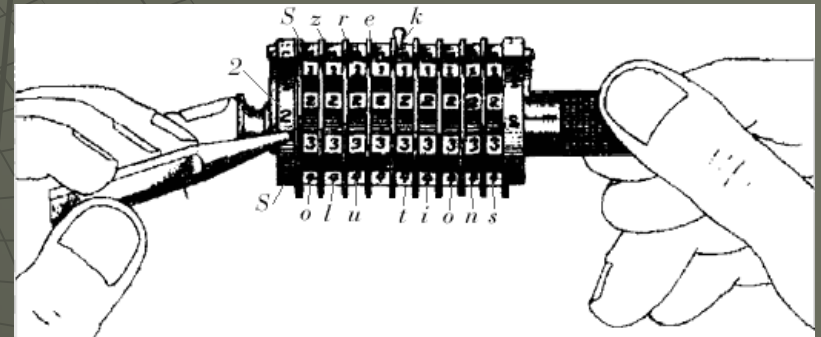


## ILAC 2004

### Transparency of Electronic Drawing & Betting

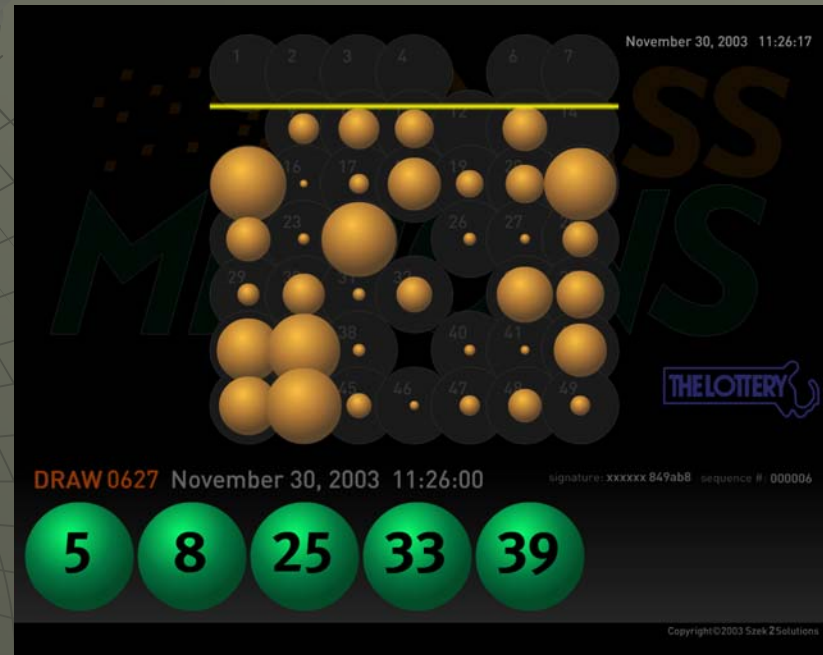
by Irena Szrek, Szrek2Solutions, Partner

- ◆ About Us
- ◆ Transparency of Drawing & Instant Win Games
- ◆ RUN+A – technology to audit random events
- ◆ Products Offering:
  - Trusted Draw™
  - Trusted Play™



## About Us

- ◆ Szrek2Solutions LLC started in 2003
- ◆ International gaming product and service
  - Secure software systems solutions
  - Data security & system integrity
  - Product development and consulting
- ◆ Szrek2Solutions Accomplishments
  - Invented RUN+A - patent pending 'Random Unpredictable Numbers w/Audit'
  - Introduced Trusted Draw™ at NASPL 2003
  - Designed Trusted Play™
  - Entered into partnership w/America Unwired to provide Trusted Play for mobile gaming



**Lead technology expertise for innovative and secure lottery solutions**

## Transparency of Instant Win Games and Drawing

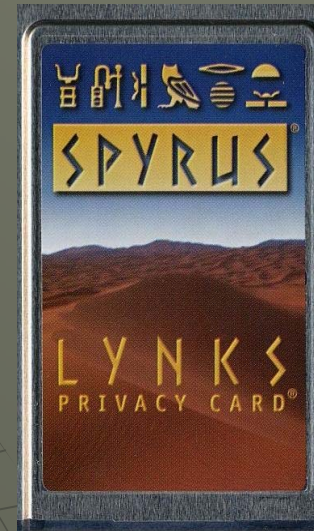
- ◆ Public expects fair games and winnings
- ◆ Lottery sells integrity - needs best practices
- ◆ Current solutions
  - rely on preventive measures
  - can be circumvented by skilled insiders or dishonest personnel
  - no audit of outcomes of instant win games or draw numbers
- ◆ Audit is a common practice to detect fraud, not used in instant win games and drawing



**Current electronic drawing machines and instant win games do not allow detection of fraud after the fact**

## RUN+A - New Solution with Audit

- ◆ Trusted Draw – electronic drawing machine with audit capability
- ◆ Trusted Play - instant win games with audit capability
- ◆ Audit proves that there was no fraud in generation of winning numbers or play outcome
- ◆ RUN+A method to generate & audit random events - 'Random Unpredictable Numbers w/Audit'
- ◆ Proves integrity of the draw and bet generation:
  - Audit – draw/game outcomes, draw time, process
  - Tamper evident cryptographic hardware, digital signatures and time stamping
  - No secret data or algorithm
  - Only standard and proven cryptographic methods



**Szrek2Solutions developed technology detecting fraud in winning numbers and play outcomes generation**

## Trusted Draw™

### Innovative Secure Electronic Drawing System

- ◆ Random and fair draw results for games of chance: lotto, keno, numbers, bingo, multi-matrix, cards, dice, ...
- ◆ Tamper evident security and protection against skilled insider attacks – detection of any attack
- ◆ RUN+A 'Random Unpredictable Numbers w/Audit' proves integrity of the drawing



**Unique product offering audit of draw results**

## TD Product Offering

### Complete System Implementation, Delivery, Support

- ◆ Stand alone or connected to lottery system
- ◆ Multiple games supported by single Trusted Draw
- ◆ Many games available in the game library
- ◆ Verification system – audit and statistical analysis
- ◆ Cryptographic hardware w/lottery security
- ◆ Customized animation (TV, Web) with sound effects and promotional space

**KENO** November 30, 2003 22:11:29

NEXT DRAW IN:  
**0:30**

**THELOTTERY**

**Sprint**

DRAW 1332 November 30, 2003 22:11:00 signature: xxxxxx 617d8f sequence #: 000007

9	12	13	14	16	19	23	24	25	28
37	43	44	47	50	53	54	57	62	74

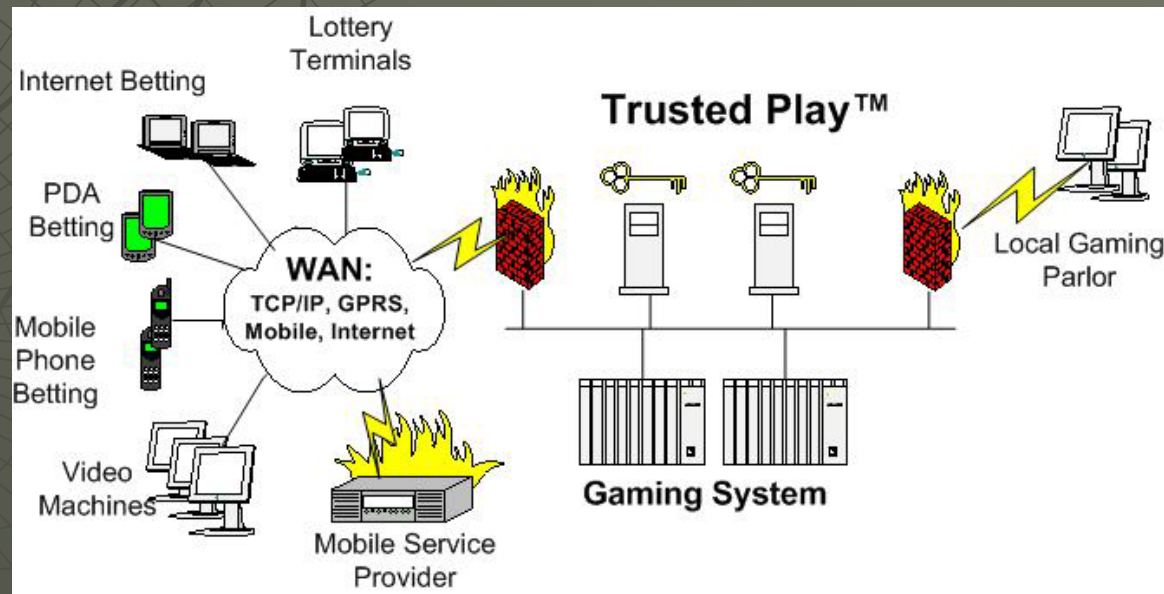
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**Low cost of ownership for secure drawing and audit system**

## Trusted Play™

### Secure Electronic Betting for Instant Win Games

- ◆ Random and fair game results generation for games of chance (Class II & Class III)
- ◆ Tamper evident security and protection against skilled insider attacks – detection of any attack
- ◆ RUN-A proves integrity of instant win games
- ◆ Game outcomes audit detects insider fraud



**Proof of game integrity by audit of play data**

## Security Threats

Security of current computerized draw and bet generation is not satisfactory

- ◆ Insider attacks account for 80% of fraud
- ◆ Physical security is not sufficient
- ◆ Many methods to circumvent
  - Time related attacks
    - ◆ Clock corruption
    - ◆ Earlier drawing
  - Random numbers bias
  - Masquerading:
    - ◆ ignoring the results
    - ◆ exchange of the program
    - ◆ exchange of the hardware
    - ◆ connection hijacking
    - ◆ man-in-the-middle
  - Fishing and replay attacks



**Current electronic drawing and betting do not offer audit of results**