Smartplay International

Smartplay's Origin™ System the right choice for Kentucky and Louisiana Lottery

Kentucky and Louisiana recently chose the Origin™ Digital Drawing System, manufactured by Smartplay, International, to increase variety and excitement in their lottery games. The Origin's compact design houses a system that is both powerful and secure, giving their lotteries a flexible, cost-effective way to add dimension and diversity to on-line game offerings.

Kentucky Lottery Corporation's RFP process chose Smartplay to design four Origin™ Digital Drawing Systems. The systems were purchased primarily to play Kentucky Lottery's new games, Double Draw and Cash Ball. But thanks to their flexible design, they will also function as backup for some traditional machines used to draw the winning numbers for Pick 3, Pick 4 and 5 Cash Card games. The system can also draw winners in raffles and second chance drawings in the future.

Based on Kentucky's decision, the Louisiana Lottery Corporation decided to sole source their purchase of four new Origin™ Systems from Smartplay. President of Louisiana Lottery Corporation Rose Hudson, indicated that their Origin™ will draw daily Pick 3 and Pick 4 games, as well as Lotto and Easy 5. They elected to include an additional raffle feature in the Louisiana Origin™ which will allow them to create special raffle events to stimulate revenue.

Smartplay's Executive Vice President, Tom Market and Director of IT, Michael Rado, along with two other technicians performed two-day, on-site setup and training sessions in Louisiana and Kentucky upon delivery in July. "We left the staff with a feeling of utmost confidence, excited to use their new Origin™ systems. Smartplay's service doesn't end with a sale; we always strive to provide continuous support to all of our clients," said Tom Markert, Executive Vice President of Smartplay.

Kentucky's and Louisiana's Lotteries have both selected one of the strongest and highly secure products in the lottery industry. Despite all of its impressive features, Smartplay's Origin™ System remains straightforward to audit and operate; two critical requirements for effective lottery draw equipment.

The Origin™ System has been the choice of 14 North American Lotteries. Arizona Lottery, California Lottery, Kentucky Lottery, Louisiana Lottery, New Jersey Lottery, New Mexico Lottery, New York Lottery, North Carolina Education Lottery, Ohio Lottery, Rhode Island Lottery, Tennessee Education Lottery, Virginia Lottery, Washington State Lottery and Pronosticos in Mexico.

Origin™ Systems have been in daily use for over 8 years. In that time, the system has earned its reputation as the leading Digital Drawing System with more placements than any competitor.

(L to R) Shannon Loyd, CPA, Director Information Security; Maggie Garrison, CPA, Internal Audit Manager; T.H. Morris Vice President of Systems Development and Barbara Beck Security Drawing Manager from Kentucky Lottery

Smartplay International's

ORIGIN™ SYSTEM

What is the Origin System?
The Origin™ System is a self-contained automated draw system. It is a custom-built server based appliance which is installed in a lockable and tamper evident cabinet. The system is designed to run lottery and other custom-made games. Smartplay's Origin™ System has been designed to generate random numbers within the game program parameters. All games are configured to each customer specifications.

How it works
The Origin™ server appliance contains three main components:
1. Random Number Generator (RNG)
2. Random Number Server (RNS)
3. User Interface (UI)

The RNS runs on hardware which is separate from the UI. This setup simplifies certification and facilitates updates to the UI without modification to the RNS or RNG. Upon power-up, the RNS runs tests based on Federal Information Processing Standards (FIPS). The FIPS tests run continuously to ensure data integrity. The User Interface guides lottery staff and auditors to log in and select the game(s) desired. Logs are automatically generated as actions and drawings occur.

Hardware security features
- Access to the inside of the Origin™ server appliances is locked with a serialized security bolt that must be destroyed to be removed.
- Intrusion into the Origin™ server appliance is logged. This log can only be cleared by a Smartplay technician.
- Chassis is securely housed.

Software security features
- RNS runs tests on the RNG to confirm that is functioning within Federal Information Processing Standards.
- Prior to loading the UI confirms it hasn't been corrupted by faulty hardware via a CRC check.
- Origin requires dual entry for all system changes and live draws to prevent independent tampering.
- The logs can only be read and printed; users are not able to modify the logs. Only administrators can purge logs.
- Data entered into forms and actions performed by users is also logged by the UI.

System Components
1. Display Screen
2. User Interface screen
3. Mouse
4. Keyboard
5. Uninterrupted Power Supply (UPS)
6. Report Printer

Why should you trust the randomness of the Origin?
The Origin™ is fundamentally different from other RNG products being sold in the gaming marketplace. Smartplay has made a significant investment to create a true RNG for the lottery industry, (as opposed to a pseudo-RNG).

A pseudo-RNG consistently generates the same sequence of seemingly random numbers, when given the same seed or starting value. If the seed can be chosen at random from some source, then the output of the pseudo-RNG will typically be a suitable source for random numbers. The number of milliseconds since some epoch is commonly used as a seed, since it is a constantly changing value. Although normally this is a satisfactory way to calculate a seed, technically it is not random, but rather deterministic. That is, theoretically the seed value can be determined since time increases at a known rate. If someone knows both the pseudo-RNG algorithm and the seed (or can determine the seed), then they will be able to calculate the pseudo-random number.

Why should I trust Smartplay?
Our core business of supplying mechanical lottery drawing machines has been built on dedication to exceptional service. While developing the Origin™ System, we seriously examined our ability to support the product. Introduction to the market, we decided, wouldn't be made until we were completely satisfied that we could provide more than satisfactory support. Quite simply, with a reputation built on reliability, we refuse to gamble with your success and our reputation.