



# Information Technology and Facilities Report

Richard Morgan  
Vice President & CIO

**ERCOT Board of Directors**

**April 19, 2011**

# Highlights

---

- **Service Availability:**

- ✓ Retail and Market Operations SLA targets were exceeded for all systems
- ✗ Nodal Market Systems missed one SLA target (MMS SCED)
  - ✗ Three site failovers in March exceeded the three-interval Recovery Time Objective (RTO) for SCED, resulting in 99.81% availability for the month

- **Storage Area Network (SAN) microcode defect**

- A defect in the SAN microcode caused an issue with communications between the SAN servers causing one additional site failover in March on 3/7
- The vendor updated the microcode to resolve the issue. Final patching was completed on 3/20. No new issues have occurred.

- **Planned Site Failover issues (3/3)**

- During a planned failover, policy server issues prevented market submissions for 80 minutes
- Five SCED intervals and 143 Current Day Reports were missed
- Users were unable to access web services (MIS, Report Explorer, API) during the outage

# Highlights Cont'd

---

- **Unplanned site failover (3/7)**
  - Following a SCED failure due to the SAN microcode issue, an unplanned site failover was performed
  - During the failover, market database re-initialization errors extended the duration
  - 15 SCED intervals and 257 Current Day Reports were missed
  - Users were unable to access web services (MIS, Report Explorer, API) for up to 135 minutes
- **Unplanned site failover (3/17)**
  - Due to a failed UPS in the Austin data center, IT systems were failed over to maintain power redundancy, and the UPS was replaced
  - Five SCED intervals and 82 Current Day Reports were missed
  - Users were unable to access web services (MIS, Report Explorer, API) for up to 44 minutes

# Highlights Cont'd

---

## April Update

- **Retail transaction processing degradation (4/3 - 4/4)**
  - Following maintenance activities on 4/3, one piece of application functionality was not correctly enabled, and caused some transactions to be incorrectly prioritized and led to a processing delay impacting approximately 530 transactions
- **Planned Site Failover (4/5)**
  - During a planned site failover, quarterly database patching took longer than expected and led to eight missed SCED intervals
  - Additionally, problems re-establishing connectivity between EMMS applications and the Market database led to 10 missed SCED intervals

# Highlights Cont'd

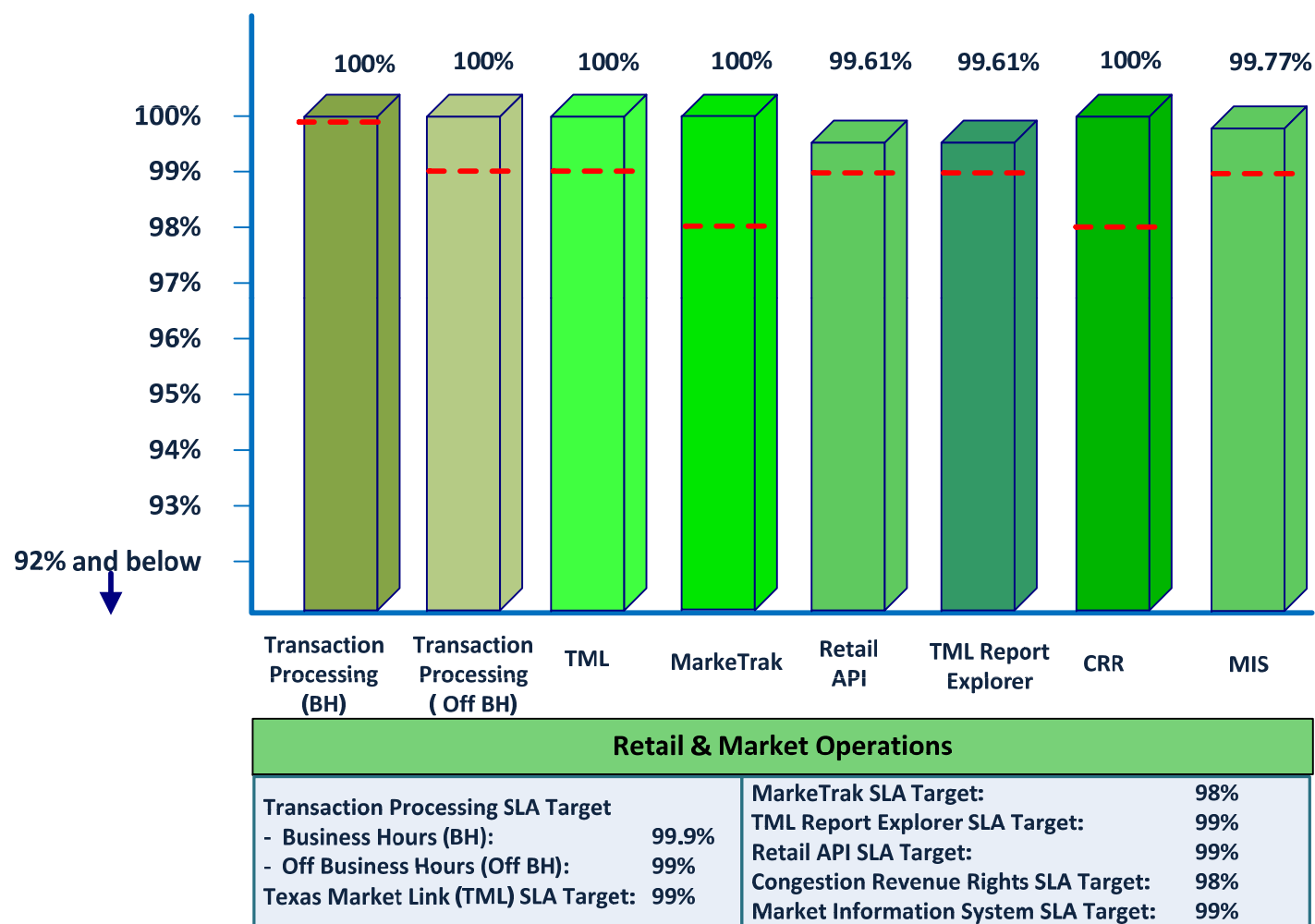
---

- **Data Center Migration**

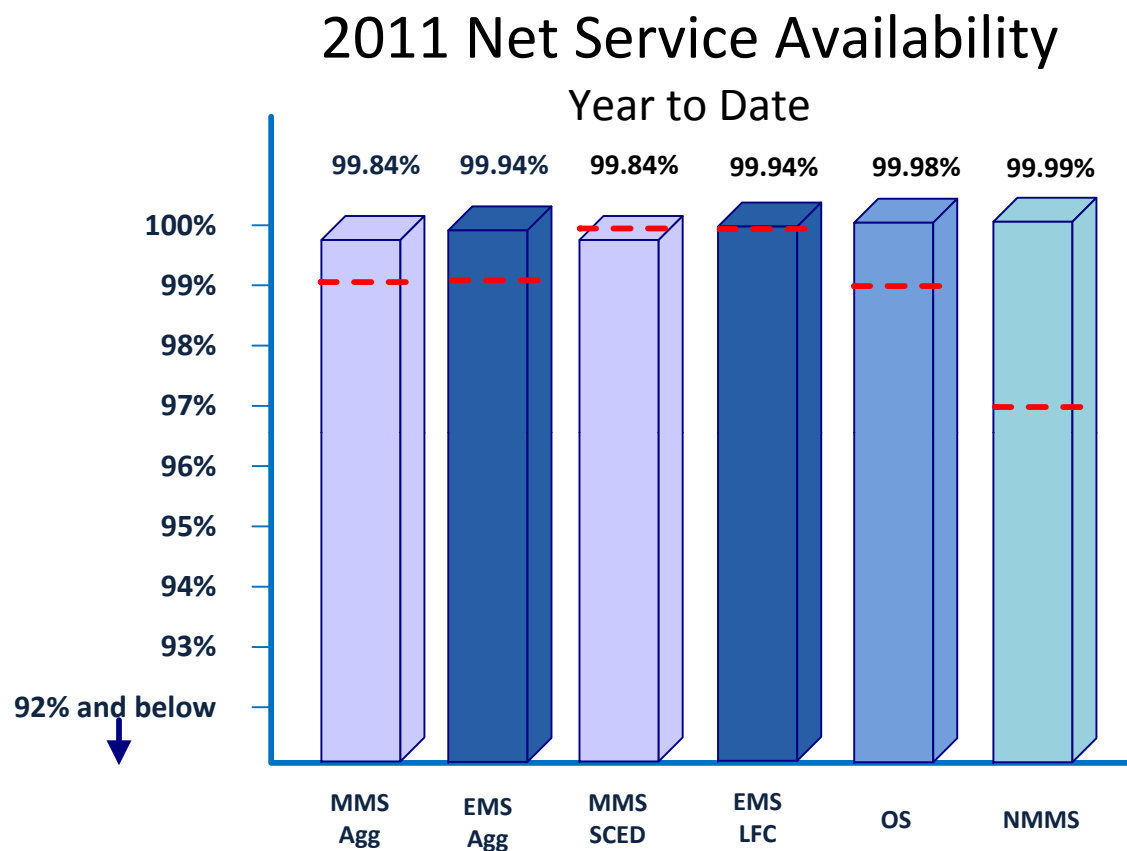
- The project is currently two weeks behind schedule. Anticipate staging server migrations in Wave 2 to get back on schedule.
- Wave 0 (Equipment Installation) in progress
  - Configuration of hardware and connectivity between data centers delayed due to resource issues and equipment failures – issues have been resolved
  - Primary data communications connectivity between Austin and Bastrop established
- Wave 1 (Corporate environment migration) in progress
  - March 1 through June 6
  - Ten migrations completed
  - New servers for Citrix, Exchange, and virtual machines are built in TCC3
    - Migration to these servers will occur gradually over the coming weeks
    - 70 servers in TCC1 will be decommissioned in Wave 1

# 2011 Net Service Availability (Retail and Market Ops)

## 2011 Net Service Availability Year to Date



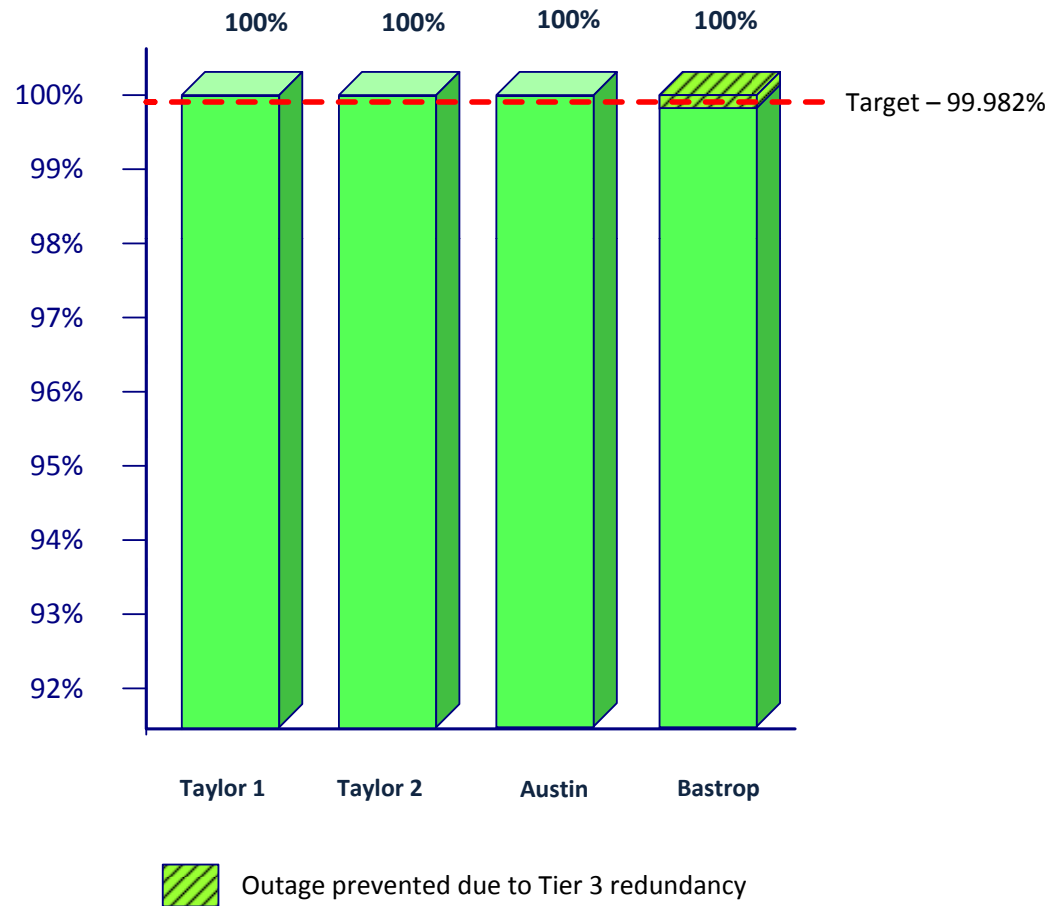
# 2011 Net Service Availability (Grid Ops)



Grid Operations		
MMS Aggregate SLA Target:	99%	
EMS Aggregate SLA Target:	99%	
MMS SCED SLA Target:	99.93%	
EMS LFC Target:		99.93%
Outage Scheduler Target:		99%
NMMS Target:		97%

# 2011 Data Center Availability

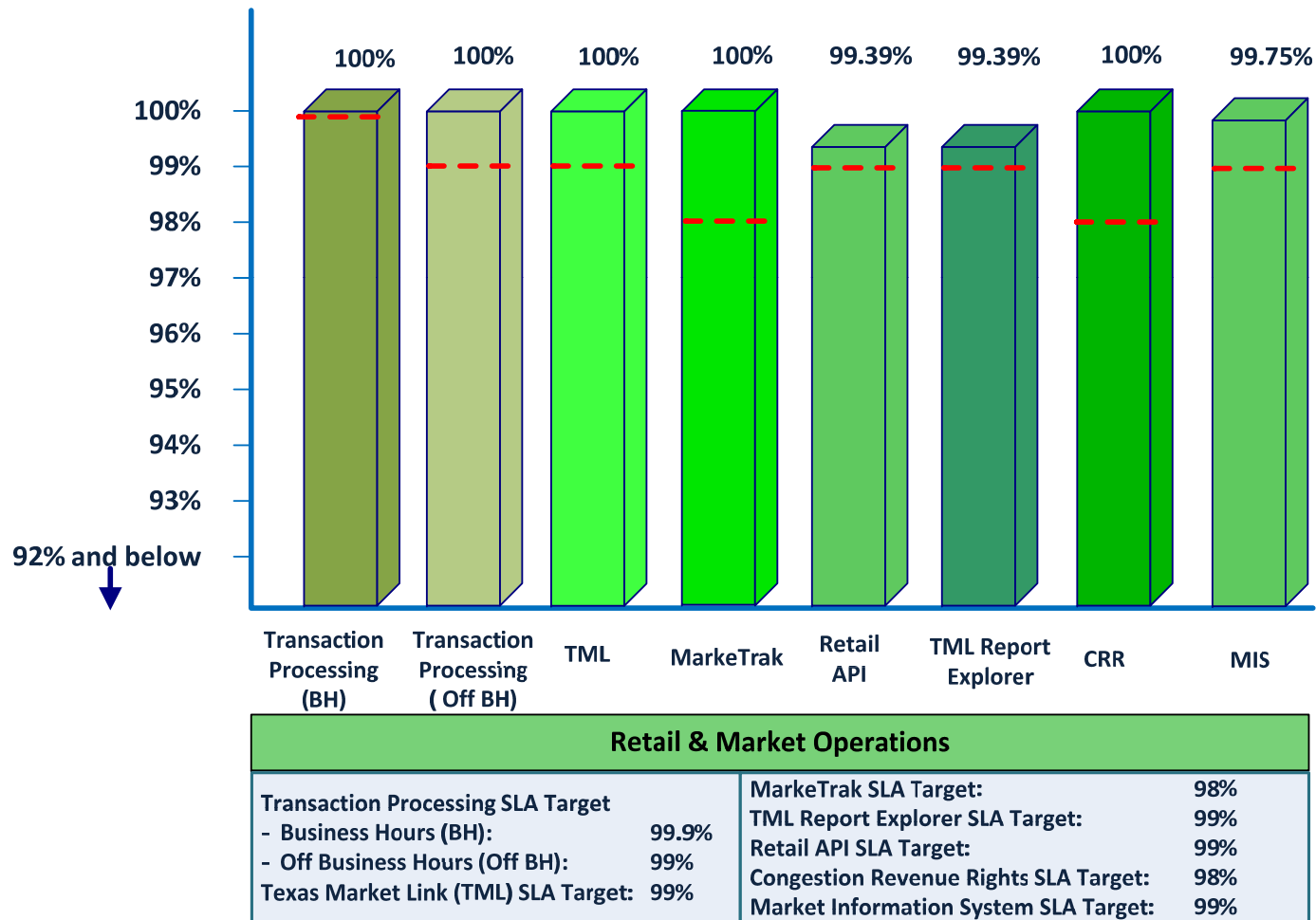
## 2011 Data Center Availability Year to Date





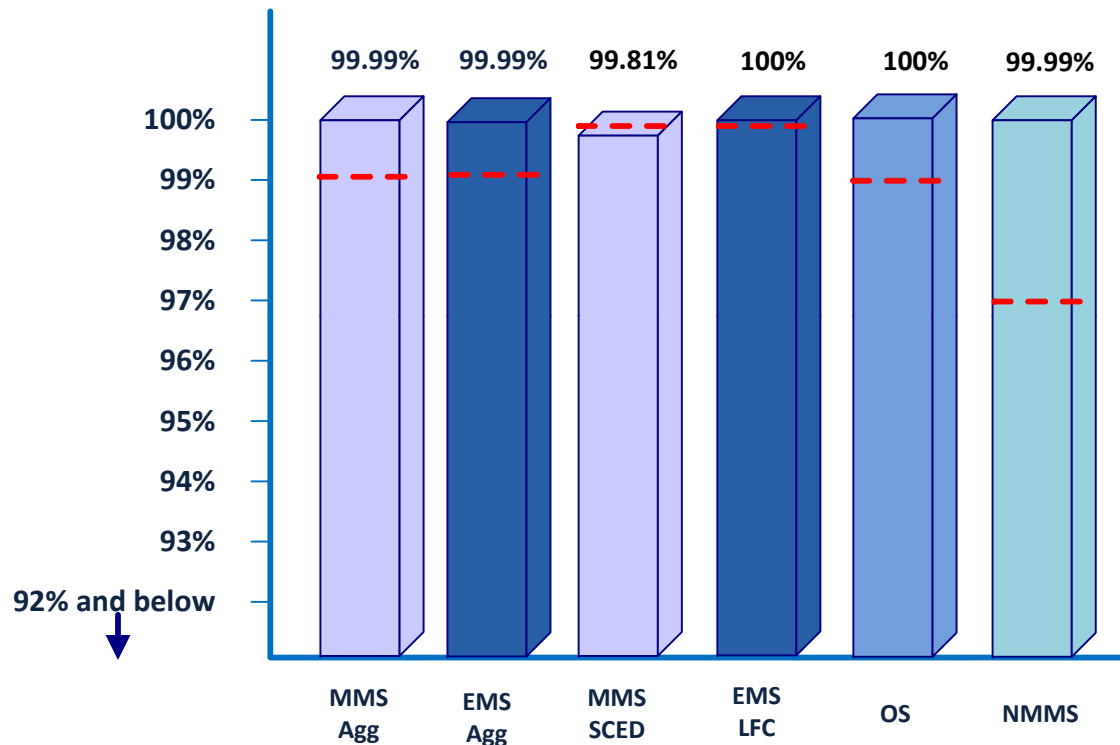
# March 2011 Net Service Availability

## March 2011 Net Service Availability



# March 2011 Net Service Availability

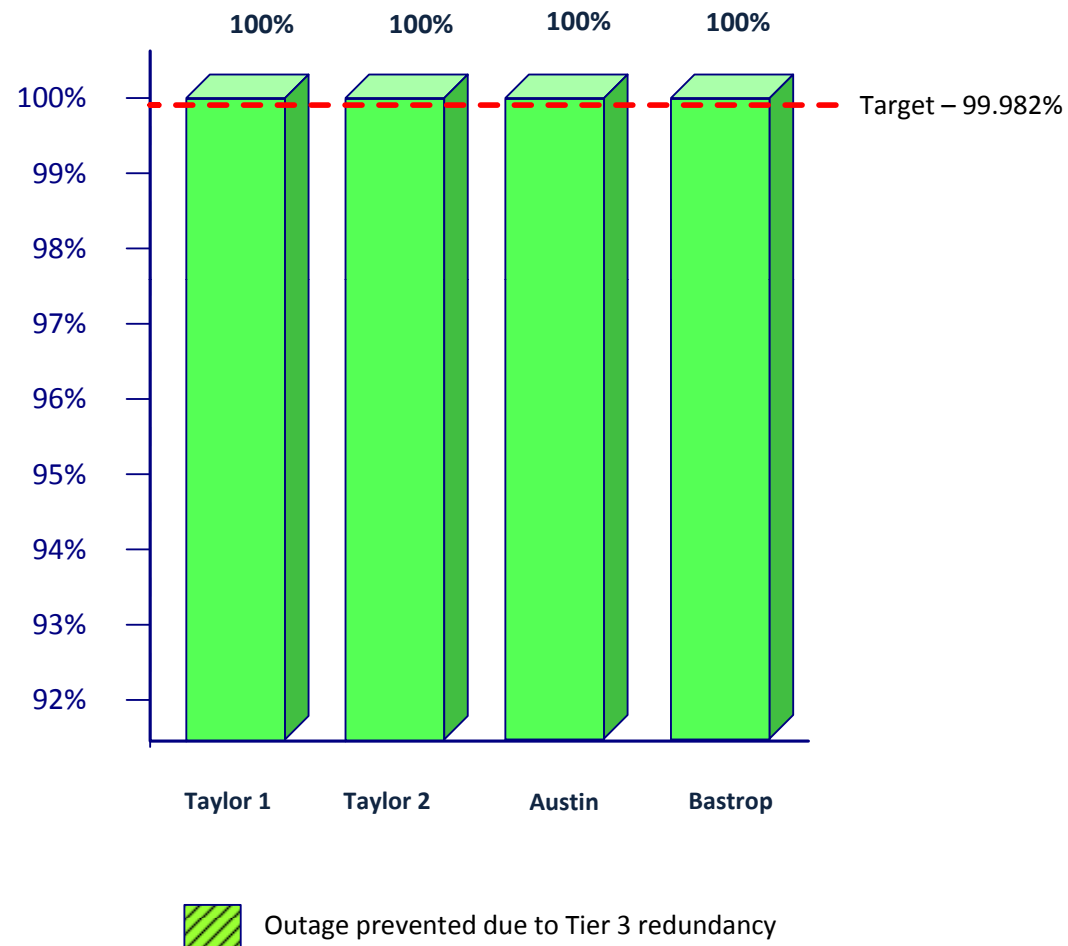
## March 2011 Net Service Availability



Grid Operations			
MMS Aggregate SLA Target: 99%		EMS LFC Target:	99.93%
EMS Aggregate SLA Target: 99%		Outage Scheduler Target:	99%
MMS SCED SLA Target: 99.93%		NMMS Target:	97%

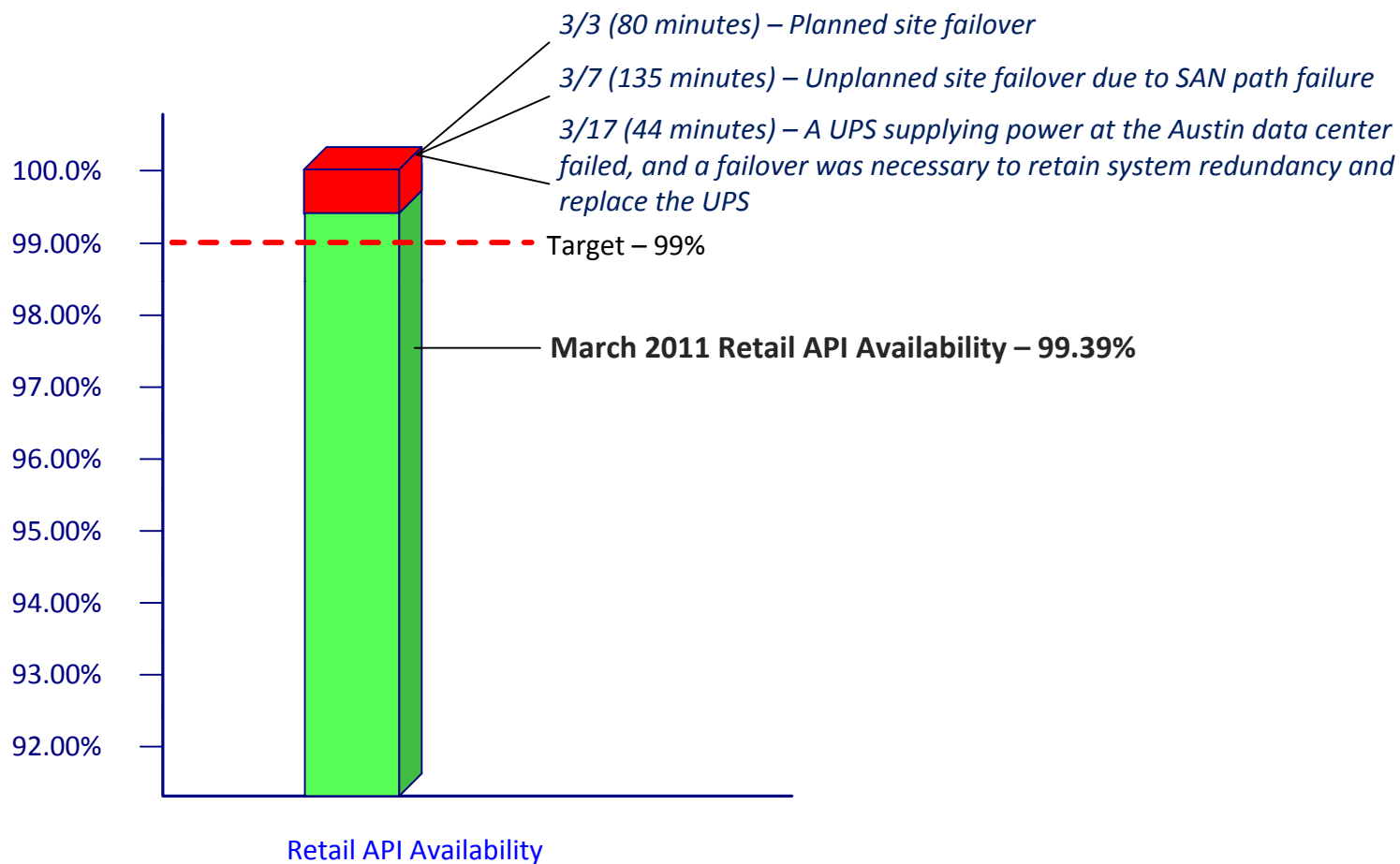
# March 2011 Data Center Power Availability

## March 2011 Data Center Availability



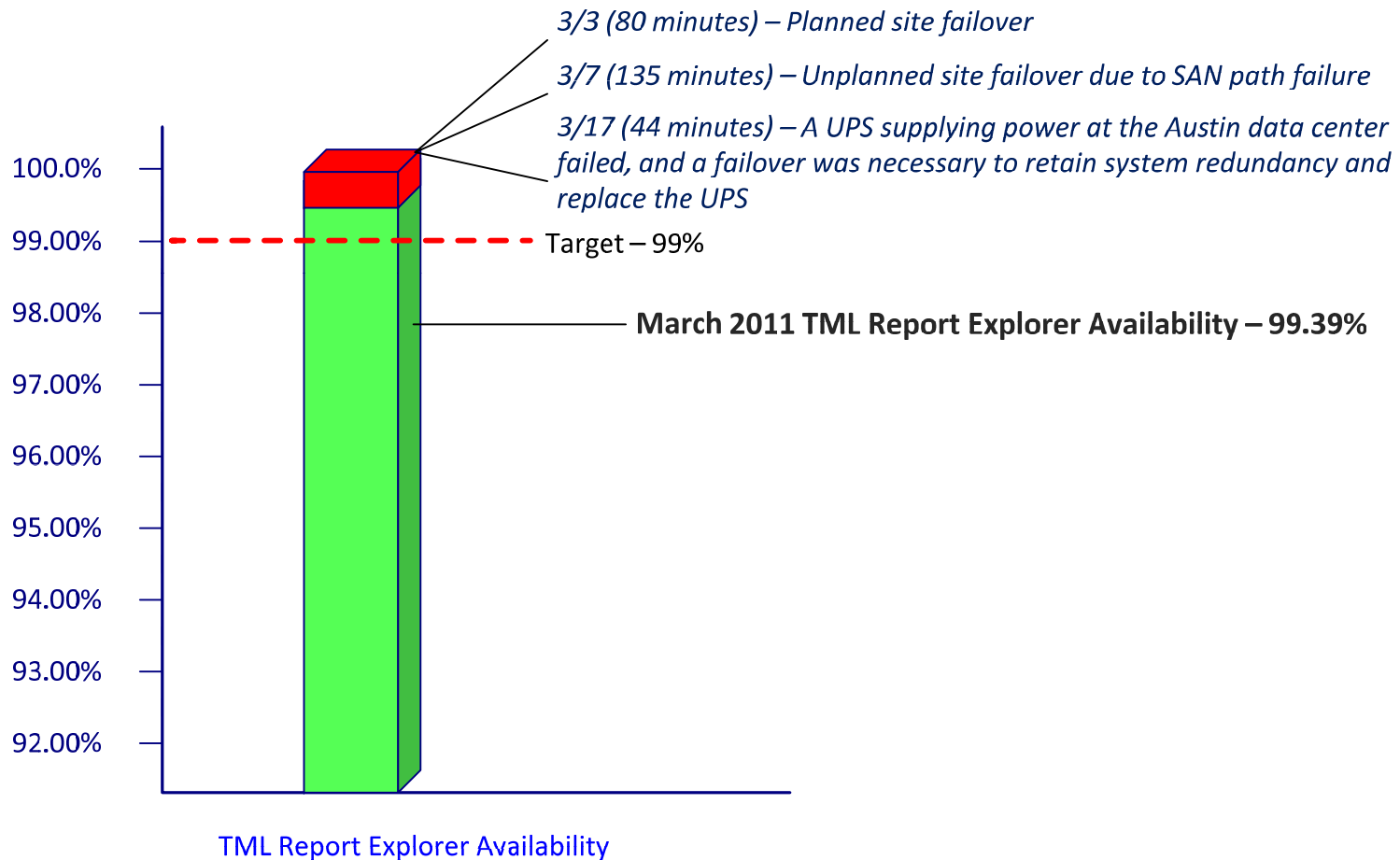
# Retail API Availability

## March 2011 Retail API Availability Summary



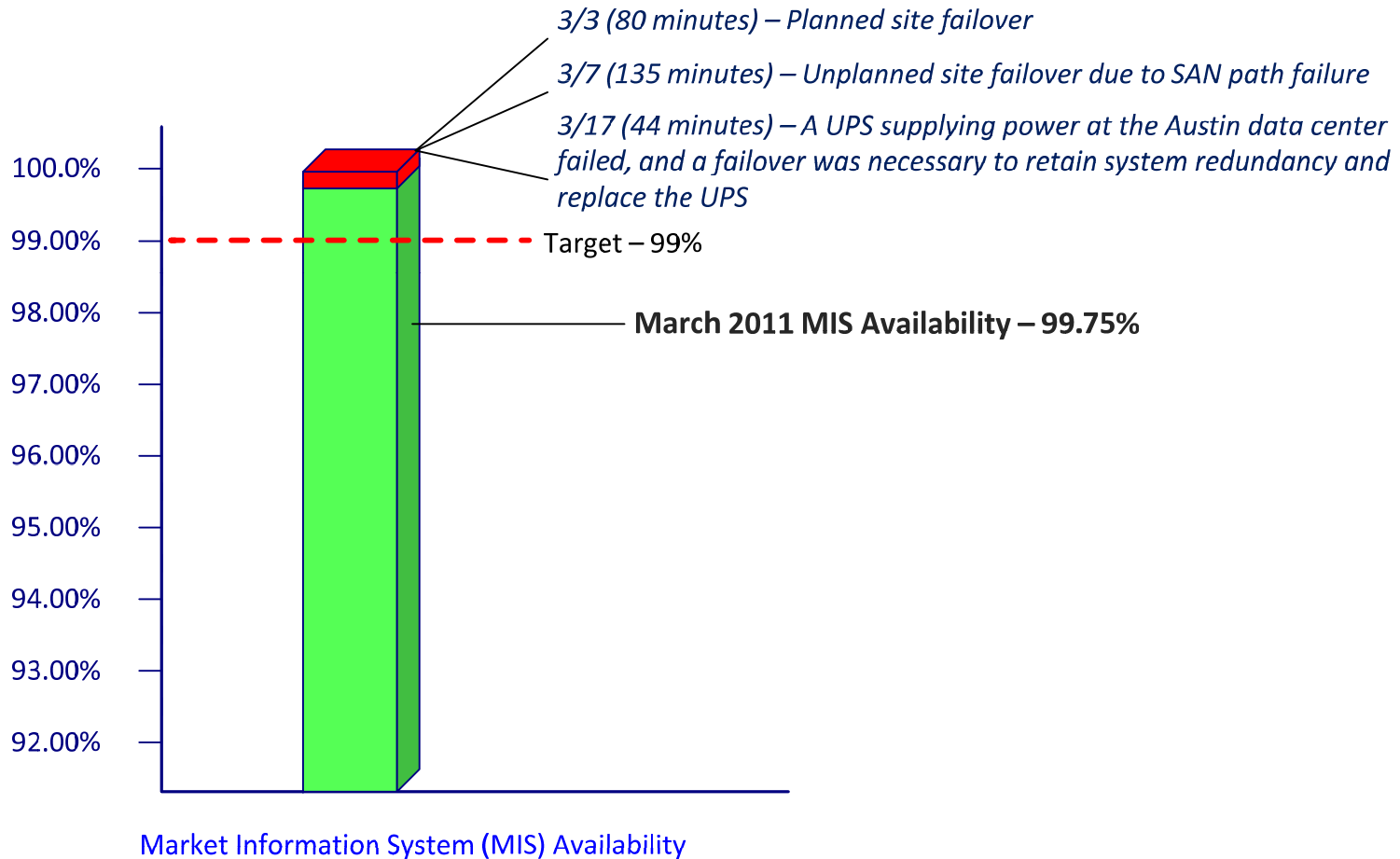
# TML Report Explorer Availability

## March 2011 TML Report Explorer Availability Summary



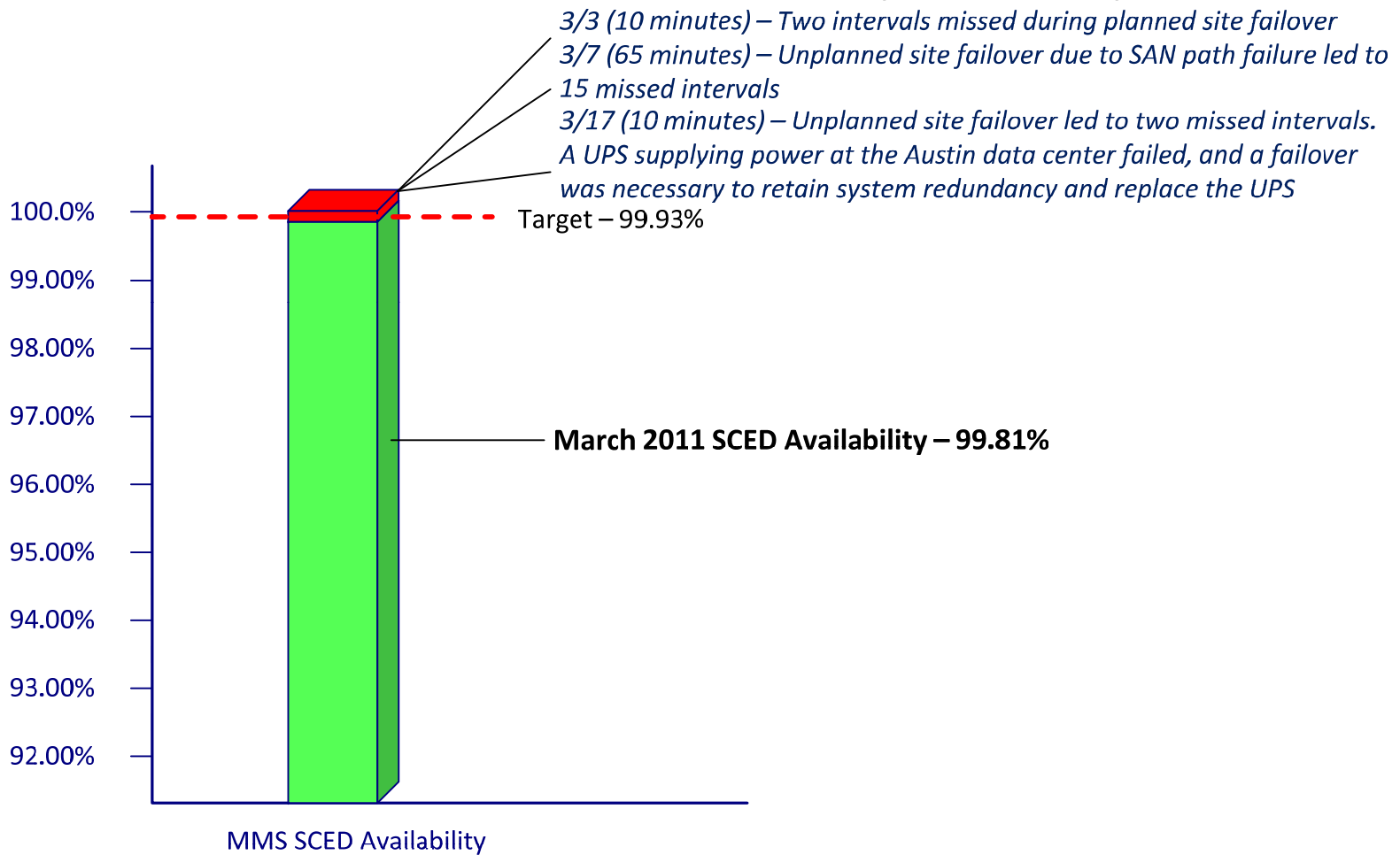
# MIS Availability

## March 2011 MIS Availability Summary



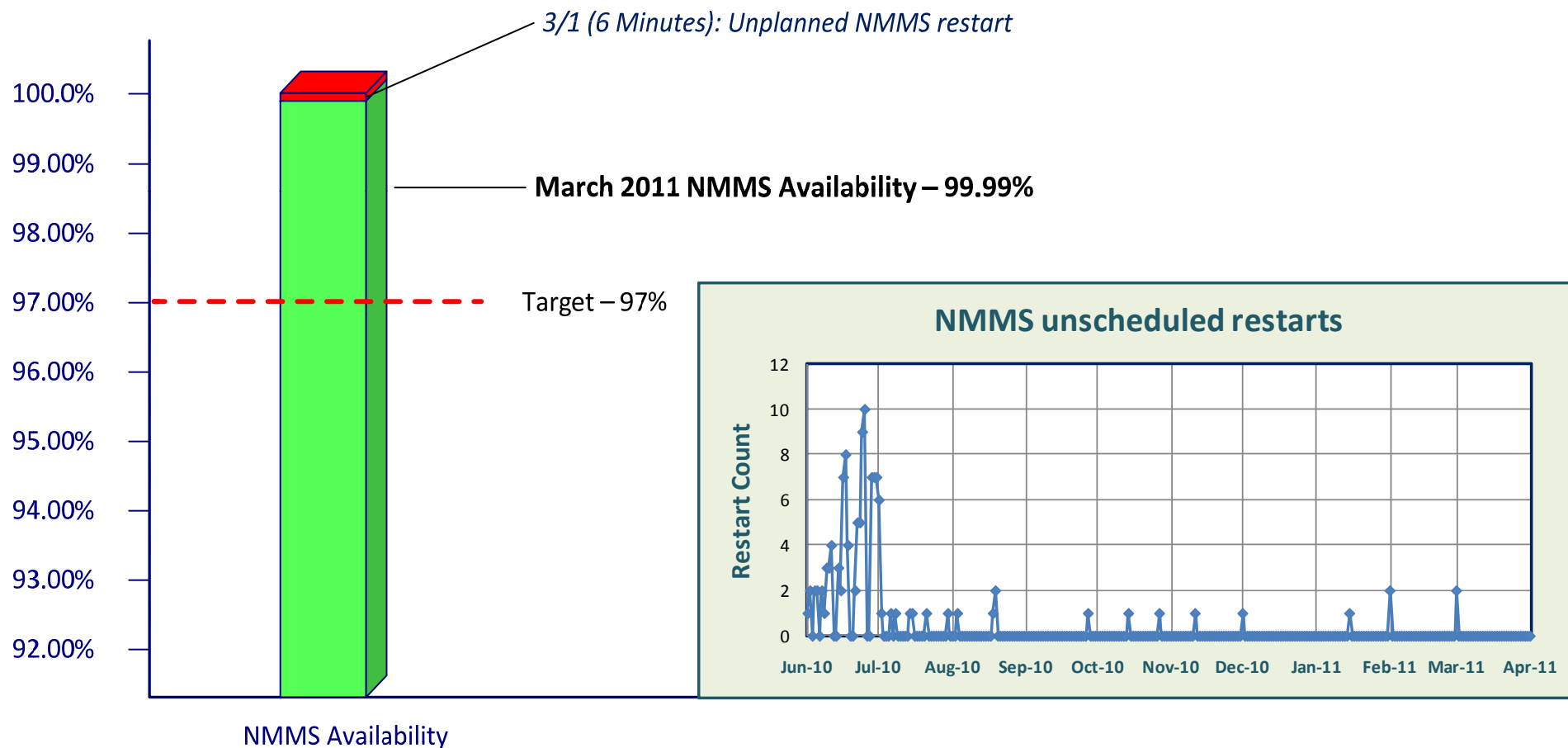
# MMS SCED Availability Summary

## March 2011 MMS SCED Availability Summary



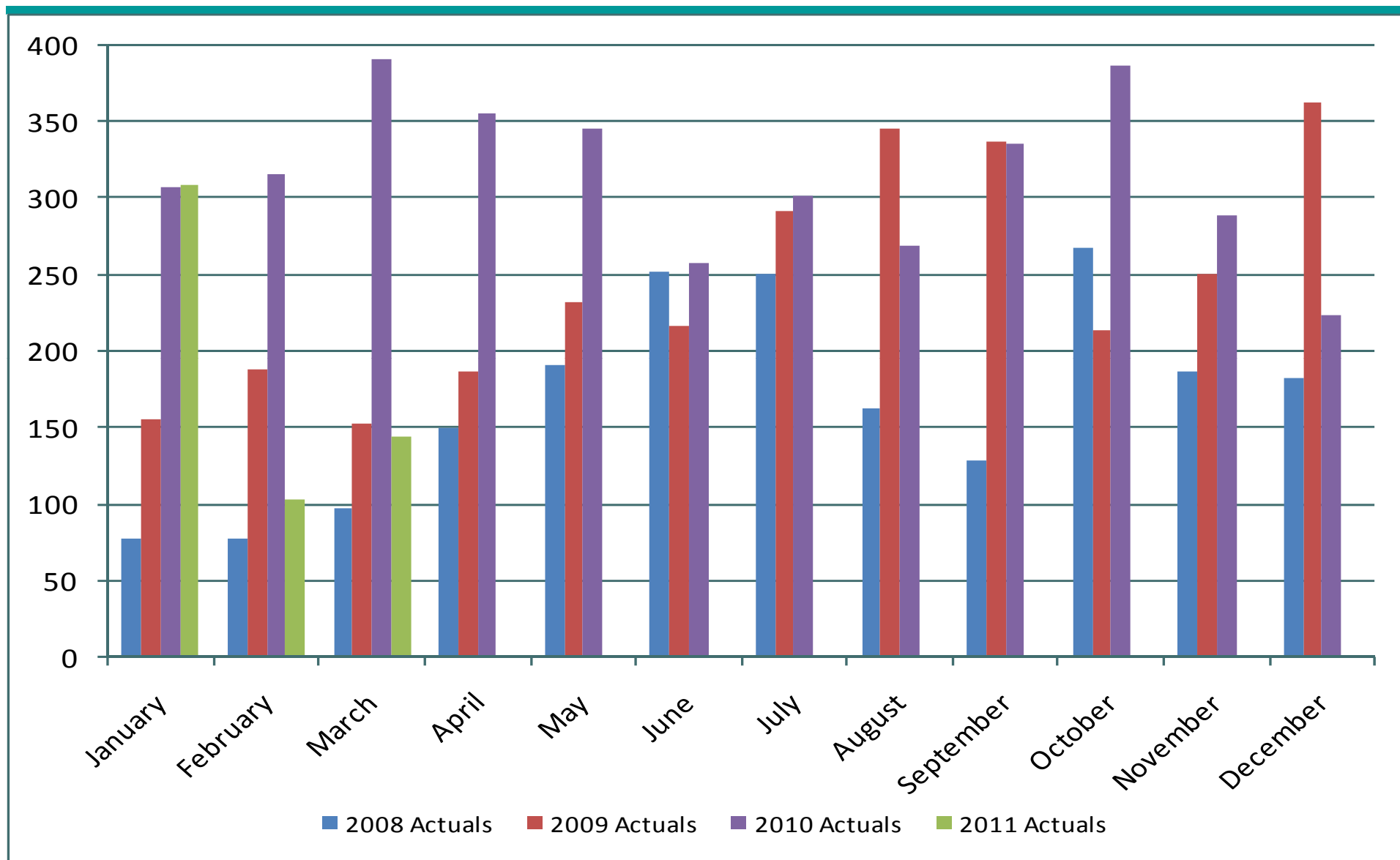
# Network Model Management System

## March 2011 Network Model Management System (NMMS) Availability Summary

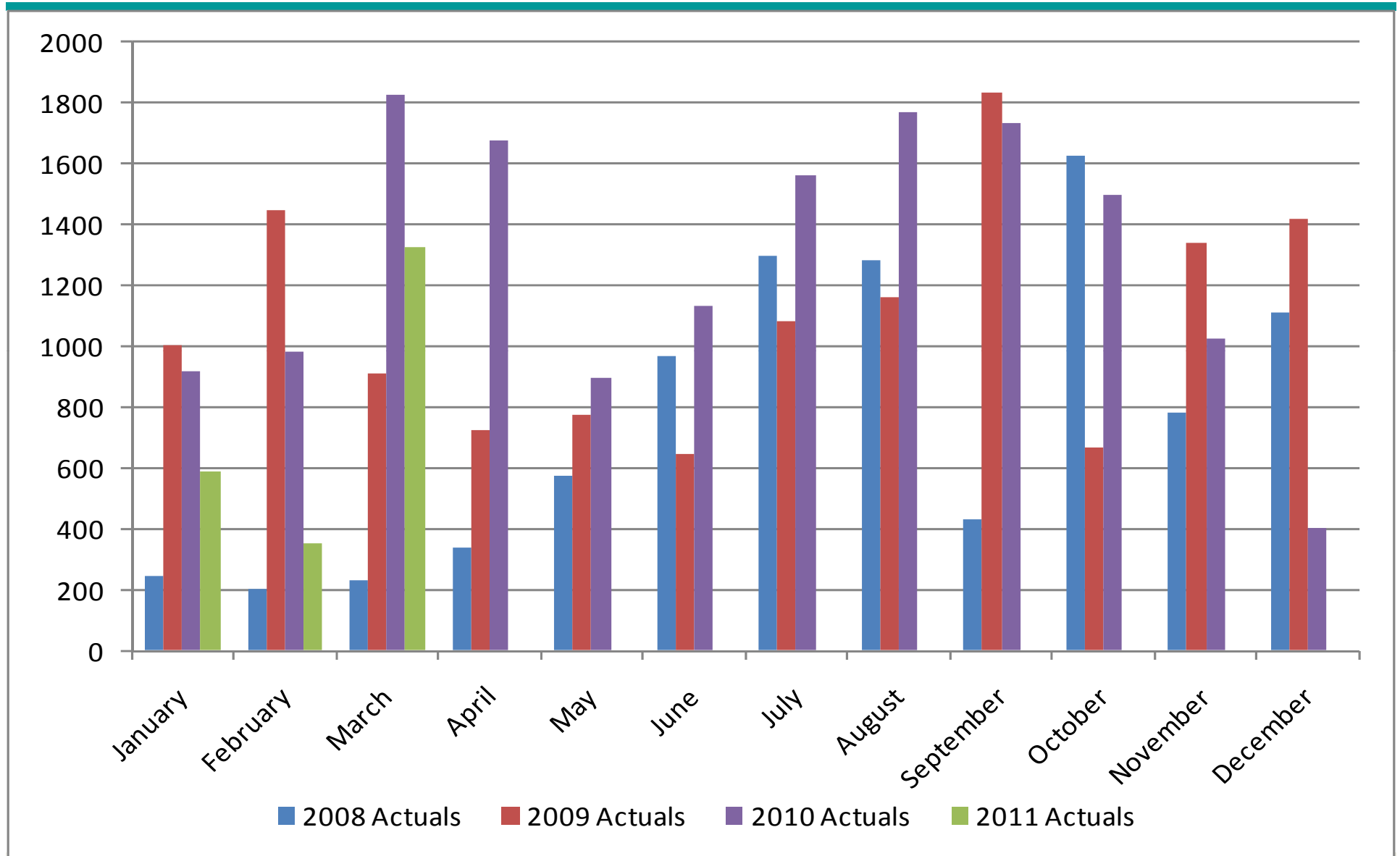




## Release Management Metrics (Releases)



## Release Management Metrics (Changes)



# ERCOT Public Website Metrics (March 2011)

Name↑	Reports	Status	Visits	Avg. Time on Site	Bounce Rate	Completed Goals	Visits % Change	Actions
http://faq.ercot.com UA-460876-6								
☆ faq.ercot.com	<a href="#">View report</a>	✓	996	00:01:37	52.91%	0	↓ -22.85%	
http://search.ercot.com UA-460876-8								
☆ search.ercot.com	<a href="#">View report</a>	✓	6,149	00:03:11	49.65%	0	↓ -8.28%	
http://www.ercot.com UA-460876-2								
☆ www.ercot.com	<a href="#">View report</a>	✓	107,340	00:02:53	60.76%	0	↓ -9.31%	
Find profile: <input type="text"/>								
							Show rows: 10	1 of 1