TEXAS LOTTERY COMMISSION

SECURITY STUDY
DECEMBER 2014

PUBLIC REPORT

Contents

Executive Summary

Since 1991, the Texas Lottery Commission ("Texas Lottery" or "TLC") has administered lottery games and charitable bingo operations. Reliable security is the backbone of the Texas Lottery system and is fundamental to Texas Lottery core values; it is essential in maintaining public trust and in attracting players. Texas Lottery demands rigorous security controls and procedures for both Lottery operations and its supporting vendors to minimize security vulnerabilities. In addition, because technology is constantly changing, security processes and procedures must continue to evolve.

The State Lottery Act declares: *"At least once every two years, the executive director shall employ an independent firm that is experienced in security, including computer security and systems security, to conduct a comprehensive study of all aspects of lottery security."* Grant Thornton conducted a comprehensive security study which encompassed all aspects of Lottery security identified in the State Lottery Act. The initial phase of the study was a risk assessment, which was used as the basis for developing a comprehensive testing plan. The execution of this testing plan provided the analysis upon which this study is based.

During this security study, Grant Thornton concluded that the Texas Lottery Commission and service providers maintain and follow a large number of security policies, procedures and standards, which ensure that the operation of the Texas Lottery business is well secured and conducted in a manner compliant with Texas state law. Additionally, Grant Thornton reviewed the various technologies supporting the Texas Lottery Gaming System and observed the logical and physical controls used to secure these technologies and verified that the Texas Lottery Gaming systems are well protected against malicious and unauthorized attacks.

Section 1: Project Scope and Approach

1.1   Project Scope

The scope of this assessment included the 13 security study areas specifically stated in the State Lottery Act, listed below:

1. Lottery personnel security
2. Sales agent security
3. Lottery operator and vendors security
4. Security against ticket counterfeiting and alteration and other means of fraudulent winning
5. Security of lottery drawings
6. Lottery computer, data communications, database, and systems security
7. Lottery premises and warehouse security
8. Security of distribution of tickets
9. Security of validation and payment procedures
10. Security involving unclaimed prizes
11. Security aspects of each lottery game
12. Security against the deliberate placement of winning tickets in lottery games that involve preprinted winning tickets by persons involved in the production, storage, transportation, or distribution of tickets
13. Other security aspects of lottery operations

1.2   Project Approach

Grant Thornton used a phased approach to conduct the security study.

Phase I – Planning/ Risk Assessment
We will work to confirm our understanding of all Aspects of TLC Operations

Phase II - Testing
Use the information gathered in planning and risk assessment to complete the security study

Phase III - Reporting
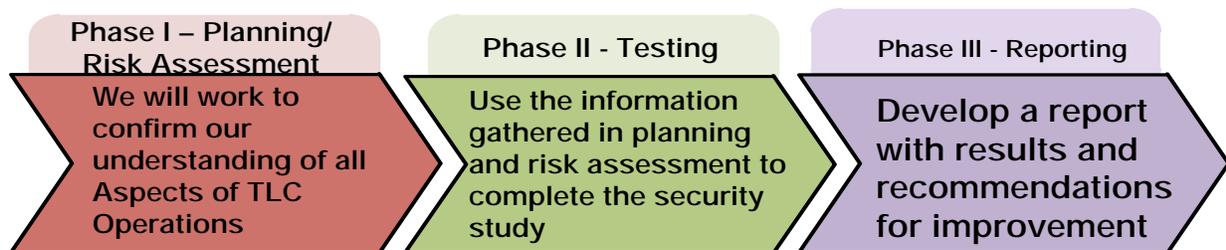Develop a report with results and recommendations for improvement

Figure 1: Security Study approach

Through the use of interviews with Texas Lottery personnel, the review of security process documentation, visits to multiple Texas Lottery and vendor locations, and observations of Lottery business processes, Grant Thornton performed a comprehensive assessment of the Texas Lottery Commission's security environment and controls. Throughout all phases of the project, this approach relied upon Texas Lottery stakeholder involvement and upon consideration of industry standards and methodologies.

Standards used for our study included but were not limited to:

- Control objectives for information and Related Technology (CobiT), updated August 2005;
- International Organization for Standardization / International Electro technical Commission (ISO/IEC) 27001:2005 *Information technology – Security techniques – Information Security Management Systems – Requirements;*
- Statement on Auditing Standards no. 70 (SAS 70);
- Texas Administrative code Section 202 – Information Security Standards; and
- World Lottery Association Security Control Standards (WLA-SCS©), updated June 26, 2009.

Section 2: Summary of Findings

Based on the results of the security study performed by Grant Thornton, it was concluded that the Texas Lottery Commission and service providers maintain effective security policies, procedures and standards to ensure the integrity and overall security of the Lottery's operations. Grant Thornton did not identify any issues that would materially impact the integrity or overall security of the Texas Lottery's operations, gaming services or instant and on-line ticket productions.

Grant Thornton identified recommendations for security improvement opportunities in the following six areas to enhance Lottery security:

- Computer, Data Communications, Database and Systems Security
- Lottery Personnel Security
- Lottery Operator and Vendor Security
- Lottery Premises and Warehouse Security
- Security Aspects of Each Lottery Game
- Security of the Lottery Draw

By utilizing the Texas Lottery approved risk ranking methodology, Grant Thornton identified a total of 22 risks which were ranked as high (3), medium (7) or low (12). These findings were presented to Texas Lottery management in a detailed, confidential report.