

Document Definition:

This document is a summary of ERCOT IT incidents, or service delivery failures, that have notified a Market Notice. This document also contains service availability reports for Retail Transaction Processing, MarketTrak, and TML.

Spreadsheet Tab:**Contents:**

Annual Summary: This tab summarizes the number of incident types and provides cumulative outage duration data by incident type, but provides no detail into the root cause or specific dates regarding each incident.

Monthly Summary: This tab summarizes the number of incident types by month to inform the reader of what month to examine for detailed information regarding an incident.

Detailed Incident Data: This tab contains the detailed information for each incident summarized on the annual and monthly tabs.

Retail Transaction Processing Availability: Retail Transaction processing service availability for calendar year.

Retail Transaction Processing Availability: Retail Transaction processing service availability for calendar year.

MarketTrak Availability: MarketTrak availability.

TML Availability: TML availability.

General Definitions:

Outage: An unplanned change in ERCOT IT systems that prevents users from being able to access the systems.

Degradation: An event that causes the normal levels of ERCOT IT systems to be impacted while still allowing for minimal processing of or access to those systems.

Transaction Count: Reflective of the number of duplicate transactions associated with an incident noticed by an initial ERCOT market notice.

Duration: Refers to the length of time, in minutes, of an incident involving the outage of one of systems covered in the Retail IT Market Services SLA.

Market Inputs: ERCOTRetailincidentlog@ercot.com

Email address for the market to send Market Impact data to ERCOT.

Incident Type Definitions:

Incident Type	Definition
Electronic Data Interchange Application	A retail transaction processing incident caused by a failure within the Electronic Data Interchange application (not infrastructure)
Registration Application	A retail transaction processing incident caused by a failure within the Customer Registration Management application (not infrastructure)
NAESB Application	A retail transaction processing incident caused by a failure within the NAESB application (not infrastructure)
EAI Application	A retail transaction processing incident caused by a failure within the integration application (not infrastructure)
Human Error	A retail transaction processing incident caused by human error
TML Application	A TML outage caused by failure of the TML application (not infrastructure)
TML (report explorer) Application	A TML (report explorer) outage caused by failure of the application (not infrastructure)
Database	A retail transaction processing incident caused by a database outage
Infrastructure	A retail transaction processing incident caused by an infrastructure failure (server, switch, etc.)
MarketTrak Application	A MarketTrak incident caused by a failure of the MarketTrak application
TML Connectivity	An incident resulting in the inability of Market Participants being able to connect to TML
TML Functionality Error	A failure of TML to function correctly
MarketTrak Connectivity	An incident resulting in the inability of Market Participants being able to connect to MarketTrak
Slow System Performance	An incident resulting in abnormally slow or delayed retail transaction processing without system outages
Transaction Processing Errors	An incident resulting in high exception counts or other errors related to retail transaction processing
Other	Any Retail Market IT systems incident that is not described by another defined incident type
Availability	The ability of a component or IT service to perform its required function over a stated period of time
Planned Outage	A planned change in ERCOT IT systems that prevents users from being able to access the systems
Unplanned Outage	An unplanned change in ERCOT IT systems that prevents users from being able to access the systems
Incident	Any event that causes the agreed levels of service of ERCOT IT systems to be impacted
NAESB	The Texas electric market has implemented NAESB EDM V1.6 as the required data transport mechanism
EDI	Electronic Data Interchange – the transfer of data electronically
Integration	The creation of links between previously separate computer systems, applications, services or processes
Retail Transactions:	
814 – Enrollment transaction used for registration in the retail market	
824 – Application notice transaction used for responding to errors on 867 usage transactions	
967 – Usage transaction used for reporting consumption or generation of electricity	
997 – Acknowledgement transaction	
Gross Availability (24/7)	Minutes outside of the maintenance and release outage windows that are taken with or without approval of RMS.
Gross Available Minutes	Percent of time that systems are planned to be available 24/7
Net Available Minutes	Percent of time that systems are planned to be available 24/7, measured by number of planned outage minutes per month divided by gross available minutes
Planned Gross Availability (24/7)	Minutes used by ERCOT during the maintenance and release windows, which are not tracked under the SLA
Service Availability Percent	The percent of time that retail transaction processing services were available, not including planned outage minutes
SLA-Measured Percent Availability	Number of unplanned outage minutes divided by net available minutes
Unplanned outage minutes	Minutes retail transaction processing services were not available that are outside of the planned use of the maintenance and release windows

ERCOT IT Incident Market Notice Summary
Annual Breakdown (July 2006 - Current)

2011			Incident Type		Incident Type		Incident Type	
Outage - Root Cause			Degradation - Root Cause		Degradation - Effect			
Root Cause	Number of occurrences	Duration (minutes)	Root Cause	Number of occurrences	Resulting effect	Number of occurrences	Transaction Count	
EDI Application			EDI Application	1	EDI Duplicate Transactions			
Customer Registration Application			Customer Registration Application		TML Connectivity			
NAESB Application			NAESB Application		TML Functionality Error			
EAI Application			EAI Application		MarkeTrak Connectivity			
Human Error			Human Error		Slow System Performance	1		
TML Application			TML Application		Transaction Processing Errors			
TML (Report Explorer) Application			TML (Report Explorer) Application		Other			
Database			Database					
Infrastructure			Infrastructure					
MarkeTrak Application			MarkeTrak Application					
Vendor Issue			Other					
Configuration								
Other								
2010			Incident Type		Incident Type		Incident Type	
Outage - Root Cause			Degradation - Root Cause		Degradation - Effect			
Root Cause	Number of occurrences	Duration (minutes)	Root Cause	Number of occurrences	Resulting effect	Number of occurrences	Transaction Count	
EDI Application	3	120	EDI Application		EDI Duplicate Transactions			
Customer Registration Application	0		Customer Registration Application	1	TML Connectivity			
NAESB Application	1	58	NAESB Application	1	TML Functionality Error	1		
EAI Application	1	36	EAI Application	1	MarkeTrak Connectivity	1		
Human Error	4	750	Human Error	1	Slow System Performance			
TML Application	2	90	TML Application	1	Transaction Processing Errors			
TML (Report Explorer) Application	0		TML (Report Explorer) Application		Other	7		
Database	3	282	Database	1				
Infrastructure	7	3,067	Infrastructure	3				
MarkeTrak Application	1	100	MarkeTrak Application					
Vendor Issue	0		Other	1				
Configuration	4	297						
Other	0							
2009			Incident Type		Incident Type		Incident Type	
Outage - Root Cause			Degradation - Root Cause		Degradation - Effect			
Root Cause	Number of occurrences	Duration (minutes)	Root Cause	Number of occurrences	Resulting effect	Number of occurrences	Transaction Count	
EDI Application	0		EDI Application	3	EDI Duplicate Transactions			
Customer Registration Application	0		Customer Registration Application	1	TML Connectivity			
NAESB Application	1	372	NAESB Application	0	TML Functionality Error			
EAI Application	3	214	EAI Application	0	MarkeTrak Connectivity			
Human Error	0		Human Error	1	Slow System Performance			
TML Application	1	311	TML Application	0	Transaction Processing Errors			
TML (Report Explorer) Application	0		TML (Report Explorer) Application	0	Other	4	24,423	
Database	2	435	Database	5				
Infrastructure	13	1,386	Infrastructure	3				
MarkeTrak Application	1	47	MarkeTrak Application	0				
Vendor Issue	0		Other	2				
Other	5	345						

2008			Incident Type		Incident Type			Incident Type	
Outage - Root Cause			Degradation - Root Cause		Degradation - Effect				
Root Cause	Number of occurrences	Duration (minutes)	Root Cause	Number of occurrences	Resulting effect	Number of occurrences	Transaction Count		
EDI Application	4	453	EDI Application	3	EDI Duplicate Transactions	1	2,036		
Customer Registration Application	2	138	Customer Registration Application		TML Connectivity				
NAESB Application	1	78	NAESB Application	1	TML Functionality Error	2			
EAI Application	2	100	EAI Application	1	MarkeTrak Connectivity				
Human Error	3	820	Human Error	2	Slow System Performance				
TML Application	2	100	TML Application	1	Transaction Processing Errors	5			
TML (Report Explorer) Application			TML (Report Explorer) Application		Other	7			
Database	1	33	Database	3		3	1,033,762		
Infrastructure	16	2,120	Infrastructure	2					
MarkeTrak Application	12	1,214	MarkeTrak Application	2					
Vendor Issue	1	146	Other	3					
Other									
2007			Incident Type		Incident Type			Incident Type	
Outage - Root Cause			Degradation - Root Cause		Degradation - Effect				
Root Cause	Number of occurrences	Duration (minutes)	Root Cause	Number of occurrences	Resulting effect	Number of occurrences	Transaction Count		
EDI Application			EDI Application	8	EDI Duplicate Transactions	4	3,966		
Customer Registration Application	1	210	Customer Registration Application	3	Customer Registration Duplicate Trans	1	790		
NAESB Application	2	292	NAESB Application		TML Connectivity	5			
EAI Application	6	563	EAI Application	2	TML Functionality Error	1			
Human Error	4	955	Human Error	2	MarkeTrak Connectivity	2			
TML Application			TML Application	4	Slow System Performance	1			
TML (Report Explorer) Application	2	135	TML (Report Explorer) Application		Transaction Processing Errors	12			
Database	4	1,078	Database	2	Other	1			
Infrastructure	13	1,304	Infrastructure	4					
MarkeTrak Application	3	685	MarkeTrak Application	1					
Other			Other	1					
2006 (July - December)			Incident Type		Incident Type			Incident Type	
Outage - Root Cause			Degradation - Root Cause		Degradation - Effect				
Root Cause	Number of occurrences	Duration (minutes)	Root Cause	Number of occurrences	Resulting effect	Number of occurrences	Transaction Count		
EDI Application			EDI Application	7	EDI Duplicate Transactions	2	40,544		
Customer Registration Application			Customer Registration Application	8	Customer Registration Duplicate Trans	6	n/a		
NAESB Application	2	55	NAESB Application		TML Connectivity	1			
EAI Application			EAI Application	1	TML Functionality Error	2			
Human Error	1	540	Human Error		MarkeTrak Connectivity	2			
TML Application			TML Application	3	Slow System Performance	2			
TML (Report Explorer) Application			TML (Report Explorer) Application		Transaction Processing Errors	5			
Database	1	502	Database		Other				
Infrastructure	3	909	Infrastructure						
MarkeTrak Application			MarkeTrak Application	1					
Other			Other						

ERCOT IT Incident Market Notice Summary
Monthly Breakdown (July 2006 - Current)
Incident Summary

Month	Outage - Root Cause												Degradation - Root Cause												Degradation - Effect											
	Electronic Data Interchange	Registration Application	MAESB Application	Enterprise Application Integration	Human Error	TIM Application	TIM (Report Explains) Application	Database	Infrastructure	Market Data Application	Other	Vendor Issue	Electronic Data Interchange	Registration Application	MAESB Application	Enterprise Application Integration	Human Error	TIM Application	TIM (Report Explains) Application	Database	Infrastructure	Market Data Application	Other	ED Duplicate Transactions	Registration Duplicate Transactions	TIM Connectivity	TIM Functionality Error	Market Data Connectivity	Slow System Performance	Transaction Processing Errors	Other					
2011																																				
January																																				
February																																				
March																																				
April																																				
May																																				
June																																				
July																																				
August																																				
September																																				
October																																				
November																																				
December																																				

Incident Summary

Month	Outage - Root Cause												Degradation - Root Cause												Degradation - Effect											
	Electronic Data Interchange	Registration Application	MAESB Application	Enterprise Application Integration	Human Error	TIM Application	TIM (Report Explains) Application	Database	Infrastructure	Market Data Application	Other	Vendor Issue	Electronic Data Interchange	Registration Application	MAESB Application	Enterprise Application Integration	Human Error	TIM Application	TIM (Report Explains) Application	Database	Infrastructure	Market Data Application	Other	ED Duplicate Transactions	Registration Duplicate Transactions	TIM Connectivity	TIM Functionality Error	Market Data Connectivity	Slow System Performance	Transaction Processing Errors	Other					
2010																																				
January			1																																	
February										1							1																			
March										2					1																					
April					1					2																										
May					1																	2														
June										2																										
July																					1															
August																			1																	
September	1																																			
October	2				1																															
November	1																																			
December										1							1												1							

Incident Summary

Incident	Summary	Outage - Root Cause											Degradation - Root Cause											Degradation - Effect										
		Electronic Data Interchange	Registration Application	MAESB Application	Enterprise Application Integration	Human Error	TIM Application	TIM (Report Explains) Application	Database	Infrastructure	Market Data Application	Other	Vendor Issue	Electronic Data Interchange	Registration Application	MAESB Application	Enterprise Application Integration	Human Error	TIM Application	TIM (Report Explains) Application	Database	Infrastructure	Market Data Application	Other	ED Duplicate Transactions	Invalid Duplicate Transactions	TIM Connectivity	TIM Functionality Error	Market Data Connectivity	Slow System Performance	Transaction Processing Errors	Other		
2009																																		
January																																		
February				1							2		1											1										
March				1												2			1															
April				1																														
May																																		
June										1		1	2									2												
July										1																								
August										1	2	1																						
September				1						1	2					1																		
October																						1												
November												1										1												
December						1				1	1	1										2												

Incident Summary

	Outage - Root Cause												Degradation - Root Cause												Degradation - Effect											
	Electronic Data Interchange	Registration Application	MAESB Application	Enterprise Application Integration	Human Error	TIM Application	TIM (Report Explains) Application	Database	Infrastructure	Market Data Application	Other	Vendor Issue	Electronic Data Interchange	Registration Application	MAESB Application	Enterprise Application Integration	Human Error	TIM Application	TIM (Report Explains) Application	Database	Infrastructure	Market Data Application	Other	ED Duplicate Transactions	Invalid Duplicate Transactions	TIM Connectivity	TIM Functionality Error	Market Data Connectivity	Slow System Performance	Transaction Processing Errors	Other					
2008																																				
January																																				
February																																				
March																																				
April																																				
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June																																				
July																																				
August																																				
September																																				
October																																				
November																																				
December																																				

Incident Summary

2007	Outage - Root Cause												Degradation - Root Cause												Degradation - Effect											
	Electronic Data Interchange	Registration Application	MAERS Application	Integrative Application Integration	Human Error	TML Application	TML (Report Explain) Application	Database	Infrastructure	Mobile/Tra Application	Other	Vendor Issue	Electronic Data Interchange	Registration Application	MAERS Application	Integrative Application Integration	Human Error	TML Application	TML (Report Explain) Application	Database	Infrastructure	Mobile/Tra Application	Other	Paper/Print Duplicate Transactions	EDI Duplicate Transactions	TML Connectivity	TML Functionality Error	Mobile/Tra Connectivity	Error System Performance	Transaction Processing Errors	Other					
January																																				
February	1												1	1										1	1	1										
March		2											1	1	1																					
April			1														1													1						
May																																				
June		1											1											1	1											
July		1	1					2					1																1							
August								1							1													1	1	1	1					
September								1																					1							
October		2						2	1				1															1		1						
November			1	1	2			1																												
December																																				

Incident Summary

Incident Summary																															
Outage - Root Cause													Degradation - Root Cause													Degradation - Effect					
	Electronic Data Interchange	Registration Application	MAERS Application	Enterprise Application Integration	Human Error	TML Application	TML (Report Explain) Application	Database	Infrastructure	Mobile/Traffic Application	Other	Vendor Issue	Electronic Data Interchange	Registration Application	MAERS Application	Enterprise Application Integration	Human Error	TML Application	TML (Report Explain) Application	Database	Infrastructure	Mobile/Traffic Application	Other	Paper/Print Duplicate Transactions	EDI Duplicate Transactions	TML Connectivity	TML Functionality Error	Mobile/Traffic Connectivity	Error System Performance	Transaction Processing Errors	Other
2006																															
Jan													1												1						
April													2												2						
September													4						1						1	2		1		1	4
October			1										1	1											1						
November														1												1			1		
December		1	1		1								1						2					1			1	1	1	1	

ERCOT IT Incident Market Notice Summary

January 1, 2011 - December 31, 2011 Incidents

Month	Date	Notification Date	Notification ID	Start Time	End Time
June	6/26/11	6/16/11	M-B061611	6:00AM	4:26PM
June	6/12/11	6/2/11	M-B060211	6:00AM	6:55PM
June	6/5/11	5/25/11	M-D052511	6:00AM	6:46PM
May	5/22/11	5/12/11	M-A051211	6:00AM	5:54PM
May	5/1/2011	5/1/2011	M-A042111-03	9:01PM	10:42PM
May	5/1/11	4/21/11	M-A042111	6:00AM	9:00PM
April	4/19/2011	4/19/2011	R-A04192011	8:30AM	10:30AM
April	4/13/2011	4/13/2011	R-C04132011	11:39AM	12:45PM
April	4/3/2011	4/4/2011	R-A040411	n/a	n/a
April	4/3/11	3/23/11	M-B032311	6:00AM	8:55PM
March	3/20/11	3/10/11	M-A031011	6:00AM	7:19PM
March	3/13/11	3/9/11	M-A030911	6:00AM	7:25PM
March	3/6/11	2/24/11	M-A022411	6:00AM	7:20PM
February	2/10/2011	2/11/2011	R-A021111	n/a	n/a
February	2/6/10	1/26/11	M-A012611	6:00AM	6:19PM
January	1/23/11	1/13/11	M-A011311	6:00AM	7:37PM
January	1/9/11	1/5/11	M-A010511	6:00AM	7:27PM

Duration (mins)	SLA Impacted	Application Impacted	Issue Description
626	Retail Market	Retail Market	Planned Maintenance Outage
775	Retail Market	Retail Market	Planned Maintenance Outage
766	Retail Market	Retail Market	Planned Maintenance Outage
714	Retail Market	Retail Market	Planned Maintenance Outage
101	Retail Market	Retail Market	Planned Maintenance Outage Overrun
900	Retail Market	Retail Market	Planned Maintenance Outage
120	Retail Market	TML	ERCOT experienced outage in service for the ESIID Lookup, and TML/ MIS Find ESIID and Find Transactions functions from 08:30am until 10:30am.
66	Retail Market	All	ERCOT experienced outages of MarkeTrak, Retail Processing, ESIID Lookup, and TML/ MIS Find ESIID and Find Transactions
n/a	Retail Market	Retail Processing	ERCOT experienced a delay in processing 814_04 transactions between Sunday, April 3, 2011 and Monday, April 4, 2011.
895	Retail Market	Retail Market	Planned Maintenance Outage
799	Retail Market	Retail Market	Planned Maintenance Outage
805	Retail Market	Retail Market	Planned Maintenance Outage
800	Retail Market	Retail Market	Planned Maintenance Outage
n/a	Retail Market	Retail Processing	ERCOT experienced a delay in processing approximately 1,500 814_04 transactions between Thursday, February 10, 2011 and Friday, February 11, 2011. As a result, associated transactions (814_05s and 814_06s) were also impacted.
739	Retail Market	Retail Market	Planned Maintenance Outage
817	Retail Market	Retail Market	Planned Maintenance Outage
807	Retail Market	Retail Market	Planned Maintenance Outage

Root Cause	Service Impact	Service Impact Detail	Identification Method
n/a	n/a	Planned Outage	Planned Maintenance
n/a	n/a	Planned Outage	Planned Maintenance
n/a	n/a	Planned Outage	Planned Maintenance
n/a	n/a	Planned Outage	Planned Maintenance
		Unplanned Outage	
n/a	n/a	Planned Outage	Planned Maintenance
Configuration	Outage	Unplanned Outage	Monitoring
Infrastructure	Outage	Unplanned Outage	Monitoring
Human Error	Degradation	Degradation	Monitoring
n/a	n/a	Planned Outage	Planned Maintenance
n/a	n/a	Planned Outage	Planned Maintenance
n/a	n/a	Planned Outage	Planned Maintenance
n/a	n/a	Planned Outage	Planned Maintenance
Configuration	Degradation	Degradation	Monitoring
n/a	n/a	Planned Outage	Planned Maintenance
n/a	n/a	Planned Outage	Planned Maintenance
n/a	n/a	Planned Outage	Planned Maintenance

Market Impact	Root Cause Details	Resolution	Date (to be) Implemented
Unknown	n/a	n/a	n/a
Unknown	n/a	n/a	n/a
Unknown	n/a	n/a	n/a
Unknown	n/a	n/a	n/a
			5/1/2011
Unknown	n/a	n/a	n/a
Switch - 1 MVI - 1 PMVI - 0 MESI - 1 MVO - 0	A TML component experienced backlog issues due to slow messaging processing within the EAI application.	Added additional adapters to the EAI -Registration interface	4/19/2011
Switch - 0 MVI - 1567 PMVI - 330 MESI - 0 MVO - 1462	Internal EAI application components were inadvertently brought down during server maintenance.		4/13/2011
Switch - 0 MVI - 420 PMVI - 0 MESI - 0 MVO - 0	Root cause was a missed step during troubleshooting efforts after the maintenance outage. It was not caught until Monday due to a server failure on our monitoring system.	All response transactions were successfully processed outbound by 10:00 AM today, Monday, April 4, 2011.	4/4/2011
Unknown	n/a	n/a	n/a
Unknown	n/a	n/a	n/a
Unknown	n/a	n/a	n/a
Unknown	n/a	n/a	n/a
Switch - 0 MVI - 410 PMVI - 1308 MESI - 0 MVO - 0	The root cause was due to an Enterprise Application Integration (EAI) process error.	A reconfiguration was required to correct the issue	2/11/2011
Unknown	n/a	n/a	n/a
Unknown	n/a	n/a	n/a
Unknown	n/a	n/a	n/a

Notes	Current Status
Some transactions were accepted, but held in queue, while the component was started on another server.	
Find ESIID and Find Transactions continued to experience intermittent errors and transaction processing experienced performance issues until 17:45.	
All response transactions were successfully processed outbound by 10AM Friday, February 11, 2011. Average delay outside of protocol was 31 minutes.	

2011 Retail Transaction Processing Service Availability

99.9% Service Availability Target

Month	Service	Gross Available Minutes	Unplanned Outage Minutes	SLA-Measured Percent Availability	SLA Exception Outage Granted	Actual SLA Exception Minutes Used	SLA Exception Percent Availability
January	Retail Transaction Processing	15,120	0	100.00%	0	0	100.00%
February	Retail Transaction Processing	14,400	0	100.00%	0	0	100.00%
March	Retail Transaction Processing	16,560	0	100.00%	0	0	100.00%
April	Retail Transaction Processing	15,120	66	99.56%	0	0	99.56%
May	Retail Transaction Processing	15,120	0	100.00%	0	0	100.00%
June	Retail Transaction Processing	15,840	0	100.00%	0	0	100.00%
July	Retail Transaction Processing				0	0	
August	Retail Transaction Processing				0	0	
September	Retail Transaction Processing				0	0	
October	Retail Transaction Processing				0	0	
November	Retail Transaction Processing				0	0	
December	Retail Transaction Processing				0	0	
Jan - Dec 2009	Retail Transaction Processing	92,160 (to Jan 31)	66	99.93%	0	0	

2011 Retail Transaction Processing Service Availability

99% Service Availability Target

Month	Service	Gross Available Minutes	Planned Outage Minutes	Net Available Minutes	Unplanned Outage Minutes	SLA-measured Percent Availability	SLA Exception Outage Granted	Actual SLA Exception Minutes Used	SLA Exception Percent Availability
January	Retail Transaction Processing	29,520	1,624	27,896	0	100.00%	0	0	100.00%
February	Retail Transaction Processing	25,920	739	25,181	0	100.00%	0	0	100.00%
March	Retail Transaction Processing	28,080	2,404	25,676	0	100.00%	0	0	100.00%
April	Retail Transaction Processing	28,080	895	27,185	0	100.00%	0	0	100.00%
May	Retail Transaction Processing	29,520	1,614	27,906	101	99.64%	0	0	99.64%
June	Retail Transaction Processing	27,360	2,167	25,193	0	100.00%	0	0	100.00%
July	Retail Transaction Processing			0			0	0	
August	Retail Transaction Processing			0			0	0	
September	Retail Transaction Processing			0			0	0	
October	Retail Transaction Processing			0			0	0	
November	Retail Transaction Processing			0			0	0	
December	Retail Transaction Processing			0			0	0	
Jan - Dec 2009	Retail Transaction Processing	168,480 (to Jan 31)	9,443	159,037	101	99.94%	0	0	

000060

2011 Texas Market Link Service Availability

99% Service Availability Target

Month	Service	Gross Available Minutes	Planned Outage Minutes	Net Available Minutes	Unplanned Outage Minutes	SLA-Measured Percent Availability	SLA Exception Outage Granted	Actual SLA Exception Minutes Used	SLA Exception Percent Availability
January	TML Service Availability	44,640	1,624	43,016	0	100.00%	0	0	100.00%
February	TML Service Availability	40,320	739	39,581	0	100.00%			100.00%
March	TML Service Availability	44,640	2,404	42,236	0	100.00%			100.00%
April	TML Service Availability	43,200	895	42,305	186	99.56%			99.56%
May	TML Service Availability	44,640	1,614	43,026	101	99.77%			99.77%
June	TML Service Availability	43,200	2,167	41,033	0	100.00%			100.00%
July	TML Service Availability			0					
August	TML Service Availability			0					
September	TML Service Availability			0					
October	TML Service Availability			0					
November	TML Service Availability			0					
December	TML Service Availability			0					
Jan - Dec 2009	TML Service Availability	260,640 (to Jan 31)	9,443	251,197	287	99.89%			

2011 MarkeTrak Service Availability

98% Service Availability Target

Month	Service	Gross Available Minutes	Planned Outage Minutes	Net Available Minutes	Unplanned Outage Minutes	SLA-measured Percent Availability	SLA Exception Outage Granted	Actual SLA Exception Minutes Used	SLA Exception Percent Availability
January	MarkeTrak Service Availability	16,320	1,624	14,696	0	100.00%	0	0	100.00%
February	MarkeTrak Service Availability	15,360	739	14,621	0	100.00%			100.00%
March	MarkeTrak Service Availability	17,520	2,404	15,116	0	100.00%			100.00%
April	MarkeTrak Service Availability	16,320	895	15,425	66	99.57%			99.57%
May	MarkeTrak Service Availability	16,080	1,714	14,366	101	99.30%			99.30%
June	MarkeTrak Service Availability	16,800	2,167	14,633	0	100.00%			100%
July	MarkeTrak Service Availability			0					
August	MarkeTrak Service Availability			0					
September	MarkeTrak Service Availability			0					
October	MarkeTrak Service Availability			0					
November	MarkeTrak Service Availability			0					
December	MarkeTrak Service Availability			0					
Jan - Dec 2009	MarkeTrak Service Availability	98,400 (to Jan 31)	9,543	88,857	167	99.81%	0	0	

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Information Technology and Facilities Report

**Richard Morgan
Vice President & CIO**

**ERCOT Board of Directors
May 17, 2011**

Highlights

- **Service Availability:**
 - ✓ Market Operations IT systems met all SLA targets
 - ✓ Market Data Transparency IT systems met all SLA targets
 - ✗ Nodal Market IT Systems missed one SLA target (MMS SCED)
 - During a planned site failover on 4/5, 15 SCED intervals were missed leading to 99.83% availability
 - ✗ Retail Market IT systems missed one SLA target (Retail Business Hours)
 - On 4/13, a 66-minute outage occurred due to server maintenance resulting in 99.56% availability for the month
- **Planned Site Failover (4/5)**
 - During a planned site failover, database patching took longer than expected and eight SCED intervals were missed
 - Following database patching, problems establishing connectivity between EMMS applications and the market database led to 10 missed SCED intervals
 - Steps have been added to the failover plan to further verify connectivity prior to active site disconnect

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May 17, 2011

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Highlights Cont'd

- **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 causing a processing delay that impacted approximately 530 transactions
- **Retail outage (4/13)**
 - Human error during Operating System patching caused a 66-minute outage of all Retail systems (transaction processing, TML and MarkeTrak) and retail functionality within MIS
- **Retail outage and performance degradation (4/15 - 4/20)**
 - Disk contention within the SAN infrastructure caused numerous retail system issues, including a 120-minute outage of TML on 4/19, and slow system performance on 4/20
 - Configuration changes alleviated the messaging backlogs, and returned performance to normal levels
 - The Retail Market SLA is being updated to include performance monitoring and reporting of TML

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Highlights Cont'd

- **Data Center Migration**
 - Wave 1 (Corporate environment migration) in progress and remains two weeks behind schedule
 - Schedule risk mitigated by reprioritizing all tasks necessary to start Wave 2 early. No downstream impacts of the delay.
 - Corporate virtual servers moved on schedule with remainder moving into Wave 2
 - Wave 2 (Development and Integrated Test systems) started four weeks early
 - Daily coordination meetings are being held to maximize resource utilization and to avoid conflicts with other projects and efforts
 - Wave 4 (Bastrop Disaster Recovery environment) planning in progress for early start
 - Additional project information will be presented during the Business Integration update

0000066

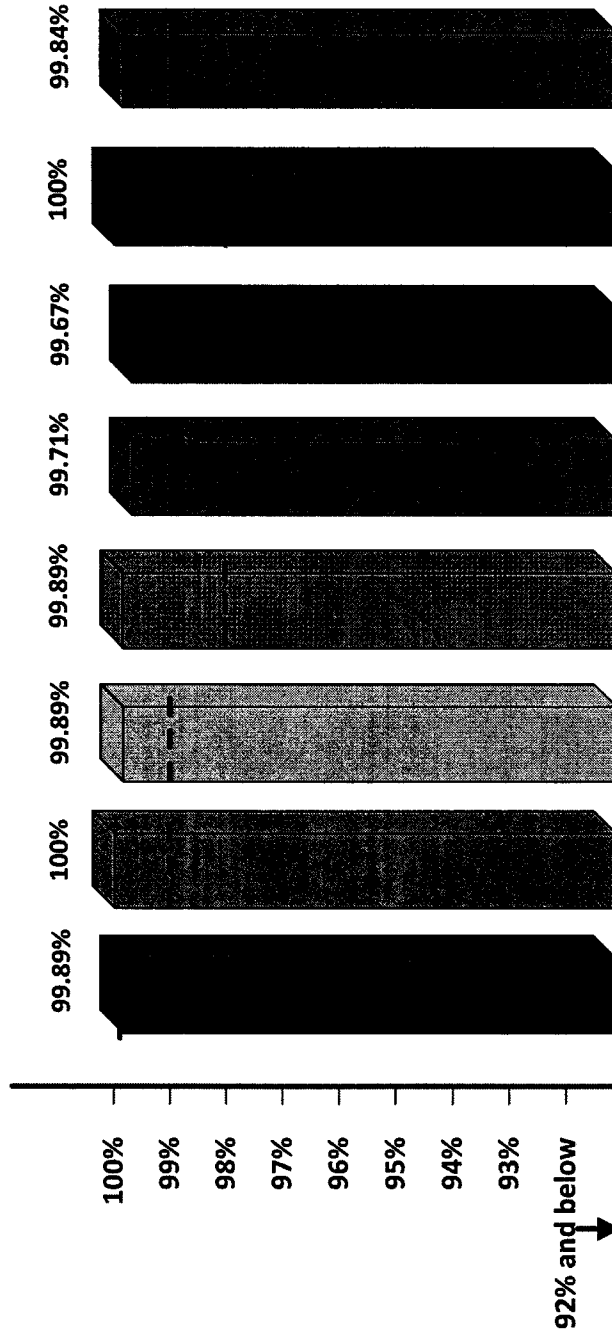


May 17, 2011

2011 Net Service Availability (Retail and Market Ops)

2011 Net Service Availability

Year to Date



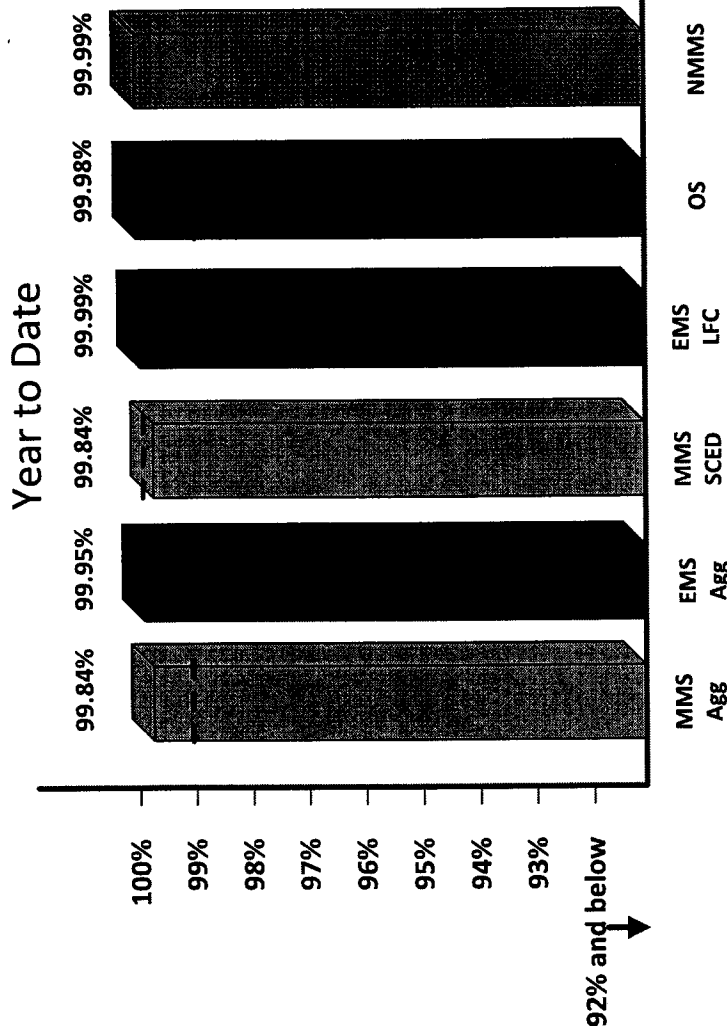
Retail & Market Operations			
Transaction Processing (BH)	Transaction Processing (Off BH)	Transaction Processing SLA Target	Transaction Processing SLA Target
99.89%	99.89%	99.9%	99.9%
Business Hours (BH)	Off Business Hours (Off BH)	Business Hours (BH) Target	Off Business Hours (Off BH) Target
99.89%	99.89%	99.9%	99.9%
Texas Market Link (TML) SLA Target	Market Information System SLA Target	Market Information System SLA Target	Market Information System SLA Target
99.89%	99.89%	99.9%	99.9%



May 17, 2011

2011 Net Service Availability (Grid Ops)

2011 Net Service Availability



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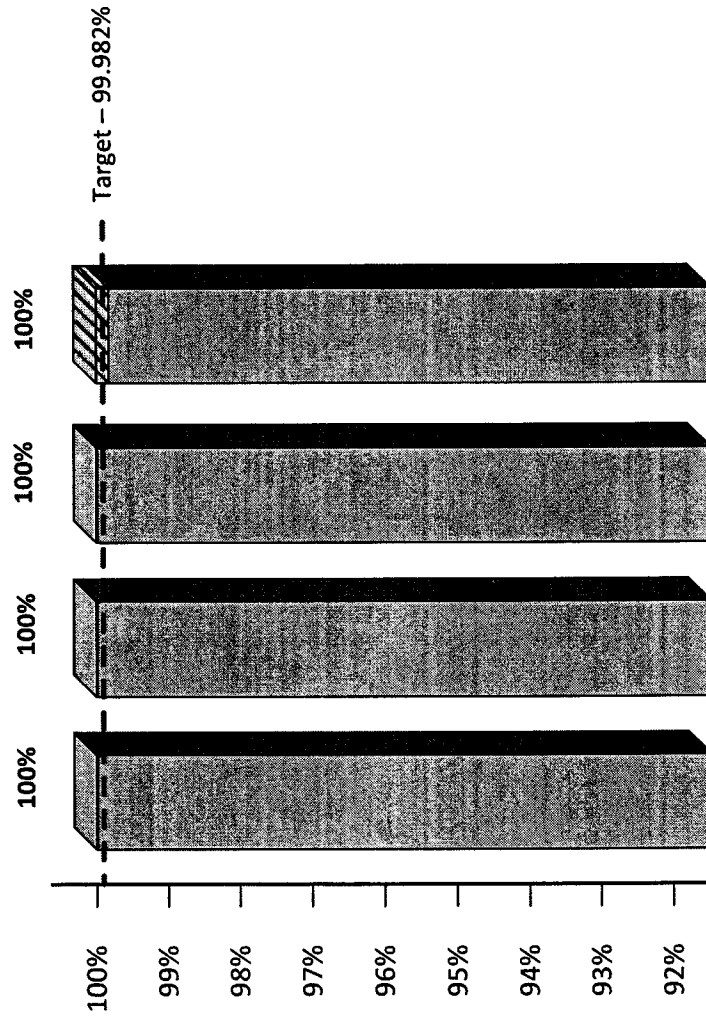
MMS Aggregate SLA Target: 99%	EMS LFC Target: 99.93%
EMS Aggregate SLA Target: 99%	Outage Scheduler Target: 99%
MMS SCED SLA Target: 99.93%	NMMS Target: 97%



May 17, 2011

2011 Data Center Availability

2011 Data Center Availability Year to Date



Taylor 1 Taylor 2 Austin Bastrop

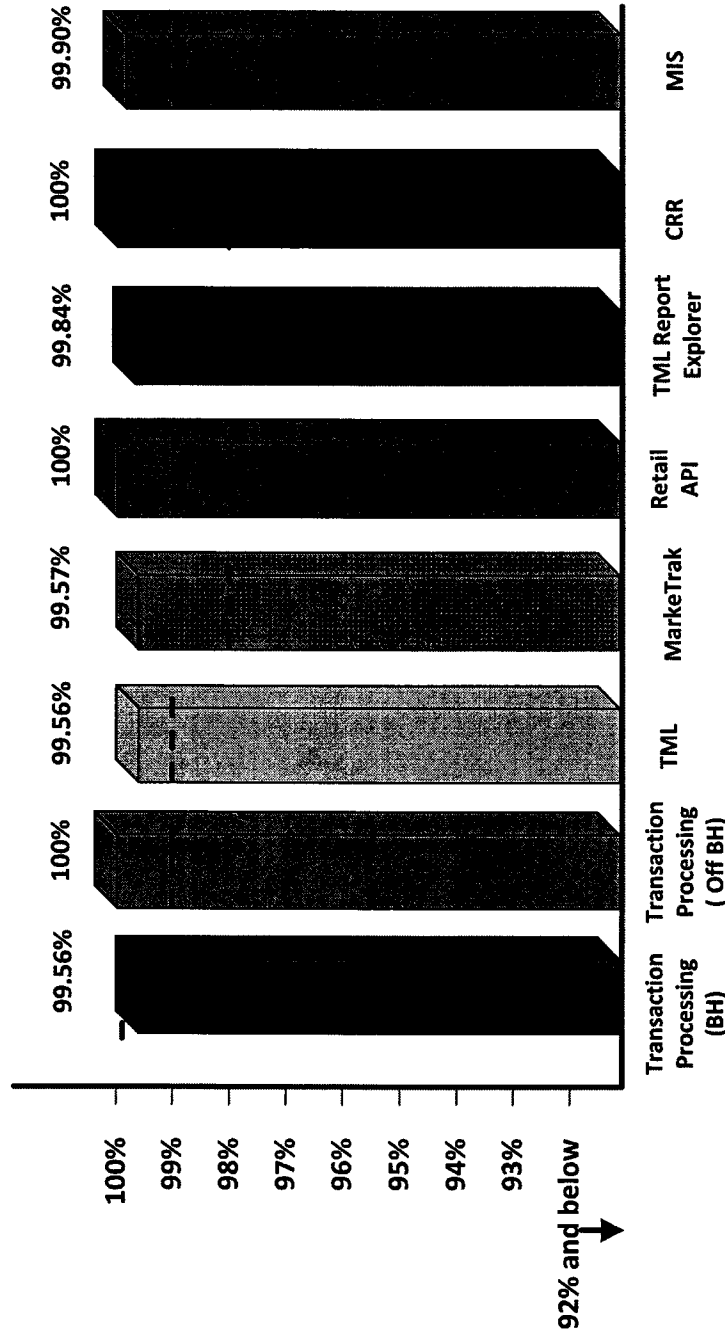
Outage prevented due to Tier 3 redundancy



May 17, 2011

April 2011 Net Service Availability

April 2011 Net Service Availability



Retail & Market Operations	
Transaction Processing SLA Target	98%
Transaction Processing (BH)	99%
Off Business Hours (Off BH)	99%
Texas Market Link (TML) SLA Target	98%
MarketTrak SLA Target	99%
TML Report Explorer SLA Target	99%
Retail API SLA Target	98%
Congestion Revenue Rights SLA Target	99%
Market Information System SLA Target	99%

000070



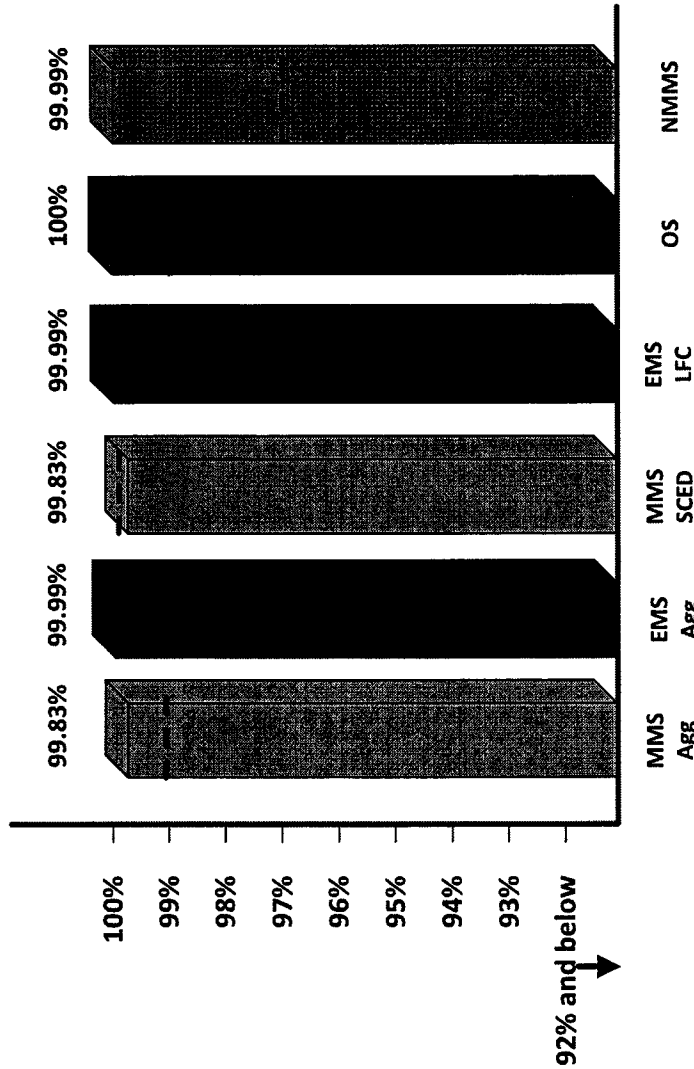
May 17, 2011

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April 2011 Net Service Availability

April 2011 Net Service Availability



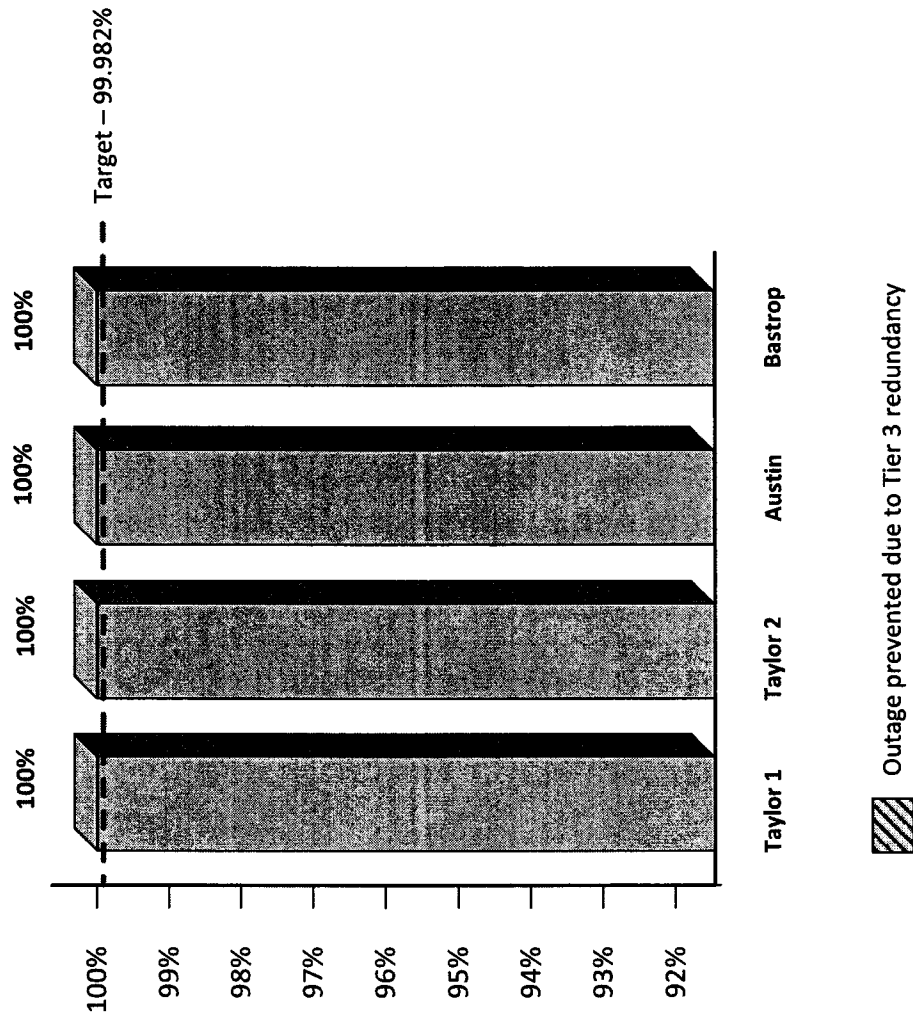
April 2011 Net Service Availability	
MMS Aggregate SLA Target: 99%	EMS LFC Target: 99.93%
EMS Aggregate SLA Target: 99%	Outage Scheduler Target: 99%
MMS SCED SLA Target: 99.93%	NMMS Target: 97%



May 17, 2011

April 2011 Data Center Power Availability

April 2011 Data Center Availability



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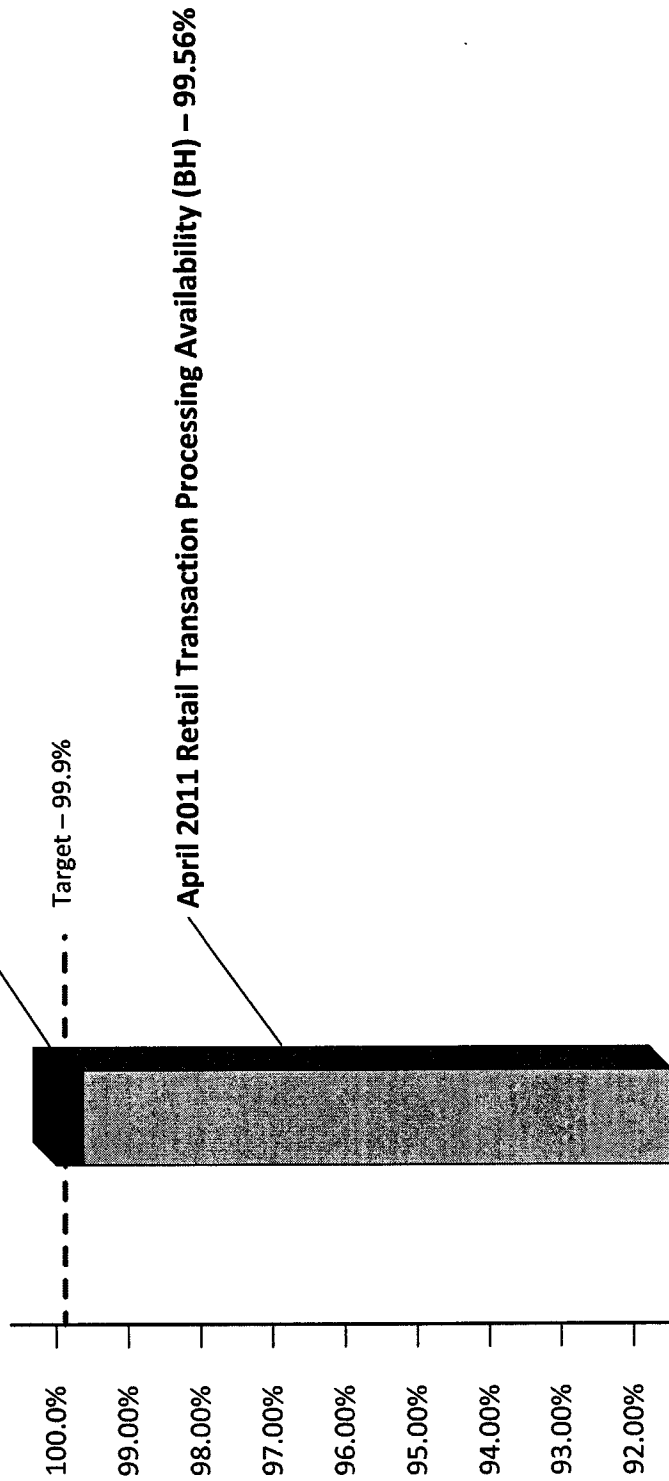


May 17, 2011

Retail Processing (Business Hours) Availability

April 2011 Retail Transaction Processing Availability Summary (Business Hours)

4/13 (66 minutes) – Human error during OS patching led to an outage of retail systems



Retail Transaction Processing Availability (Business Hours)



May 17, 2011

TML Availability

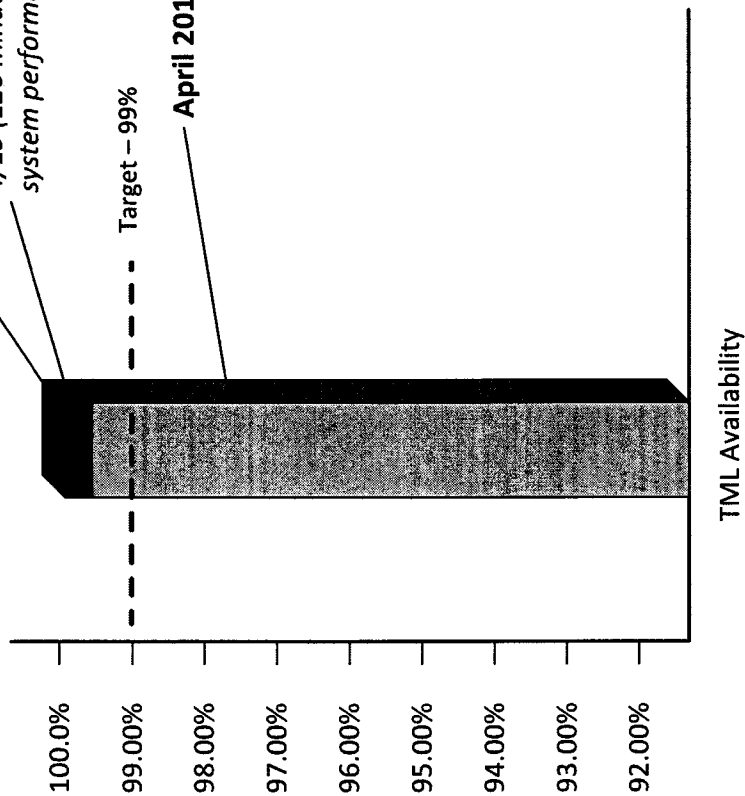
April 2011 TML Availability Summary

4/13 (66 minutes) – Human error during OS patching led to an outage of retail systems

4/19 (120 minutes) – Disk contention in the SAN infrastructure led to slow system performance

Target – 99%

April 2011 TML Availability – 99.56%



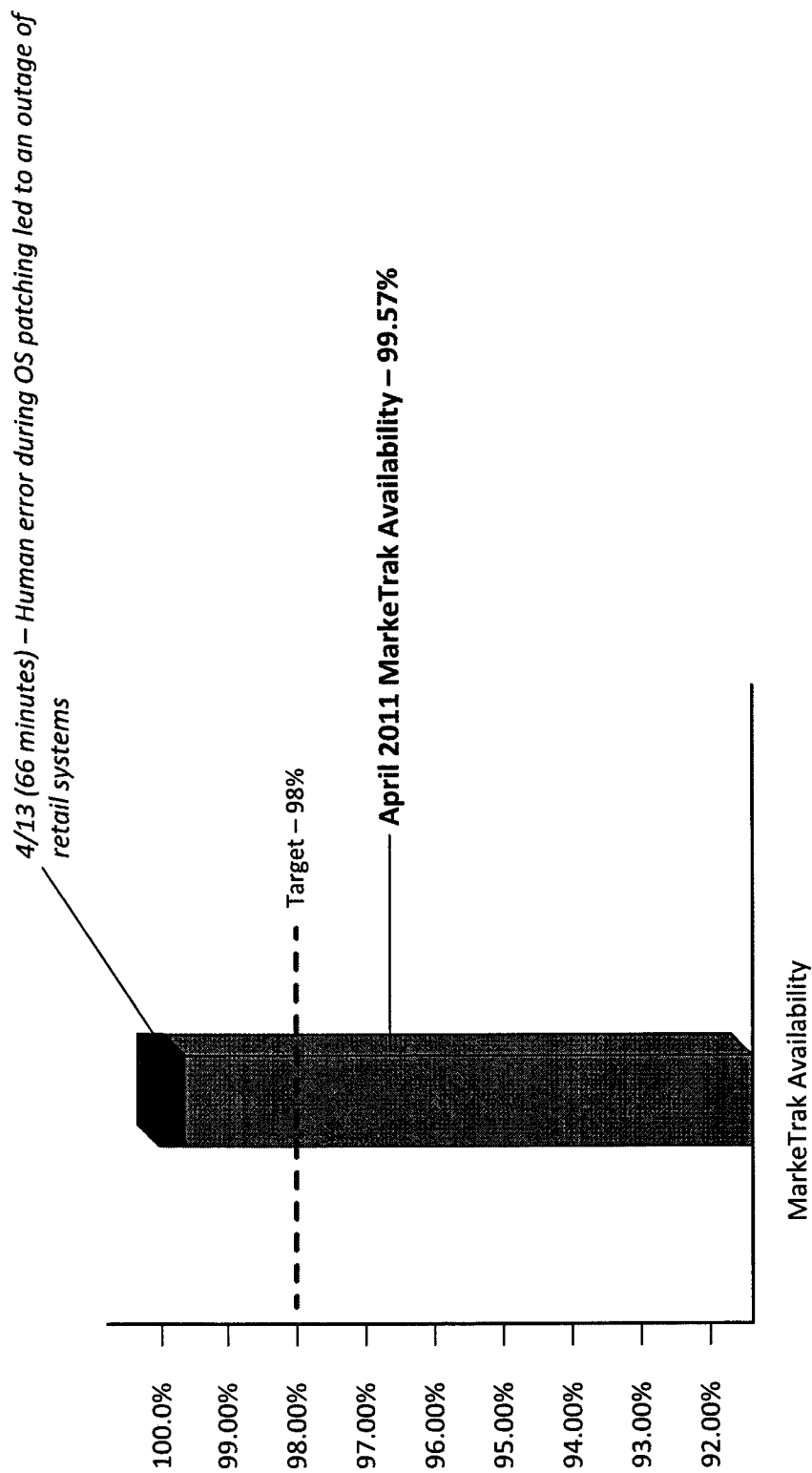
000074



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MarkeTrak Availability

April 2011 MarkeTrak Availability Summary



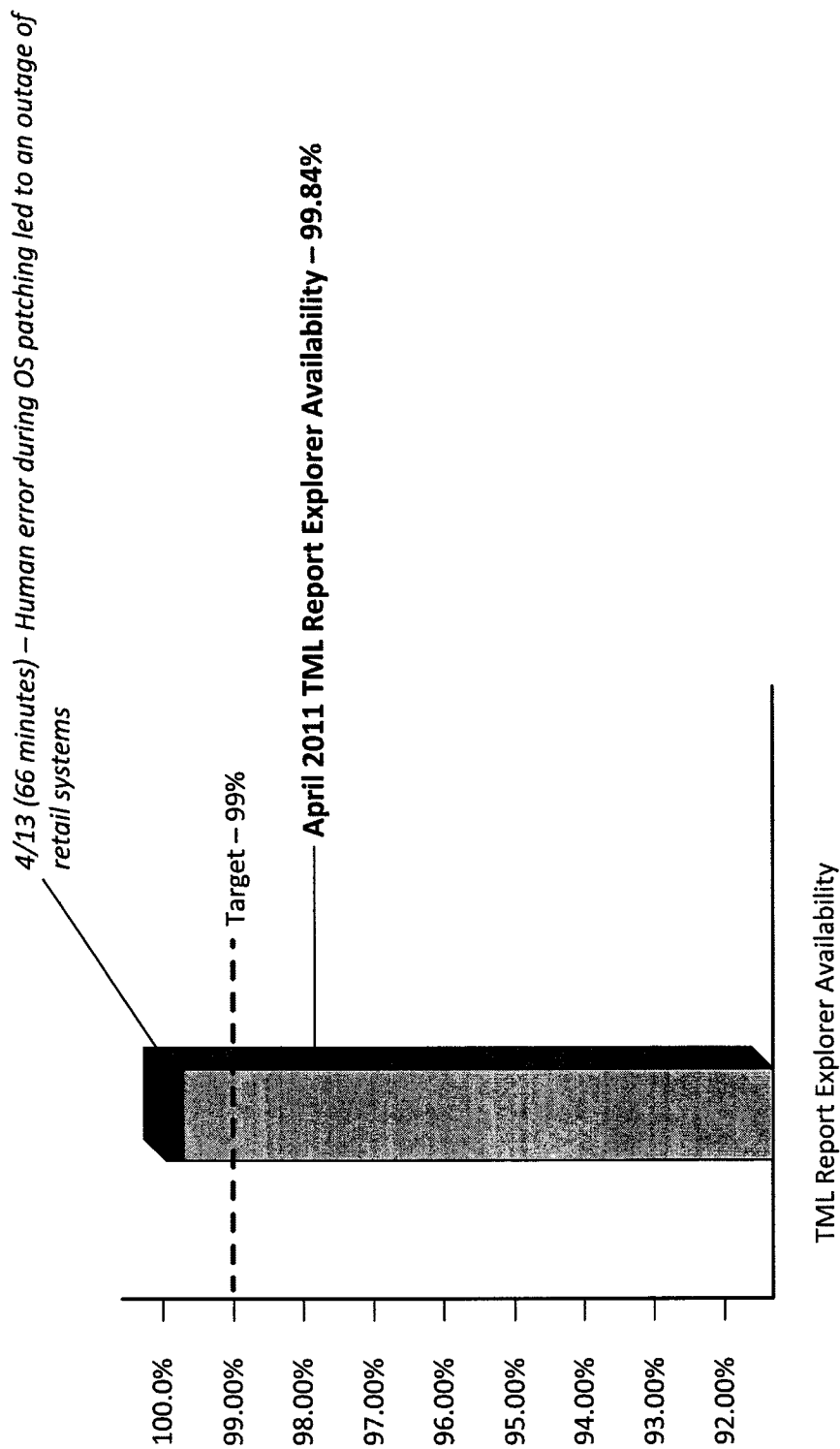
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TML Report Explorer Availability

April 2011 TML Report Explorer Availability Summary



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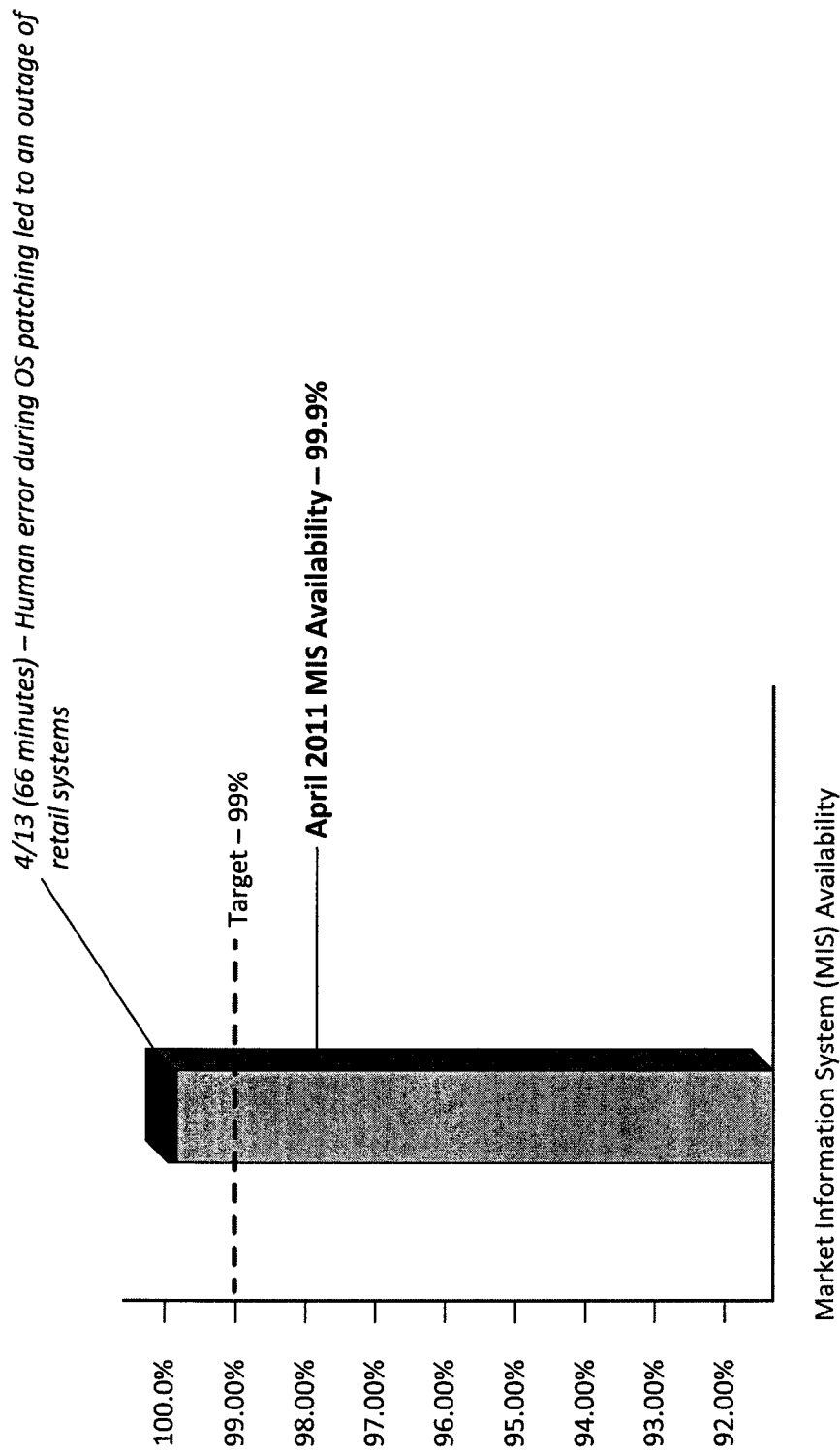
May 17, 2011

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MIS Availability

April 2011 MIS Availability Summary



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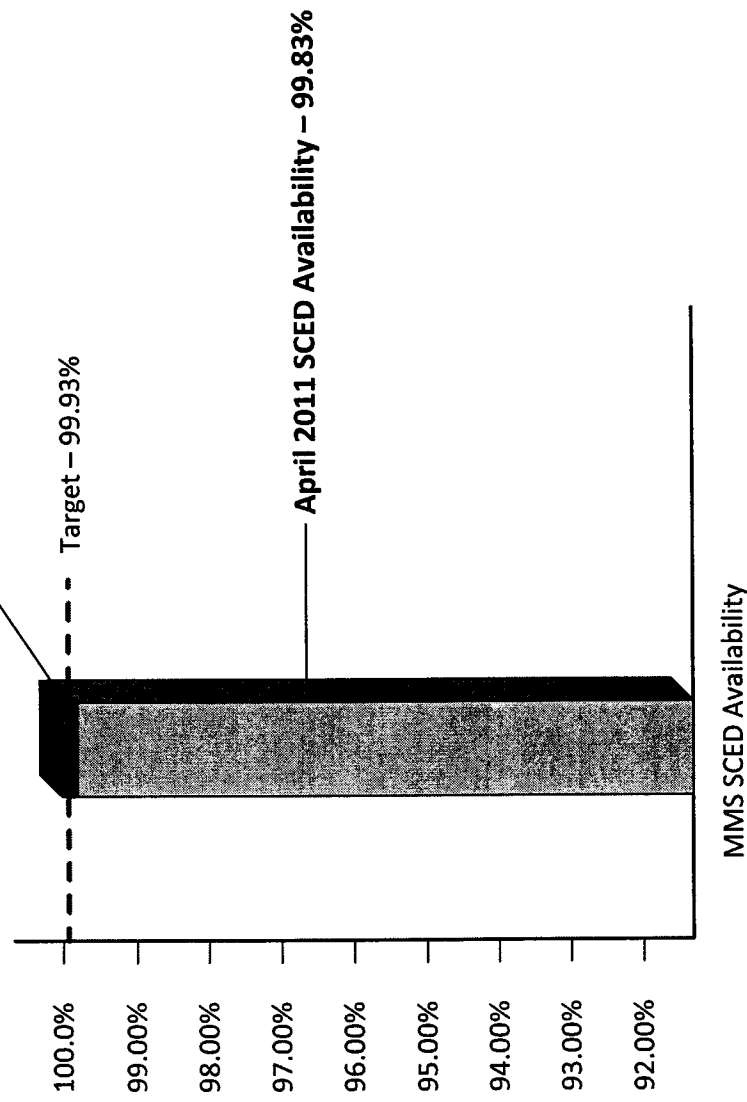
15

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MMS SCED Availability Summary

April 2011 MMS SCED Availability Summary

4/5 (75 minutes) – 18 SCED intervals were missed during a planned site failover – ten due to database patching, eight due to connectivity issues



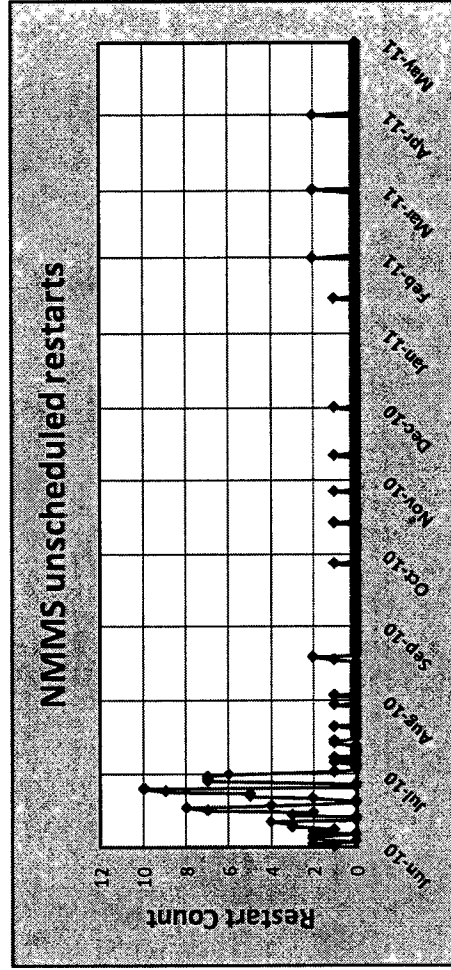
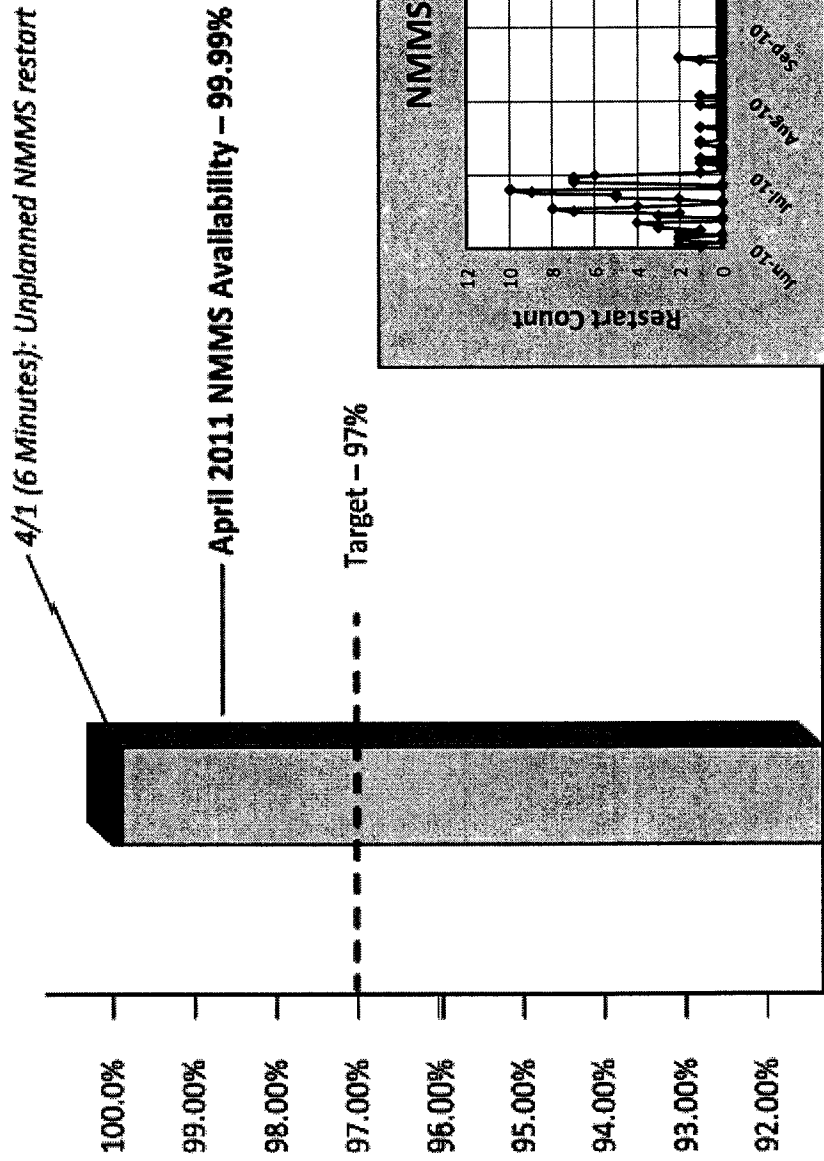
000078



May 17, 2011

Network Model Management System

April 2011 Network Model Management System (NMMS) Availability Summary

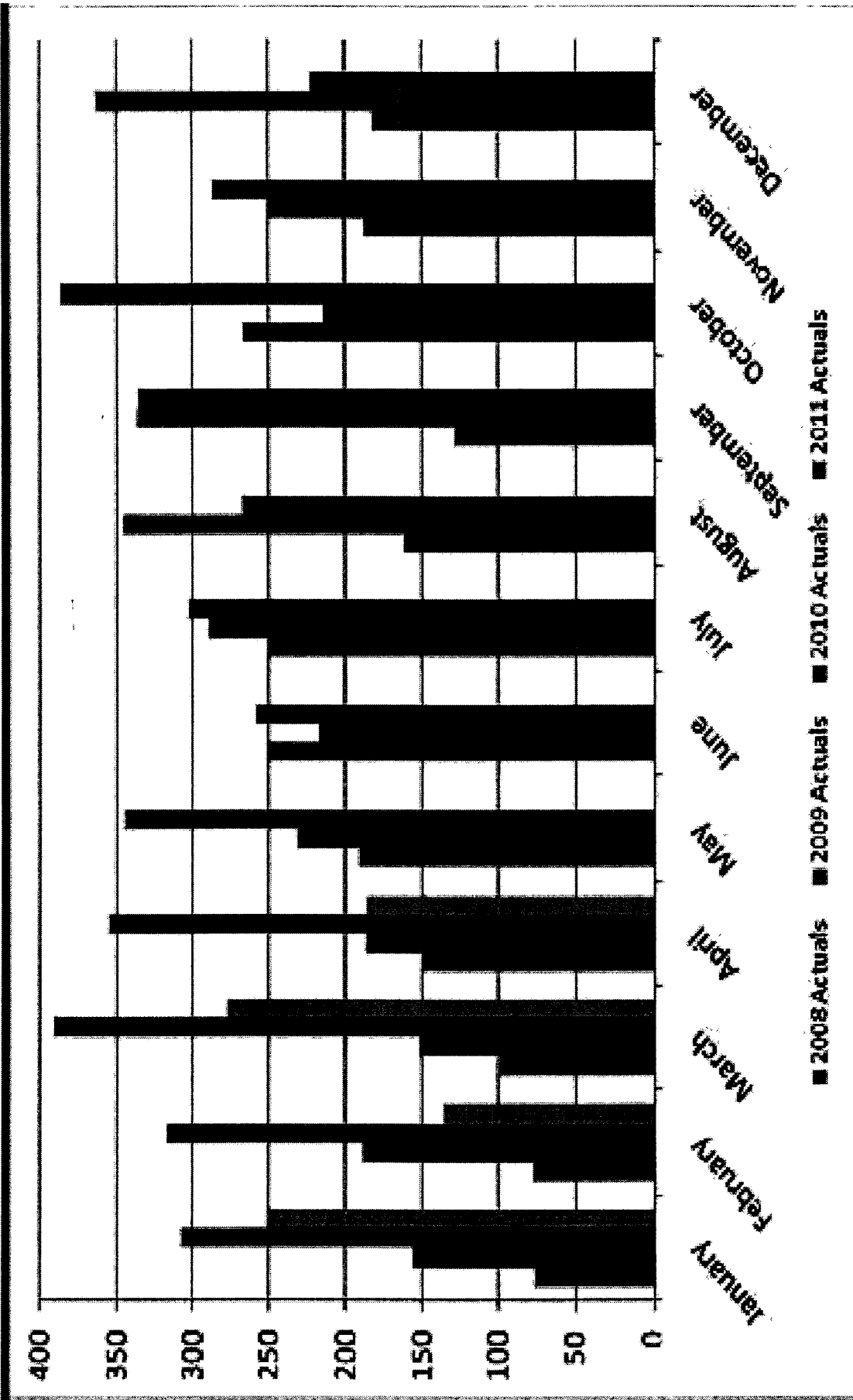


NMMS Availability



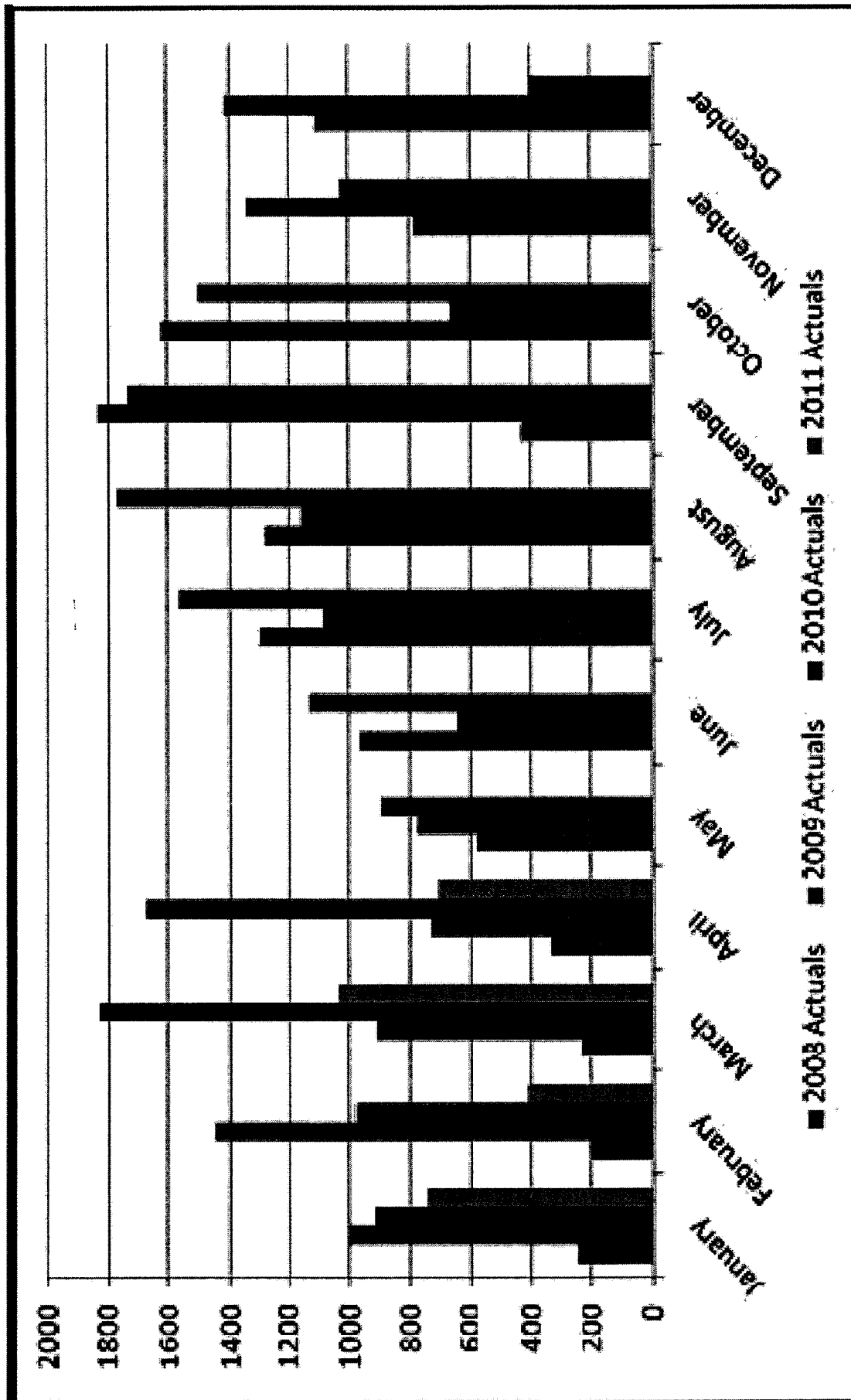
May 17, 2011

Release Management Metrics (Releases)



May 17, 2011

Release Management Metrics (Changes)



May 17, 2011

ERCOT Public Website Metrics (April 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	View report	✓	937	00:02:00	49.31%	0	↓ -0.74%	
http://search.ercot.com UA-460876-8								
☆ search.ercot.com	View report	✓	5,969	00:03:08	50.68%	0	↑ 4.32%	
http://www.ercot.com UA-460876-2								
☆ www.ercot.com	View report	✓	109,845	00:02:51	60.16%	2	↑ 10.01%	
Find profile:			Show rows: 10 ▼					
			1 of 1 ▶					

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May 17, 2011

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Information Technology and Facilities Report

**Richard Morgan
Vice President & CIO**

**ERCOT Board Meeting
June 21, 2011**

Highlights

- **Service Availability:**
 - ✓ Market Operations IT systems met all SLA targets
 - ✓ Market Data Transparency IT systems met all SLA targets
 - ✓ Retail Market IT systems met all SLA targets
 - ✗ Nodal Market IT Systems missed one SLA target (MMS SCED)
 - SCED intervals not completed during planned site failover (5/11) and database upgrade (5/22) led to 99.88% availability (target is 99.932%)
- **Retail Planned Maintenance Overrun (5/1)**
 - Maintenance activities on 5/1 overran the allotted window by 101 minutes
 - Database maintenance took longer than anticipated due to time required to copy data from Production to the Test environment
 - All components of Retail Market IT Services were affected – TML, MarkeTrak, API, and Retail Transaction Processing
- **Core Systems Planned Failover (5/11)**
 - Five SCED intervals not completed due to failover
- **Real-time and Day-ahead Market database maintenance (5/22)**
 - Database upgrade implemented and a total of 12 SCED intervals did not complete during the maintenance
 - Required extended known outage window – SLA does not allow for any planned outage downtime although a notice was sent to the market prior to maintenance

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June 21, 2011

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Highlights Cont'd

June Update

- **Core Systems Planned Failover (6/7)**
 - Completed with only two missed SCED intervals
- **MIS/MIR Systems Planned Failover (6/8)**
 - Completed with no issues

Data Center Migration

- Corporate environment move continues with no impact to overall project schedule
- Development, Test, Production systems and Bastrop Control Room are all on schedule or have started early

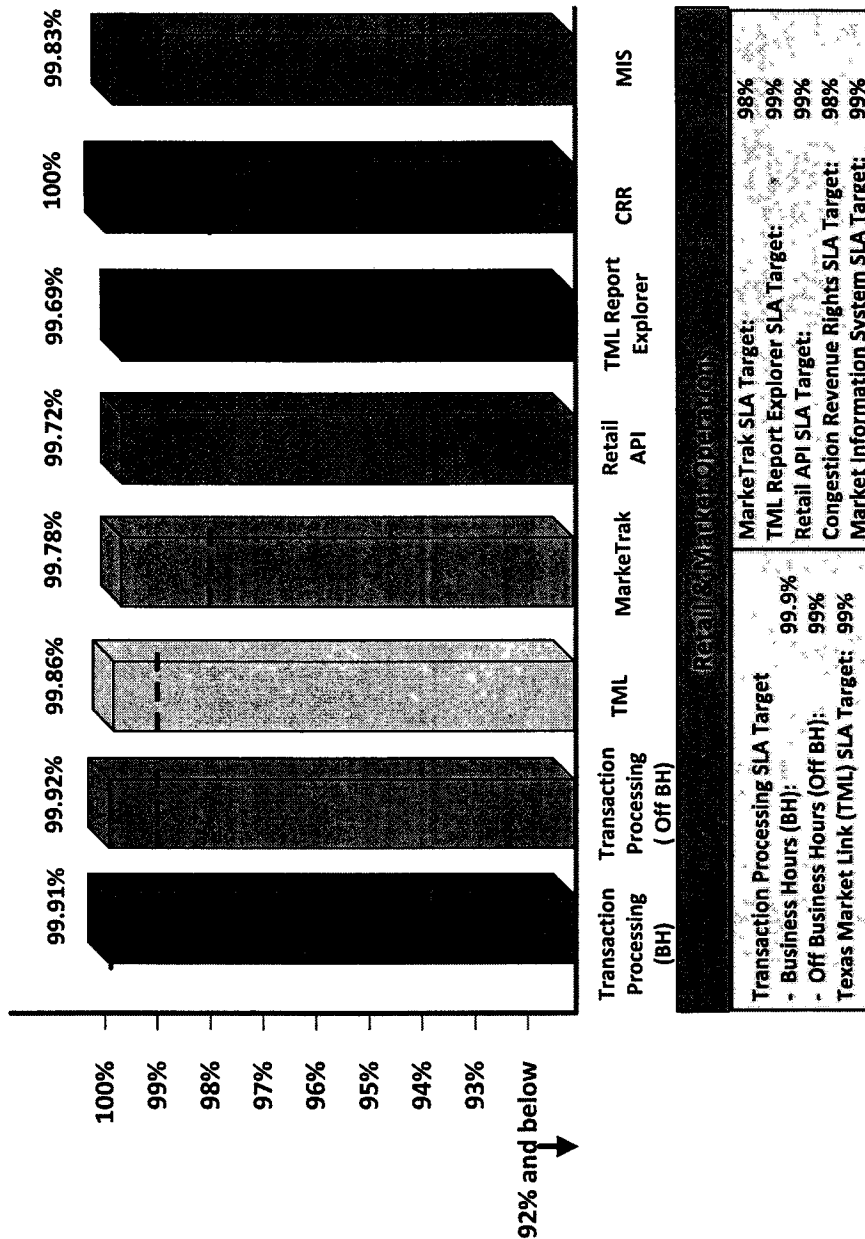


| June 21, 2011

2011 Net Service Availability (Retail and Market Ops)

2011 Net Service Availability

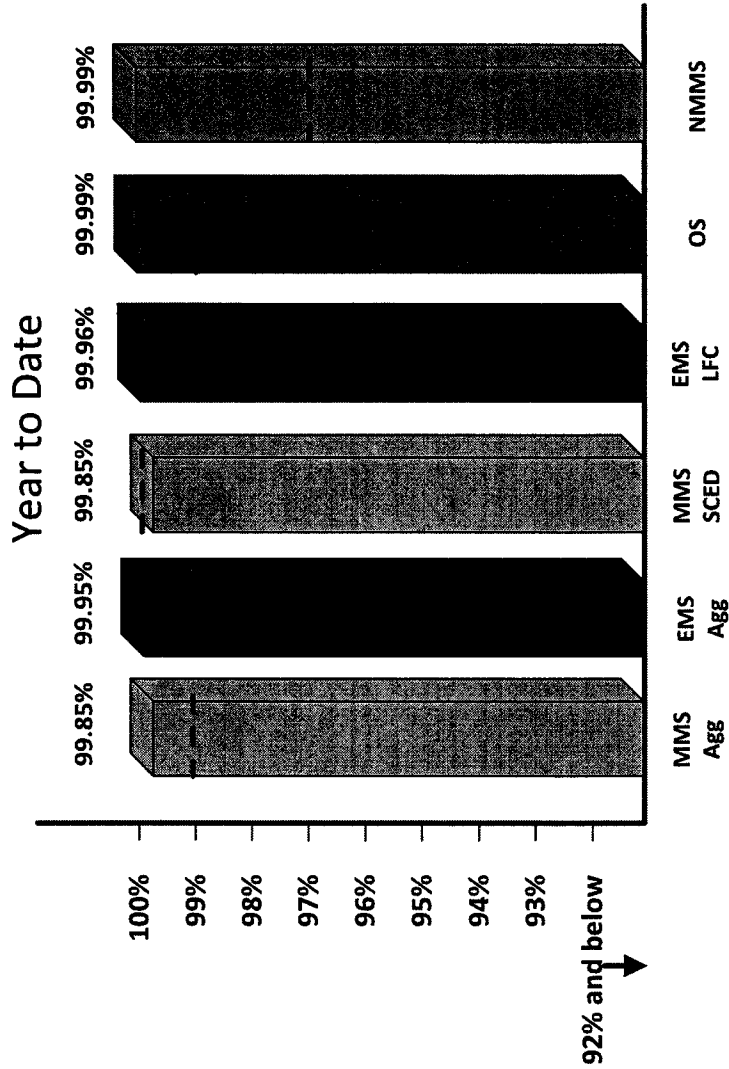
Year to Date



June 21, 2011

2011 Net Service Availability (Grid Ops)

2011 Net Service Availability



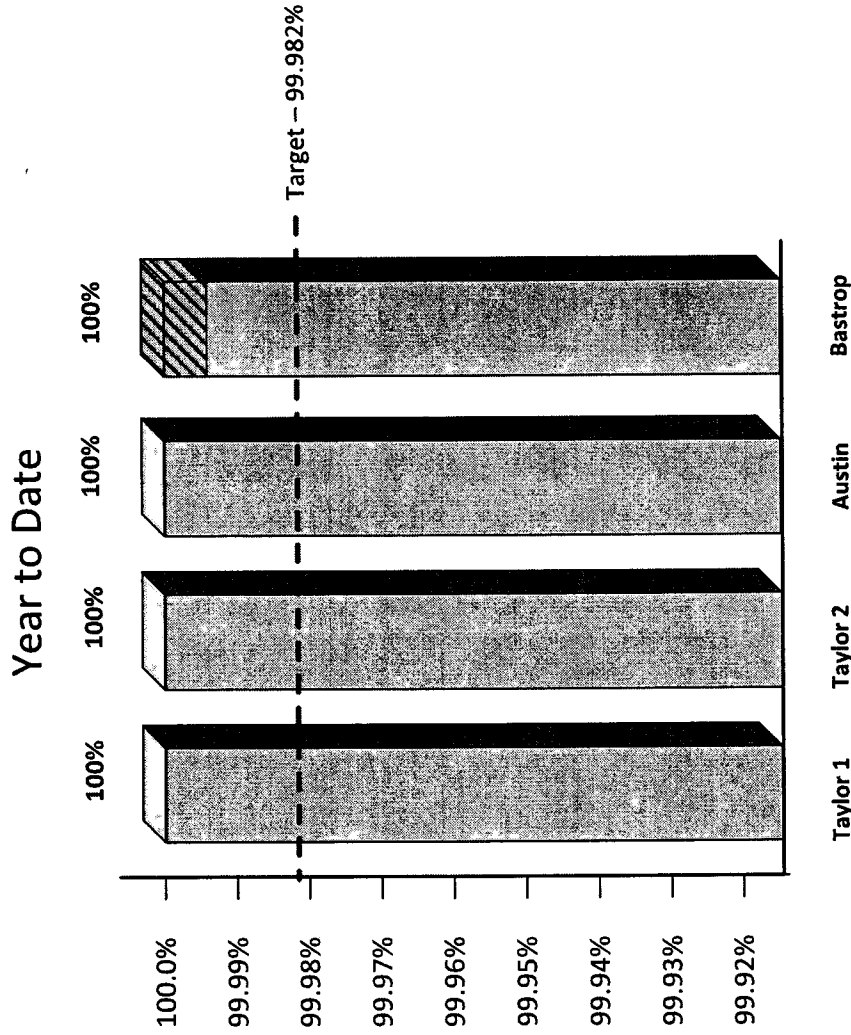
Grid Operations	
MMS Aggregate SLA Target: 99%	EMS LFC Target: 99.93%
EMS Aggregate SLA Target: 99%	Outage Scheduler Target: 99%
MMS SCED SLA Target: 99.93%	NMMS Target: 97%



June 21, 2011

2011 Data Center Availability

2011 Data Center Availability



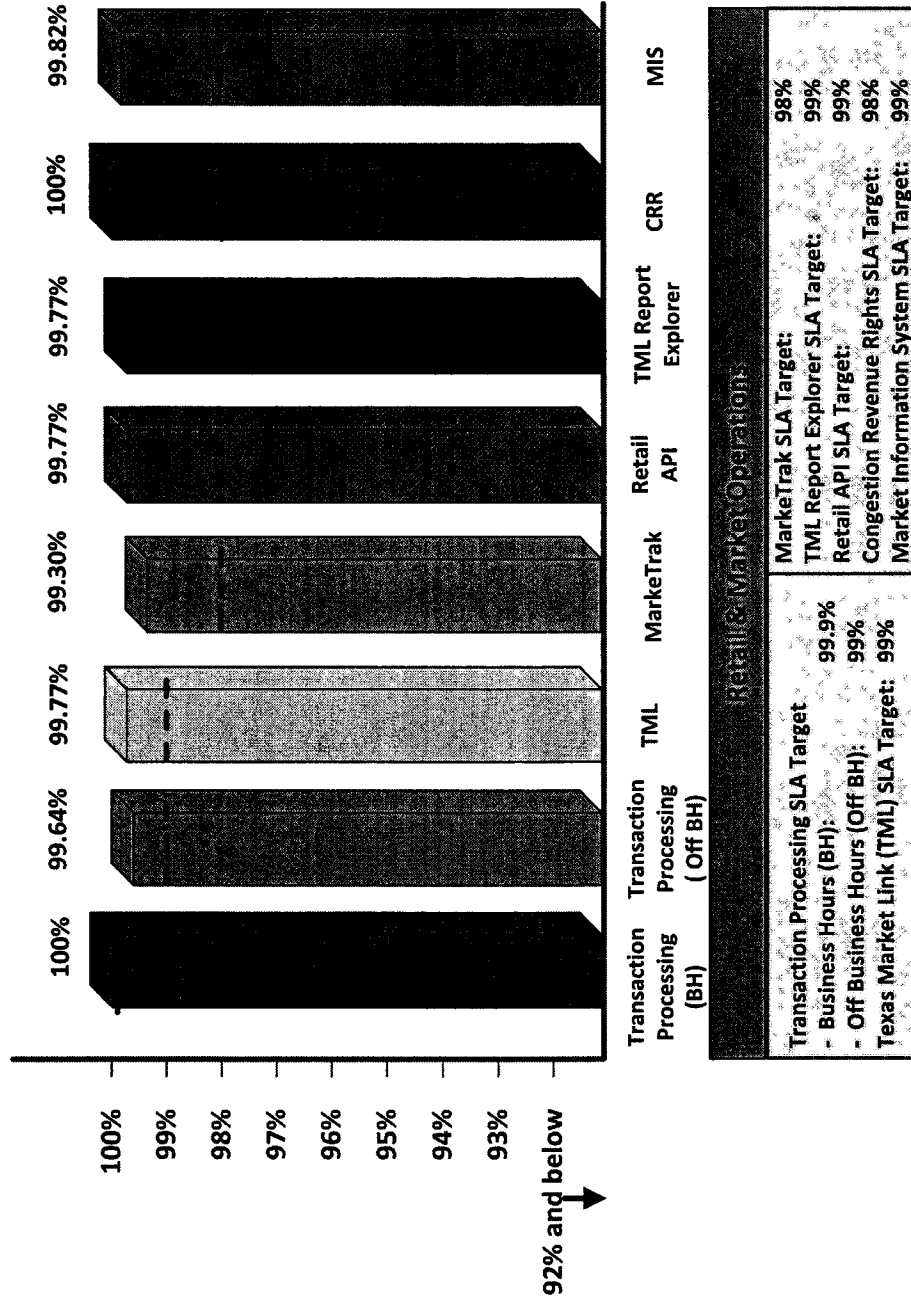
Outage prevented due to Tier 3 redundancy



June 21, 2011

May 2011 Net Service Availability

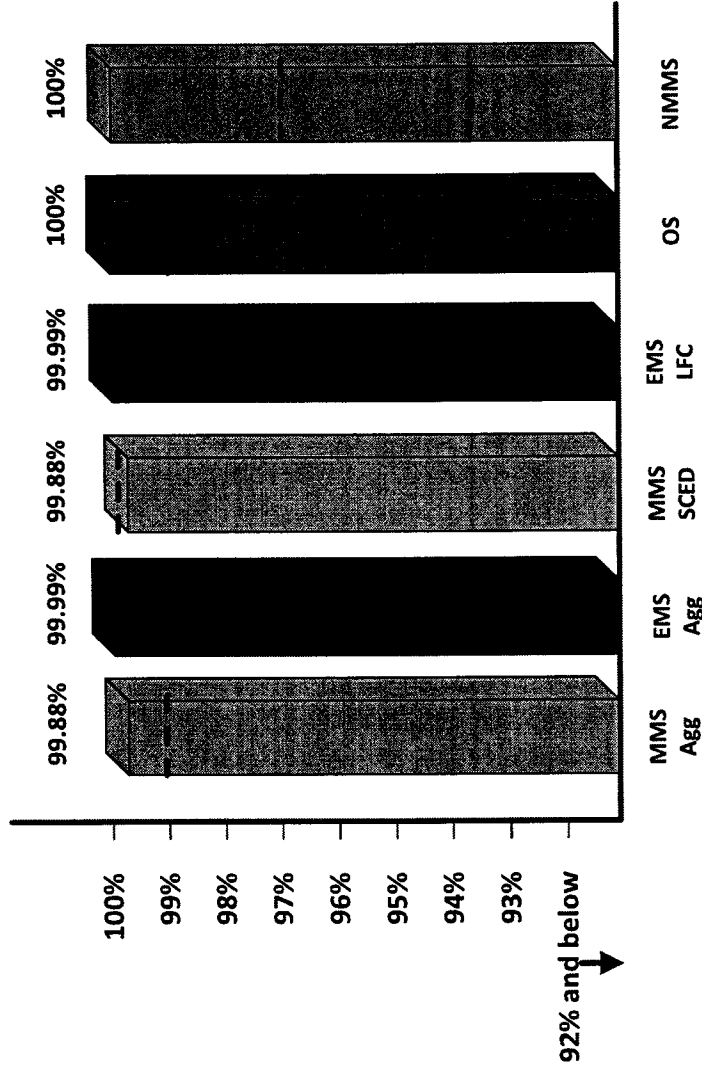
May 2011 Net Service Availability



June 21, 2011

May 2011 Net Service Availability

May 2011 Net Service Availability



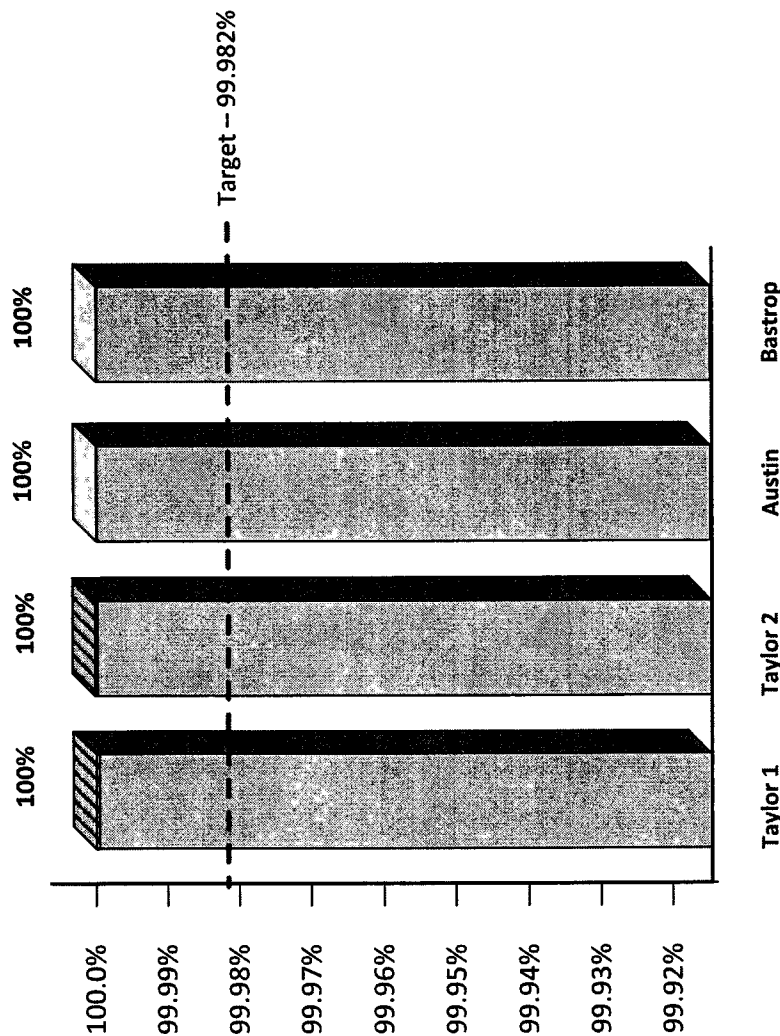
MMS Aggregate SLA Target: 99%		EMS LFC Target: 99.93%
EMS Aggregate SLA Target: 99%		Outage Scheduler Target: 99%
MMS SCED SLA Target: 99.93%		NMMS Target: 97%



June 21, 2011

May 2011 Data Center Power Availability

May 2011 Data Center Power Availability



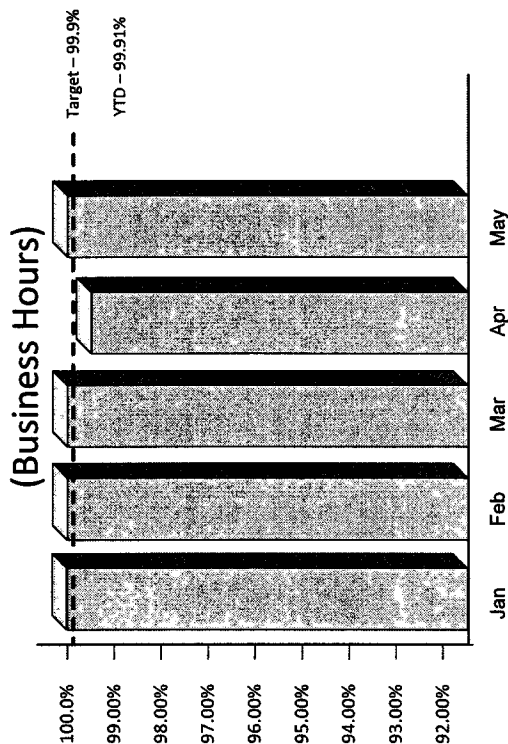
000091



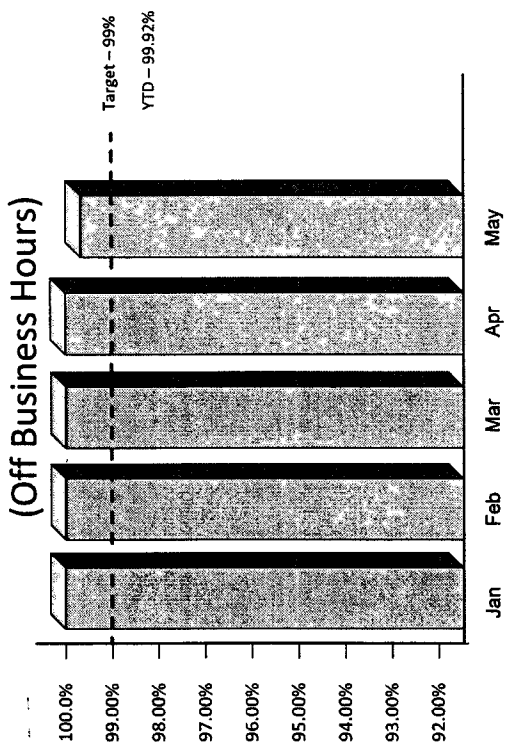
June 21, 2011

YTD Availability – Retail Market IT Services

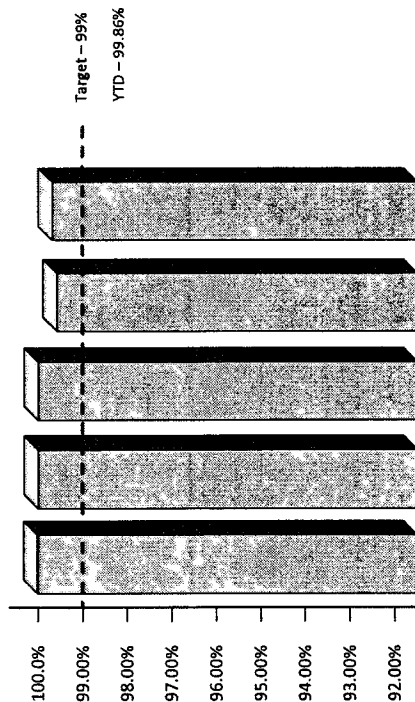
Retail Transaction Processing
(Business Hours)



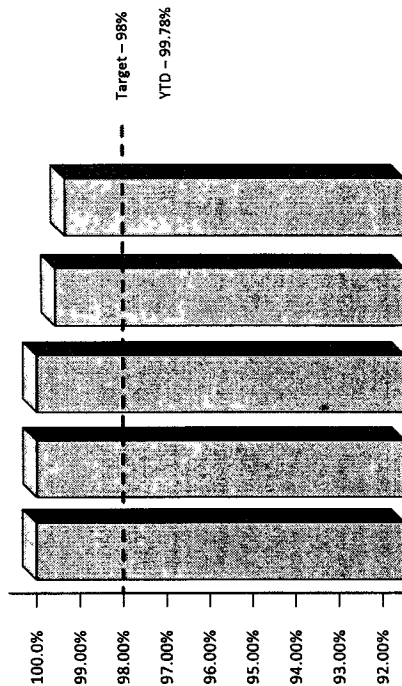
Retail Transaction Processing
(Off Business Hours)



Texas Market Link



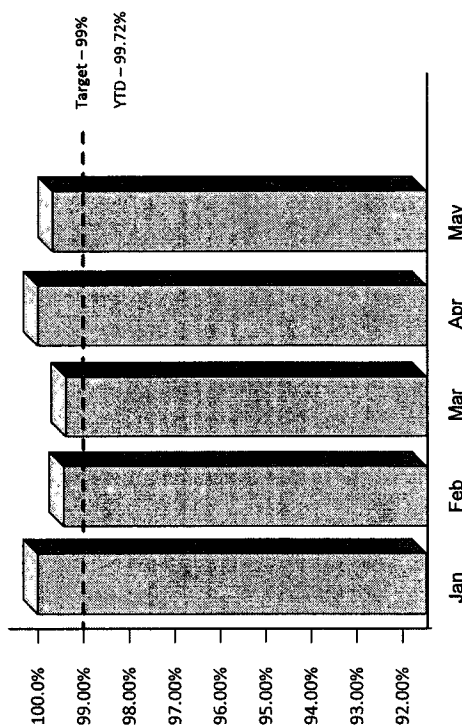
MarkeTrak



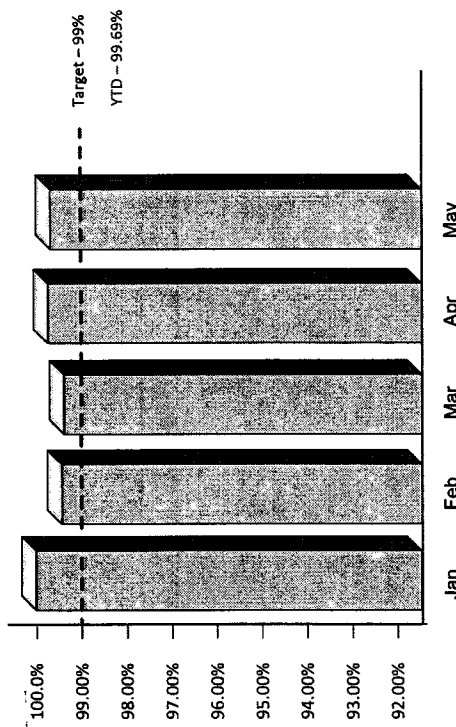
June 21, 2011

YTD Availability – Market Operations

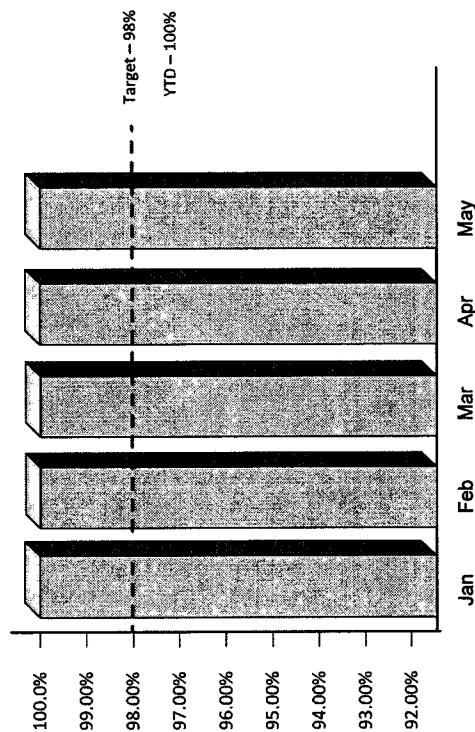
Retail API



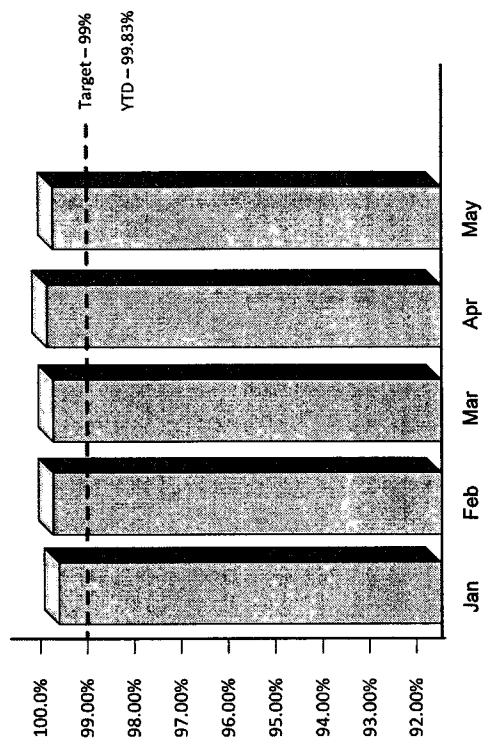
TML Report Explorer



Congestion Revenue Rights



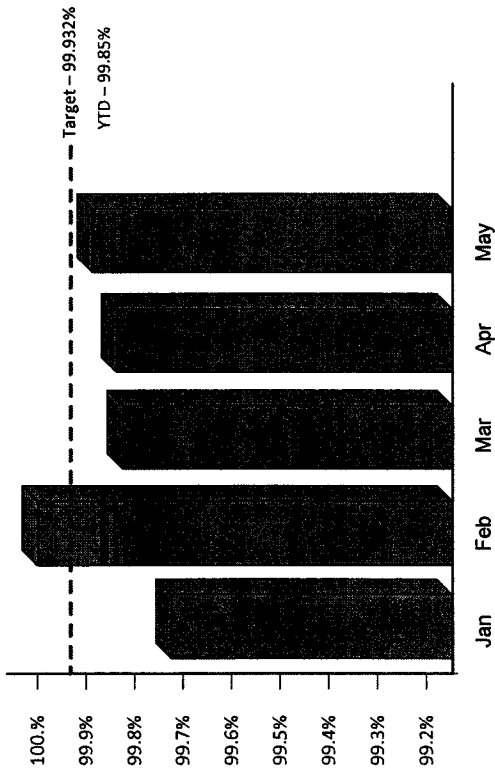
Market Information System



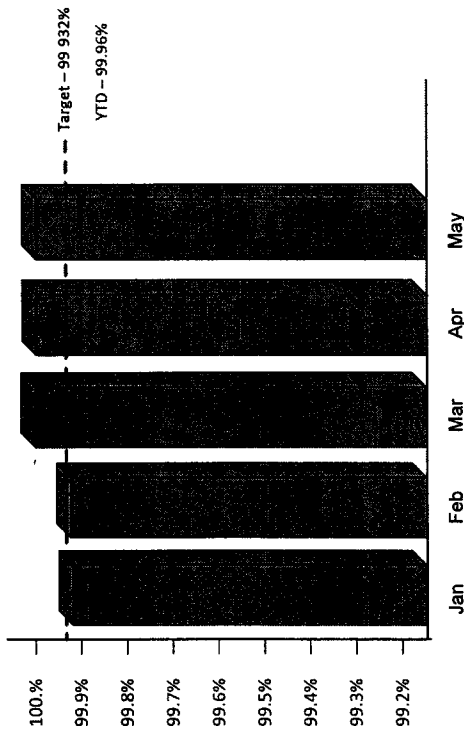
June 21, 2011

YTD Availability – Grid Operations IT Services

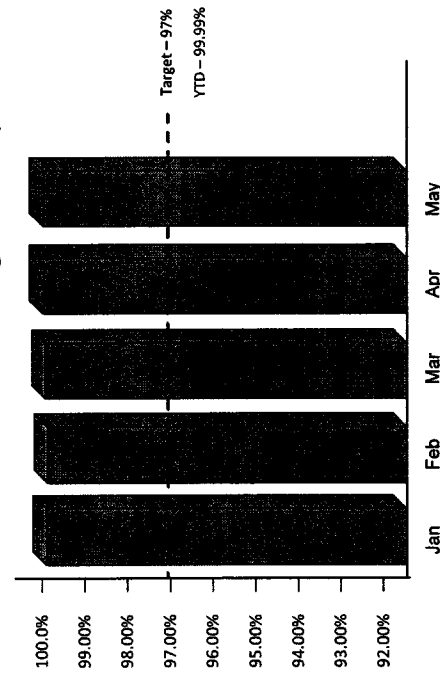
SCED



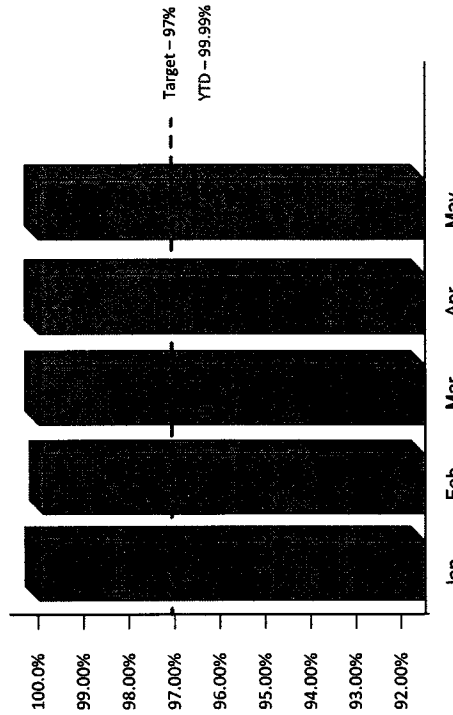
LFC



Network Model Management System



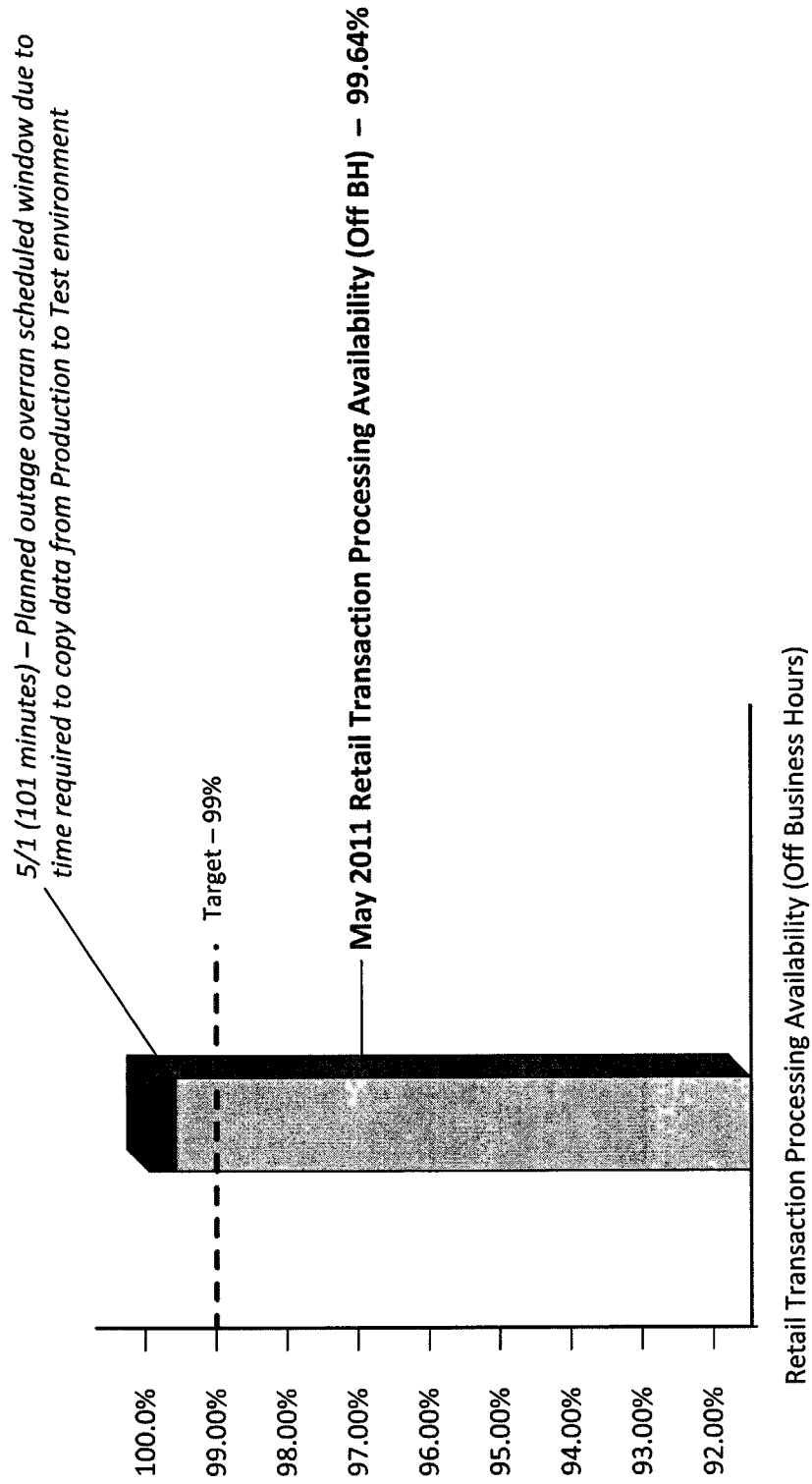
Outage Scheduler



June 21, 2011

Retail Processing (Off Business Hours) Availability

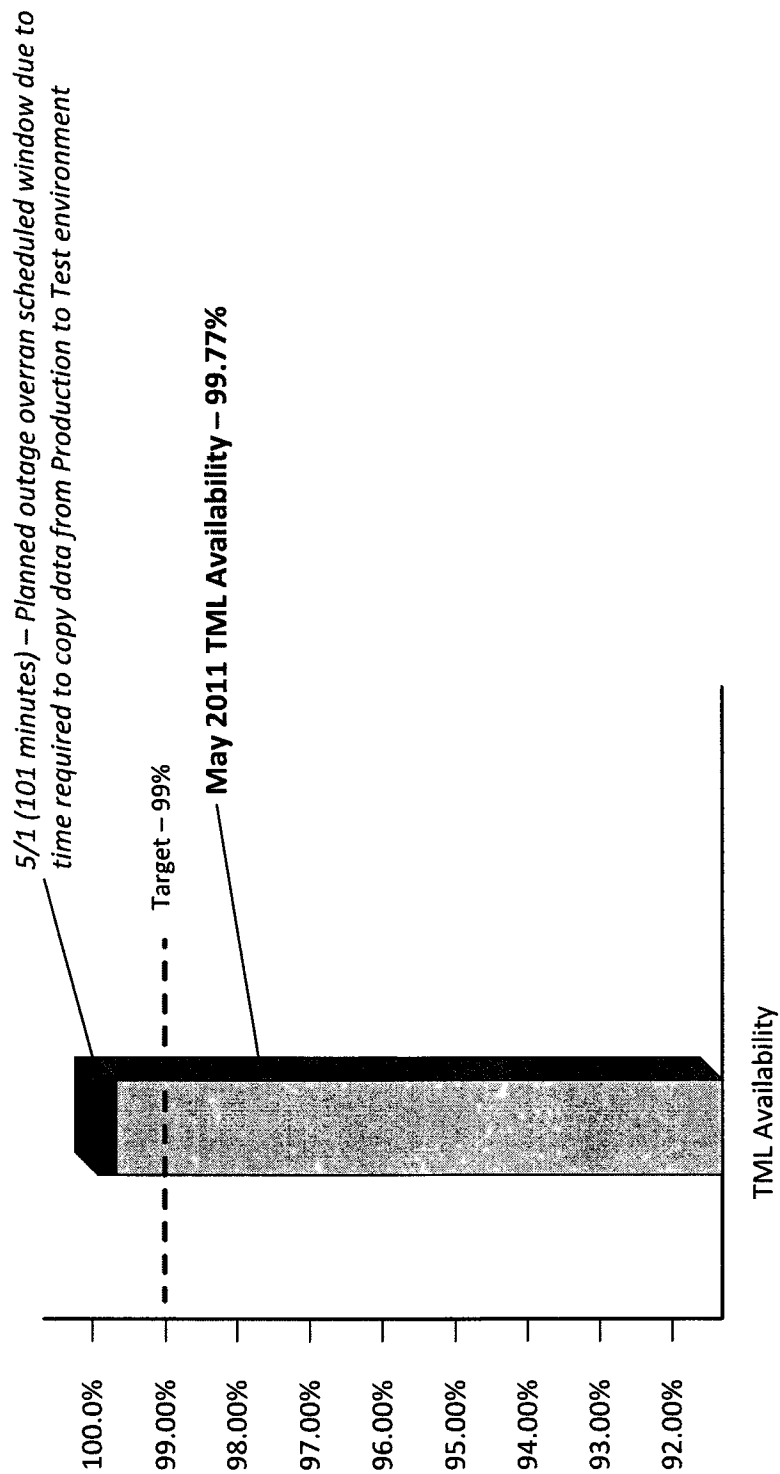
May 2011 Retail Transaction Processing Availability Summary (Off Business Hours)



June 21, 2011

TML Availability

May 2011 TML Availability Summary



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June 21, 2011

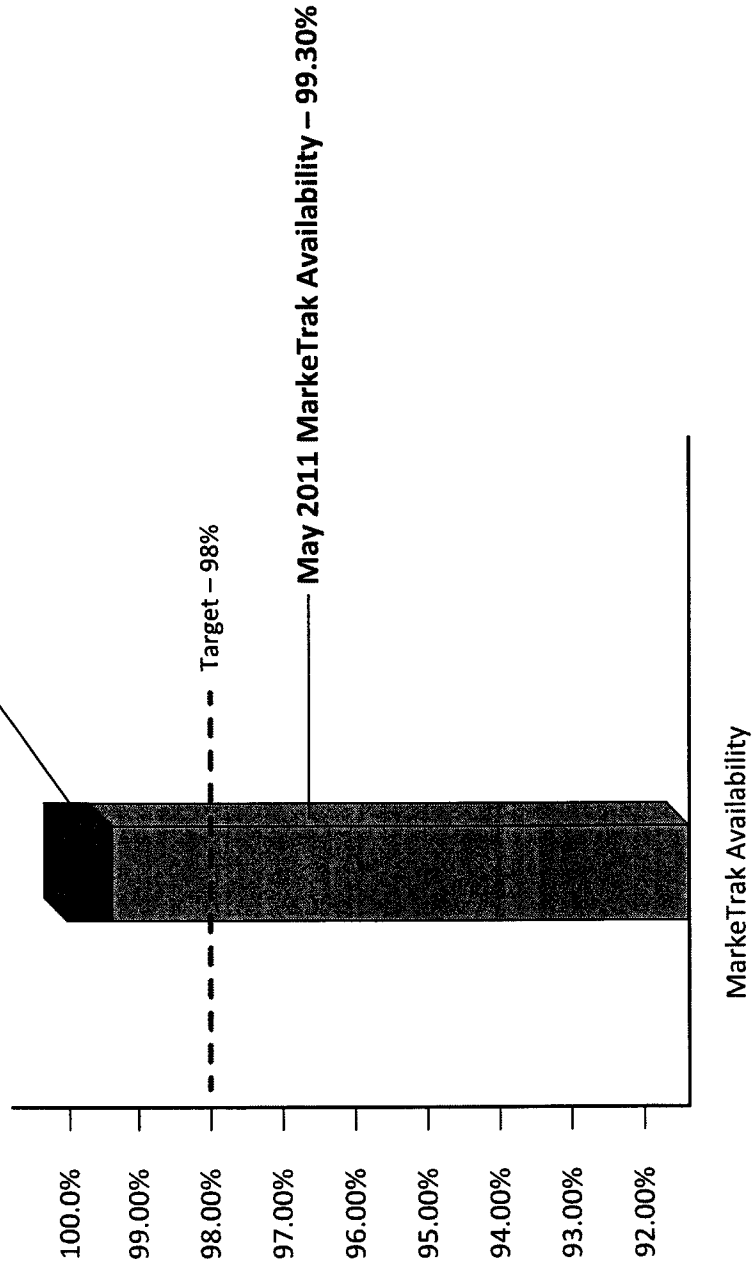
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MarkeTrak Availability

May 2011 MarkeTrak Availability Summary

5/1 (101 minutes) – Planned outage overran scheduled window due to time required to copy data from Production to Test environment



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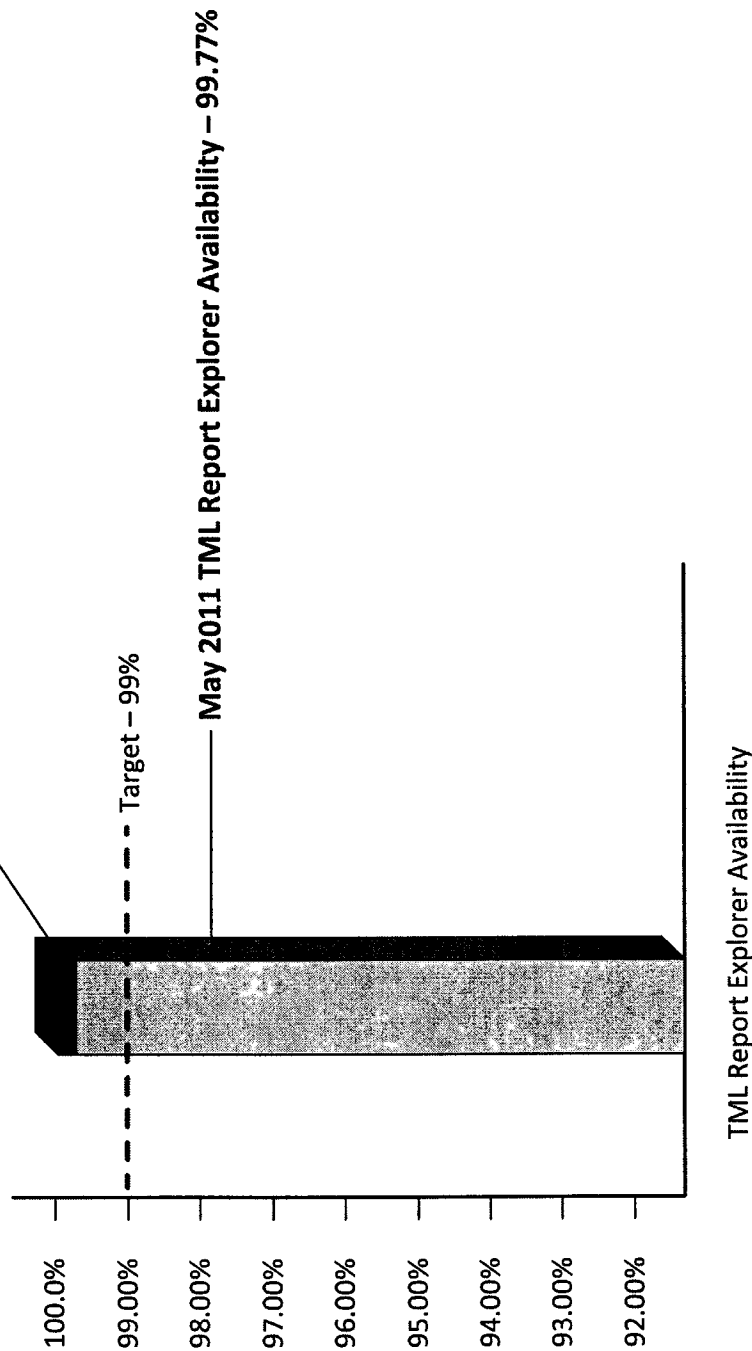
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TML Report Explorer Availability

May 2011 TML Report Explorer Availability Summary

5/1 (101 minutes) – Planned outage overran scheduled window due to time required to copy data from Production to Test environment



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