

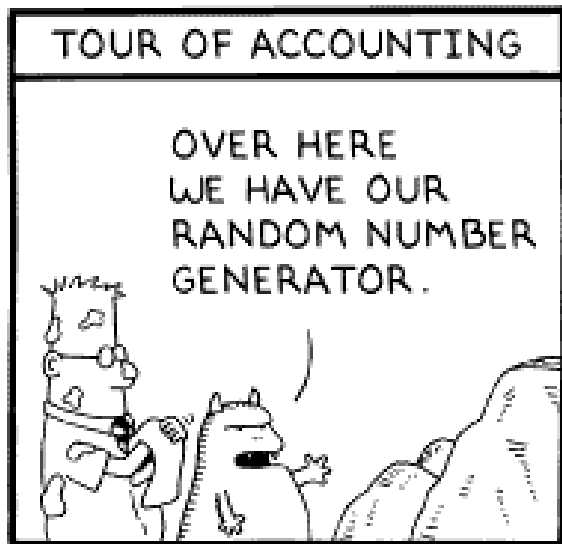
Trusted Audit

Trust in Process
through
Trust in Data

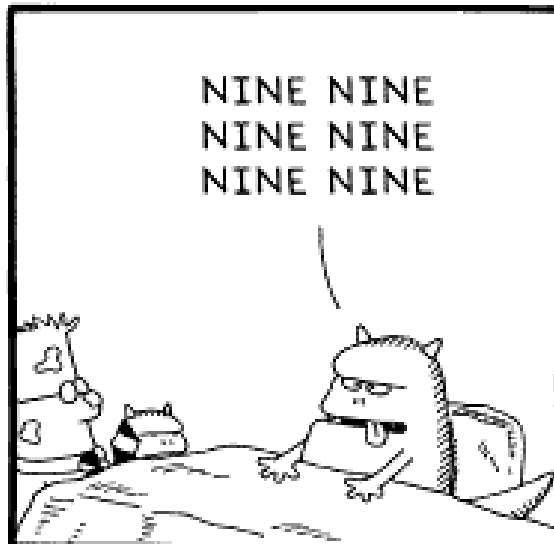
Irena Szrek, Director
Szrek2Solutions

Szrek2Solutions, LLC

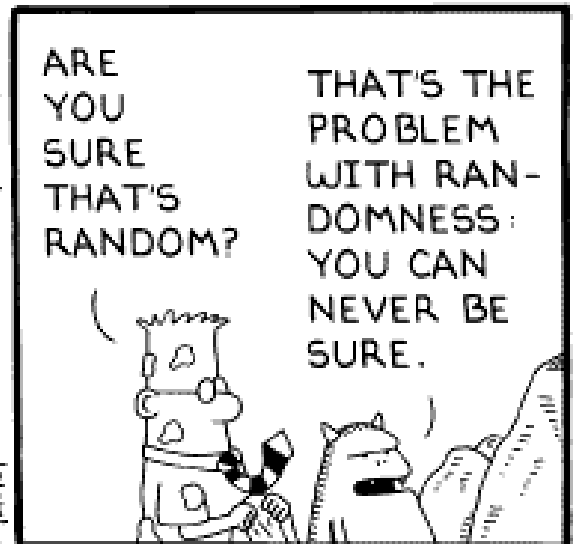
- International supplier of secure system solutions
- Offers products and services to lottery industry
- Principals have 50 years of experience in lottery systems



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Auditable RNG

- Szrek2Solutions invented RNG method for Generation of Unpredictable Auditable Random Numbers
- Allows to verify if random numbers are correct –can be sure
- Obtained US, UK patent; Canadian, other pending
- RNG has been certified by several independent labs
- Trusted Family of product based on the method
 - Trusted Draw secure digital draw system
 - Trusted Play secure draw server for instant games
 - Trusted Transactions securing bets before draw / event
 - Trusted Audit verifying data integrity in all products
 - Objective and conclusive – mathematical proof
 - ‘Can be sure’, detects all errors fraud attempts (including insider fraud)

Trust in Process through Trust in Data

- Trust in a bank
 - security procedures plus
 - we need means to verify contents of accounts in the bank,
 - view and confirm data
- Traditionally in gaming
 - security procedures but
 - no proof through data
- Paradigm change
 - security procedures plus
 - provide data to verify the content
- Data for audit is prepared to
 - Prove integrity of bets
 - Prove integrity of winning numbers

Power of Trusted Audit

- Tamper Evident Data
 - allows detection of data manipulation
- Digital Signature
 - certification of data content
- Time-Stamping
 - certification of time of digital signature
- Trusted Data
 - Tamper Evident
 - protected by time-stamping
- Trusted Audit
 - verification of Trusted Data (certified data and time)

Critical Data

- Bets
 - Tickets & Transaction Receipts
 - Transactions in the System
- Draws
 - Winning Numbers, Draw Time, Draw Hardware
- Instant Play
 - prizes, winners
- Winner Selection
 - Winners
 - Prizes

Traditional Security

- Bets
 - Tickets – Paper Security, Printer Security
 - Transactions – Secure Storage, local or remote
- Draw
 - physical protection, access protection, certification, software checksums, monitoring
- Instant Play
 - securing of win tables
- Winner Selection
 - Audit - independent winner selection
 - comparing results

Trusted Security

Critical Data => Trusted Data

- Bets
 - Transactions in the System
- Draws
 - Winning Numbers,
 - Draw Time,
 - Draw Hardware,
 - Game Matrix
- Instant Play
 - Prizes, Winners

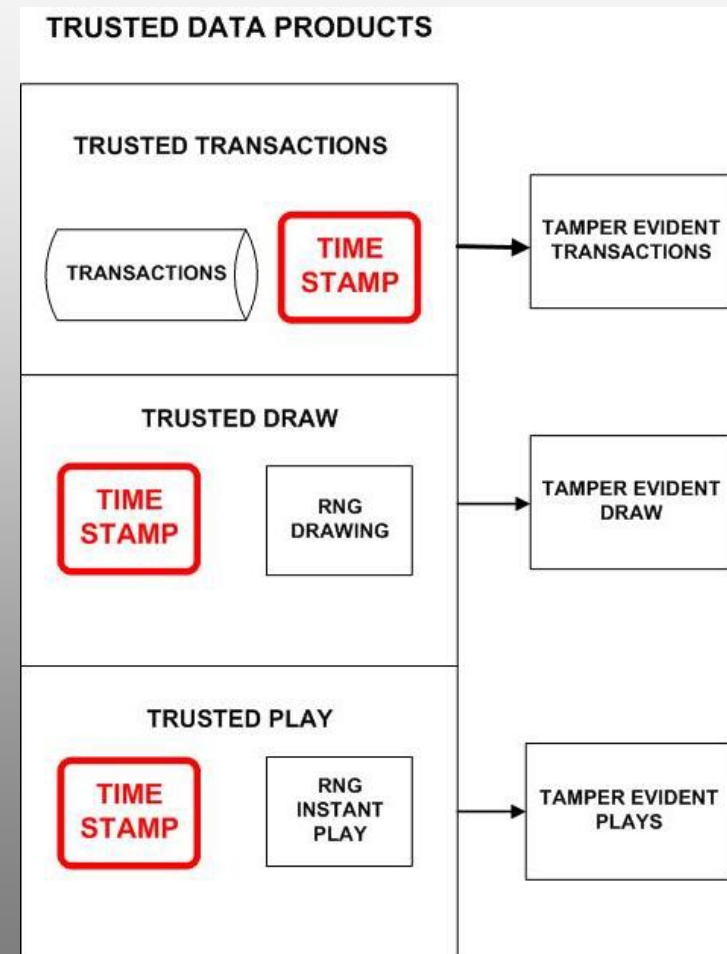


- Trusted Transactions
 - time stamped -> tamper evident
- Trusted Draw
 - time stamp used as RNG seed -> tamper evident winning numbers, draw time and draw hardware
- Trusted Play
 - time stamp used as RNG seed -> tamper evident instant play outcomes and player data

Trusted Data

Trusted Data

- Trusted Transactions
 - time stamped -> tamper evident
- Trusted Draw
 - time stamp used as RNG seed -> tamper evident winning numbers, draw time and draw hardware
- Trusted Play
 - time stamp used as RNG seed -> tamper evident instant play outcomes and player data



Trusted Data => Trusted Audit

Trusted Data products provide tamper evident Trusted Data to Trusted Audit for verification

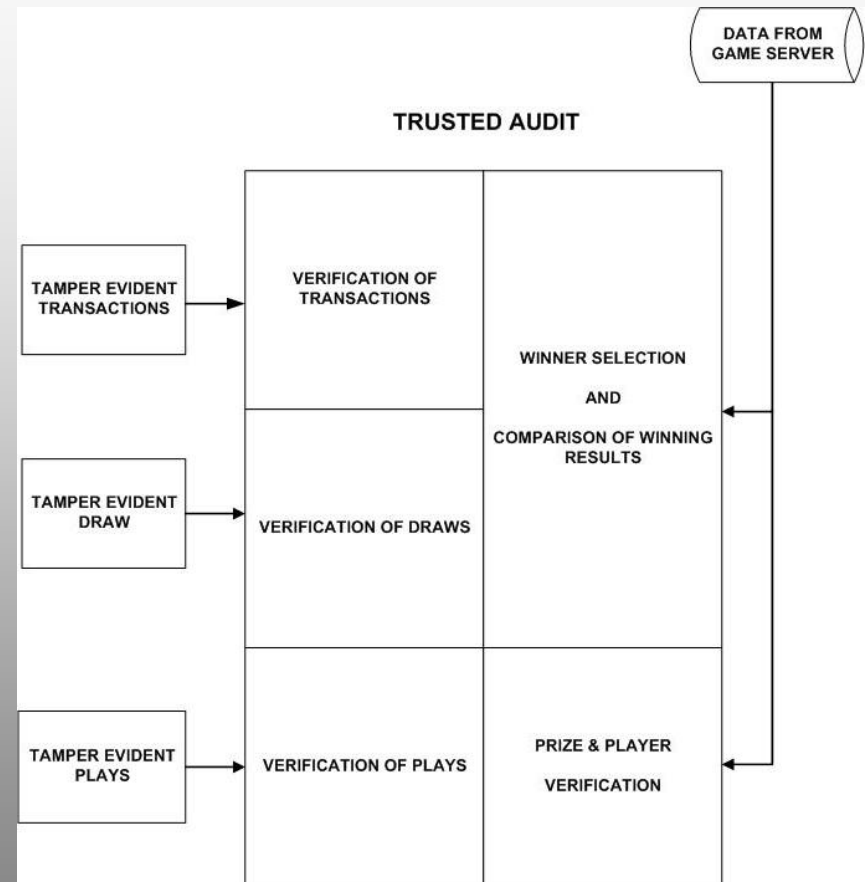
Trusted Audit

Trusted Data verified:

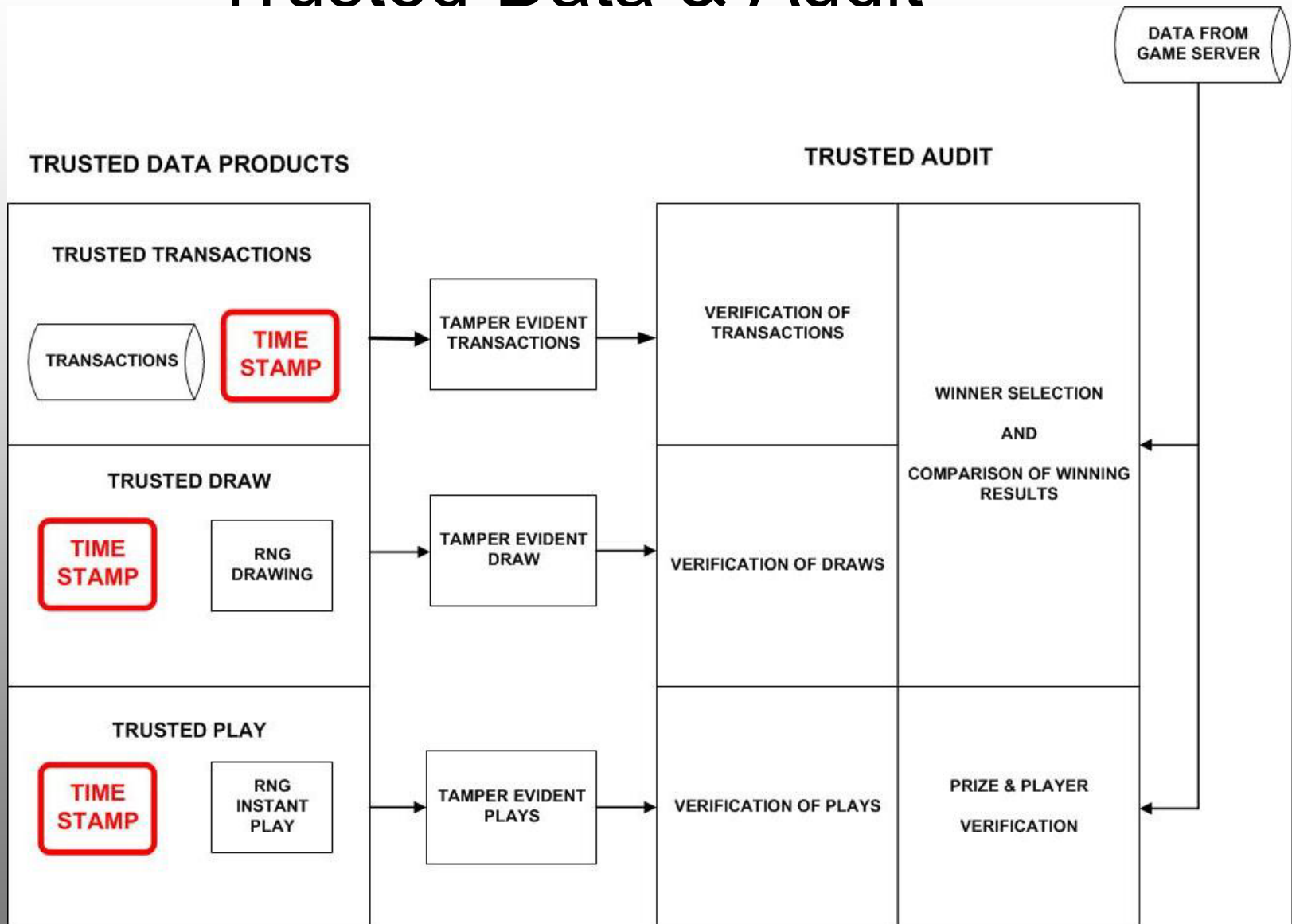
- Transactions
 - proof of transaction integrity
- Draws
 - proof of draw outcomes, draw time, generation hardware, game matrix
- Instant Play
 - proof of play outcomes
 - comparison of trusted data against Game Server data

Winner Selection:

- verified trusted data used for winner selection and prize calculation
- winner selection results compared against Game Server Data



Trusted Data & Audit



Implementation Examples

- Trusted Play & Trusted Audit
 - Instant Games at Danske Spil (Denmark)
 - Lottomatica (Italy)
- Trusted Transactions, Trusted Draw & Trusted Audit
 - eBingo at Danske Spil
 - Lotto in Chariot Plc (UK), Comset (Pakistan)
- Trusted Draw
 - Raffle Draw at SCEL (South Carolina)

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Thank you 😊

Questions? – visit our booth