Protecting Sensitive Data

In Non-Production Oracle Applications Environments

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Guardian Applications

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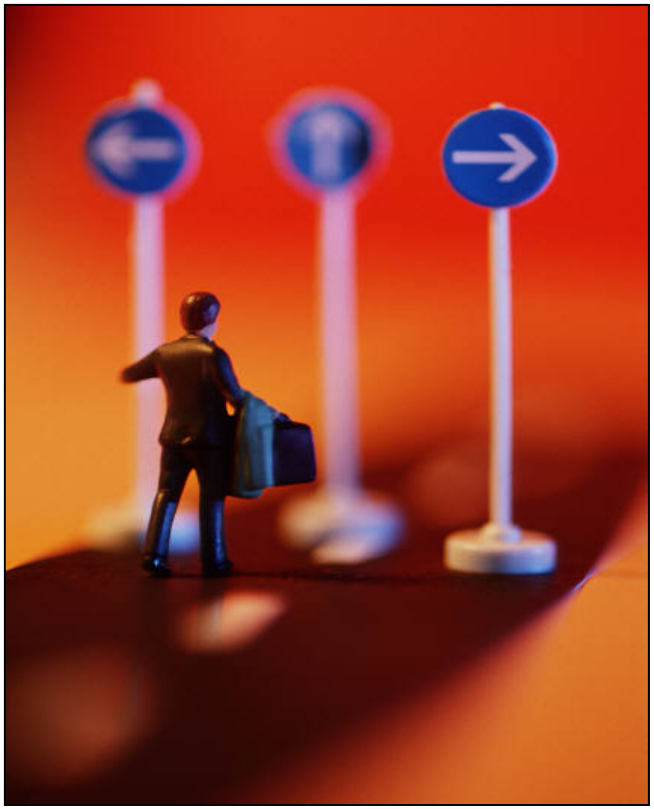
Introduction

Trend –

- ***Noun1.*** *a general direction of evolutionary change*
- ***Noun2.*** *Current style; vogue*



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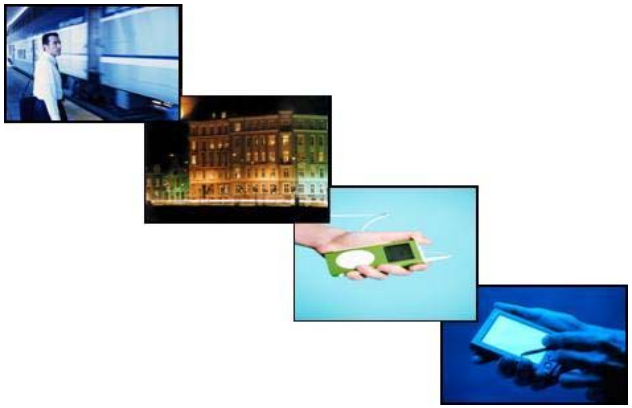
What's Out and What's In

- Out
  - SUV's
  - Second Homes
  - CD Players
  - Cell Phones
- In
  - Public Transportation
  - Timeshares
  - MP3's
  - PDA's



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Trend Acceptance Cycle

Innovators 2.5%

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Early Adopters 13.5%

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Early Majority 34%

↑

Late Majority 34%

↑

Laggards 16%

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The Trend in IT Security

Competitive Advantage

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Risk Management

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Compliance

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Network Security

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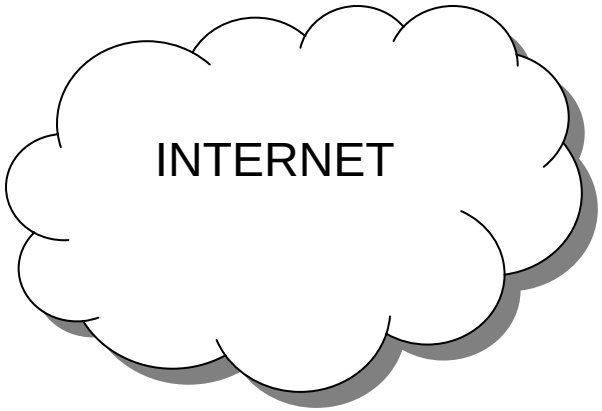
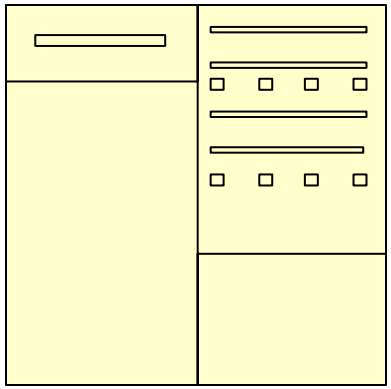
In the Beginning of Security

Entry Point



End Point



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Response to End Point Intrusion

- Firewalls
- Anti-Virus Software
- Intrusion Detection
- Smart Cards

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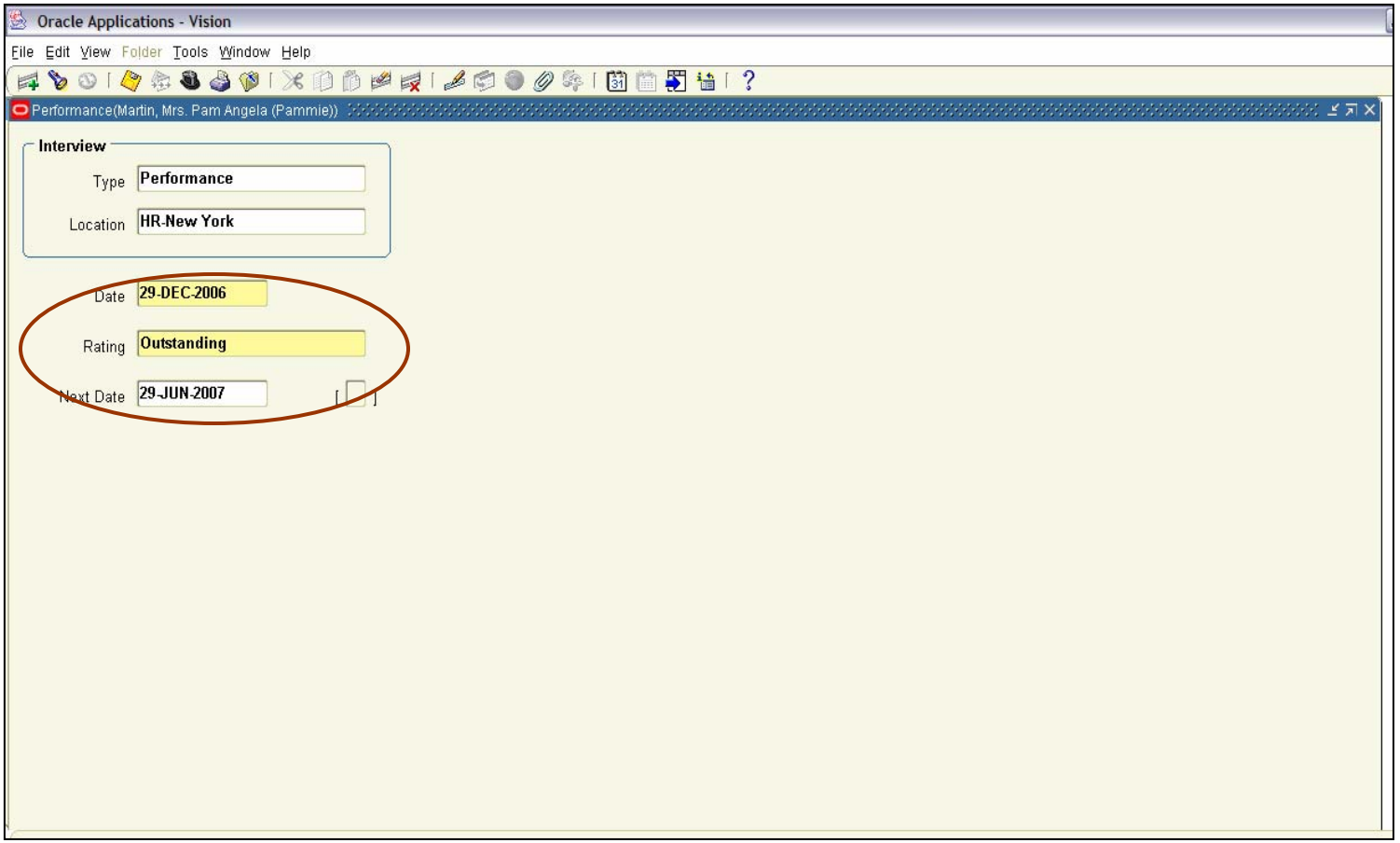
Performance Records



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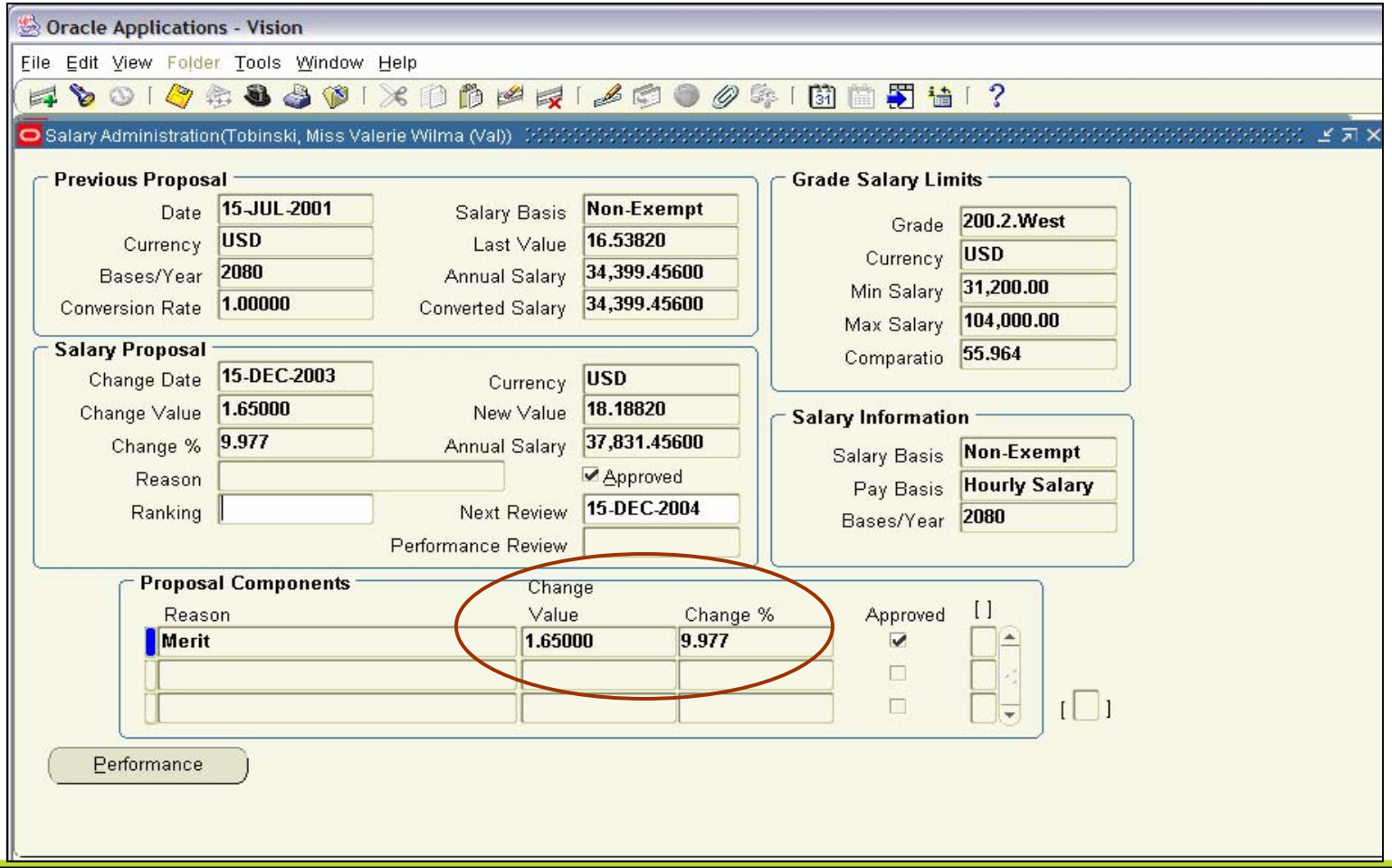
Salary and Merit Information



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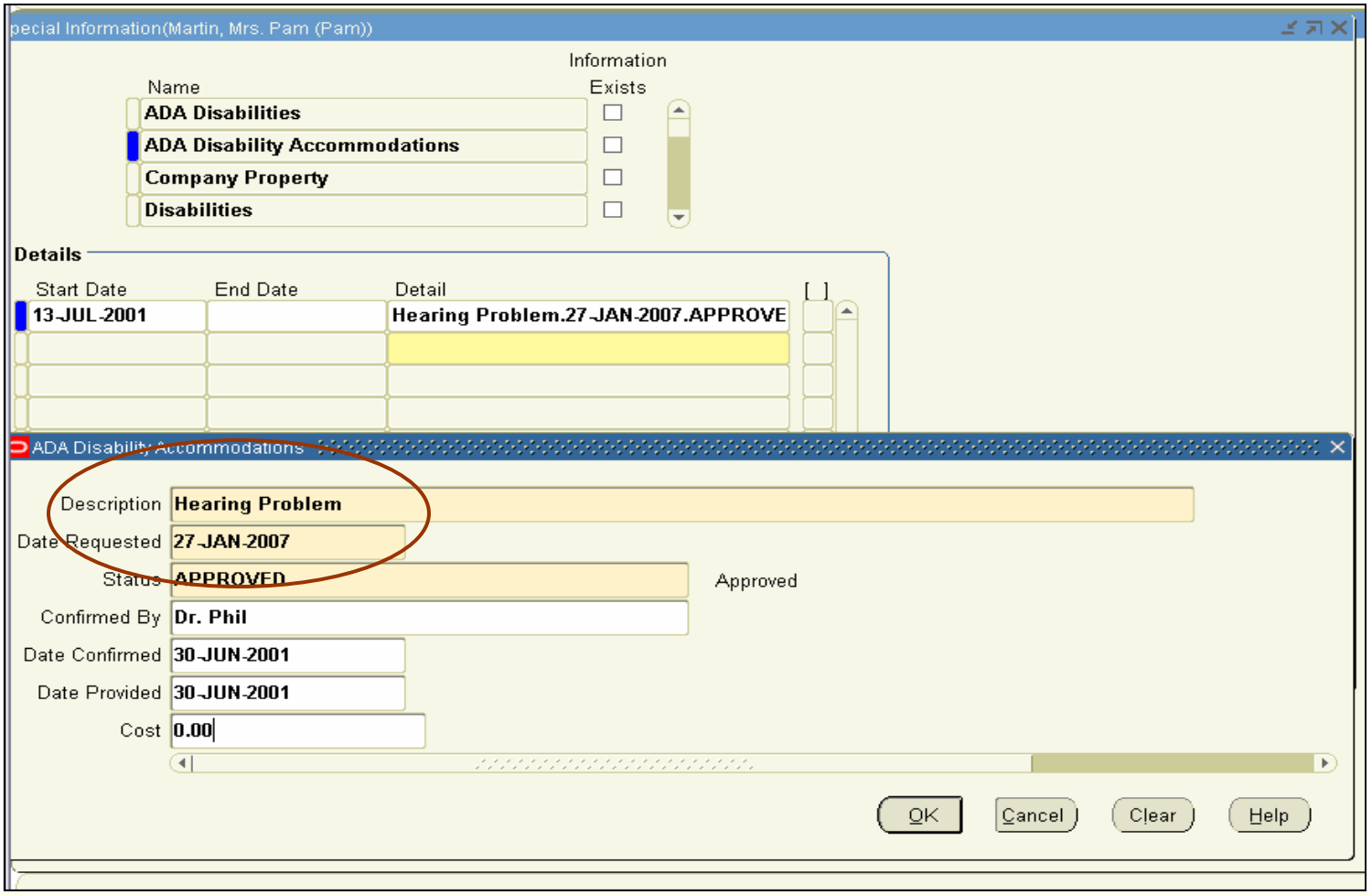
Health Records



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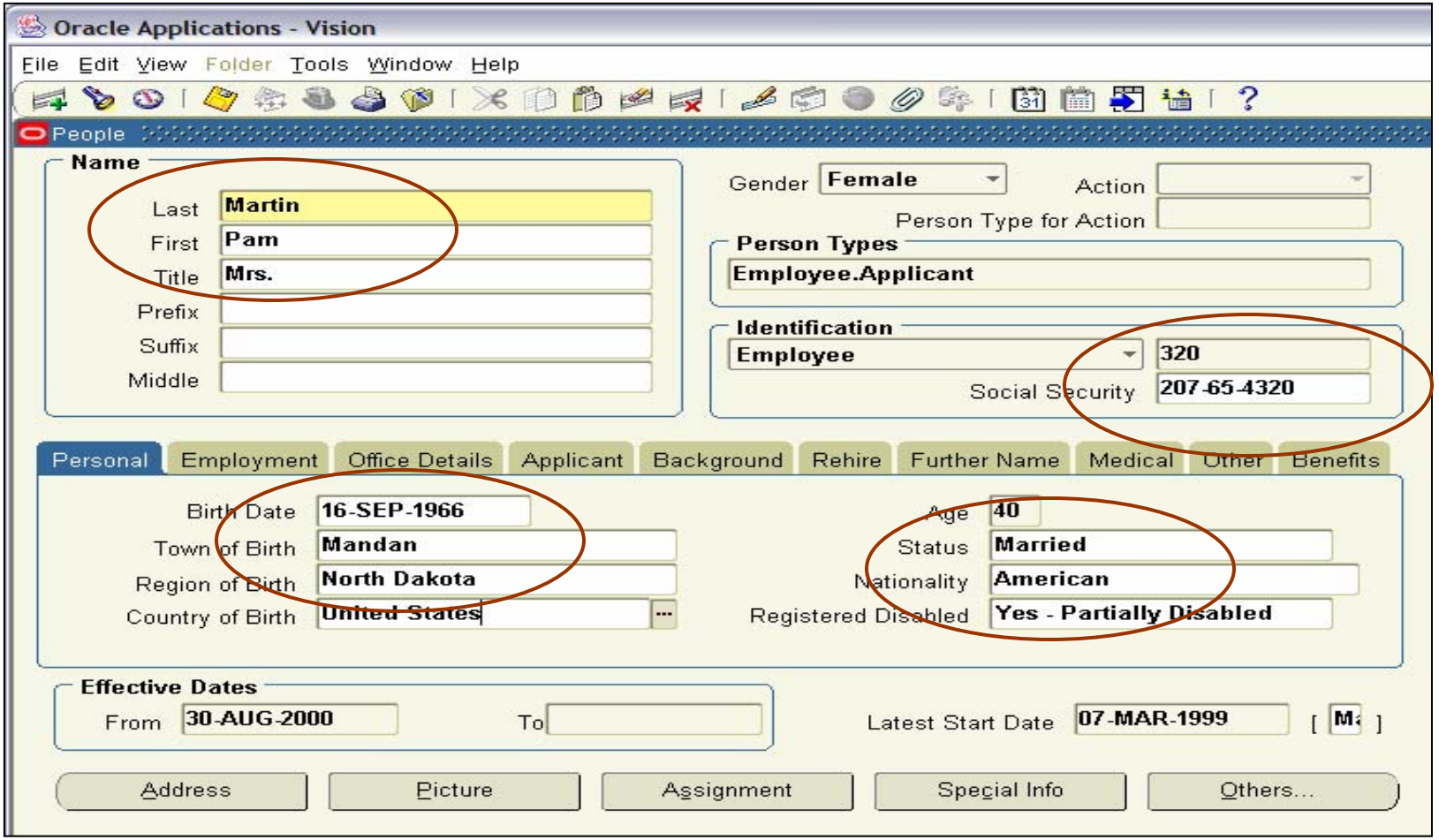
SSN and Marital Status



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HR and Payroll Data is a Target

- A data security breach is reported every 3 days
  - » Computer World
- 50 – 70% of the time the security breach happens on the worksite
  - » Alexander Hamilton Institute
- 90% of corporate thefts target HR and Payroll records
  - » Federal Trade Commission
- 61% of say that data leakage is the doing of insiders
  - » McAfee Datagate

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The Data is a Goldmine!!!!

- Social Security Numbers
- Names and Addresses
- Salary and Bonus Information
- Bank Account Numbers
- Tax and Withholding Information
- Medical Information

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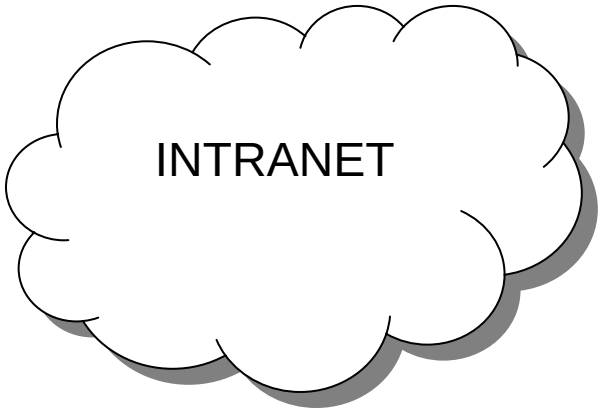
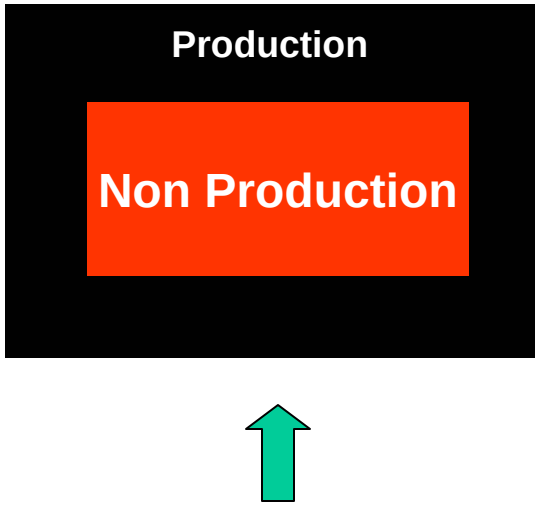
Vulnerability Exposed

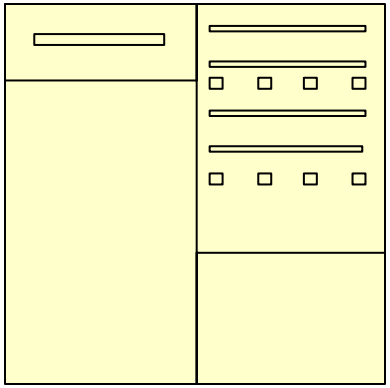
Entry Point

Application

End Point







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Emerging Direction of Security

- External to Internal
- Database to Application
- Production to Non Production
- Compliance to Risk Management
- Hardship to Opportunity

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Early Adopters Response to Internal Threats

- IT and Business teams joined forces
- Inventoried and classified sensitive data
- Determined value of the sensitive data
- Reassessed data collection and storage
- Created privacy policies and procedures

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Audits Reveal Vulnerabilities

- Cloning Production
- Apps Password Distribution
- Querying the Database
- Uncontrolled Development & Testing Environments

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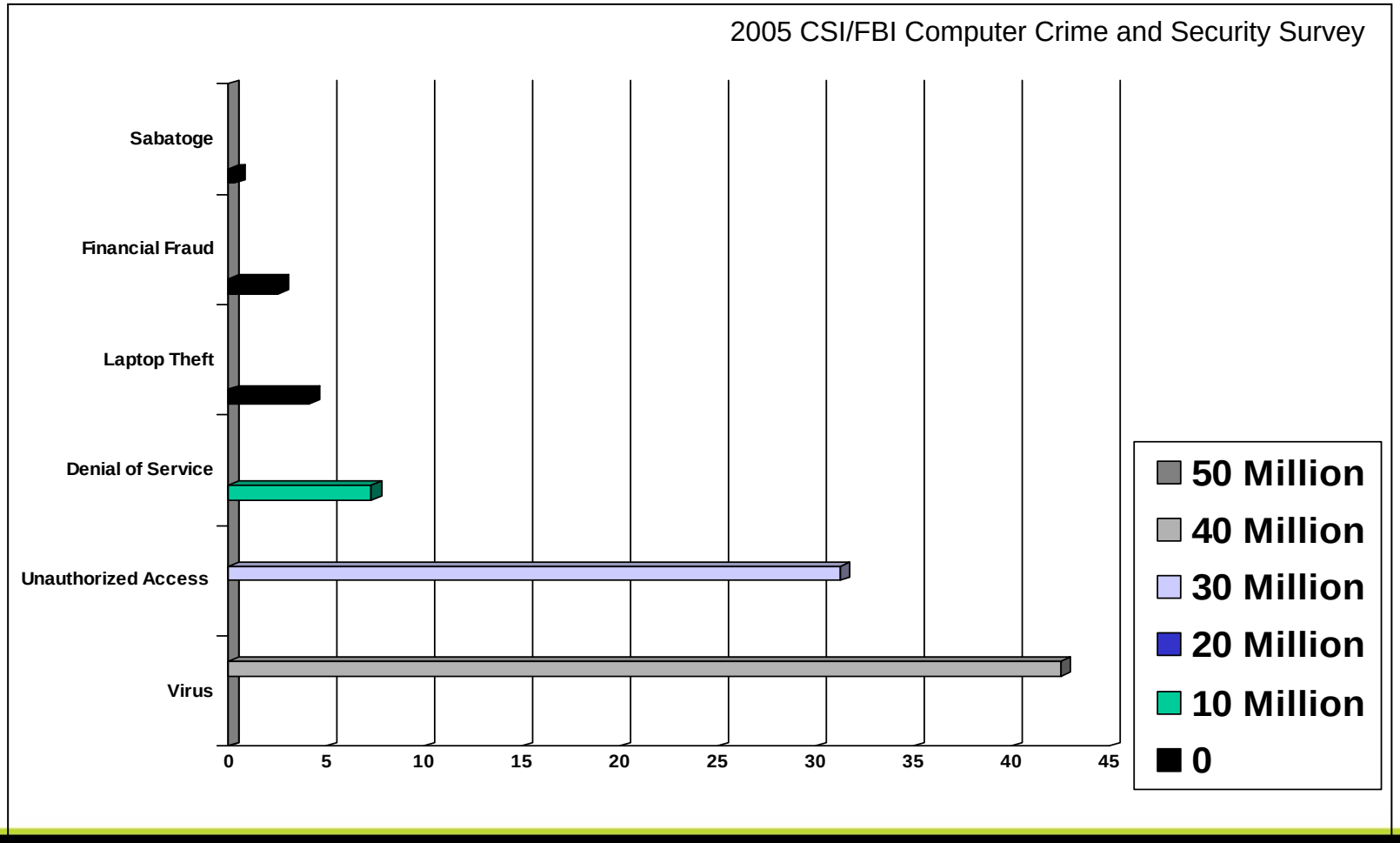
Dollars Lost by Incident Type



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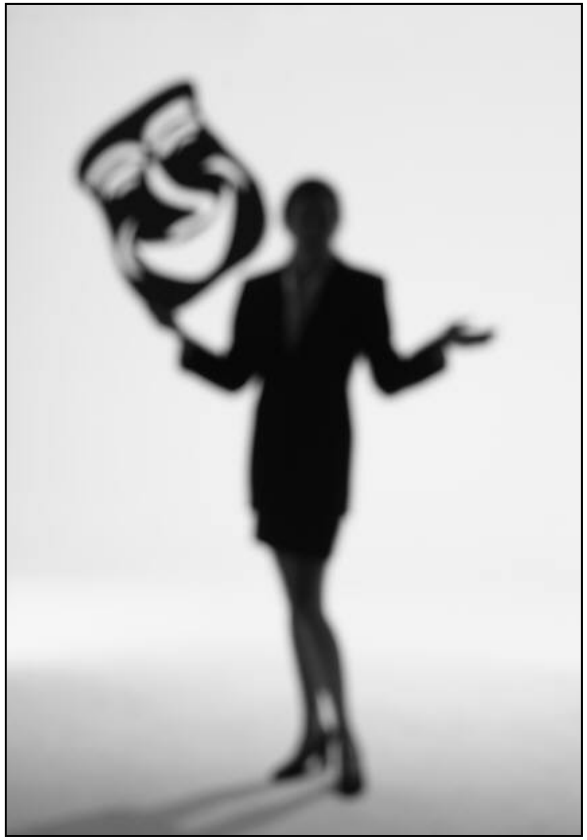
New Technologies

- Begin secure coding practices
- Encryption for data at rest
- Encryption for data in transit
- Table Truncate Routines
- Data Masking/Scrambling



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Special Considerations in ERP

- Maintain Data Integrity
- Include Value Sets
- Verify Connections
- Salary Tie Out

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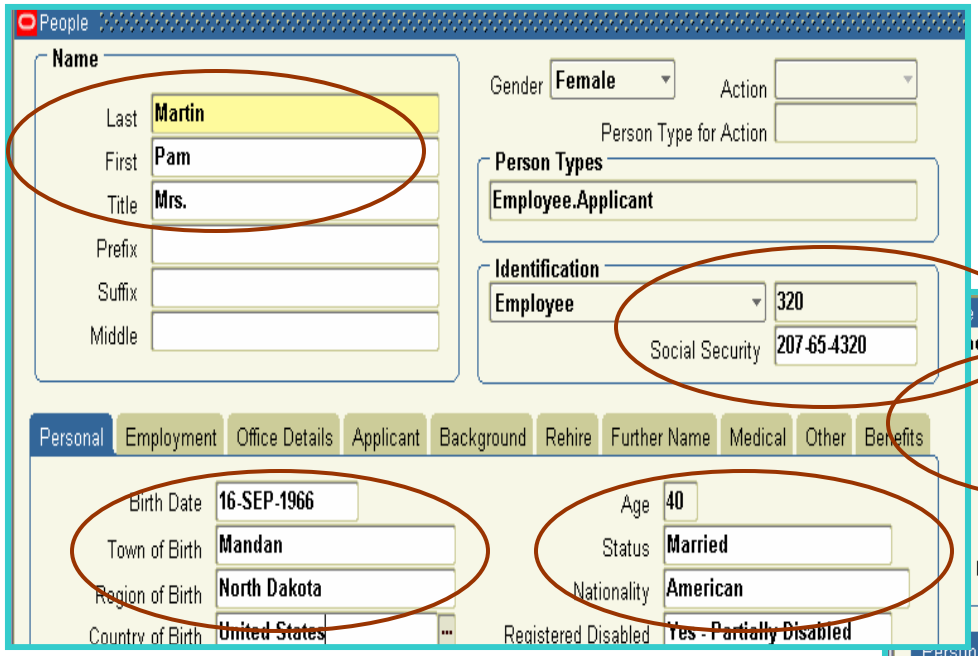
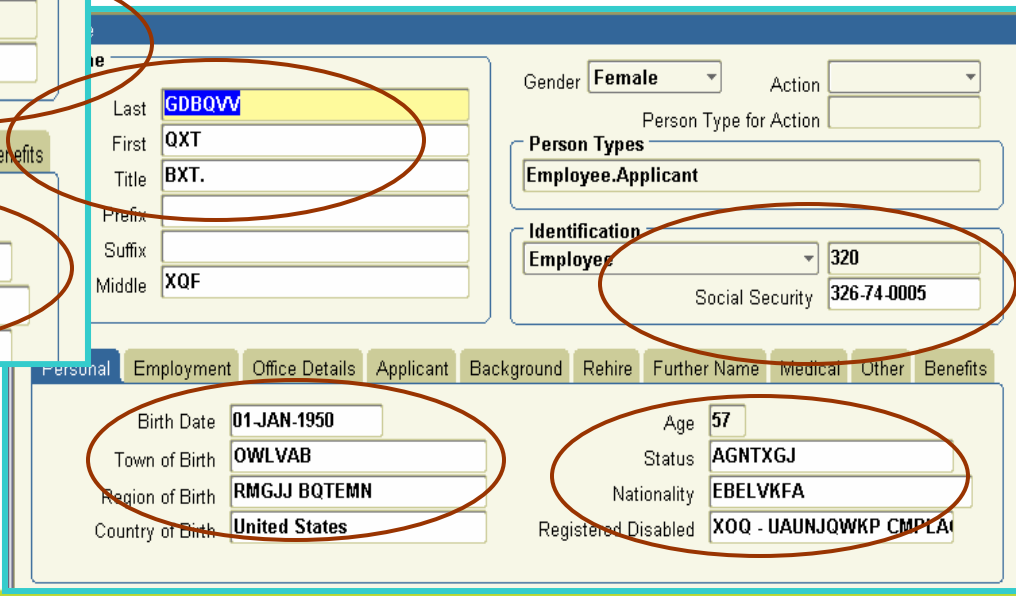
Protecting Confidential HR Info

Before Scramble



After Scramble



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Accurate Statement of Earnings

Before Scramble

Period Start	Period End	Payment Date	Check Number
24-DEC-2001	30-DEC-2001	04-JAN-2002	10401, NACHA

Federal Filing Status	Fed Allowances	State
Single	2	Singl

EARNINGS

Description	Hours	Amount	Year To Date
Regular Wages	40.00	720.00	720.00

	Year To Date
Gross Pay	720.00
Pre-Tax Deductions	37.06
Tax Deductions	194.63
Other Deductions	1.34
NET PAY	486.97

720
-37.06
-194.73
-1.34
486.97

After Scramble

Period Start	Period End	Payment Date	Check Number
24-DEC-2001	30-DEC-2001	04-JAN-2002	10401, NACHA

Federal Filing Status	Fed Allowances	State
Single	2	Singl

EARNINGS

Description	Hours	Amount	Year To Date
Regular Wages	40.00	9119.22	9119.22

	Year To Date
Gross Pay	9119.22
Pre-Tax Deductions	469.39
Tax Deductions	2465.10
Other Deductions	16.97
NET PAY	6167.76

9119.22
- 469.39
-2465.10
-16.97
6167.76

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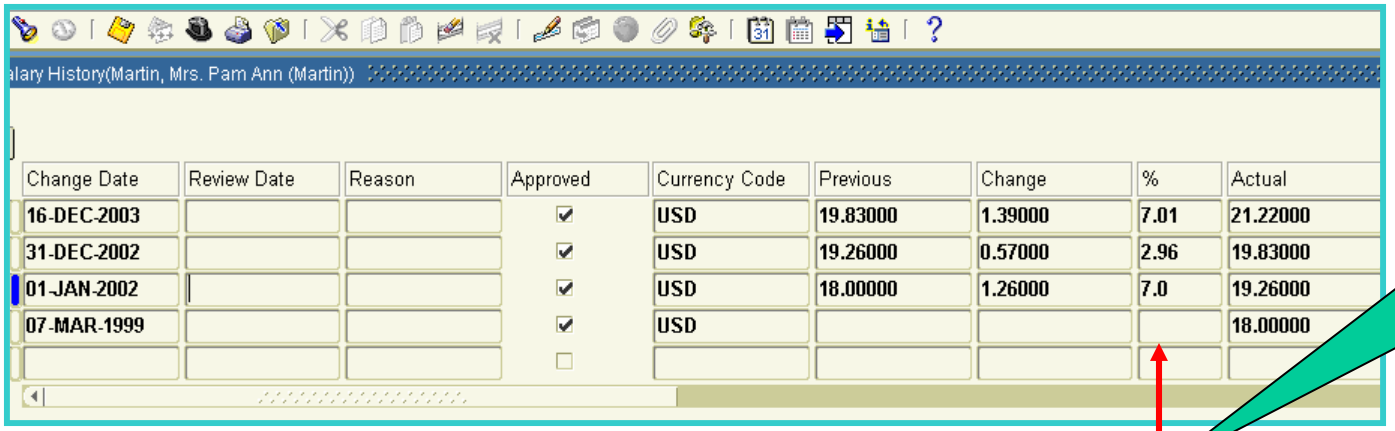
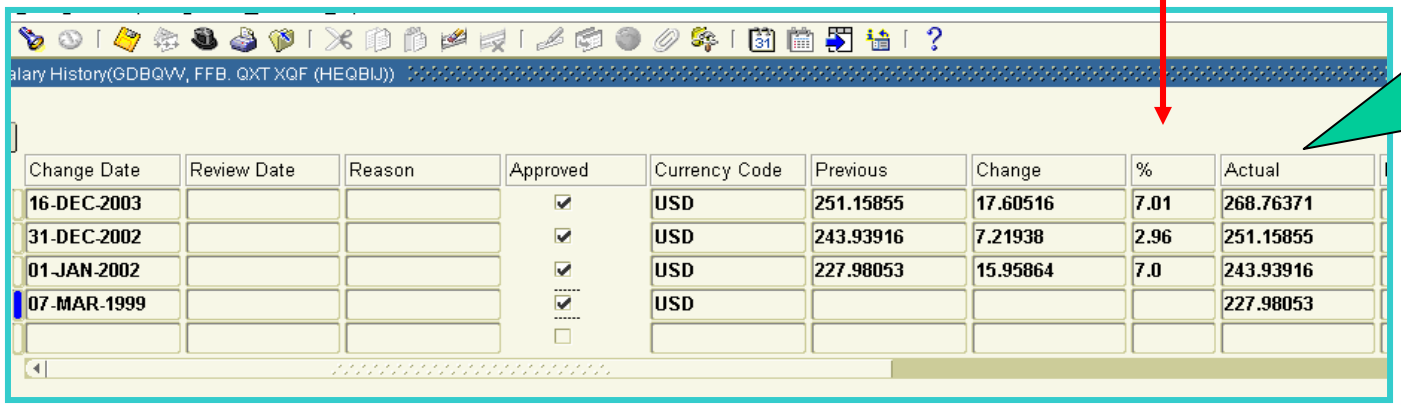
Correct Salary History Calcs



Increase percentage remains the same after scrambling.



Previous+Change =Actual

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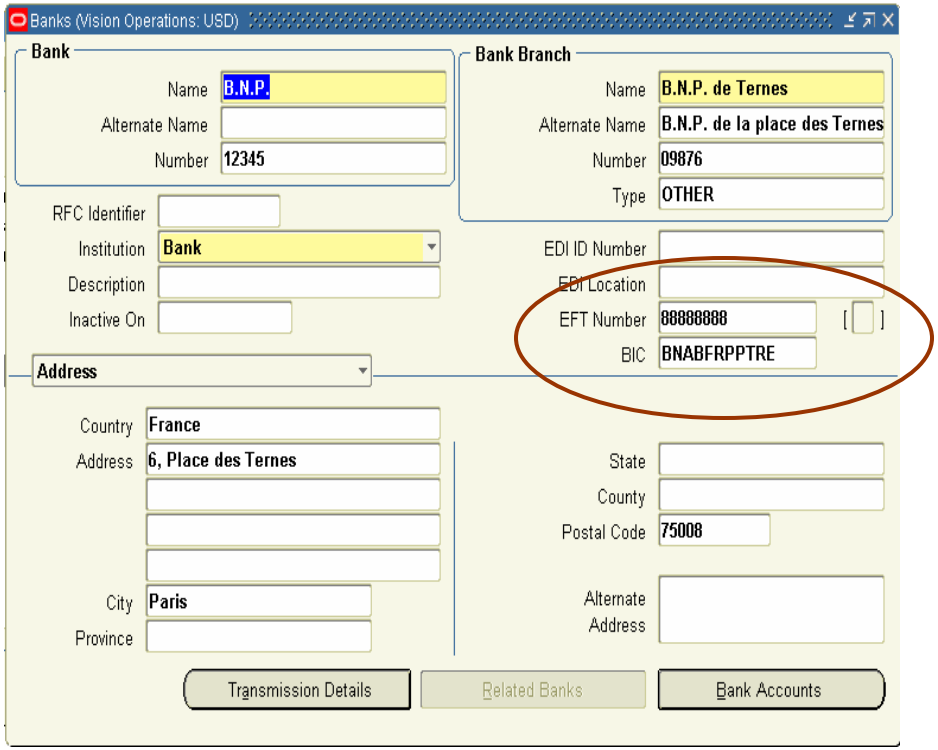
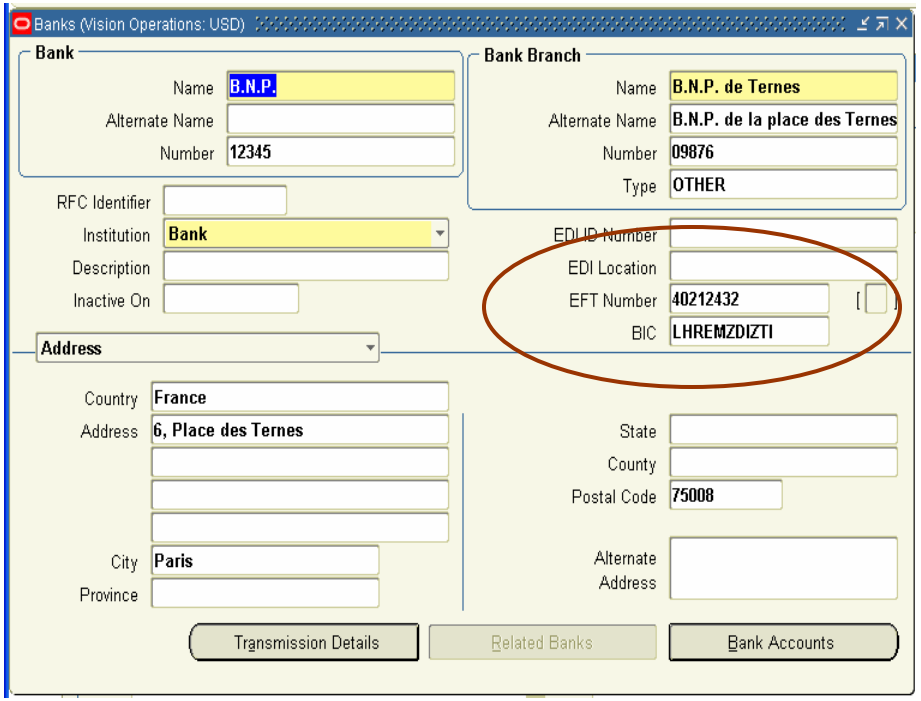
Banks

Before Scramble



After Scramble



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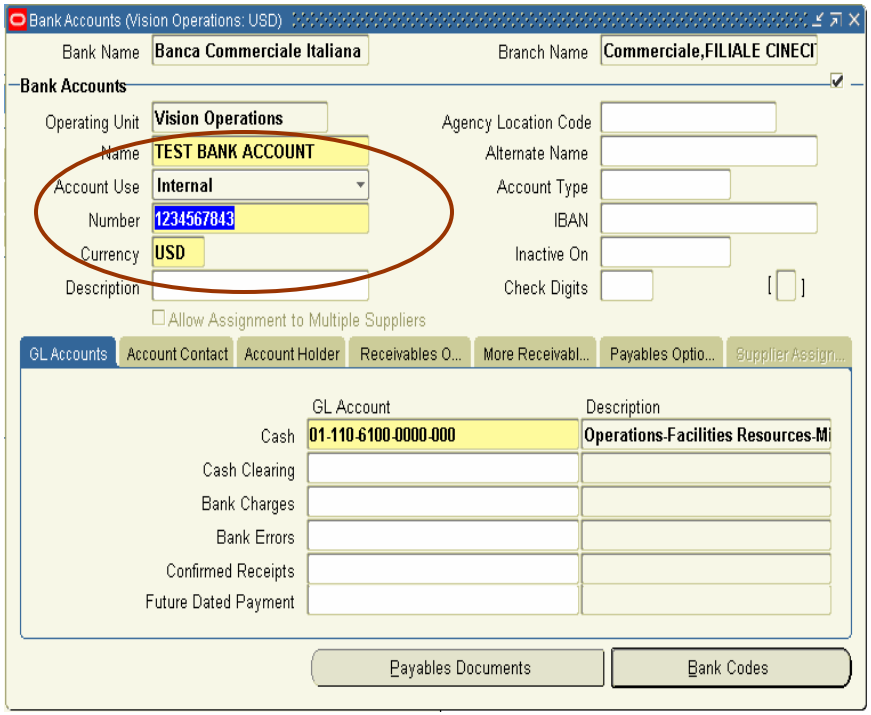
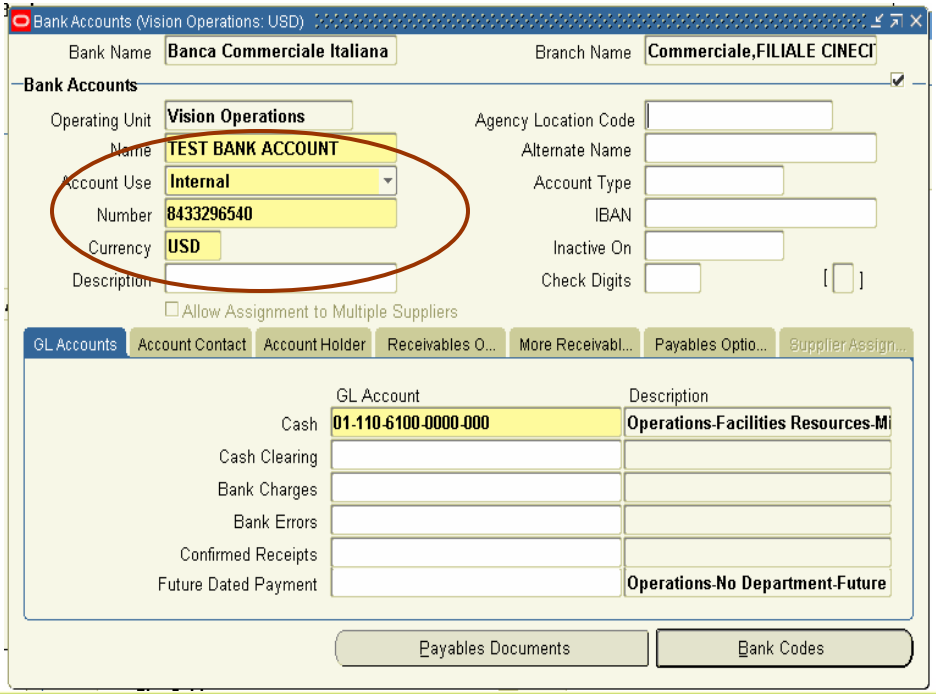
Bank Accounts

Before Scramble



After Scramble



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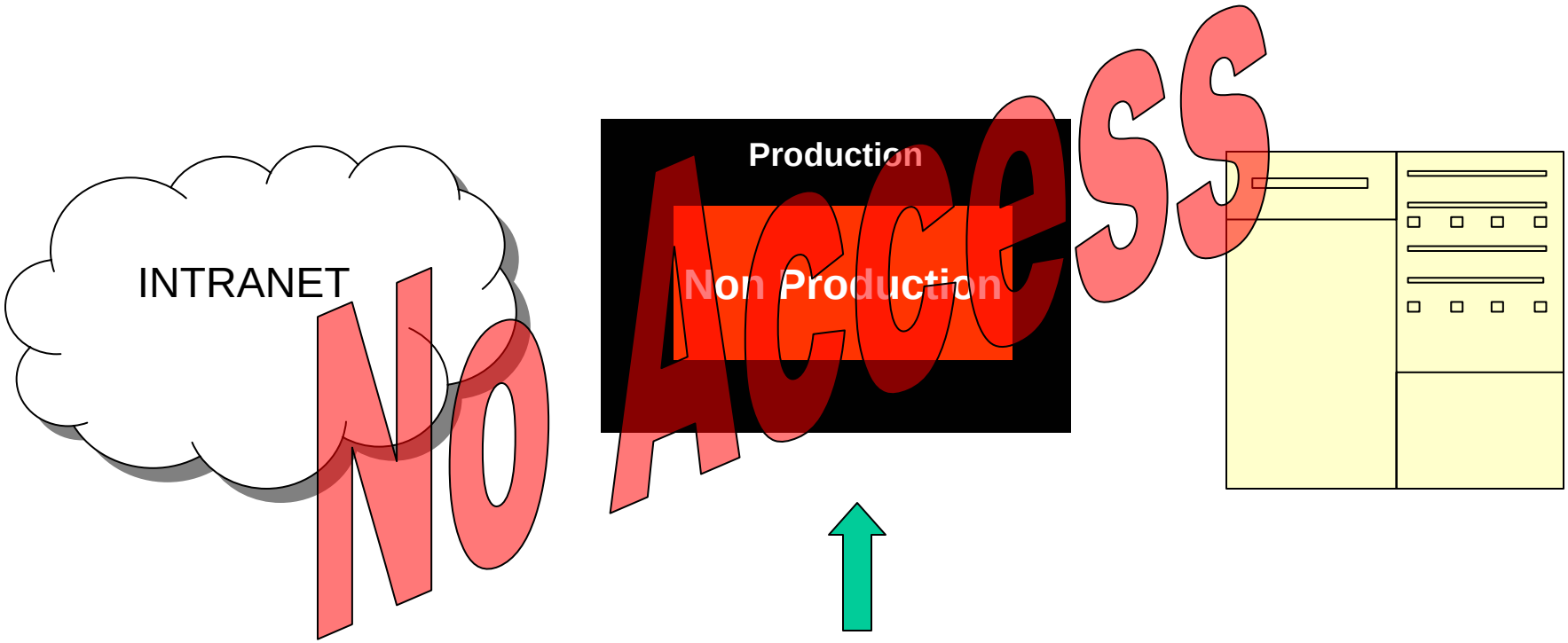
True Risk Management Requires a Layered Approach



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Greatest Motivation for Changes IT Security Practices

- 56% - Compliance with Regulations
- 47% - Privacy and Personal Data Protection
- 41% Meeting Business Objectives

Ernest & Young Global Information Security Survey 2006

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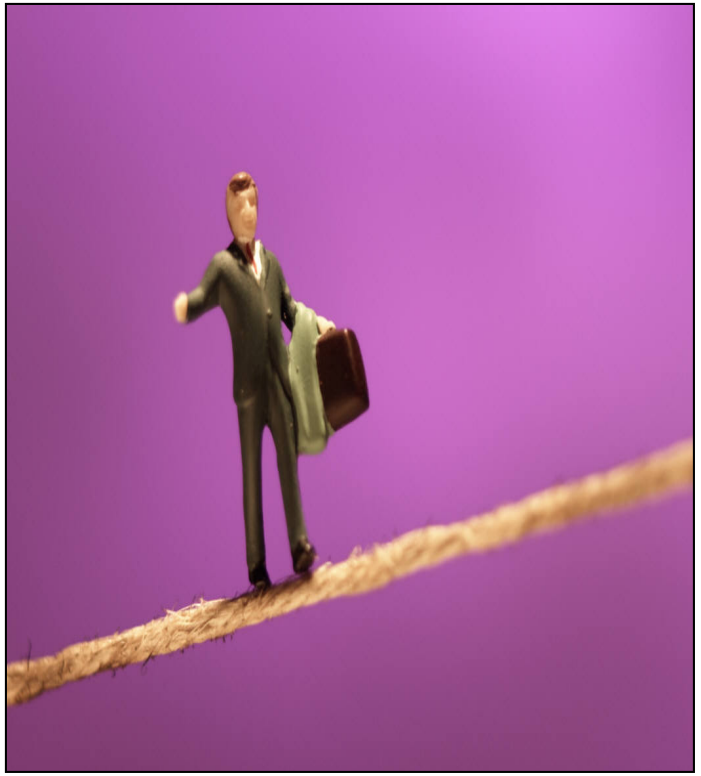
Beyond Compliance – Risk Management

- Risk Management is a continuous process
- Transitions corporation from reactive to proactive approach
- Provides more complete evaluations of opportunities
- Allows better decision making
- Helps manage executive expectations



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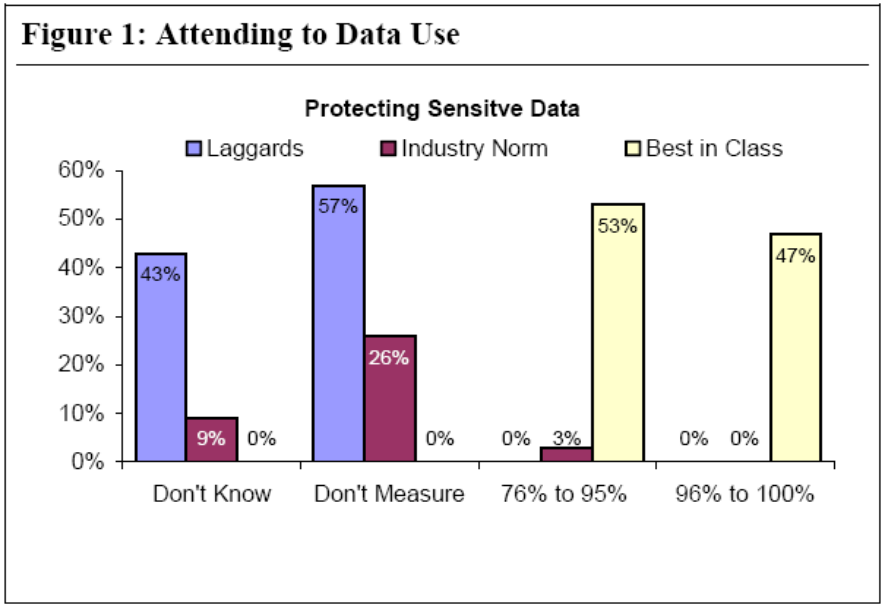
The Early Adopters are also the Best in Class

Best in Class:

- Protected sensitive data from internal threats
- Protected sensitive data from external threats
- Increased the percentage of sensitive data being protected
- Saw a decrease in data breaches in last year



The Aberdeen Group May 2007

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The Most Trusted Industries Make Privacy a Priority

- Healthcare
- Consumer Product Companies
- Banks & Brokerages

» Ponemon Institute's Most Trusted Companies 2007

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Best in Class Gain Competitive Advantage

- Understand confidential data is a business asset
- Experience improved decision making
- See Risk Management as a way to protect brand image
- Report that Risk Management enhances reputation
- Find that Risk Management increases appeal for job candidates

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The Trend in IT Security

Competitive Advantage

↑

Risk Management

↑

Compliance

↑

Network Security

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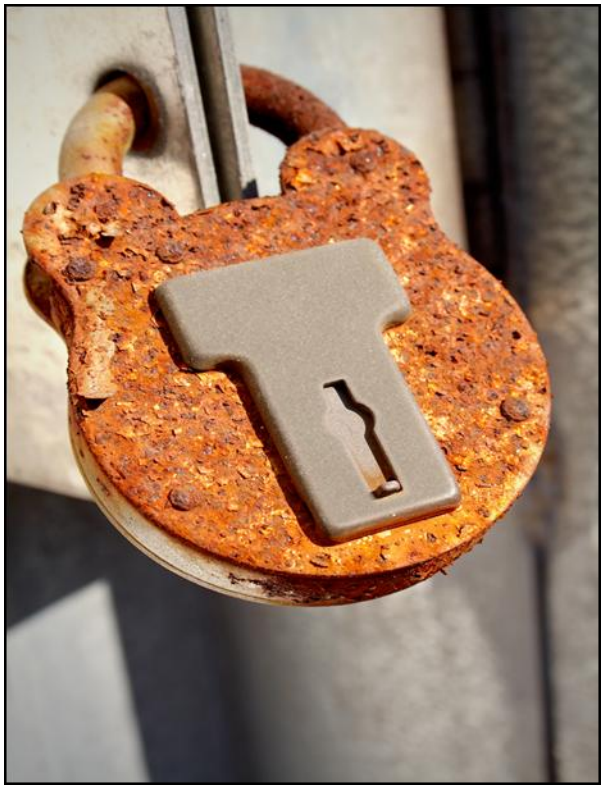
Conclusion

- Oracle HR and Payroll data is a target
- Take inventory of security risks
- Don’t be afraid to spend money on technology
- Don’t let sensitive data out of the building
- Remember you can be the best in class and take the competitive advantage



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