

> Thales Protects Lottery Data and Systems



Thales solutions help the lotteries industry secure confidential data and comply with regulations.

BENEFITS

- > Comply with PCI DSS
- > Safeguarding online payments
- > Ensuring confidentiality of stored data
- > Auditability for electronic lottery tickets and logs
- > Protecting instant ticket production
- > Protecting players' personal data

Online lotteries require enhanced security

The lottery industry has always had to protect against fraud. Now it is also becoming the subject of more and more legislations to protect lottery companies, players, financial institutions and taxpayers. Various local regulations require that gaming transactions can be audited. The global Payment Card Industry Data Security Standard (PCI DSS) requires that credit card details are kept secure.

Players are expecting the lottery industry to protect their identities and assets. Lottery companies need to be able to demonstrate that their systems are secure and trustworthy; otherwise a data breach or fraud case may cause players to take their business elsewhere. The World Lottery Association (WLA) has issued the Security Control Standard, which contains security recommendations specifically for lottery systems.

Safeguarding online payments

Because most lottery companies, both online and offline, accept credit or debit cards, they must comply with the Payment Card Industry Data Security Standard (PCI DSS). The standard states that credit card information must never be unprotected when transmitted over public networks or stored on electronic media.

Recent security breaches have shown that the level of protection required by PCI DSS may not be enough to protect effectively. Thales solutions help not only meet but also exceed requirements by implementing end-to-end encryption of payment card data. They also add internal controls to ensure that a potential rogue administrator cannot defraud the system.

Web servers have also often been the weak point exposing credit card data because they have either been hacked, are vulnerable to insider attacks, or have been infected with malicious software. Thales solutions help ensure credit card data, PINs and passwords are never exposed on the web server and only processed inside hardware security modules. Credit card information can be re-encrypted to be stored in a database or sent to a payments processor. This approach protects against rogue administrators and Trojan attacks.

Ensuring confidentiality of stored data

Databases and backup tapes are full of confidential information, such as players' personal information, credit card data, and financial transactions. PCI DSS requires that credit card information must not be stored unencrypted. The WLA recommends encrypting the storage of validation and winner information.

Thales solutions leverage native encryption functions of Oracle and Microsoft databases, adding operational, reducing the cost of operations for large database farms in mixed environments, introducing additional internal controls, and enhancing overall security.

Thales solutions also protect tape backups without requiring changes to systems, processes, or backup windows. Because the data is protected by proven, certified encryption and automated key management, lost tapes do not damage your reputation or bottom line. And unlike some appliances, Thales solutions do not disrupt or slow your current backup processes.

Auditability for electronic tickets and logs

Because changing electronic information is very easy and manipulations hard to spot, many companies are reluctant to change their documents from paper to electronic form, forgoing huge cost and efficiency improvements.

Thales solutions can digitally sign financial and lottery transaction logs with tamper-responsive security hardware to ensure that data cannot be manipulated without detection. Digital signatures prove the identity of the author, authenticity of the content, and ensure the non-repudiation of transactions. Adding secure time stamps to digital signatures ensures that these documents retain their validity for many years.

Time stamping also yields benefits in other areas. Lotteries are based on guessing the outcome of a future event. Because it's much easier to "guess" the winning numbers after the numbers have been drawn, it's critical that Lottery operators can verify and prove that the numbers have been submitted before the draw.

Thales solutions can help prevent fraud through back-dating by adding secure auditable time stamps to electronic data such as lottery tickets.

Protecting instant ticket production

The WLA recommends that encryption be applied for instant ticket validation numbers. Thales solutions can protect encryption and signing keys for instant ticket production in hardware security modules.

The process of randomly generating the instant ticket numbers and tracking the number of winning tickets can be carried out on the secure hardware using Thales CodeSafe technology. This protects the formal procedures for production of instant tickets.

