AppDetective
for IBM DB2

Product Briefing

Application Security, Inc.

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AppDetective™ Briefing Agenda

- **There is a problem…**
  - Database Security Problems
    - In General
    - Industry Requirements and Regulations
- **There is a solution…**
  - AppDetective™ Capabilities
    - Key Technology Feature Differentiation
    - Who Benefits? How? Why?
  - Requirement and Regulation Compliance
    - Financial Services, Health Care, Pharmaceutical, E-Commerce,
- **There is a way… and a plan…**
  - What's included?
  - Our Organization, Current Position and Future Plans

Database Security Problems

- Inability to Effectively Inventory and Identify Databases
- Database Vulnerabilities and Threats are Easily Exploitable and are Growing Every Day
- Database Vulnerabilities and Threats Endanger Trusted Systems
  - Host Operating Systems
  - Network Operating Systems
  - Web Servers/Applications

Database Security Problems

- Database security problems directly affect how organizations are able to fulfill industry requirements such as the following:
  - VISA CISP (Cardholder Information Security Program)
  - American Express Data Security Standard
  - Gramm-Leach-Bliley Act (GLBA)
  - Health Insurance Portability Accountability Act (HIPAA)

Existing Security Solution Shortcomings

- Security Management / Policy Compliance
  - Agent Based
  - Mainly Configuration Settings Management and Policy Compliance Solutions
- Vulnerability Assessment
  - Many Solutions Do Not Check the Database Security Subsystem Level
  - Require Administrative-Level Privileges
  - Require Lengthy Connection Configuration Procedures
- Latest Versions and Vulnerabilities
  - Organizations aren't necessarily dedicated to security vulnerabilities and threats on this level

AppDetective™ is the Answer

- AppDetective™ for IBM DB2 Empowers Organizations with the Following Capabilities:
  1. Database Discovery and Identification
  2. Penetration Testing (Outside-In Tests)
  3. Security Audit (Inside-Out Tests)
  4. Reporting Facilities
  5. Complimentary and Compatible
  6. Extensive and Updated Library of Vulnerabilities and Misconfigurations

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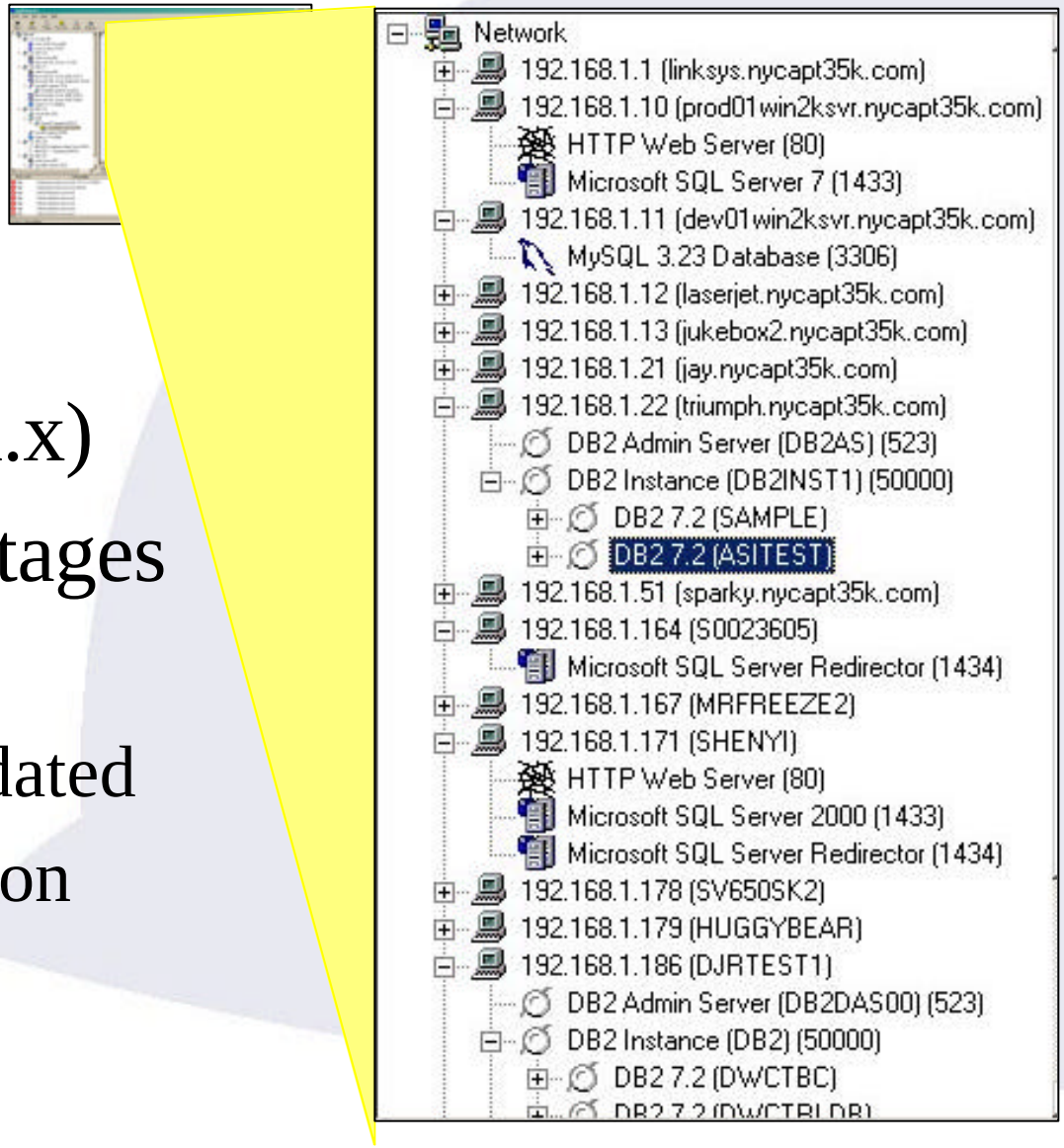
AppDetective™ is the Answer

- AppDetective™ for IBM DB2 Empowers the Following Individuals:
  - Security Practitioners
  - Internal Auditors
  - General System Administrators
  - Database Administrators

1. Discovery and Inventory

- Scanning
  - IP Number
  - Port Number
  - Version (x.x.x.x)
- Scanning Advantages
  - Accurate
  - Continually Updated
  - NMAP Integration

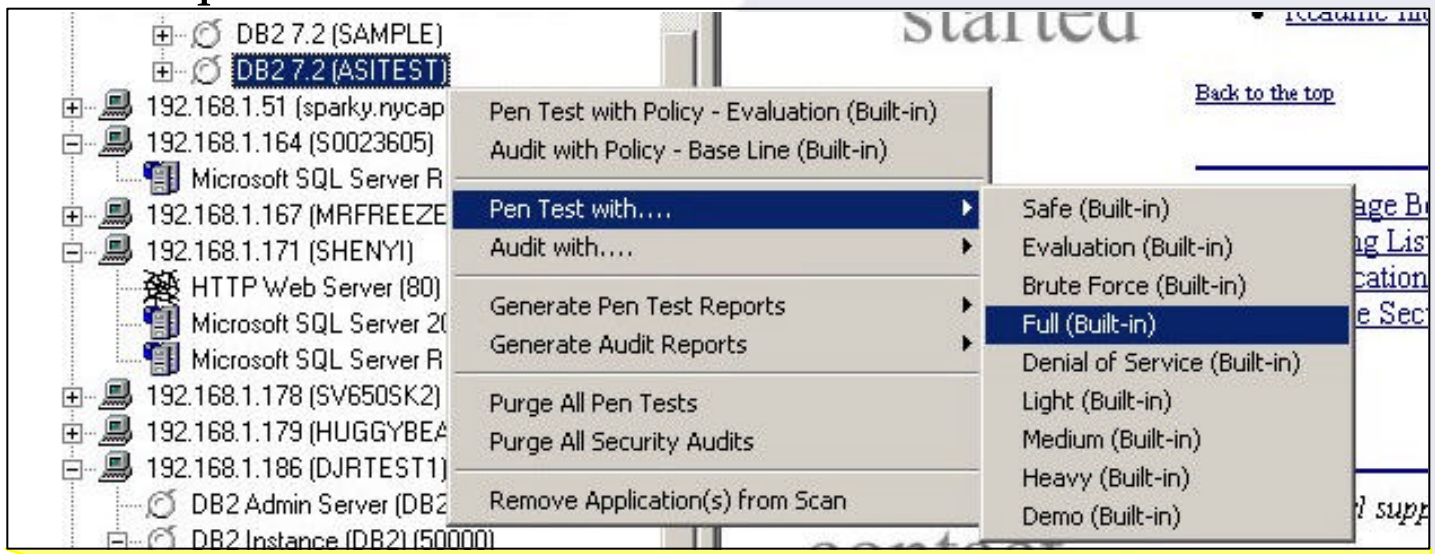


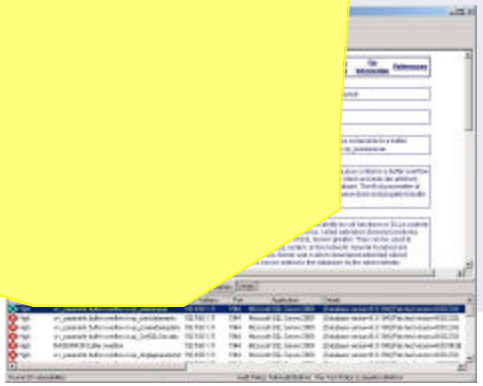
2. Penetration Testing

- **Pen Test™**
  - True “Zero Knowledge” and non-intrusive penetration techniques are utilized – as simple as:
    1. Discover the database through a Scan
    2. Right-clicking on the selected database
    3. Selecting “Pen Test” from the provided menu
  - All checks are performed externally without elevated privileges
  - Target database is not affected

2. Penetration Testing

- **Pen Test™**
  - True “Zero Knowledge” and non-intrusive penetration techniques are utilized





2. Penetration Testing

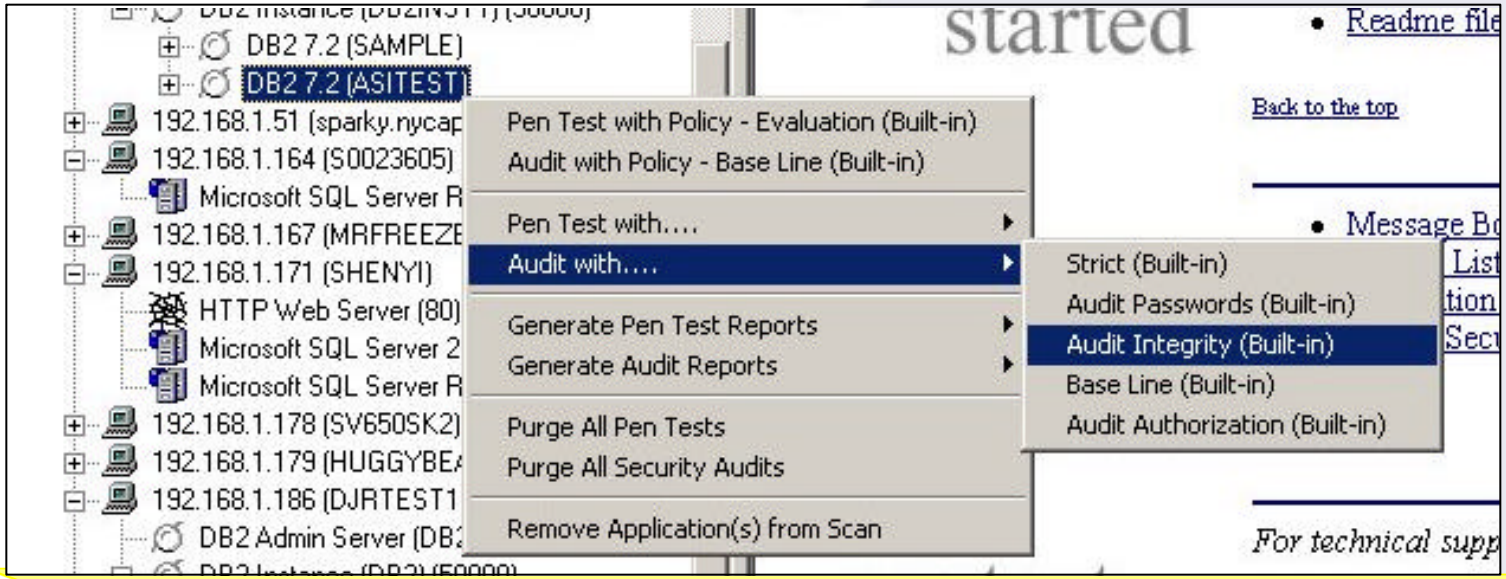
- **Pen Test™ Categories**
  - Denial of Services
    - Examples: Control Center Buffer Overflow
  - Miconfigurations
    - Examples: CLIENT authentication, DCS Authentication; Server Authentication
  - Password Attacks
    - Examples: Blank, Default, and Easily Guessed Passwords
  - Vulnerabilities
    - Examples: Control Center Buffer Overload; db2ckpw Buffer Overflow

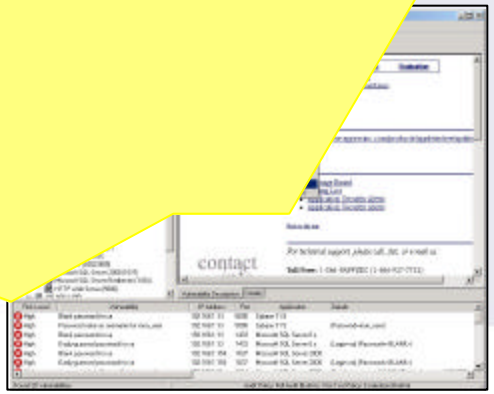
3. Security Auditing

- **Security Audit Advantages**
  - Provides an “Inside-out” approach to auditing the security of your database
  - Examine how an unauthorized user can obtain elevated privileges or circumvent security controls from the inside
  - Automatic configuration upon discovery

3. Security Auditing

- **Security Audit**





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3. Security Auditing

- **Security Audit Categories**
  - Access Control
    - Examples: CREATE_NOT_FENCED privilege granted; Permissions granted to PUBLIC; Permissions on system catalog
  - Application Integrity
    - Examples: Password.Attack; Unfenced Package; db2ckpwd buffer overflow
  - Identification/Password Control
    - Examples: Dormant Accounts; CLIENT AUTHENTICATION; SERVER Authentication
  - OS Integrity

4. Reporting Facilities

- **Report Generation Facilities**
  - Policy Reports
  - Summary Reports of the Tests Performed
  - Detailed Reports of the Tests Performed
  - High-Level Overview and Detailed Overview of Found Vulnerabilities
  - Recommendations and Fix Information
- Report Generation Advantages
  - Report on Servers Across Your Network

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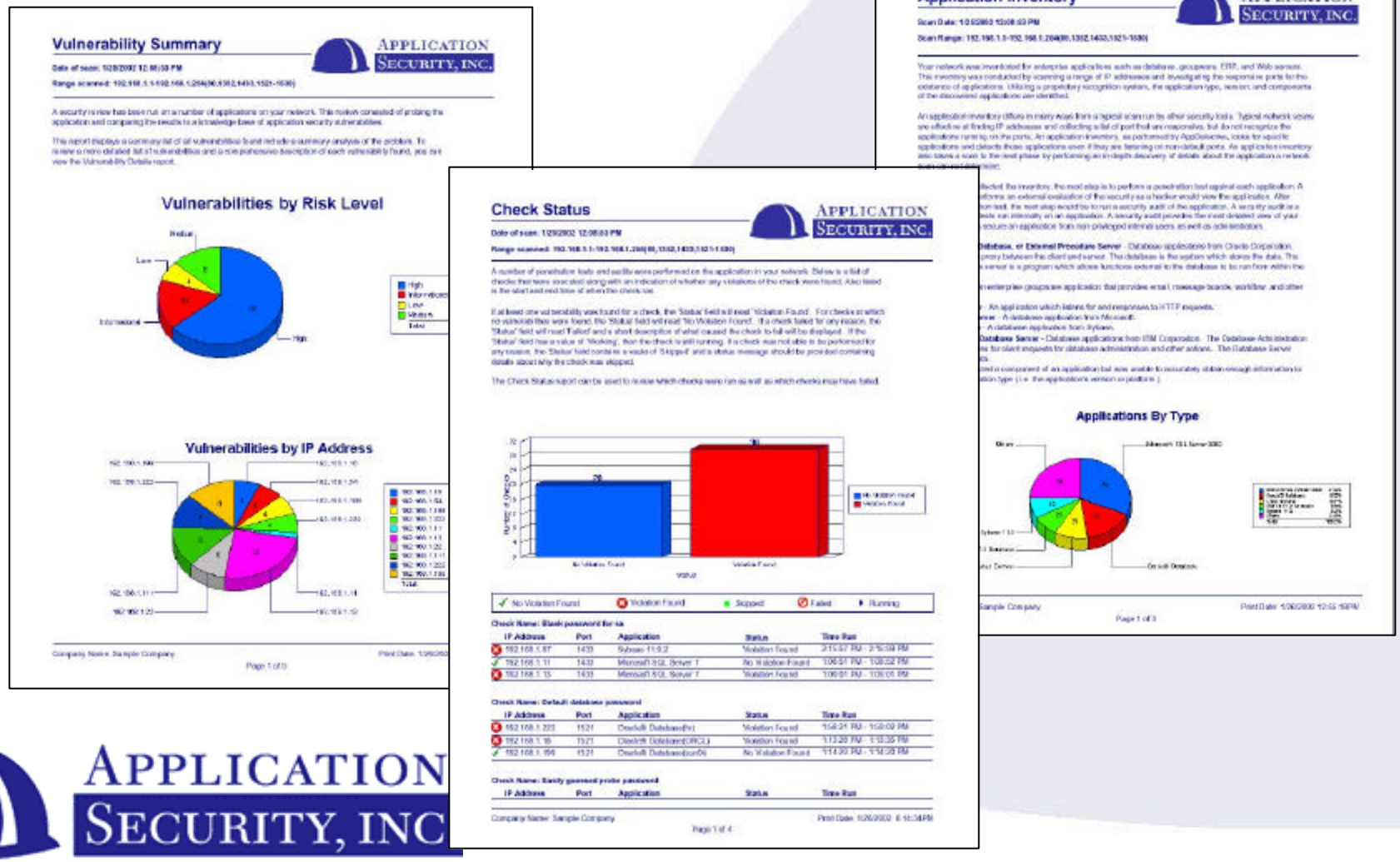
4. Reporting Facilities

- **Reporting Examples**



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5. Complimentary and Compatible

- **AppDetective essentially picks up where all of the following leave off:**
  - **Port Scanners**
    - **NOS / OS Oriented and Can't Discover Applications and Databases**
  - **Network and Host Operating System Scanners**
    - **Able to Assess Only NOS and OS's**
  - **Web Application Scanners**
    - **Able to only scan for vulnerabilities relevant to the components within a web application infrastructure**
  - **Other "Database" Scanners**
    - **Able to only perform inside out audits and are out of date**

6. Vulnerabilities and Misconfigurations

- **Key Industry Advantage**
  - **Application Security, Inc. R&D concentrates on the security, protection, and defense of applications.**
    - **S.H.A.T.T.E.R.**
      - **Research and Development Team**
    - **Application Security Alerts**
      - **http://www.appsecinc.com/resources/alerts/**
    - **Application Vulnerability Checks**
      - **http://www.appsecinc.com/asap/checks/**
    - **ASAP Updates**
      - **http://www.appsecinc.com/asap/**
      - **Average of 3 Updates Per Month**

AppDetective™ Fulfilling Requirements

- AppDetective™ capabilities provide organizations with a way to fulfill industry requirements in the following:
  - Gramm-Leach-Bliley Act (GLBA)
  - Health Insurance Portability Accountability Act (HIPAA)
  - VISA CISP (Cardholder Information Security Program)
  - American Express Data Security Standard

AppDetective™ and the GLBA

- Gramm-Leach-Bliley Act (GLBA)
- TITLE V – PRIVACY
  - SEC. 501 PROTECTION OF NONPUBLIC PERSONAL INFORMATION
  - SEC. 505 (b) ENFORCEMENT OF SECTION 501.
- Interagency and NCUA Standards for Safeguarding Objectives and Guidelines

AppDetective™ and the GLBA

AppDetective™ Capabilities

- Inventory and Identification
- Penetration Testing
- Security Audit
- Reporting Facilities
- Extensive and Updated Library of Application Vulnerabilities and Misconfigurations

Interagency and the NCUA Guidelines

B. Assess Risk

C. Manage and Control Risk

D. Oversee Service Provider Agreements

E. Adjust the Program

F. Report to the Board

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AppDetective™ and HIPAA

AppDetective™ Capabilities

- Inventory and Identification
- Penetration Testing
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Administrative Procedures

- Certification
- Contingency Plan
- Information Access Control
- Internal Audit
- Personnel Security
- Security Configuration Management
- Security Incident Procedures
- Security Management Process
- Termination Procedures
- Training

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AppDetective™ and HIPAA

AppDetective™ Capabilities

- Inventory and Identification
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Technical Security Services

- Access Control
- Audit Controls
- Authorization Controls
- Data Authentication
- Entity Authentication

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AppDetective™ and Visa CISP

AppDetective™ Capabilities

- Inventory and Identification
- Penetration Testing
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- Reporting Facilities
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Visa CISP Requirements

1. Install and maintain a working firewall to protect data accessible via the Internet
2. Keep security patches up to date
6. Restrict access to data by business need-to-know.
7. Assign a unique ID to each person with computer access to data.
8. Do not use vendor-supplied defaults for system passwords and other security parameters
9. Track all user access to data by unique ID
10. Regularly test security systems and processes
11. Administrative Data Security

AppDetective™ and Amex Data Security

AppDetective™ Capabilities

- Inventory and Identification
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- Security Audit
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- Extensive and Updated Library of Application Vulnerabilities and Misconfigurations

American Express Data Security Standard

- Employee Access / Passwords
- Systems
  - Routinely test internal security systems and processes.
- Audits
  - Be prepared to provide audit reports to American Express or allow American Express audits.

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Availability

- Evaluation Copies Available for Download:
  - http://www.appsecinc.com/downloads/
- Updates are easily downloadable from:
  - http://www.appsecinc.com/asap/

AppDetective™ Future Plans

- Expanded Database and Groupware Platforms
  - MySQL
  - Microsoft Exchange
  - OracleiAS
  - IBM WebSphere

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Who is Application Security, Inc.

- Unique Position and Background
  - SHATTER™ focuses on database, groupware, web, application server, and ERP applications
    - Database Encryption
    - Penetration Testing/Vulnerability Assessment
    - Intrusion Detection
- Application Security, Inc. (ASI) Mission
  - Develop security solutions providing "protection where it counts"

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Wrapping Up…

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