DbEncrypt

database encryption solution

For Microsoft SQL Server

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Agenda

- **There is a problem…**
  - Main Problem
  - Existing Solution Shortcomings
  - More Granular Industry Problems
- **There is a solution…**
  - ASI's DbEncrypt
  - Who Benefits? How? Why?
  - Key Technology Differentiation
- **There is a way… and a plan…**
  - What's included?
  - Our Organization, Current Position and Future Plans

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Main Problem

- The prevention of unwanted users or personnel from viewing data (“data-at-rest”)
  - Outside Intrusions
  - Internal Personnel
  - Administrative Personnel
    - Database Administrators
    - System Administrators
    - General Administrators

Existing Data Security Solutions

- Security and Data Protection Solutions
  - Existing security solutions do not address this "main problem"
    - Vulnerability Assessment, IDS, Firewalls, Single Sign-On
  - Backup Solutions
    - Provides protection for "off-line" data
- Existing Encryption Solutions
  - Existing Data Encryption ("data-in-transit")
    - SSL, PKI, etc.

Database Security in General

- Non-existent controls and mechanisms
  - Nothing preventing unwanted personnel or even the DBA from seeing data
- Traditional Database Security Concepts Do Not Apply in Today's World
  - Access Control and Permissions

Granular Industry Problems

- **Service Provider** & **E-Business** in General (ASPs, ISPs, MSPs, and Internal / External Systems)
  - Providing the data security guarantee
  - Overcoming customer and partner fears
  - Establishing accountability for data security

Granular Industry Problems

- Regulatory Requirements
  - VISA CISP
    - Requirement #3: Encrypt Stored Data
      - Minimum account information to be encrypted is the Visa account number and expiration date
  - Gramm-Leach-Bliley Act
    - Interagency Guidelines (Manage & Control Risks)
      - Encryption of electronic customer information in transit or in storage
    - TITLE V – PRIVACY
      - Subtitle A – SEC. 501 PROTECTION OF NONPUBLIC PERSONAL INFORMATION

DbEncrypt™ is the Answer

- **Main Problem**:
  - The prevention of unwanted users or personnel from viewing data ("data-at-rest")
- **Answer**:
  - A flexible infrastructure designed to encrypt column and row-level data stored in the tables of a database.

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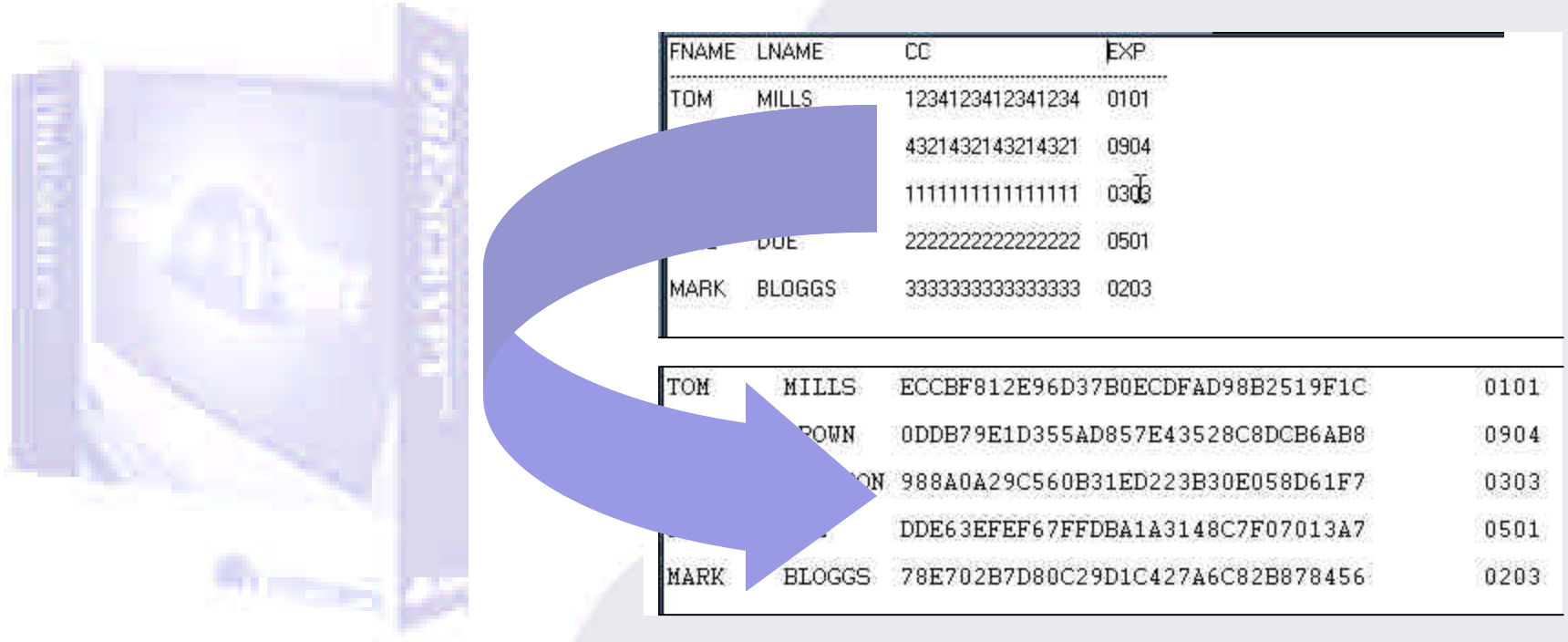
DbEncrypt™ Key Features

- Database Column and Row-Level Encryption
- Access to world-class security resources that facilitate effective data protection
- Controls and mechanisms providing authentication, encryption, and data integrity

DbEncrypt™ Key Features

- Database Column and Row-Level Encryption



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	DOE	DDE63EFEF67FFDBA1A3148C7F07013A7	0501
MARK	BLOGGS	78E702B7D80C29D1C427A6C82B878456	0203

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DbEncrypt™ Key Features

- Access to world-class security resources that facilitate effective data protection
- Encryption Algorithms - complete list at:

  http://www.appsecinc.com/products/dbencrypt/mssql/algorithms.html

  – 25 of the strongest and most widely analyzed algorithms
    - AES
    - RSA
    - DES
    - RC4
    - MD5
    - SHA-1
    - Blowfish
    - Twofish

DbEncrypt™ Key Features

- Controls and mechanisms providing authentication, encryption, and data integrity

Flexible for All User Levels

- DbEncrypt™ can be utilized as a:
  - **Turnkey solution** to automatically and transparently encrypt data in columns and rows

OR

  - As a **low-level API** providing cryptographic algorithms for SQL developers

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Turnkey Transparent Solution…

- **Who benefits?:**

  Database Administrators (DBAs) and Developers that **do not want to bother with the details** – transparent encryption functionality

- **How do they benefit?:**

  Point-and-click on columns and tables to…

  - Encrypt Data
  - Create triggers and views to transparently encrypt/decrypt data
  - Manage the encryption keys

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Low-Level API…

- **Who benefits?:**

  Database Administrators and Developers that wish to **build their own encryption systems** utilizing the API features

- **How do they benefit?:**
  - SQL Programmers to use encryption as they see fit
  - Provides developers with the ability to write proprietary encryption systems while still harnessing the power and capabilities of DbEncrypt™

Availability and Price

- Evaluation Copies Available for Download:
  - http://www.appsecinc.com/downloads/
- Price:
  - $9995 per instance with volume discounts
  - Additional 20% for Maintenance, Upgrades, and Technical Support (**MASTER Subscription Program**)
- Updates are easily downloadable from:
  - http://www.appsecinc.com/downloads/

Who is Application Security, Inc.

- Unique Position and Background
  - SHATTER focuses research on producing the following security solutions for database, groupware, web, and ERP applications:
    - Database Encryption
    - Penetration Testing/Vulnerability Assessment
    - Intrusion Detection

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Application Security, Inc. Family Suite

- **Database Encryption**
  - DbEncrypt for Oracle
  - DbEncrypt for Microsoft SQL Server
- **Application Pen Test / Vulnerability Assessment**
  - AppDetective for Oracle
  - AppDetective for Microsoft SQL Server
  - AppDetective for Sybase
  - AppDetective for Lotus Notes/Domino
  - Versions coming soon for Oracle Application Server, IBM DB2, MySQL, and Exchange
- **Intrusion Detection (Coming Soon)**
  - AppRadar

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Wrapping Up…

- **The problem…**
  - Main Problem
  - Existing Solution Shortcomings
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- **The solution…**
  - ASI's DbEncrypt
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