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Nominee Showcase Presentation

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AT&T

End-to-End Data Protection Project

Joe Bentfield, CISSP

Executive Director CSO Infrastructure

Largest communications holding company in the world by revenue

Rethink Possible

- Our networks carry 18.7 petabytes of data traffic a day

- 210 million customers with 85.1 million mobile broadband customers in the US

- 294 ,600 employees

- Home of AT&T Labs – 1,300 of the world's best scientists

Project:
Protecting SPI – End-to-End

- Sensitive Personal Information classification

- Encrypt in transit and at rest

- Solve with reusable security infrastructure

- Harmony with IT, Legal, Forensic, DR needs

- Minimize Costs

Serious Business Obligation: Protecting Sensitive Information

- Comply with our own policy and external mandates

  - Meet broad SPI definition (many elements)

  - PCI , SAS 70, SysTrust, GLBA, HIPAA, CPNI, SOX, ...

- Address 1000's of applications that touch SPI

- Highly heterogeneous, globally distributed infrastructure

  - Many different applications from acquisitions

  - Some home grown encryption approaches

- An infrastructure solution will save us money

Project Scope:
SPI Encryption Infrastructure

1. Identify where sensitive data exists or is used

2. Determine solution requirements (e.g. technologies covered)

3. Evaluate/test solutions, select, establish standard

4. Establish common encryption/key management architecture

5. Prioritize implementation across systems

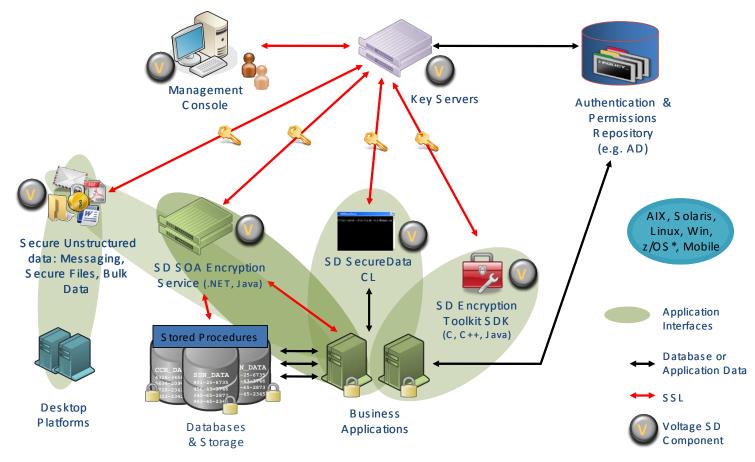# Project Results

- SPI Inventory established

- Solutions evaluated, standard established

- Infrastructure implemented

- 3 year migration effort underway

Management Console

Key Servers

Authentication & Permissions Repository (e.g. AD)

Secure Unstructured data: Messaging, Secure Files, Bulk Data

SD SOA Encryption Service (.NET, Java)

SD SecureData CL

SD Encryption Toolkit SDK (C, C++, Java)

AIX, Solaris, Linux, Win, z/OS*, Mobile

Stored Procedures

CCR_DA
4328-3450
5634-2030
728-2342
322-2342

SSN_DATA
901-25-6735
456-43-3746
345-65-2873
983-45-2345

N_DATA
-25-6735
-43-3746
-65-2873
-45-2345

Desktop Platforms

Databases & Storage

Business Applications

Application Interfaces

Database or Application Data

SSL

Voltage SD Component

Lessons Learned/Best Practices

- Help Application Architects buy in to a solution they did not build

- Migration Prioritization/Sequencing

- Key Solution Attributes

  – Format Preserving Encryption (FPE)

  – Identity Based Encryption (IBE), Key Generation

  – Key Rotation is automated

Recognizing the AT&T Project Team

- CSO and IT partnership

- Many Application Architects, System and DB Administrators

- Larry Abram, Principle Business Manager IT

- Janet Kerns, Director CSO DSS

- Dan Madsen, Sr Technical Director CSO Encryption Services

- Dan Schulte, Principal Member of Technical Staff

- Mike Sterner, Sr. Member of Technical Staff

Thank you and Questions

- Questions?