

SECURITY INSID=OUT

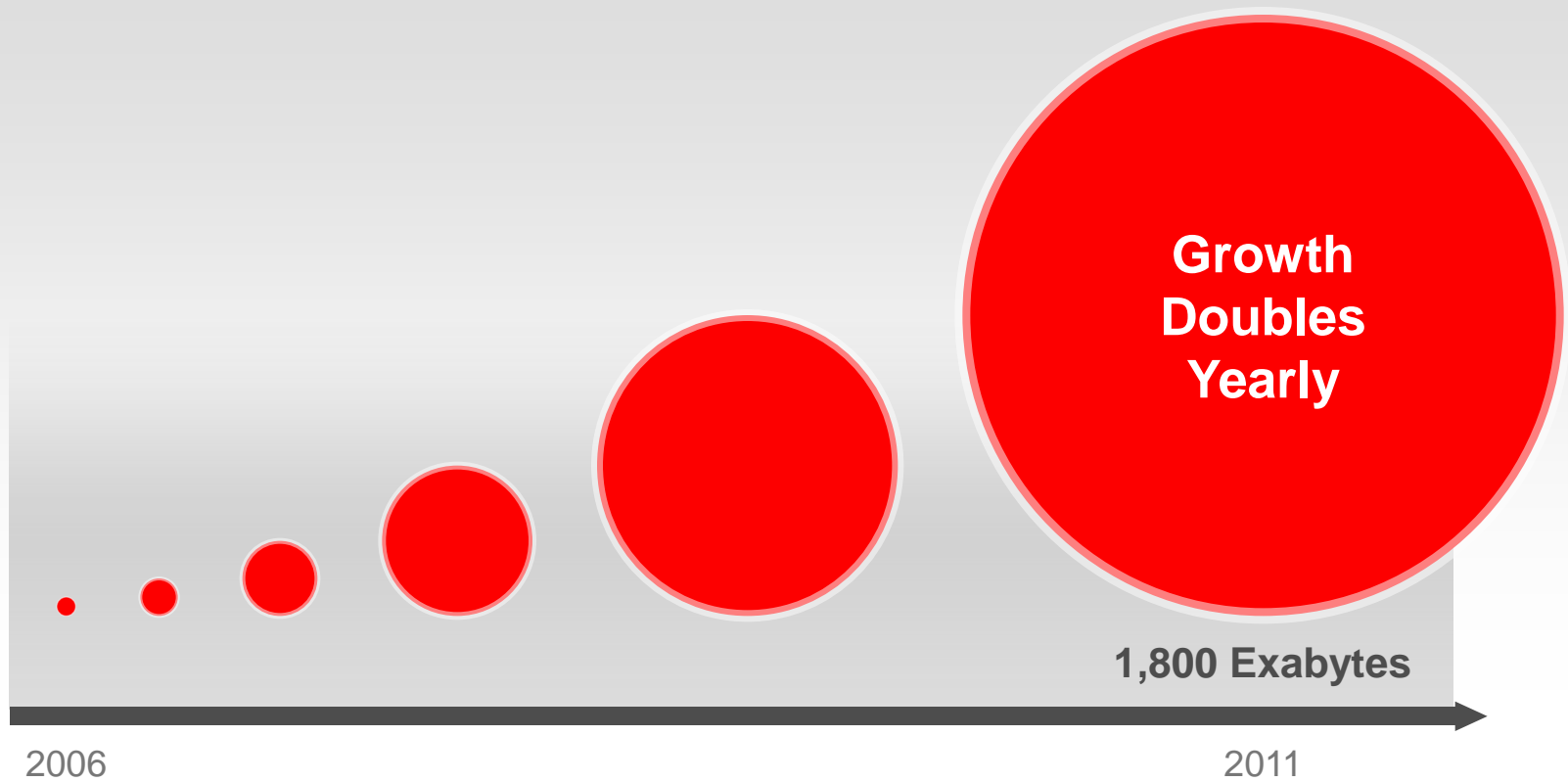
Complete Protection for Your Database,
Middleware, and Applications

ORACLE®

Cost-Effective Enterprise Data Security

Paul Needham, Director, Product Management, Database Security

More data than ever...



2006

2011

1,800 Exabytes

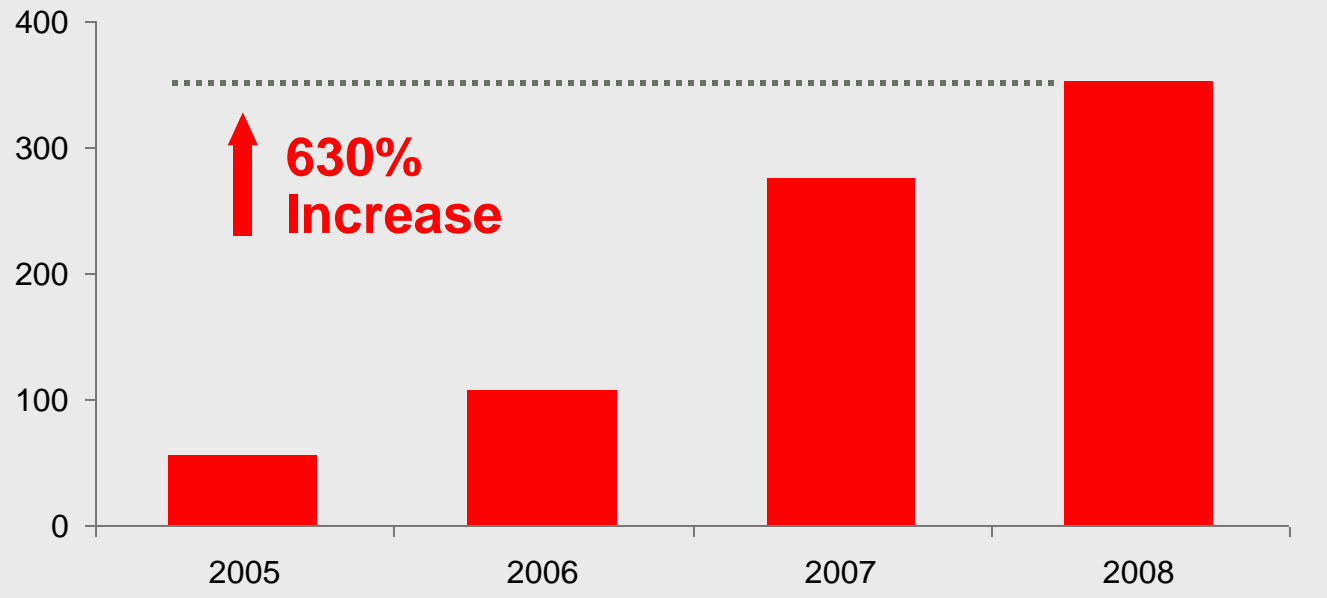
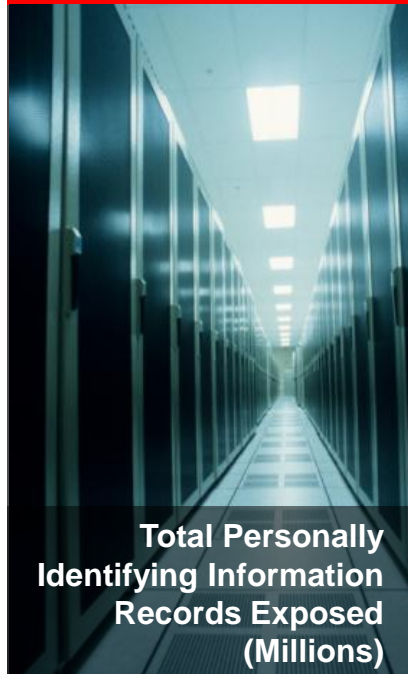
Growth
Doubles
Yearly

More breaches than ever...

Data Breach

Once exposed, the data is out there – the bell can't be un-rung

PUBLICLY REPORTED DATA BREACHES



More threats than ever...



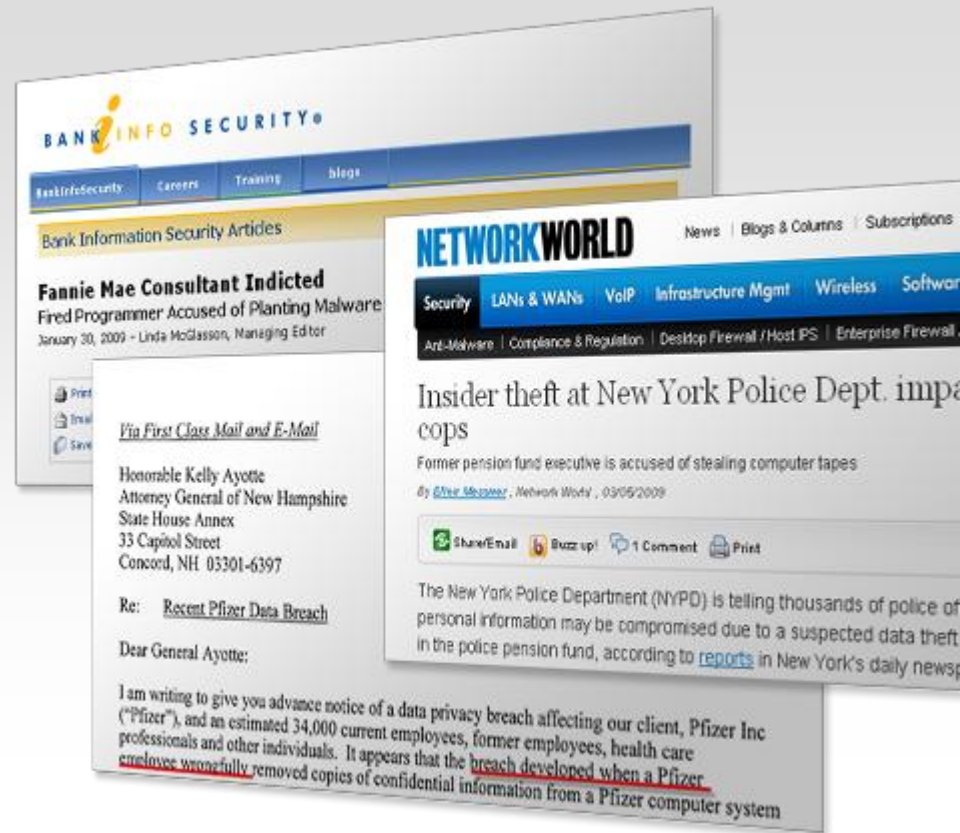
CyberInsecure.com
Daily Cyber Threats And Internet Security News Alerts

HOME ARCHIVES CONTACT ABOUT EMAIL SUBSCRIBE ADVERTISE

August 5th, 2008

Countrywide Financial Insider Steals And Sells Thousands Of Private Customer Records

The FBI on Friday arrested a former Countrywide Financial Corp. employee and another man in an alleged scheme to steal and sell sensitive personal information, including Social Security numbers, of as many as 2 million mortgage applicants. The breach in security, which occurred over a two-year



BANK INFO SECURITY
Bank Information Security Articles

Fannie Mae Consultant Indicted

Fired Programmer Accused of Planting Malware
January 30, 2009 - Linda McGlasson, Managing Editor

Via First Class Mail and E-Mail

Honorable Kelly Ayotte
Attorney General of New Hampshire
State House Annex
33 Capitol Street
Concord, NH 03301-6397

Re: [Recent Pfizer Data Breach](#)

Dear General Ayotte:

I am writing to give you advance notice of a data privacy breach affecting our client, Pfizer Inc ("Pfizer"), and an estimated 34,000 current employees, former employees, health care professionals and other individuals. It appears that the breach developed when a Pfizer employee wrongfully removed copies of confidential information from a Pfizer computer system

NETWORKWORLD
News | Blogs & Columns | Subscriptions

Security LANs & WANs VoIP Infrastructure Mgmt Wireless Software
Anti-Malware | Compliance & Regulation | Desktop Firewall / Host PS | Enterprise Firewall

Insider theft at New York Police Dept. impacts cops

Former pension fund executive is accused of stealing computer tapes
By [Steve Mizer](#), Network World, 03/05/2009

ShareEmail Buzz up 1 Comment Print

The New York Police Department (NYPD) is telling thousands of police of personal information may be compromised due to a suspected data theft in the police pension fund, according to [reports](#) in New York's daily news

More Regulations Than Ever...



90%

Companies behind in compliance

Source: IT Policy Compliance Group, 2007.

Market Overview: IT Security In 2009

FORRESTER®

There has been a clear and significant shift from what was the widely recognized state of security just a few years ago. **Protecting the organization's information assets is the top issue** facing security programs: **data security (90%)** is most often cited as an important or very important issue for IT security organizations, followed by **application security (86%)**.

Securing Data in Your Database

- Encryption
- Masking
- Classification
- Access Control



- Activity Monitoring
- Change Tracking
- Discovery and Assessment
- Secure Configuration

Database Defense-in-Depth



Monitoring

- Configuration Management
- Audit Vault
- Total Recall

Access Control

- Database Vault
- Label Security

Encryption & Masking

- Advanced Security
- Secure Backup
- Data Masking

Database Defense-in-Depth



Monitoring

- Configuration Management
- Audit Vault
- Total Recall

Access Control

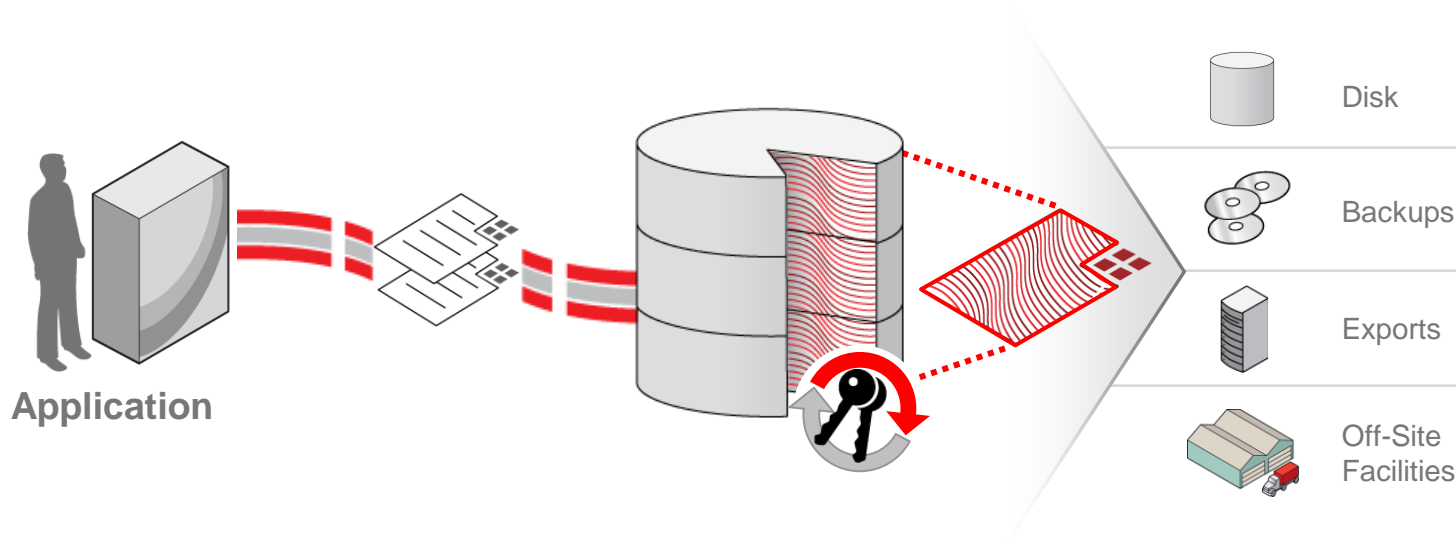
- Database Vault
- Label Security

Encryption & Masking

- Advanced Security
- Secure Backup
- Data Masking

Oracle Advanced Security

Transparent Data Encryption

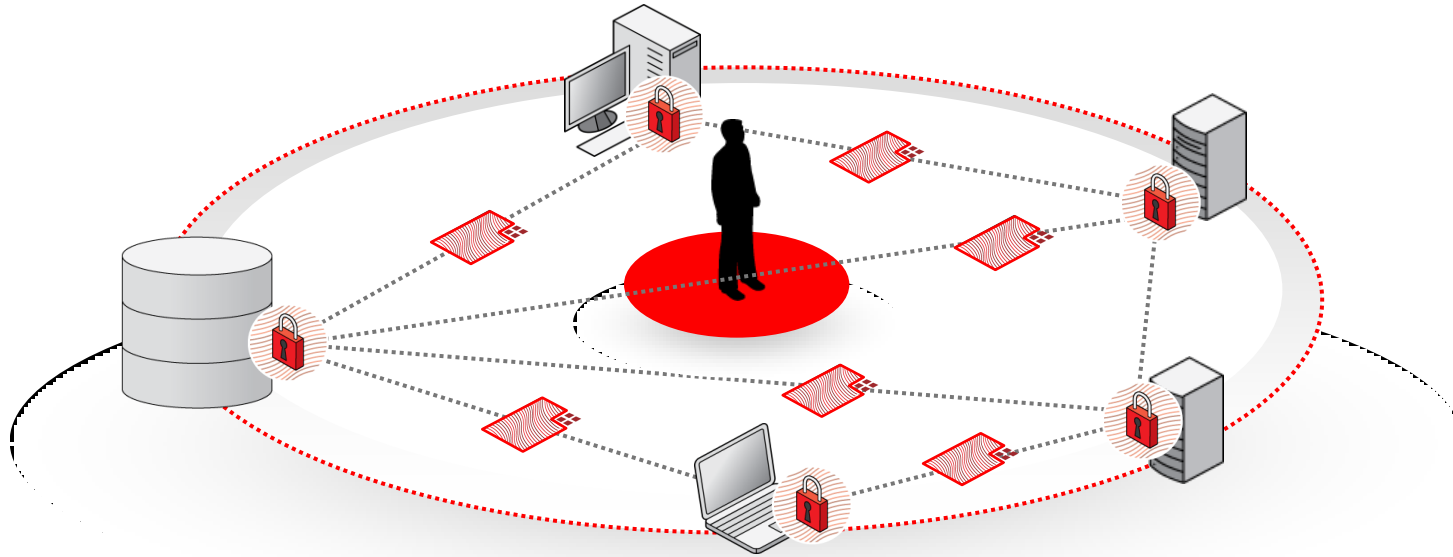


- Complete encryption for data at rest
- No application changes required
- Efficient encryption of all application data
- Built-in key lifecycle management



Oracle Advanced Security

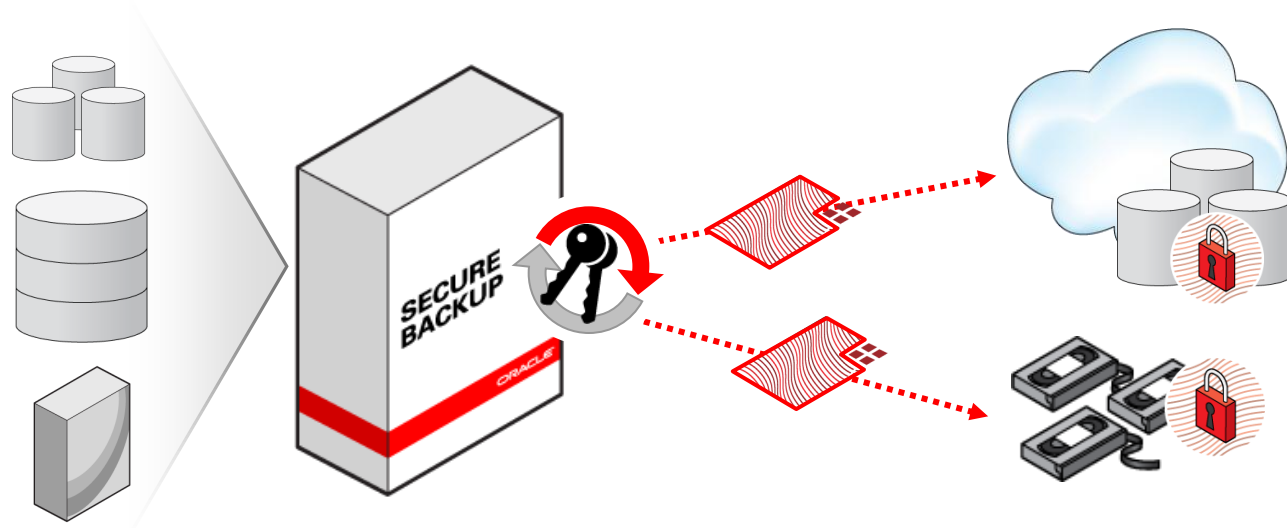
Network Encryption & Strong Authentication



- Standard-based encryption for data in transit
- Strong authentication of users and servers
- No infrastructure changes required
- Easy to implement

Oracle Secure Backup

Integrated Tape or Cloud Backup Management



- Secure data archival to tape or cloud
- Easy to administer key management
- Fastest Oracle Database tape backups
- Leverage low-cost cloud storage

Oracle Data Masking

Irreversible De-Identification



- Remove sensitive data from non-production databases
- Referential integrity preserved so applications continue to work
- Sensitive data never leaves the database
- Extensible template library and policies for automation

Database Defense-in-Depth



Monitoring

- Configuration Management
- Audit Vault
- Total Recall

Access Control

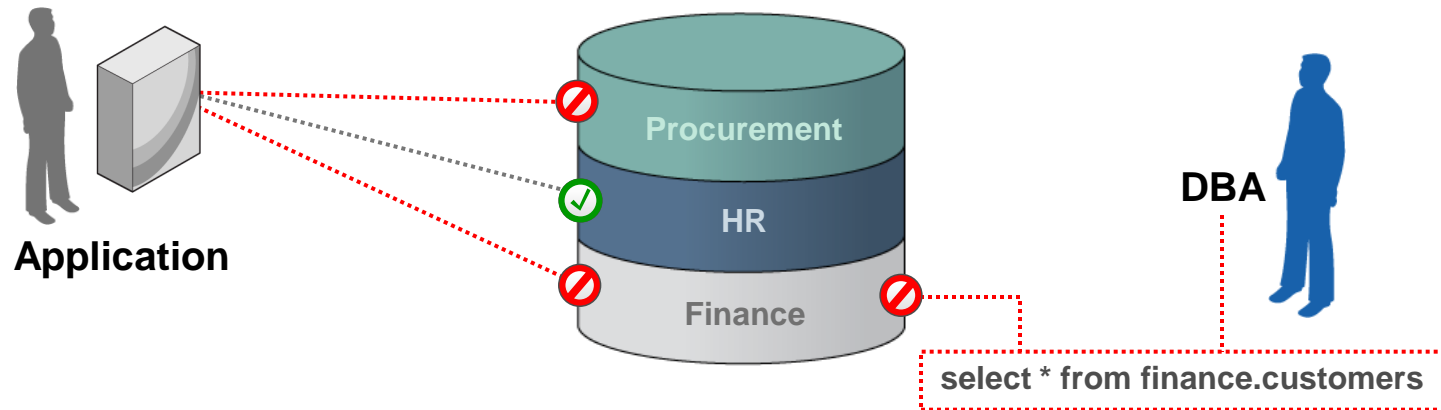
- Database Vault
- Label Security

Encryption & Masking

- Advanced Security
- Secure Backup
- Data Masking

Oracle Database Vault

Separation of Duties & Privileged User Controls

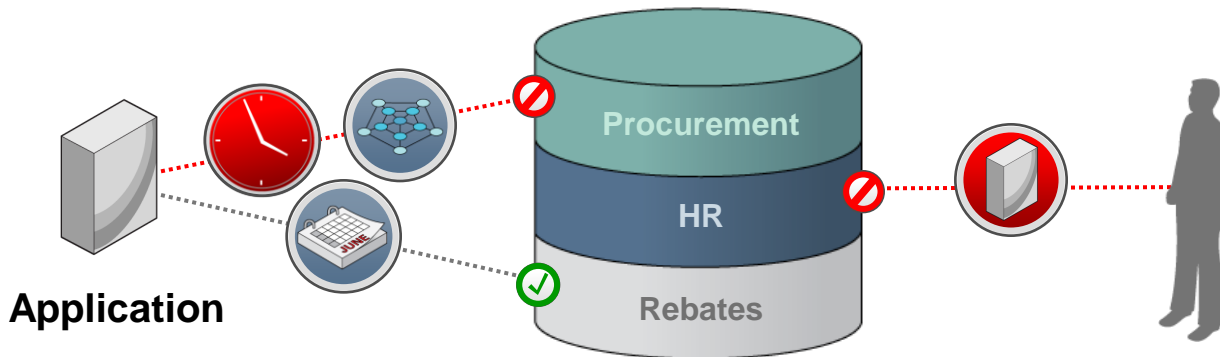


- DBA separation of duties
- Limit powers of privileged users
- Securely consolidate application data
- No application changes required



Oracle Database Vault

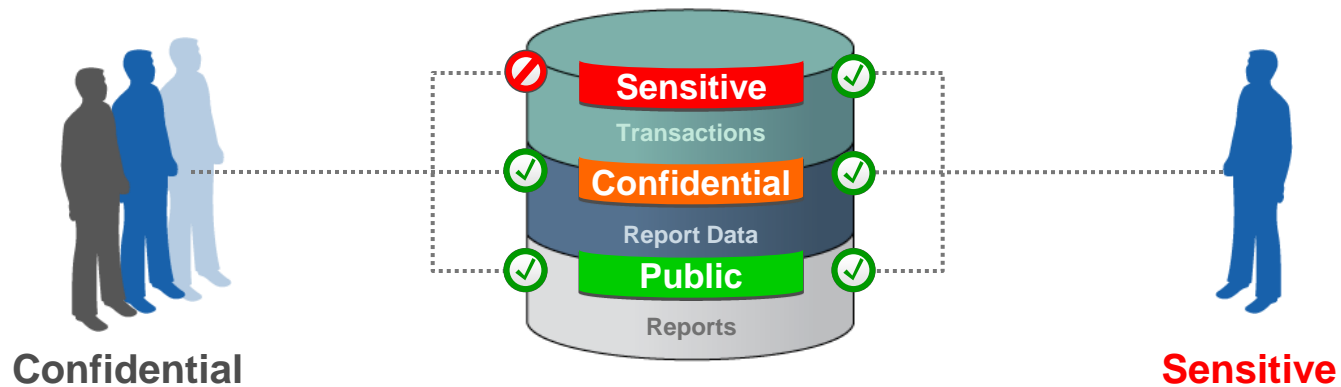
Multi-Factor Access Control Policy Enforcement



- Protect application data and prevent application by-pass
- Enforce who, where, when, and how using rules and factors
- Out-of-the box policies for Oracle applications, customizable

Oracle Label Security

Data Classification for Access Control



- Classify users and data based on business drivers
- Database enforced row level access control
- Users classification through Oracle Identity Management Suite
- Classification labels can be factors in other policies

Database Defense-in-Depth



Monitoring

- Configuration Management
- Audit Vault
- Total Recall

Access Control

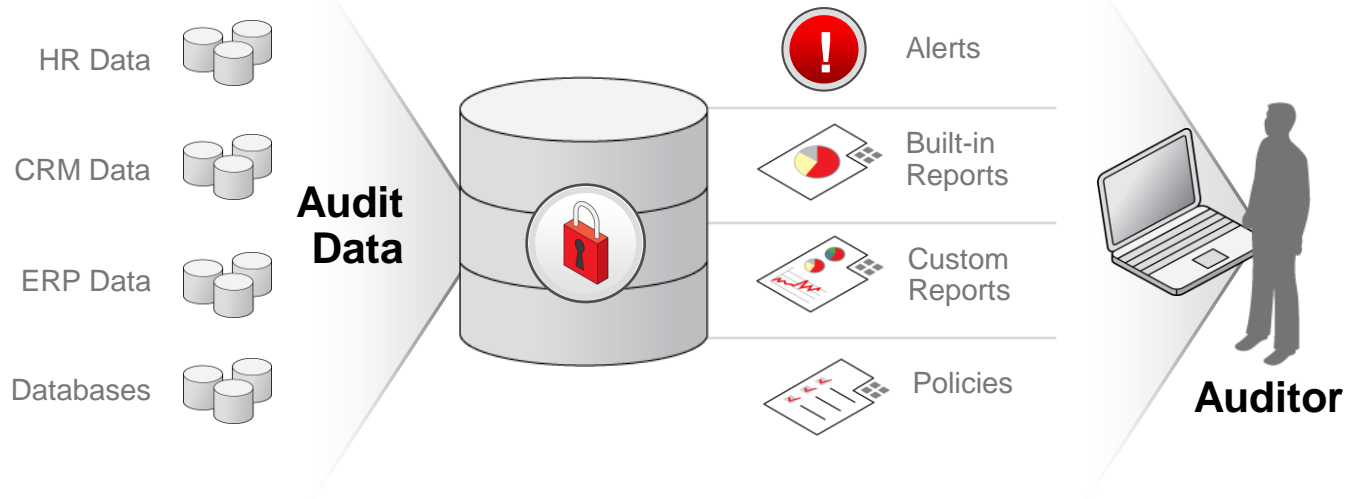
- Database Vault
- Label Security

Encryption & Masking

- Advanced Security
- Secure Backup
- Data Masking

Oracle Audit Vault

Automated Activity Monitoring & Audit Reporting



- Consolidate audit data into secure repository
- Detect and alert on suspicious activities
- Out-of-the box compliance reporting
- Centralized audit policy management

ORACLE



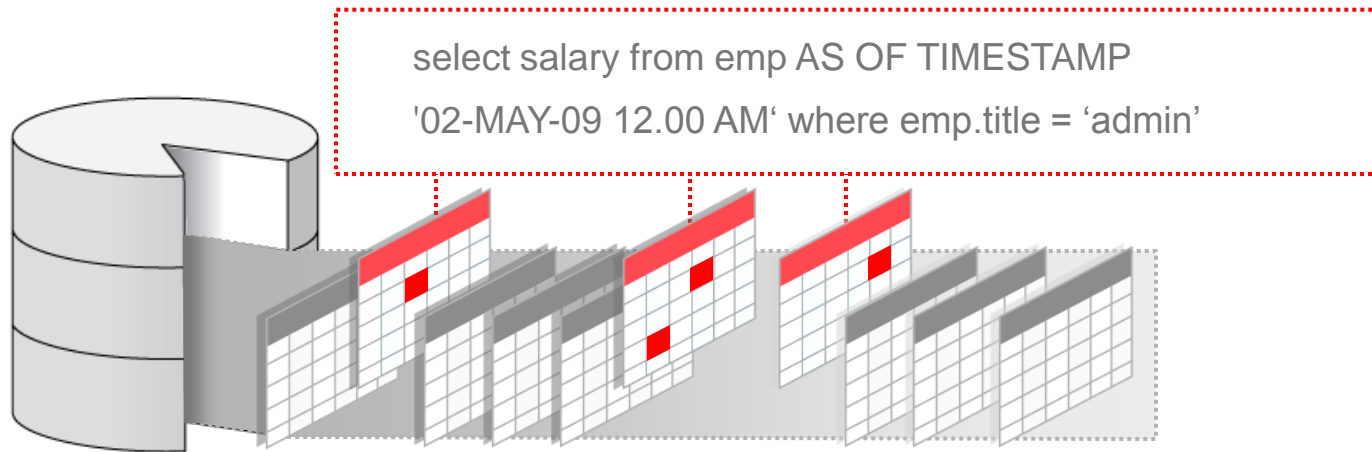
Microsoft SYBASE



ORACLE

Oracle Total Recall

Secure Change Tracking



- Transparently track data changes
- Efficient, tamper-resistant storage of archives
- Real-time access to historical data
- Simplified forensics and error correction




Oracle Configuration Management

Vulnerability Assessment & Secure Configuration

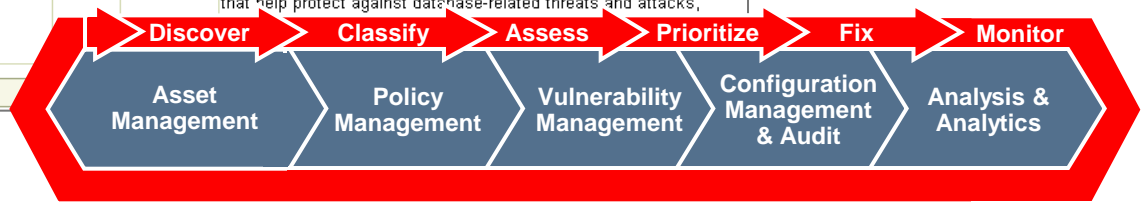
Policy Group Evaluation Results

[Evaluation Results](#) [Library](#) [Errors](#)

This table summarizes the policy group evaluations. Click the name of the policy group for detailed information. Page Refreshed Sep 17, 2008 4:48:43

Policy Group	Version	Keywords	Average Compliance Score (%)	Targets	Target Type	Description
Secure Configuration for Oracle Database	1	Security	 58	5	Database Instance	Ensures adherence with best-practice security configuration settings that help protect against database-related threats and attacks, providing a more secure operating environment for the Oracle database. 
Secure Configuration for Oracle Listener	1	Security	 90	3	Listener	Ensures adherence with best-practice security configuration settings that help protect against database-related threats and attacks,

[Evaluation Results](#) [Library](#) [Errors](#)



- Database discovery
- Continuous scanning against 375+ best practices and industry standards, extensible
- Detect and prevent unauthorized configuration changes
- Change management compliance reports

Database Defense-in-Depth



Monitoring

- Configuration Management
- Audit Vault
- Total Recall

Access Control

- Database Vault
- Label Security

Encryption & Masking

- Advanced Security
- Secure Backup
- Data Masking

Summary



- Transparent
- Integrated
- Comprehensive
- Cost-Effective

For More Information



The screenshot shows the search interface for search.oracle.com. It features a dark grey header with the text "search.oracle.com". Below the header, there are two main sections: "Search for:" and "In the section:". The "Search for:" section contains a text input field with the text "database security". The "In the section:" section contains a dropdown menu with "All" selected, a search icon, and a "Refine Search" link.

or

oracle.com/database/security



Q&A



ORACLE IS THE INFORMATION COMPANY