Shift4®

Secure Payment Processing

Dollars
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Introductions: About Shift4 Corporation

World's Largest Independent, Card-Present Gateway

- Initiated first gateway connection (to Envoy)
- 40,000+ customers, 100,000+ merchant locations
- More than 750 million transactions annually (over 50 billion dollars)
- Bank- and processor-independent gateway; direct to American Express
- Fully redundant data centers, connectivity, and networks
- 24/7 automated software, hardware, connectivity, and power grid monitoring
- Connections to 99% of merchant banks in North America and the Caribbean
- Real-time online reporting with pre-settlement auditing capability
- First payment gateway certified with PCI Data Security Standards (PCI DSS)
- Member #1 tied to PCI Council

Credit Card Industry

- **Credit Card 101**
    - Banks, Processors (Acquirers), MSP's ISO's
    - Unregulated, profiteering business structure (make money when merchant makes mistakes or follows rules)
        - Hidden, fluctuating and penalty fees
        - Realities of Auto-settle
    - Fee Changes every April and October
    - PIN Debit and Bin Management

Credit Card Industry

PCI DSS (Payment Card Industry Data Security Standard)

- 911 and Homeland Security
- CISP/ DSOP/ SDP/ DISC
- PAPB to PA DSS
- www.pcisecuritystandards.org
- www.visa.com/cisp

University at Buffalo – Campus Dining & Shops

- Concerns
  - Campus Concerns
  - Security Breach
  - Bank Fees
  - Loss of Meal Plan and SVC Sales

University at Buffalo – Campus Dining & Shops

- Environment
  - 45 Micros Workstations targeted for Credit Card acceptance
  - Additional 7 Micros for vendors
  - 24 locations
  - 2 additional remote locations in Spring 2012
  - Complex Campus LAN

University at Buffalo – Campus Dining & Shops

- Challenges
  - Older Servers
  - Non-encrypted Micros version
  - Older ws4 Micros terminals
  - Reports from campuses of up to six second delays
  - Public, non-secured Micros and ports
  - Hundreds of employees to train

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University at Buffalo – Campus Dining & Shops

- Our Process
  - Hired Trustwave for Gap Analysis
    - Maintained support hours
    - Purchased online PCI tools
    - Resulted in a greater understanding of PCI
  - Upgraded to encrypted Micros version
    - Purchased a robust server
    - Upgraded printers to IDN (made the terminals "wicked fast")
    - Replaced all Micros workstations to WS5

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University at Buffalo – Campus Dining & Shops

- Our Process – cont.
    - Training Programs
        - University created mandatory online PCI course and assessment.
        - Custom How-to online class and assessment
        - Required that all cashiers, managers and staff pass both prior to working.
    - Physical Security
        - Locking wall plates
   - Locking Ethernet Cables

University at Buffalo – Campus Dining & Shops

- Our Process - cont.
  - Private VLAN
  - Contracted with Shift4
    - Easy Integration
    - No noticeable delays
    - Low incidence of problems
  - Cost
    - Over $180,000 in upgrades, contracts and fees
    - Per transaction costs above credit card fees

"PCI DSS requirements are applicable if a Primary Account Number (PAN) is **stored, processed, or transmitted**. If a PAN is not stored, processed, or transmitted, **PCI DSS requirements do not apply**."

—PCI DSS Preface

Payment Workflow

www.shift4.com
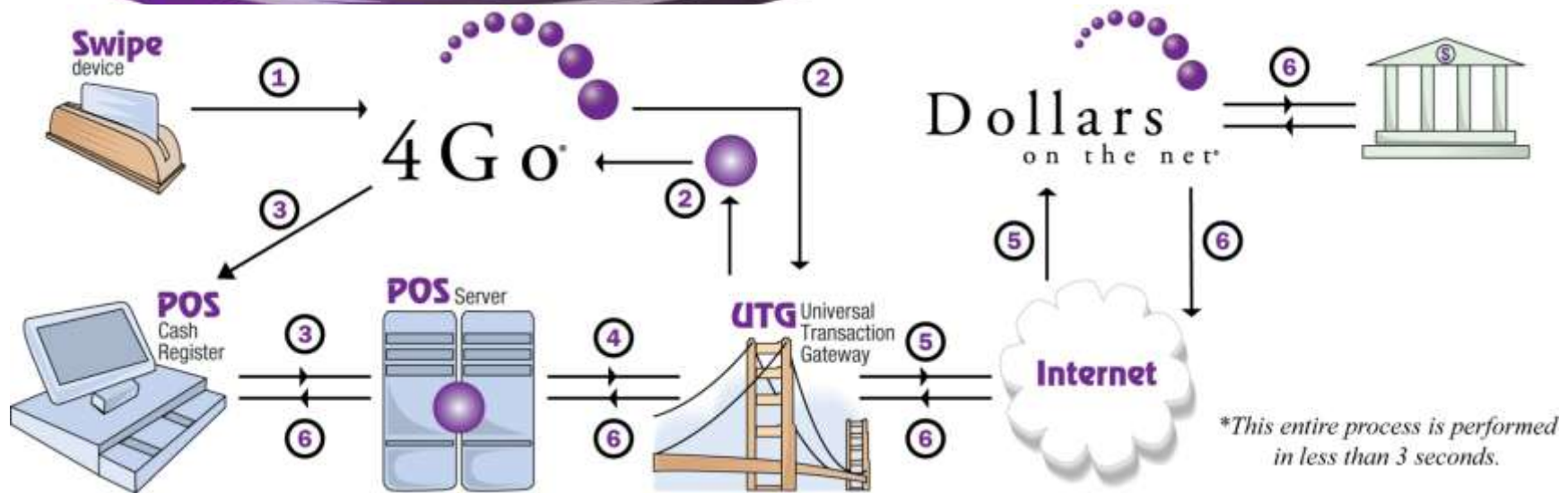
Review of Solution: Shift4 Secure Suite

TrueTokenization®

- Technology and terminology invented by Shift4 in 2004; first-to-market in 2005
- Eliminates long-term storage of data – *They can't steal what you don't have.*®
- Replaces cardholder data (CHD) with a randomly generated, unique, alphanumeric value, called a TrueToken
- Token is transactional; token does not equal card #
- Tokens are managed by Shift4 not processor
- Have processed over 4 billion tokenized transactions

www.shift4.com

Review of Solution: Shift4 Secure Suite

4Go for Micros (Micros 3700, 9700)

- No CHD is stored in the POS application
    - Supports format preserving token only
- PA-DSS-validated application that intercepts CHD before it enters the POS
    - Previously validated PABP
- 4Go is patented technology (U.S. Pat. Nos: 7770789, 7841523, 7891563)
- Secure Offline Stand-In (SOS)
- Supported on WS 4's, 5's, KW270's

Micros and Tokenization

- Simphony 1.6
- Simphony 2.5

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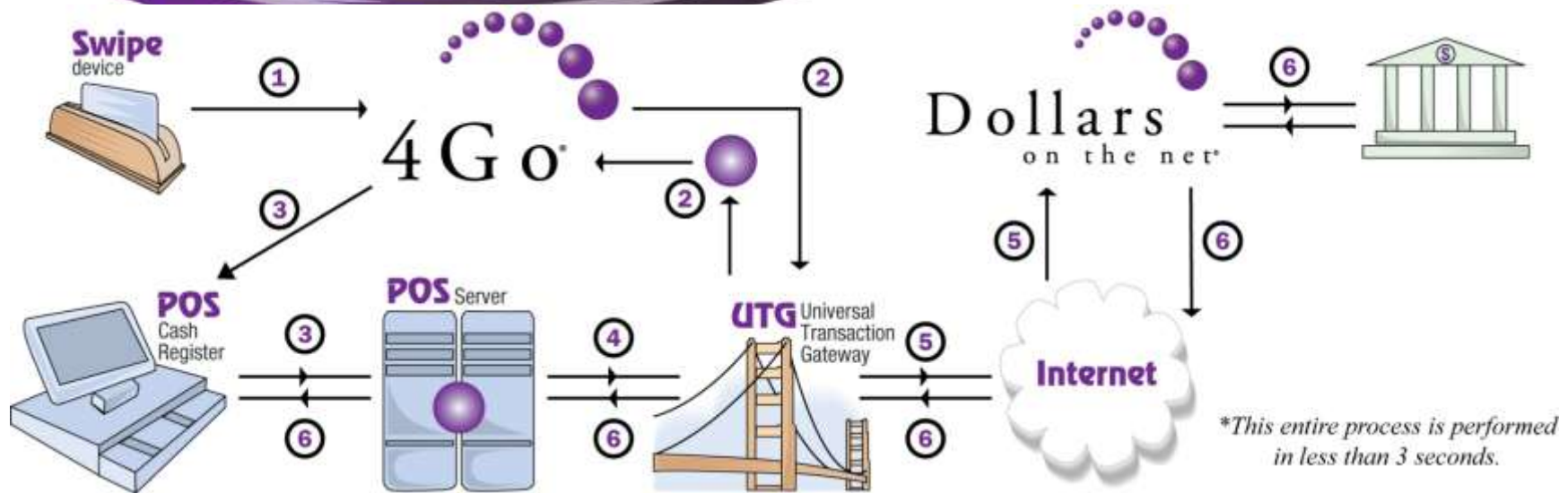
Payment Workflow

"Encrypted data may be deemed **out of scope if**, and only if, it has been validated that the entity that possesses encrypted cardholder data **does not have the means to decrypt it**."

- FAQ Article 10359, PCI DSS

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Credit Card Industry

P2PE

- SRED (Secure Reading and Exchange of Data) Compliant Devices
- HSM (Hardware Security Manager) vs. software based
- Certifications (2 of 3 released by PCI)
- Key management (gateway or processor)
- Debit/ Signature Capture Device
  - IP Communication to UTG
  - Device is controlled by Shift4's UTG
  - Ingenico Tellium Line (being finalized)

Standard Process Flow with Third-Party Device
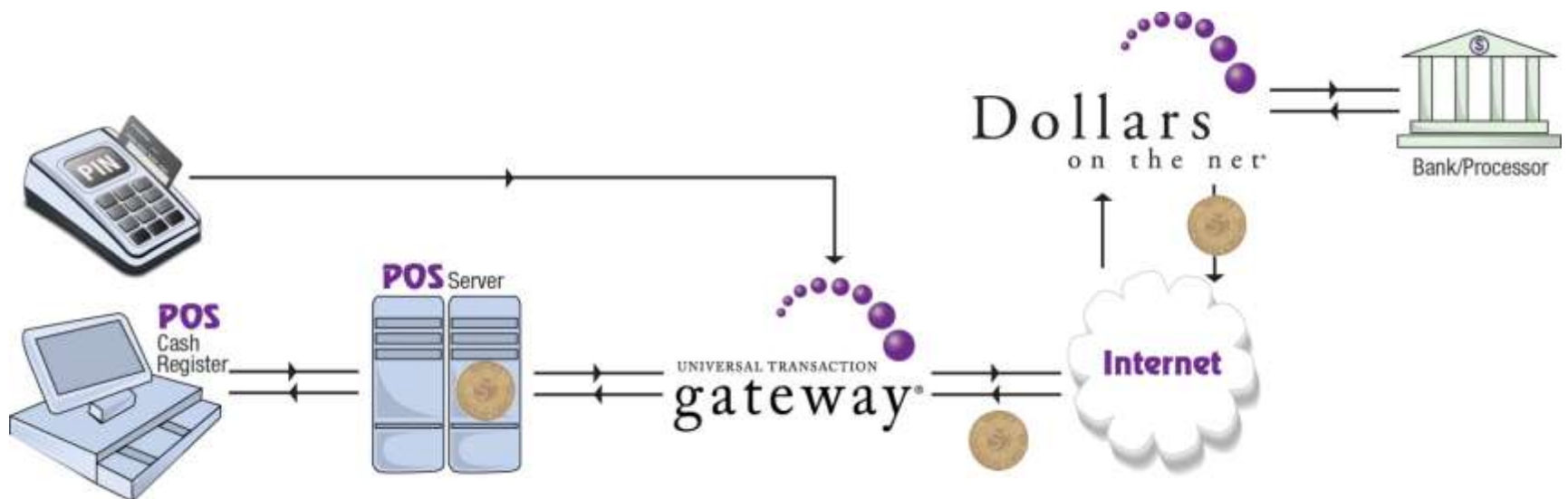
Credit Card Industry

EMV (EuroPay Mastercard Visa)

Visa TIP (Technology Innovation Program): www.visa.com/cisp

- Chip and Signature (Visa)
- Contactless (E.g.NFC such as Google Wallet, ISIS)
- Deadlines
  - October 1, 2012 - Device Manufacturers
  - April 1, 2013 -Processors
  - October 2015 – Merchants
- Ramifications of not supporting
  - "the party that is the cause of a chip-on-chip transaction not occurring (i.e., either the issuer or the merchant's acquirer) will be financially liable for any resulting card-present counterfeit fraud losses."
  - What does this mean to you?
- Benefits of PIN debit (ROI)
  - Bin Management

What's on Your Mind?

Q & A

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Thank You!

Shift4
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