

## **Information Technology Board Report**

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### **Highlights:**

- **Application Services – Lisa Petoskey**
  - SDLC Initial Release
- **Infrastructure & Operations – David Johnson**
  - Data Storage Plan
  - Unplanned Outage Review
- **Enterprise Architecture – Daryl Shing**
  - Data Center Issue
- **IT Account Management – Aaron Smallwood**
  - Retail Service Availability Targets & Outage Windows

### **Application Services:**

The software development lifecycle is scheduled for initial release in May. The initial release will standardize application development procedures at ERCOT and clarify roles and responsibilities during the development process.

### **Infrastructure and Operations:**

A data storage plan has been developed, key milestones include:

- Disk based backup for online recovery
- Proper tiering of applications to storage requirements
- Move iTEST environment to Austin Data Center
- Replacement of Powderhorn Tape Library system with much smaller backup solution
- Space and Power reclamation where possible

### **Unplanned Retail Outages:**

The Retail transaction processing system reliability is 99.32% year to date through February. However, February showed a reliability rate of only 98.84%. Below are the unplanned outages that contributed to that performance.

- Paperfree: Wednesday, 1/04/2006 - (105 minutes)

- Performance degradation identified by Operations personnel
  - Two archive/delete processes running against same dataset causing contention for resources at server level
  - 9:45 am to 11:30 pm
- NAESB: Sunday, 2/05/2006 - (352 minutes)
  - Service was not running normally resulting in the inability to receive transactions
  - Monitoring at Paperfree level creating false positives
  - Missed monitoring impact when ETS added to Paperfree Work Load Manager
  - 8:50 am to 2:42 pm
- SAN Fabric: Monday, 2/13/2006 - (114 minutes)
  - Windows servers encountered issues after Production fabrics were repaired
  - Two directors were merged with different code sets causing conflicts and issues for some windows servers
  - NAESB was not affected
  - Held transactions at NAESB to protect the integrity of the data
  - 5:17pm to 7:11pm
- Intermittent Connectivity Issues: Friday, 2/17/2006 - (90 minute degradation)
  - Alerts received indicating ERCOT unable to send to several MPs
  - Identified issues at the Internet Service Provider (ISP)
  - Circuit issues; larger packets failing
  - 2:16pm – 4:46pm

#### **Unplanned EMMS Outages:**

- SCADA Restart problem: Tuesday, 2/21/2006 - 27 minutes of unavailable frequency control
  - Out-of-memory state in SMP front-end.
  - On 9/16/2006 escalated to AREVA SCADA restarts (incident ID 19242)
  - AREVA confirmed memory leak in SMP code
- SCADA restart with set-points in flat line: Wednesday, 3/8/2006 - 108 minutes of unavailable frequency control (64 minutes flat-line and 44 minutes of degraded state in frequency control)
  - Root cause problem related to memory leak in the SMP front-end
  - Incident related to the one on 2/21 --SCADA restart incident
  - Received code patch from AREVA for the memory leak. Patch implemented in the production system on 3/13

#### **Enterprise Architecture:**

The Enterprise Architecture group has developed a Data Center hardware strategy. David Johnson has been assigned as the lead to oversee strategy implementation. The plan is to reduce power, cooling and floor space needs through replacement of old servers with newer technology, decommissioning of retired servers, and optimization of physical servers through operating system compartmentalizing.

A visual summary of the Data Center hardware strategy is included with the Board materials. A project to move the integration testing environment from Taylor to Austin will help to alleviate some of the problem. Other projects will be required to further advance the strategy and they will be presented for approval in upcoming Board meetings.

**IT Account Management:**

A follow up workshop will be held with market participants on March 23<sup>rd</sup> to present and discuss ERCOT's proposal for retail transaction processing service availability. This is the follow up workshop to the January 25<sup>th</sup> Retail Systems SLA workshop. ERCOT will present a proposal containing retail service availability target percentages and also standard maintenance and release outage windows.

If ERCOT and the market participants come to an agreement regarding service availability percentages and standard maintenance and release outage windows, the finalized agreement will be presented at the April RMS meeting for approval. Availability metrics will be tied to ERCOT variable compensation targets.

**Critical upcoming tasks (next 30 days) –**

- Begin execution of the Data Center plan
- Execution of SDLC initial phase
- Retail Transaction Processing Service Availability finalization and approval
- Execution of the Storage Plan

**Concerns:**

- Areva has notified ERCOT that after December 31<sup>st</sup> 2006 they will no longer support their EMS software on the UNIX operating system. A project is being developed to move the EMMS system to either a 64-bit Windows or Linux platform. Early estimates on the cost of this effort are from \$6 - \$8 million, and must be completed this year. A detailed presentation of the issue and the project will be presented to the Board at the April meeting.