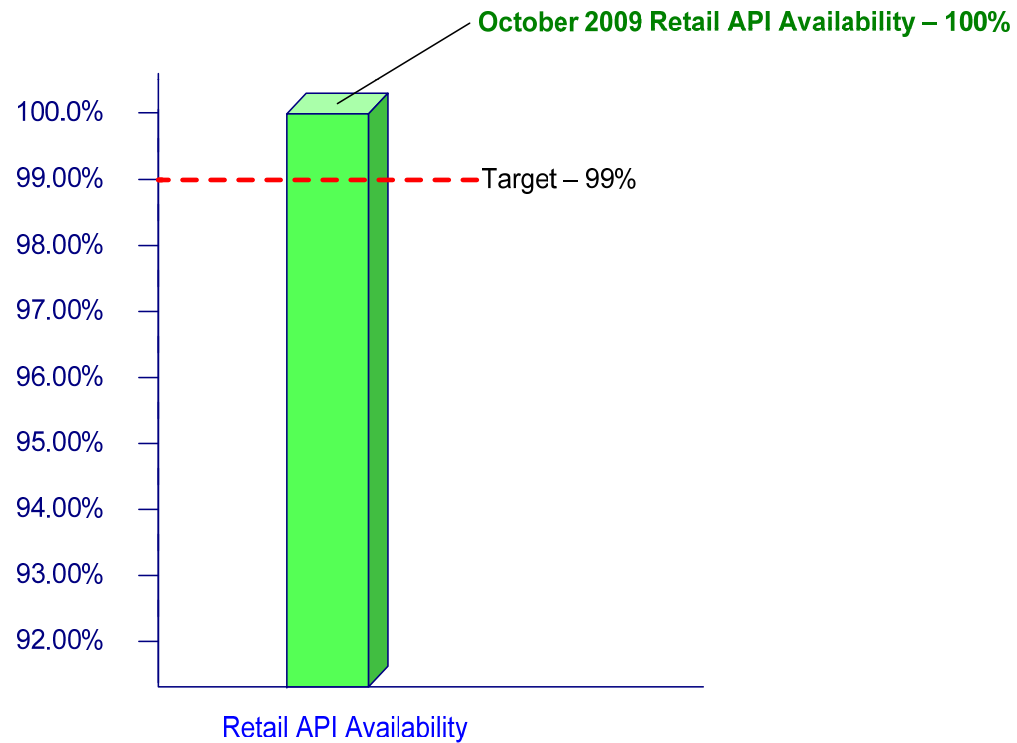
TML Report Explorer Availability Summary

October 2009 TML Report Explorer Availability Summary



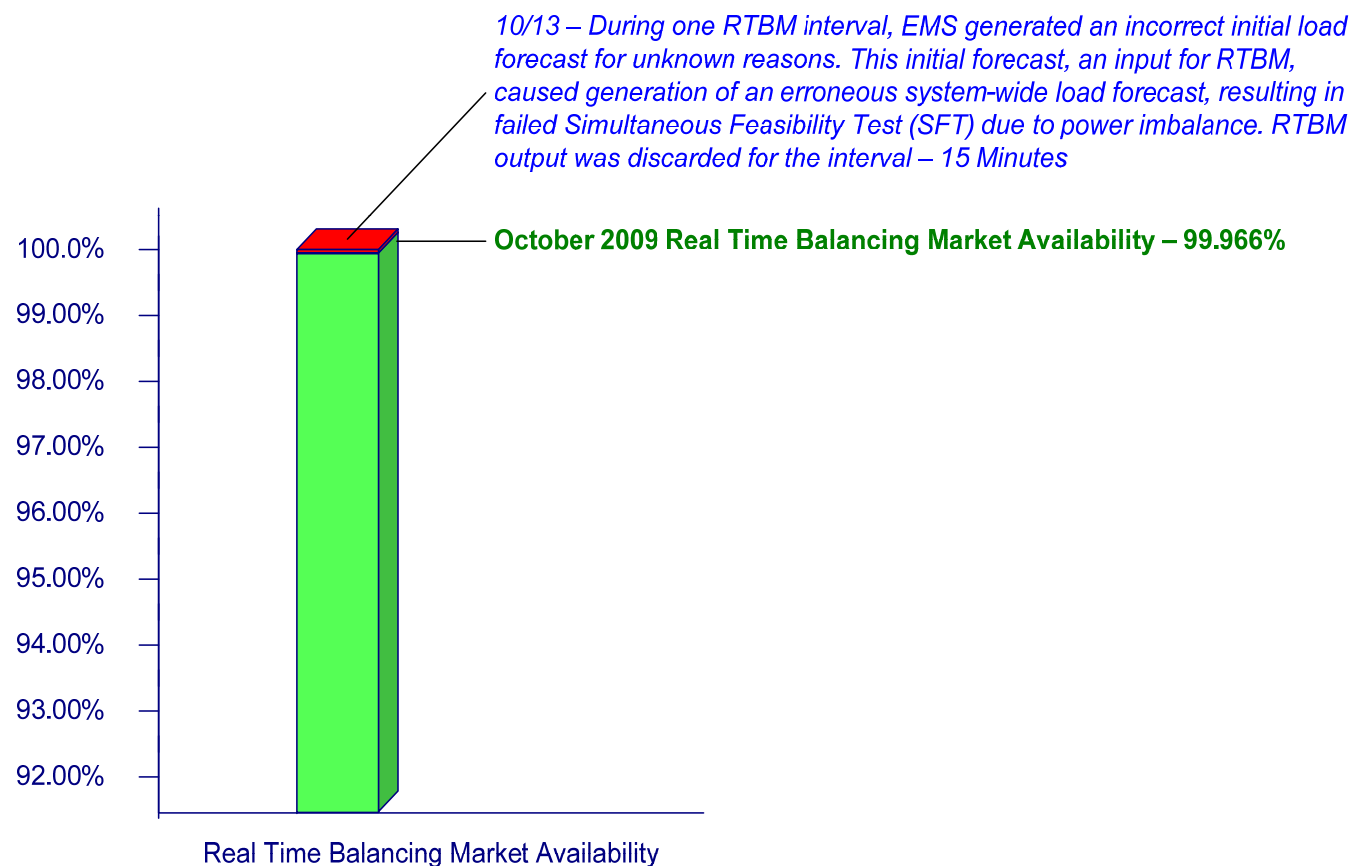
Retail API Availability Summary

October 2009 Retail API Availability Summary



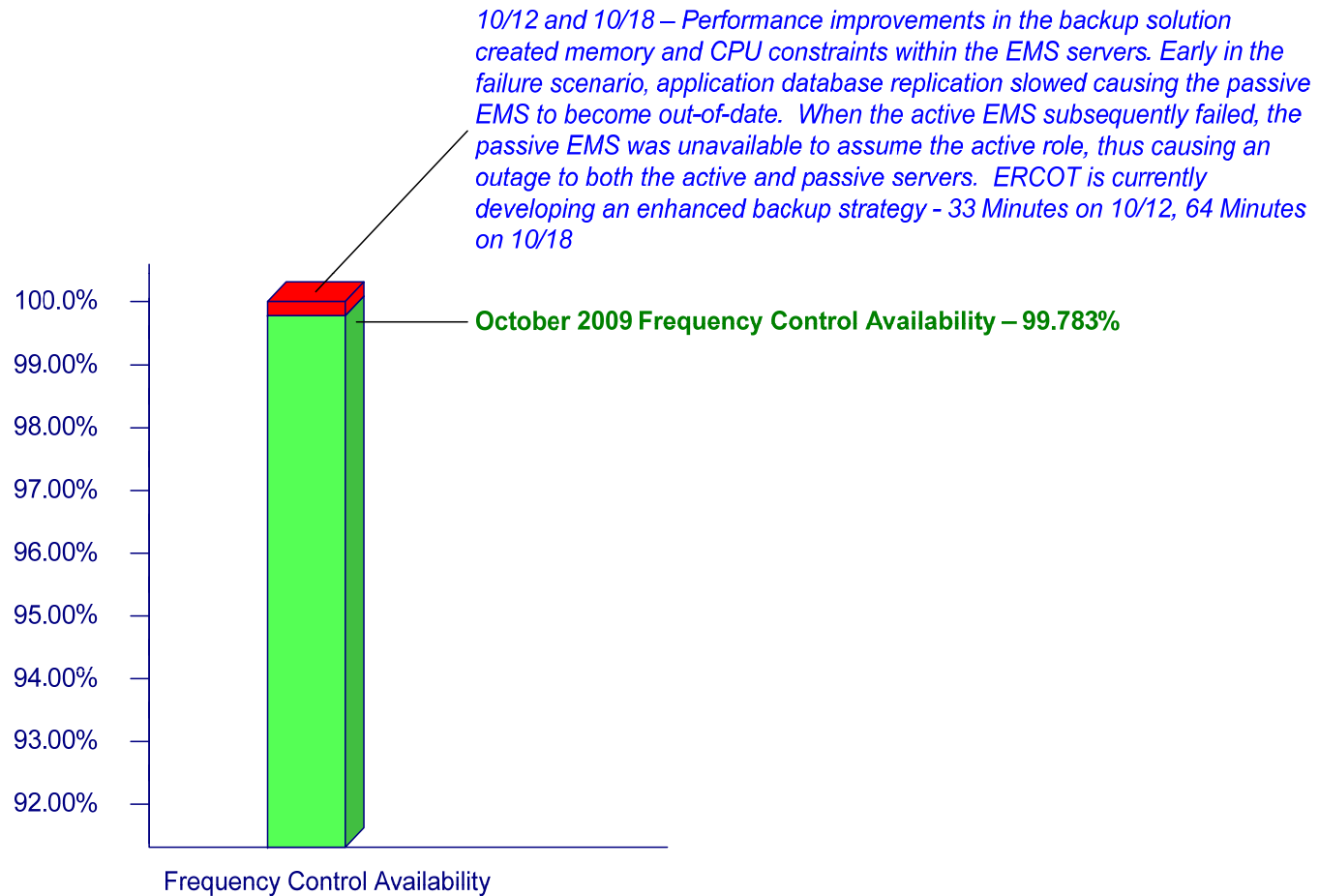
Real Time Balancing Market Availability Summary

October 2009 Real Time Balancing Market Availability Summary



Frequency Control Availability Summary

October 2009 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 – October 2009 Net Availability

October 2009 Net Availability - Grid Management Systems

