



# Information Technology Service Availability Metrics

April 2008

- **IT infrastructure and production change problems caused March IT performance to be below service level expectations**
- **Impacts to the market included delayed retail transaction processing, generation of duplicate transactions, delayed data extract and report posting, and outages outside of scheduled maintenance windows**
- **Efforts are complete or underway to remediate these problems and improve the IT infrastructure to avoid future problems in this area**

- **Retail Transaction Processing Outages & Delays**

- Causes:

- Failed Production Release
      - SCR-745, a market request to improve reliability, related production implementation caused delays and failures resulting in the decision to rollback to pre-implementation state
    - Storage Hardware Failures
      - Failures in the storage area network caused unplanned outages, compounding transaction processing delays already slowed by the failed production release
    - Human Error
      - During troubleshooting efforts, a computer operator started a session of a process that was already running, causing significant duplicate transactions to be generated and requiring the manual cleanup of transactions

- Resolution:

- Failed Production Release
      - Due to slow performance and crashes, an outage outside of the standard maintenance windows was utilized to rollback to pre-implementation state
      - Differences between I-test and production environments recognized. Will address post-Nodal.
      - Technical analysis and discussions with TDTWG are ongoing to determine next steps regarding this phase of SCR-745
    - Storage Hardware Failures
      - Project to replace aged hardware has been in progress since late '07 and is scheduled for implementation during the first weekend in May
    - Human Error
      - Education and training
      - Operating procedure revisions to prevent future occurrences

- **MarkeTrak slow system performance and failures**
  - Causes:
    - Application instability and limitations:
      - Single vs. multi-threading processing abilities
      - HTTP sessions management capabilities
    - Storage hardware failures
      - When the storage area network fails, the MarkeTrak application fails as well
  - Resolution:
    - Application instability and limitations:
      - Version upgrade that will address these issues has been in process since late '07, two versions of the upgrade have failed ERCOT testing and have had to be returned to the vendor for fixes
      - Most recent version upgrade is in ERCOT testing and if successful it will be promoted to production during the May release
    - Storage hardware failures
      - Project to replace aged hardware has been in progress since late '07 and is scheduled for implementation during the first weekend in May

- **Wholesale Batch, Data Extracts & Reports Delays**

- Causes:

- Storage hardware failures

- Failures delayed batch processing which in turn delayed reports and extracts

- Human errors

- Data cleanup activities inadvertently caused incorrect data to be generated during the batch process, the remediation efforts required the backout and rerun of three operating days, much of which had to be performed manually

- Permissions not granted properly during the March retail release, causing files to not be able to flow where they needed to for report generation

- Resolution:

- Storage Hardware Failures

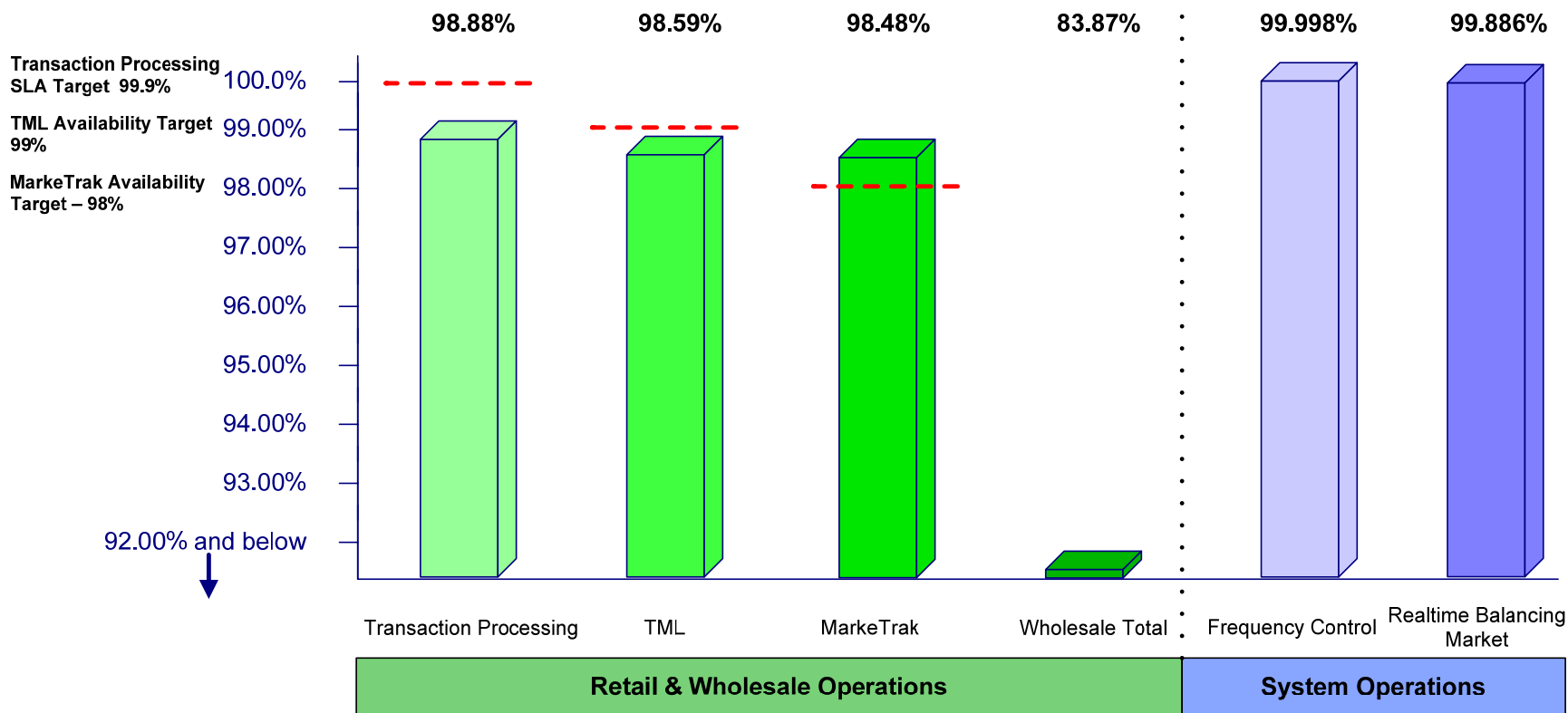
- Project to replace aged hardware has been in progress since '07 and is scheduled for implementation during the first weekend in May

- Human errors

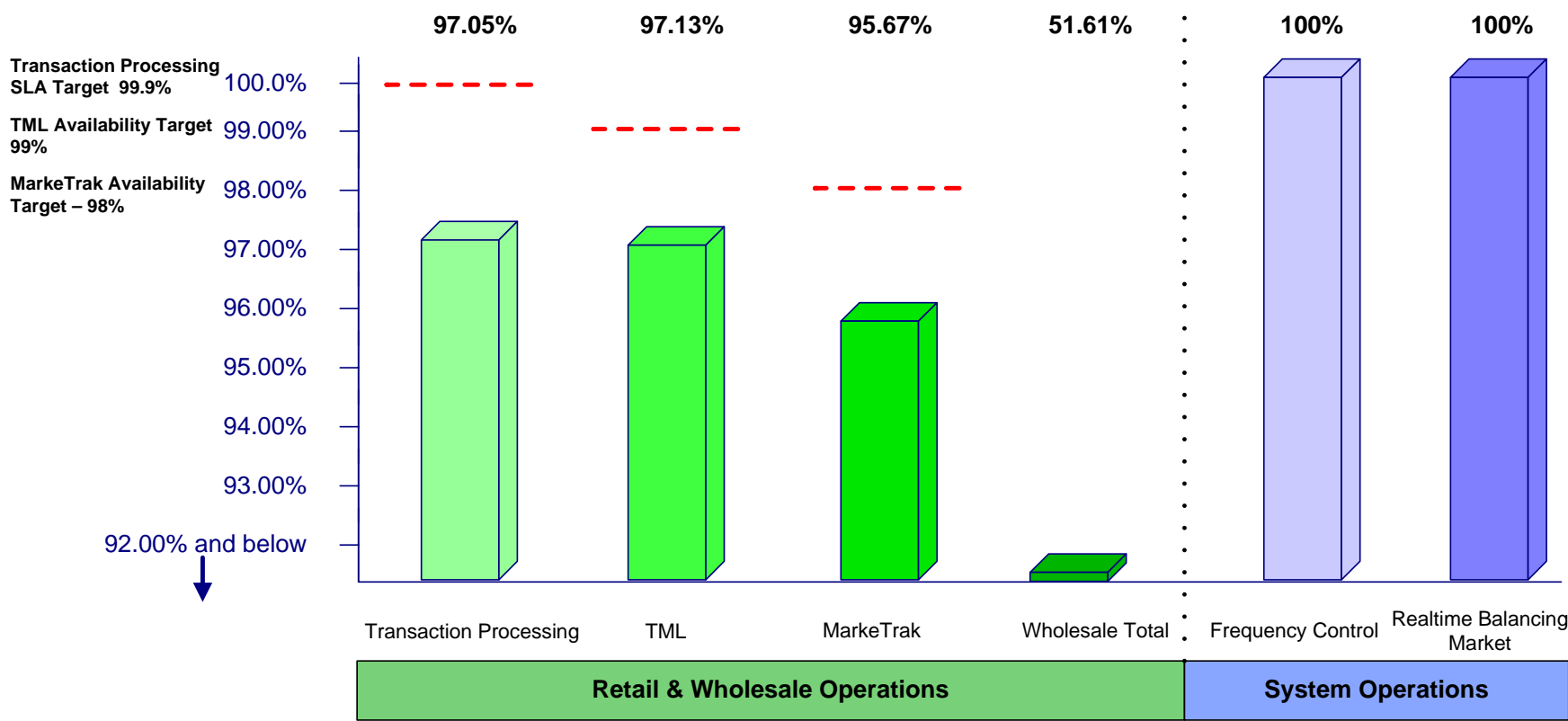
- Education and training

## 2008 Net Service Availability

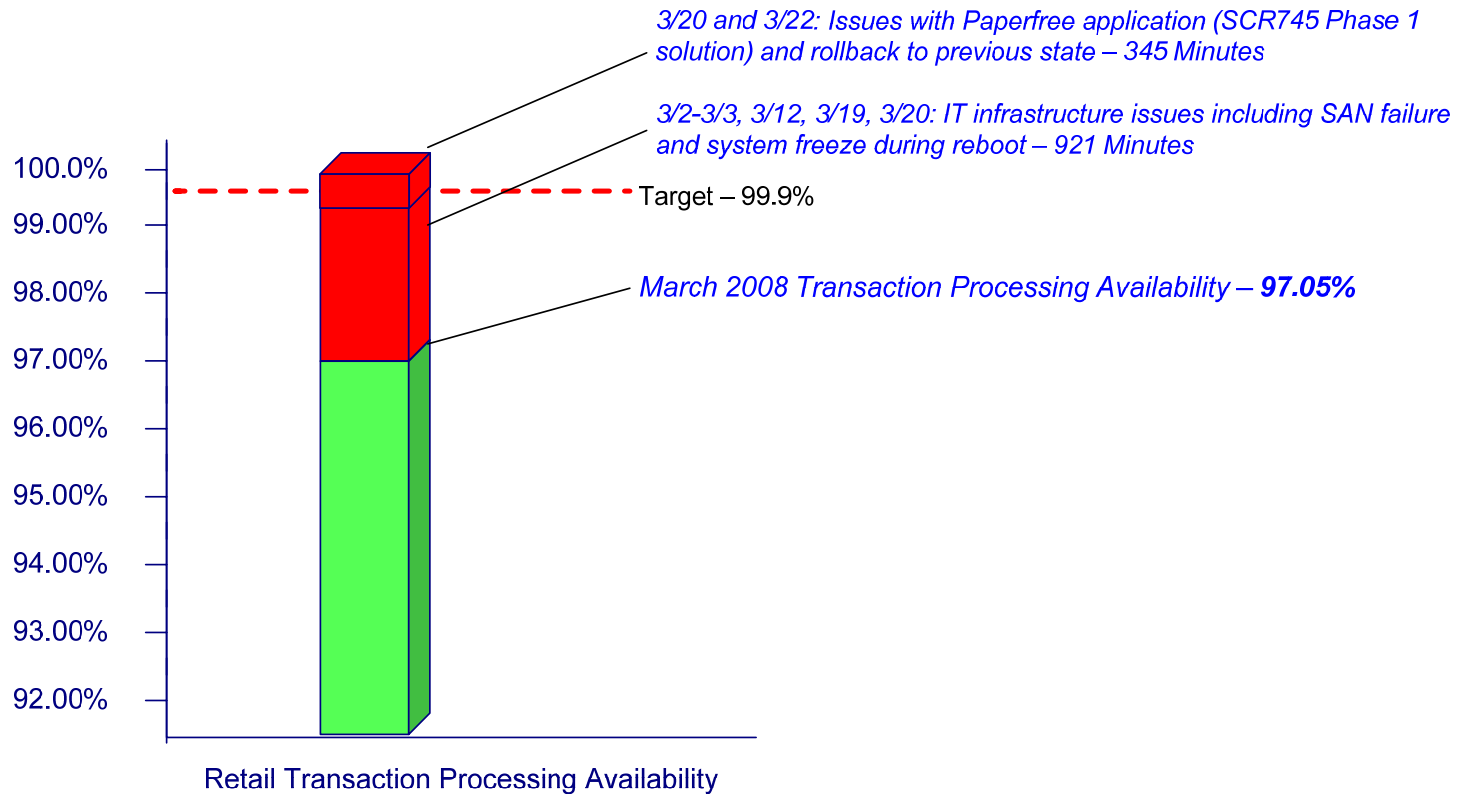
Through March 31<sup>st</sup>, 2008



# March 2008 Net Service Availability

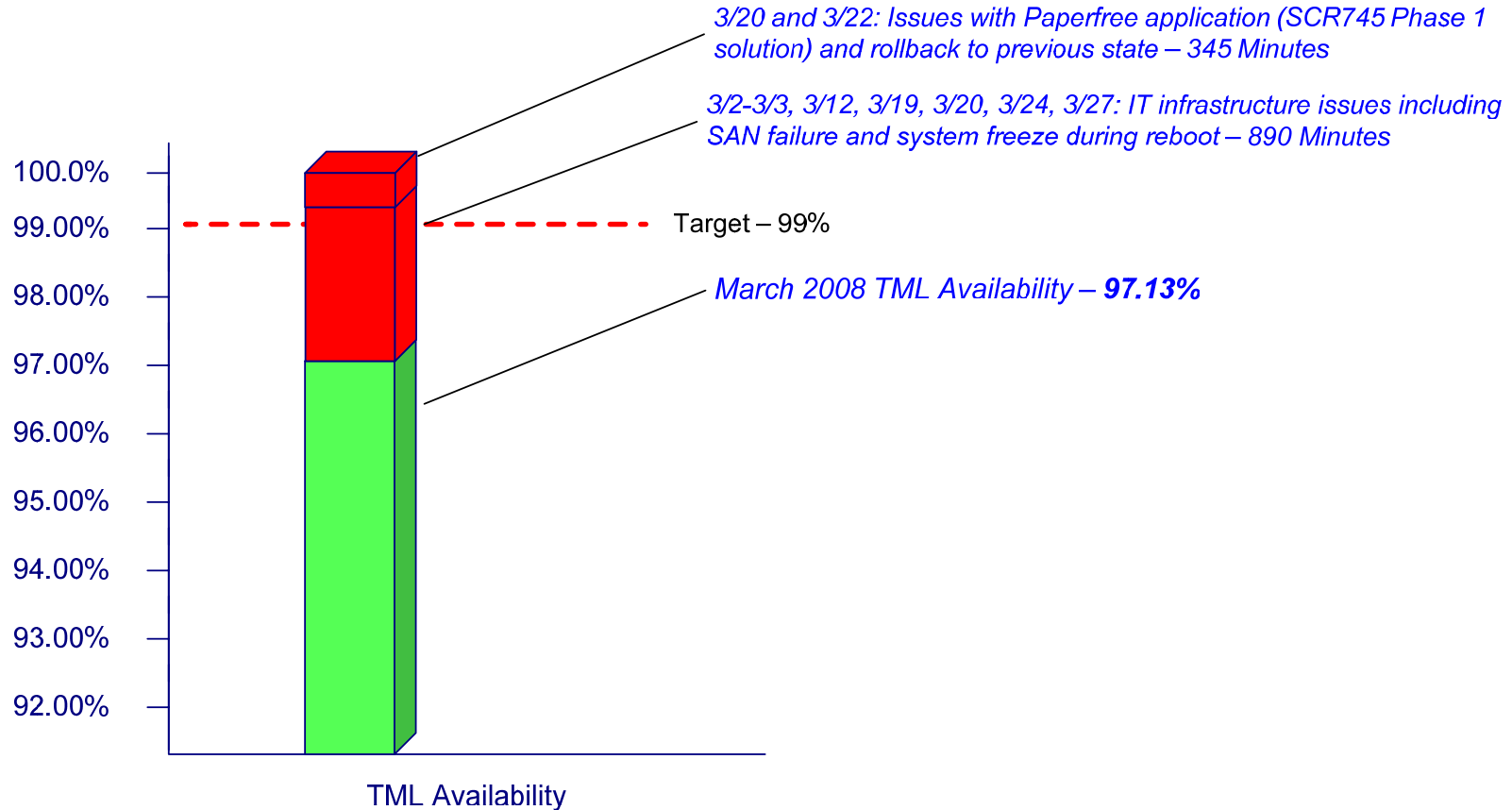


## March 2008 Retail Transaction Processing Availability Summary

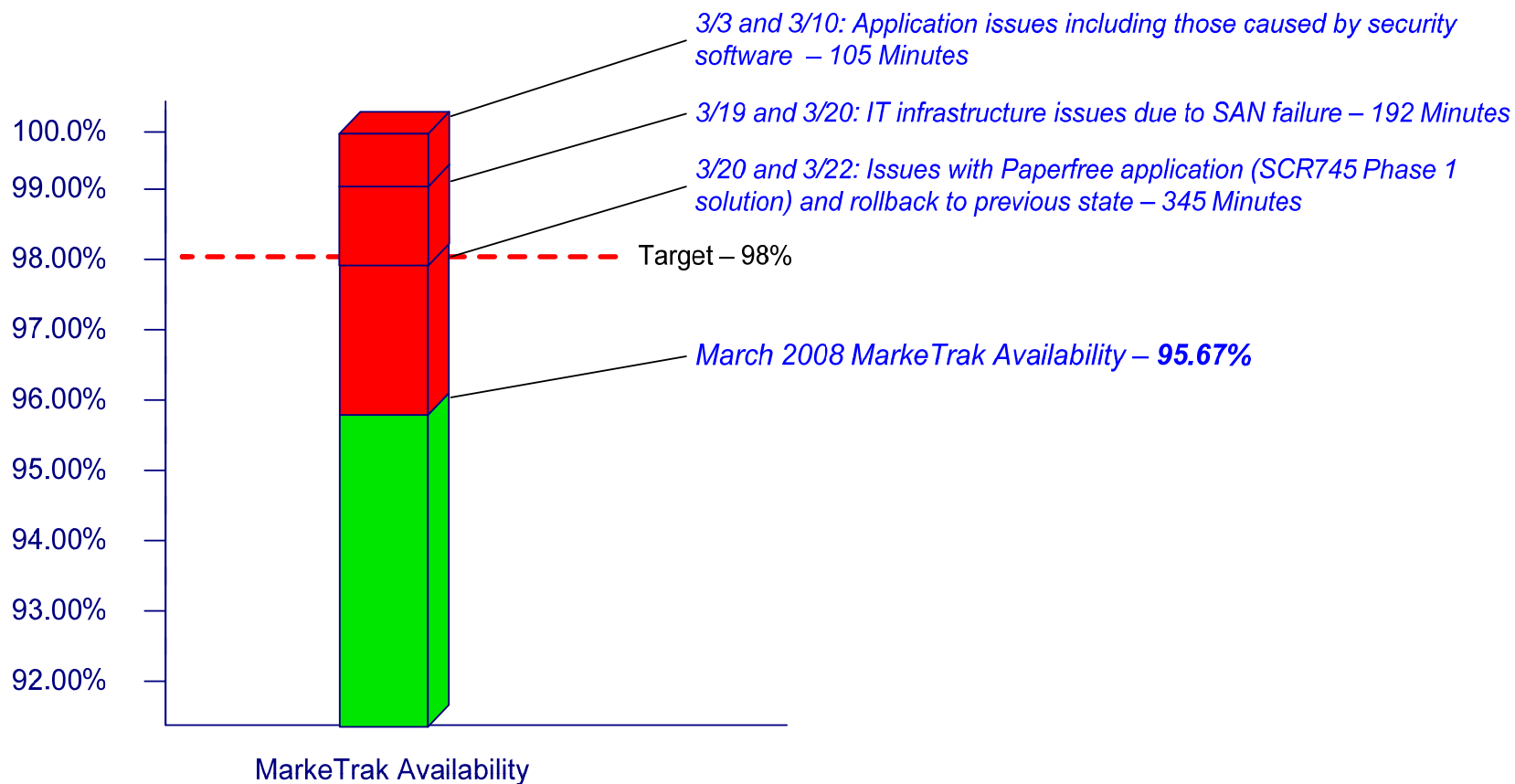




## March 2008 TML Availability Summary



## March 2008 MarkeTrak Availability Summary



# Nodal EDS Environment - March 2008 SLA Metrics

**March 2008 Net Availability of SLA Metrics**

