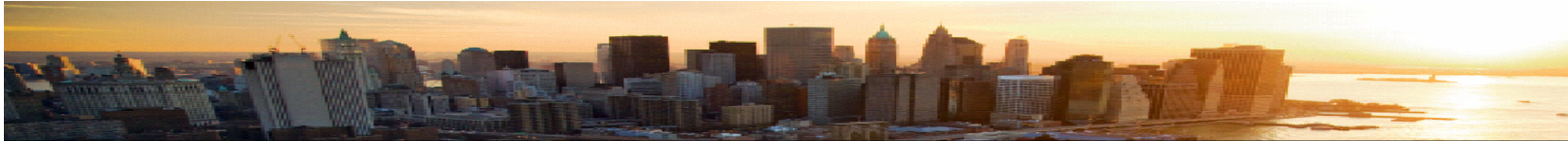




**IBM Security Forum**  
*Soluções para um ambiente seguro*

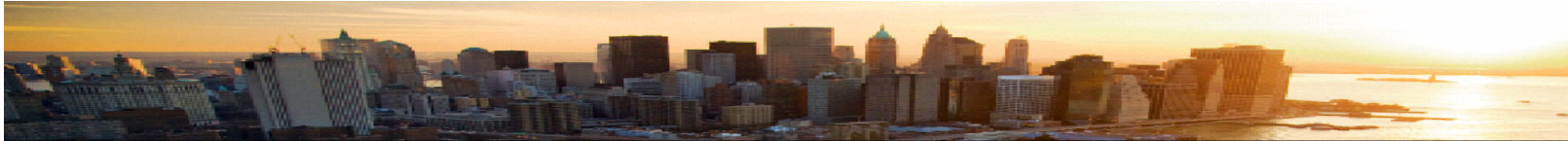
**Gerencie Riscos de Negócio Associado às  
Informações Armazenadas**

Mauricio Corpas  
Data Management Sales – Latin America  
[mcorpas@br.ibm.com](mailto:mcorpas@br.ibm.com)



# Agenda

- Challenges Customers are Facing Today
- How Optim Helps
- IBM Optim Solutions
  - Data Growth (Archiving) & Instance Consolidation
  - Test Data Management
  - Data Privacy
- Case Studies
- Business Outcomes of IBM Optim Solutions
- Compliance Mapping for IBM Data Serves and PCI Specifics



# Challenges Facing Customers Today

## ▪ Mitigate Risk

- Effectively and securely manage archived data
- Protect data privacy
- Accurate, prompt responses to auditing requests

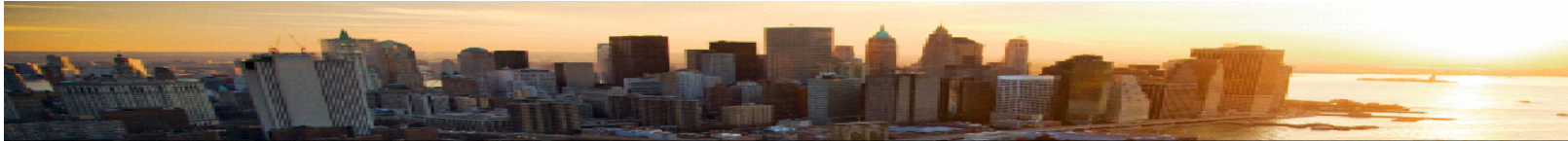
## ▪ Maintain Performance in face of Data Growth

- Improve application performance by moving historical transaction records to a safe, secure archive
- Achieve Service Level Agreements (SLAs) consistently

## ▪ Control Costs

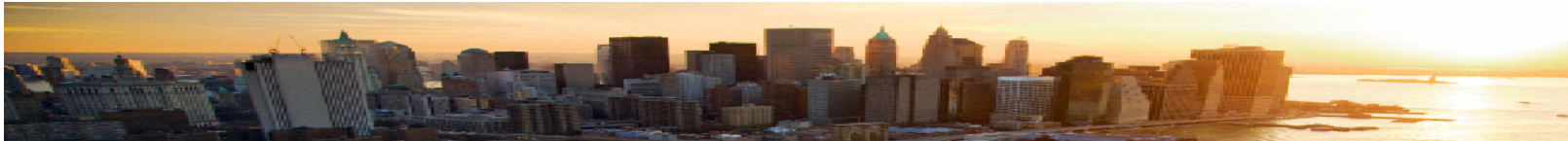
- Reduce infrastructure costs; utilize cost effective tiered storage
- Minimize cost and time for compliance
- Improve productivity of development team





## How IBM Optim Solutions can Help

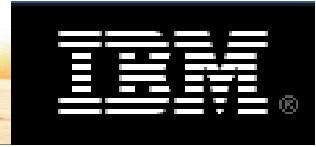
- **Data Growth / ILM:** Reduce large volumes of data in production environments, reducing the demand for more processing power & more storage, while improving performance.
- **Application Upgrades:** Accelerate and reduce the risk & cost on Oracle application upgrades.
- **Application Retirement/Consolidation:** Retire redundant instances of enterprise applications.
- **Data Retention & Governance:** Support global and industry polices for data retention & compliance on the production environments, including SOX, HIPAA, and SLA's.
- **Effective Test Data Management:** Create targeted, “right-sized” subsets faster and more efficiently than cloning



## About IBM Optim

- Formerly Princeton Softech
- Proven leader in Integrated Data Management (IDM)
- Solving complex data management issues since 1989
- Recognized by Gartner as industry leader with 46% market share.
- Long time-partner of Oracle - Certified Advantage Partner

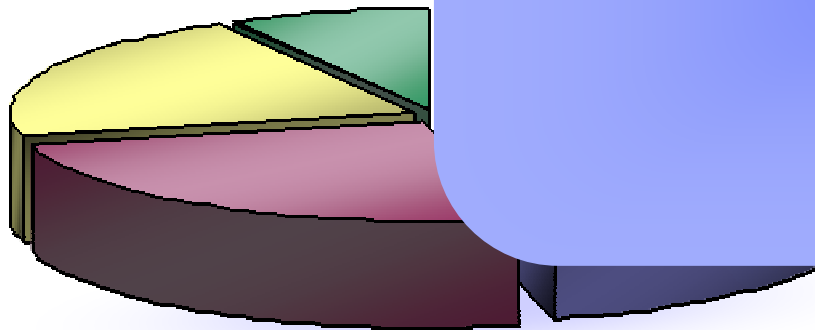




# IBM Optim: The Market Leader

*[Optim] customers spoke highly of the reliability and high performance of its archiving solution, which sets it apart from other vendors in this space.*

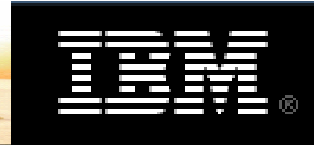
-- Forrester Research



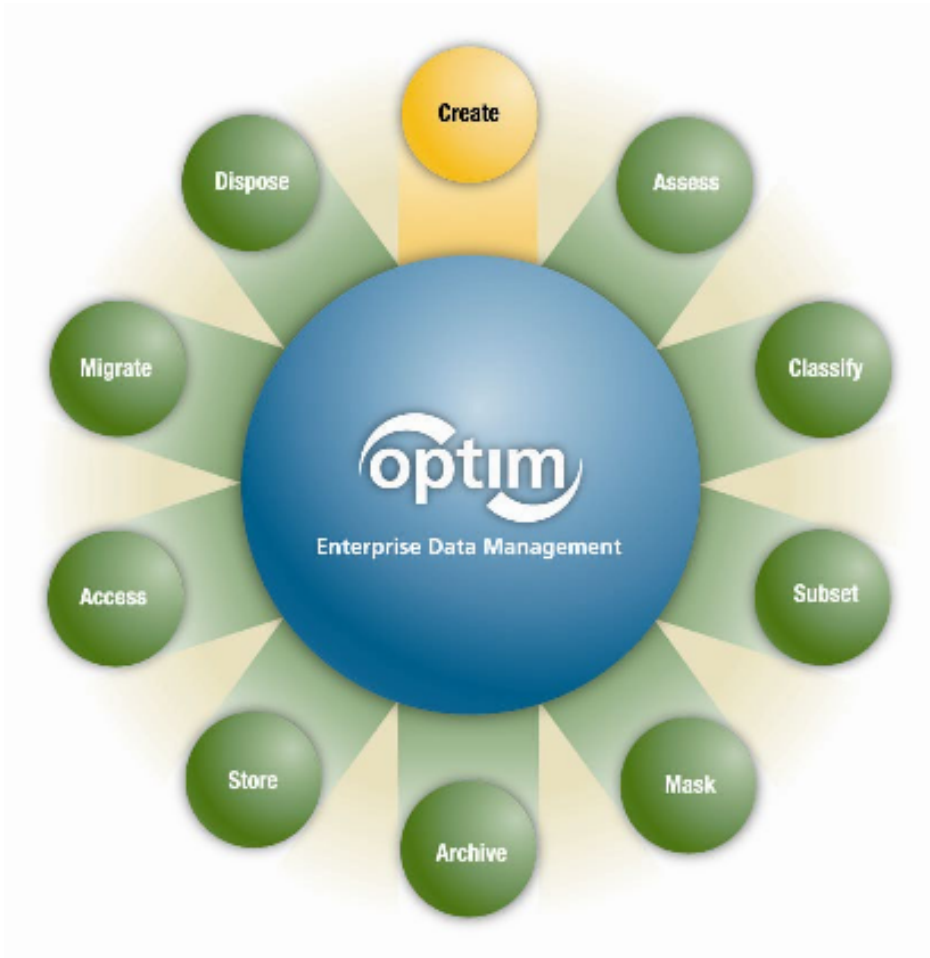
**Gartner predicts 46% CAGR**

- IBM
- Applimation
- HP
- Oracle

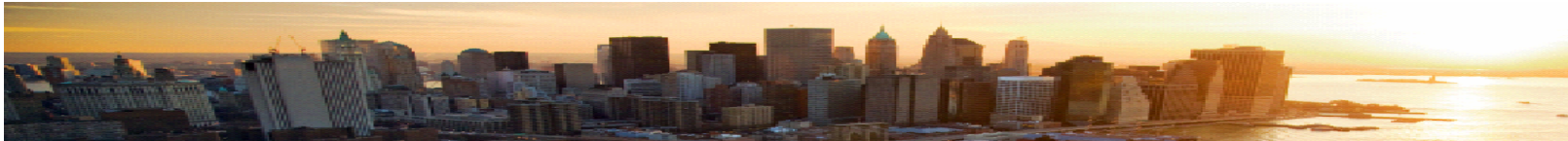
Sources: Gartner, "Archiving Software Market to Experience Strong Growth Through 2010," 2007; Forrester Research, "Database Archiving Remains An Important Part Of Enterprise DBMS Strategy," 2007



# IBM Optim Solutions



- **Optim Data Growth Solution (Archiving)**
  - Improve performance
  - Control data growth, save storage
  - Support retention compliance
  - Enable application retirement
  - Streamline upgrades
- **Optim Test Data Management Solution**
  - Create targeted, right sized test environments
  - Improve application quality
  - Speed iterative testing processes
- **Optim Data Privacy Solution**
  - Mask confidential data
  - Comply with privacy policies



# IBM Optim

## Non Production Environments

### Subset & Mask



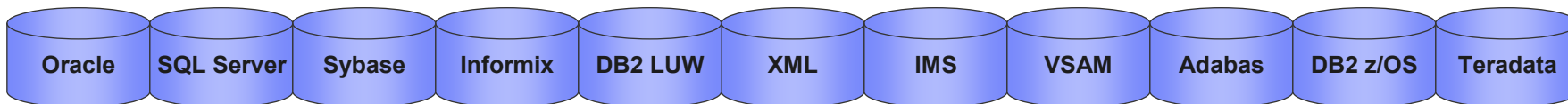
## Production Environments

### Archive



Data Growth, Data Privacy, Test Data Management, Application Upgrades, Application Retirement

## Optim™



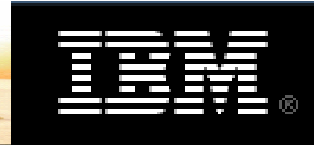
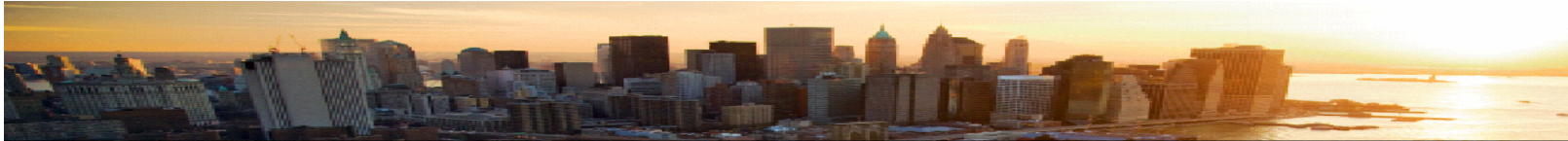
Windows XP/2000, Solaris, HP/UX, Linux, AIX, OS/390, Z/OS, i-Series

NAS, SAN, ATA, CAS, Optical, Tape

**Single, scalable, interoperable IDM solution provides a central point to deploy policies to extract, store, port, and protect application data records from creation to deletion**

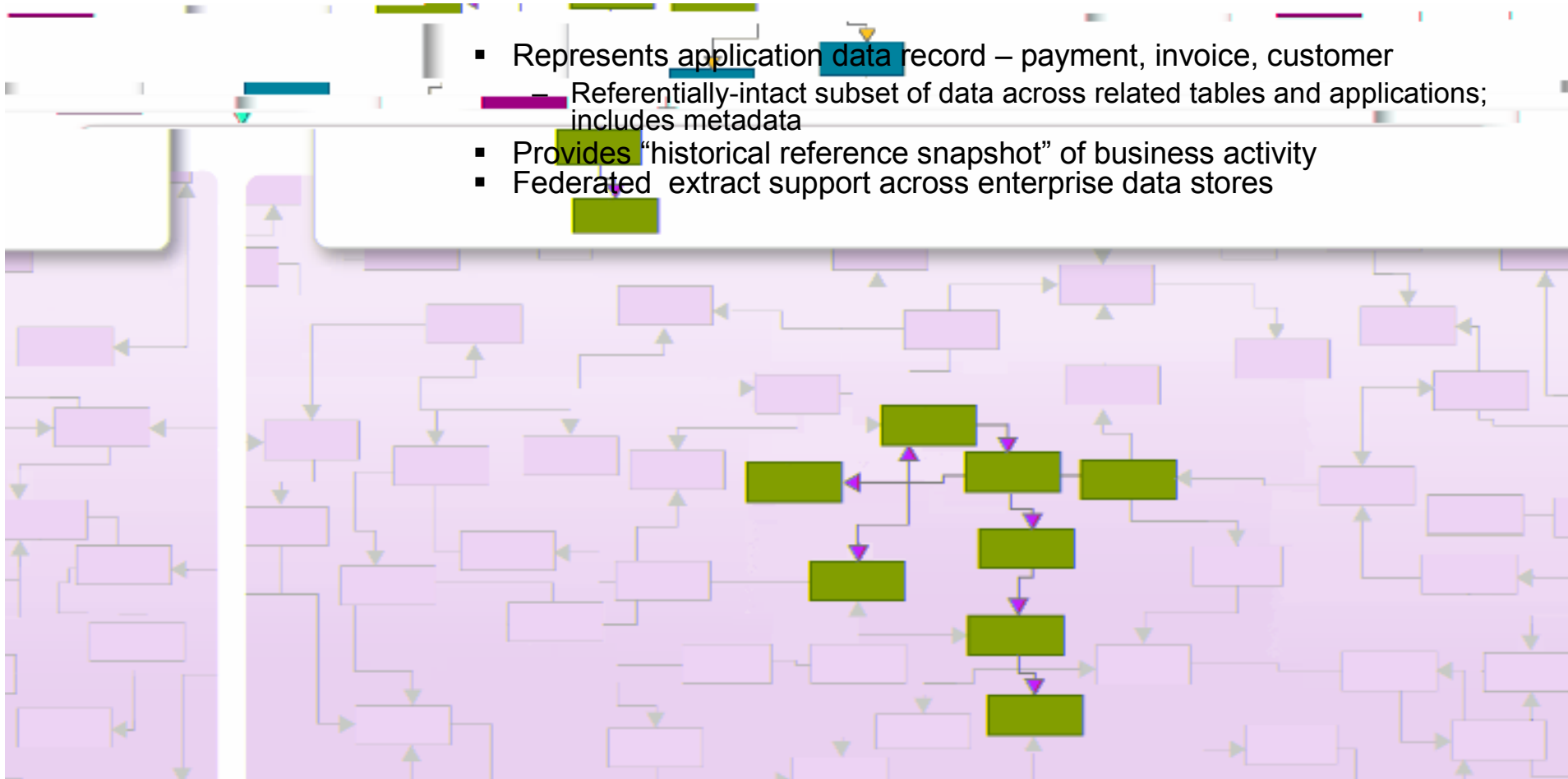


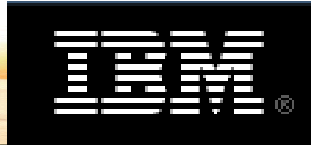
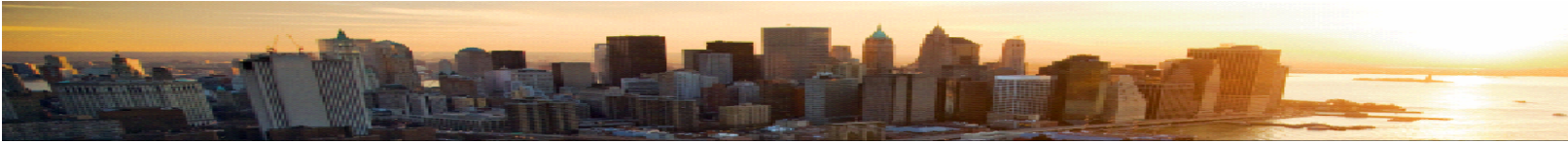




# Complete Business Object

- Represents application data record – payment, invoice, customer
  - Referentially-intact subset of data across related tables and applications; includes metadata
- Provides “historical reference snapshot” of business activity
- Federated extract support across enterprise data stores

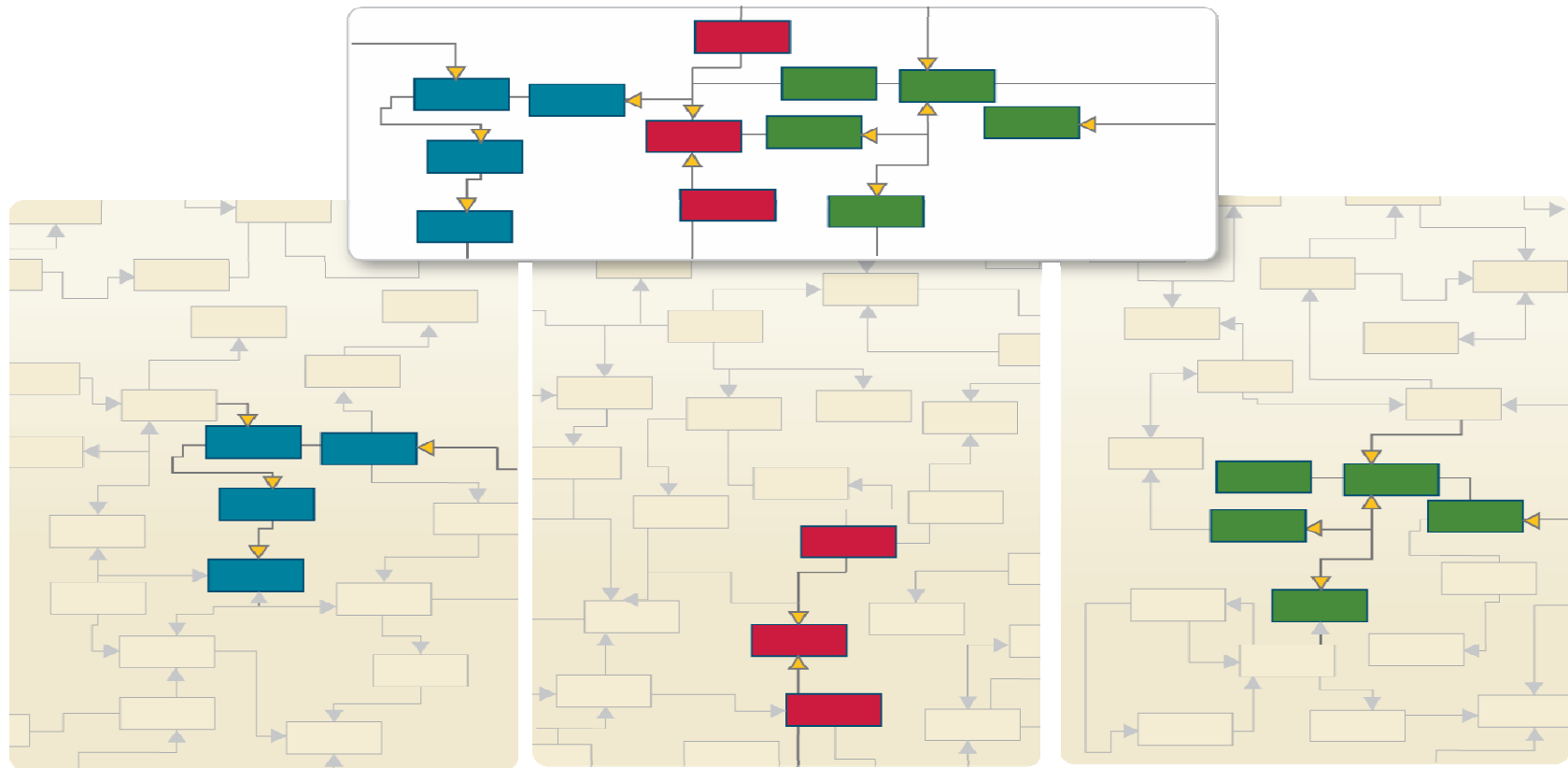




# Extract, Store and Restore

## Federated Extract

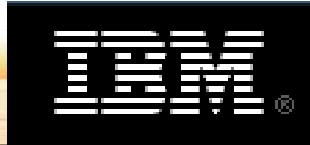
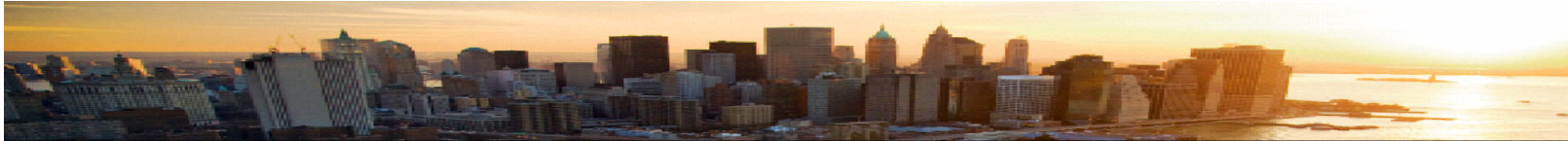
Complete Business Object  
Captures End to End  
Business Process



**EBiz Financials /  
Oracle**

**Custom Inventory  
Management / DB2**

**Siebel / Oracle**



# Packaged Applications Coverage

Example: Oracle E-Business Suite

**E-Business Versions Supported: 11.5.10, 12 (earlier versions supported via services)**

## Financial

- General Ledger
- Accounts Payable
- Accounts Receivable
- Fixed Assets
- Cash Management
- Global Accounting Engine

## Supply Chain Solutions

- Order Entry
- Shipping Execution
- Advanced Pricing

## Manufacturing Solutions

- Inventory
- Work In Progress
- Bill of Material

## Projects

- Project Costing & Billing

## HRMS

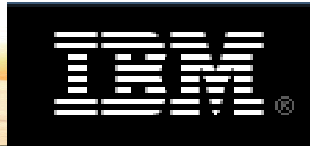
- HR & Payroll

## Procurement

- Purchasing

## CRM

- Service Contracts



# Featured List of Optim Enterprise Clients

Johnson & Johnson

BOEING®

WAL\*MART®

MERCK

TOSHIBA



PRIMERICA

HSBC  The world's local bank

Capital One®

GEICO



Telstra™

DAIMLERCHRYSLER



MetLife®

HBOS plc



TD Bank Financial Group

Gap Inc.  
Gap  
Banana Republic  
Old Navy

AVX Online®

McKinsey & Company

eBay®

Metavante®

Sun Life Financial

RCI Banque  
groupe Renault

Caixa Geral de Depositos

ANZ



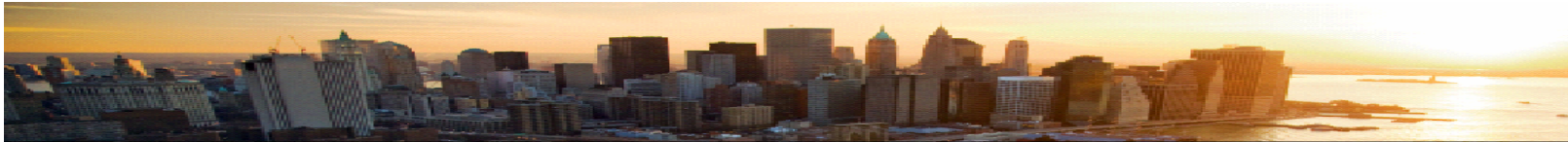
Rabobank

T Systems

CANAL+

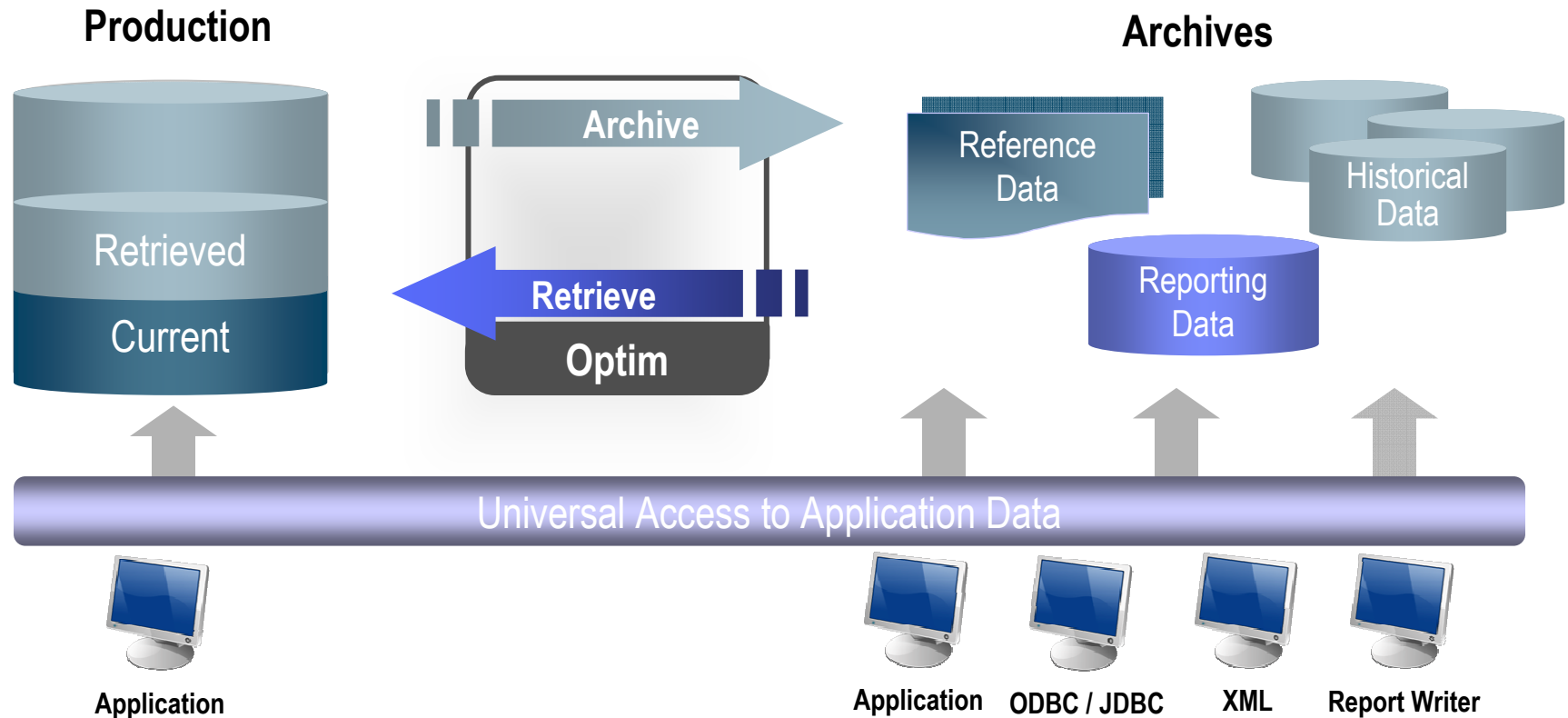
Chiquita!





# Enterprise Challenge: Data Growth

## Optim Data Growth Solution (Archiving)



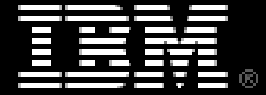
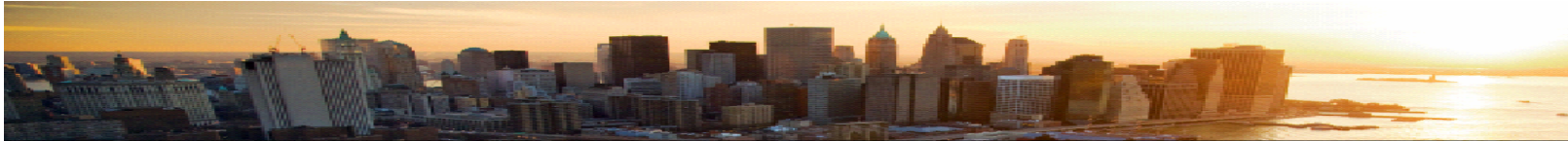
- Complete Business Object provides historical reference snapshot of business activity
- Storage device independence enables ILM
- Immutable file format enables data retention compliance



# Optim Data Growth Solution (Archiving)

## Benefits

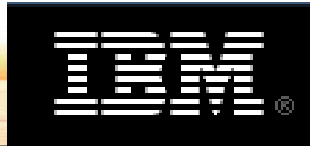
- Reduce Storage Costs
  - Production level data is typically one of the most expensive storage platforms
  - Migrate and store data according to its evolving business value (ILM)
  - Use tiered storage strategies to your advantage to maximize cost efficiencies
  - Utilize the storage you already have (including tape)



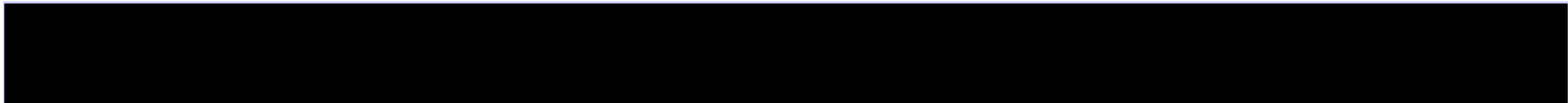
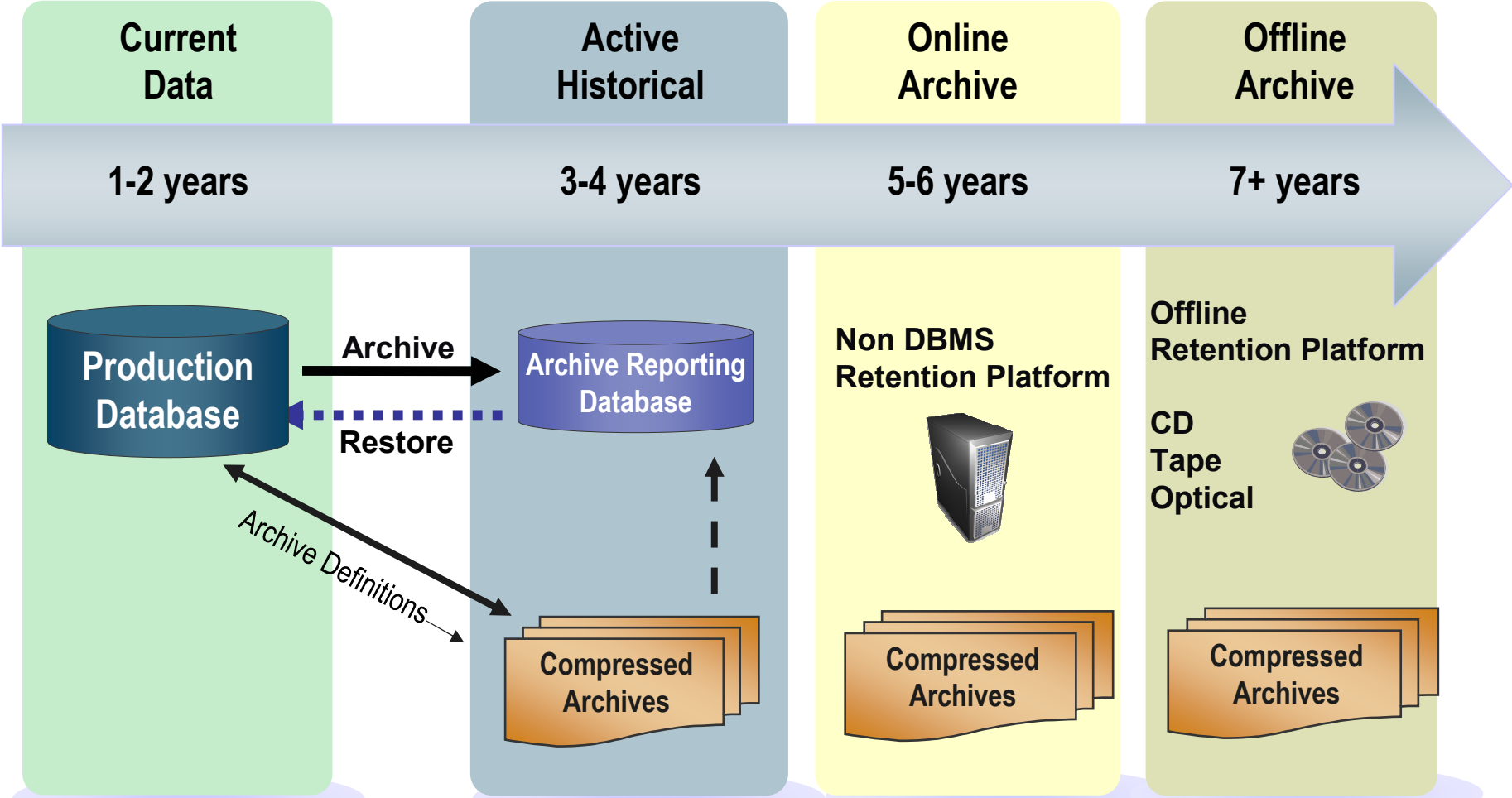
# Optim Data Growth Solution (Archiving)

## Benefits

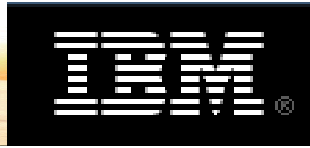
- **Improve Availability**
  - No downtime caused by batch process overruns
  - Uptime during crunch time
  - Meet SLAs
- **Speed Backup and Recovery**
  - Bring up important/recent data first
  - Bring up older/reference data as conditions permit
- **Improve Application Performance**
  - One of the most understated benefits to archiving
  - Longest and most lasting benefit



# Optim Enables Information Lifecycle Management

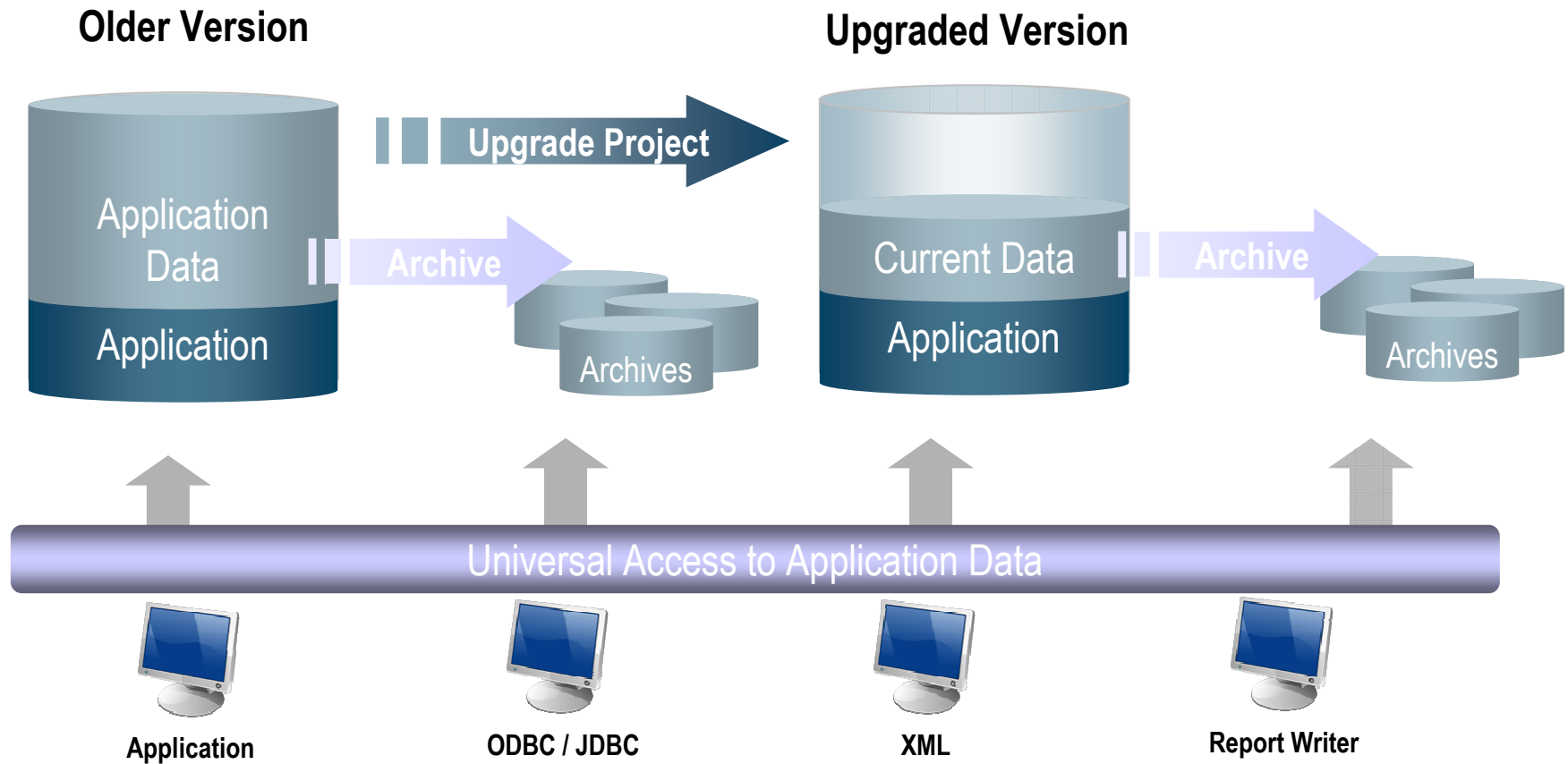


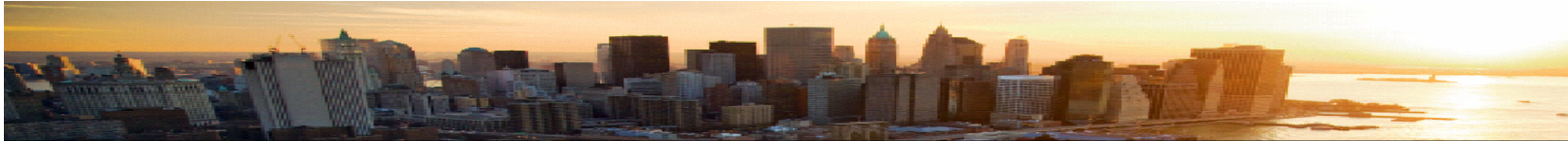




# Enterprise Challenge: Application Upgrades

## Optim Data Growth Solution

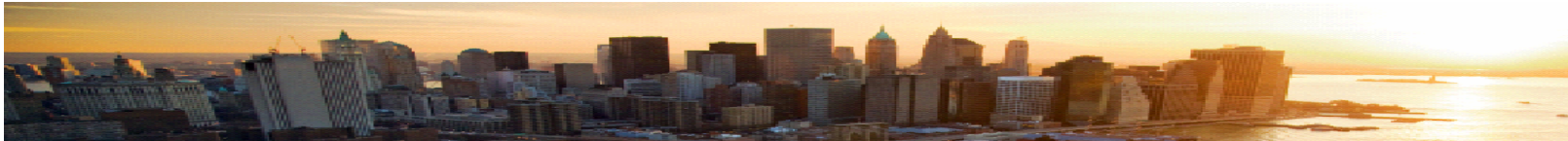




# Optim Data Growth Solution (Archiving)

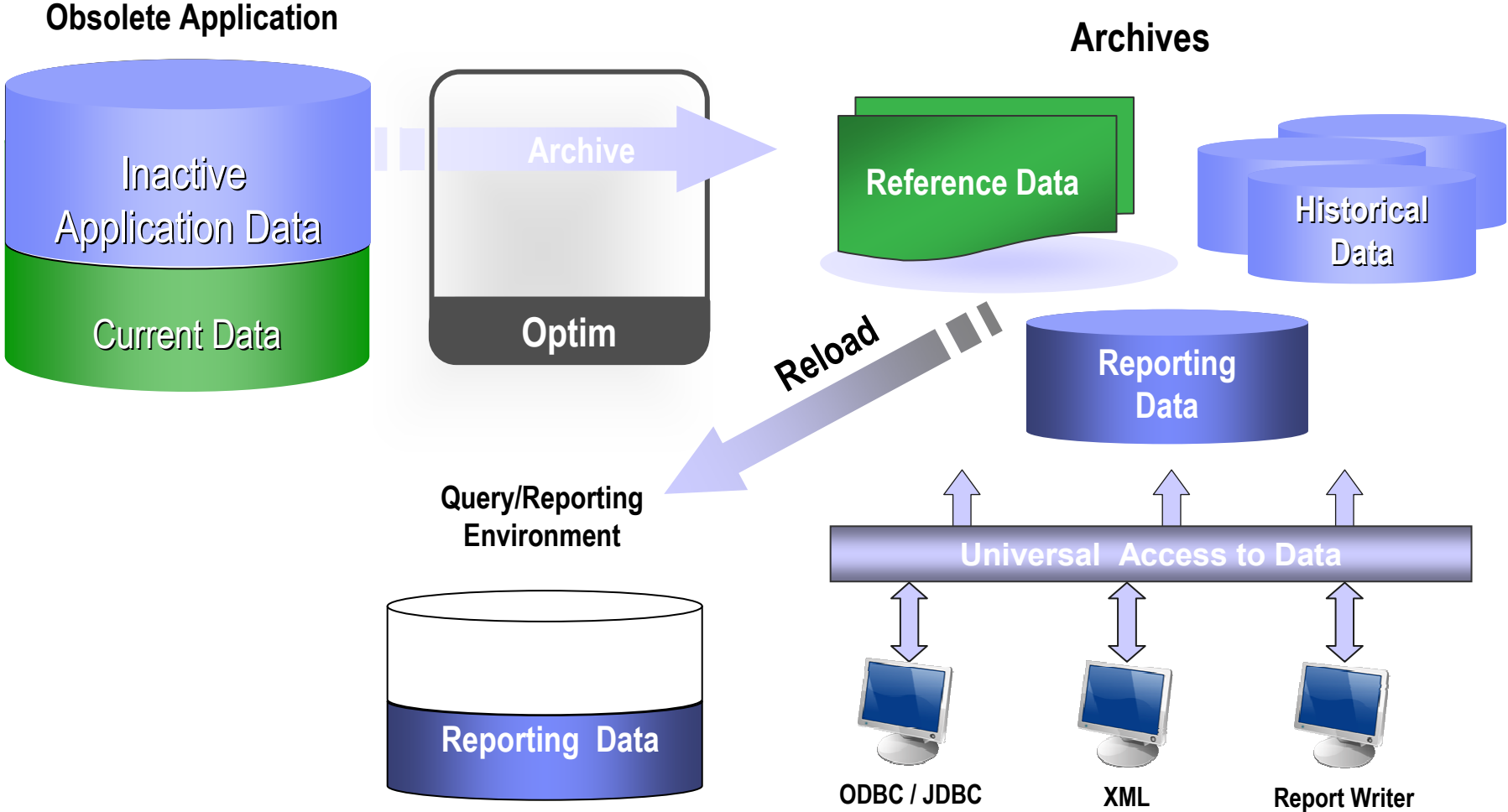
## Benefits

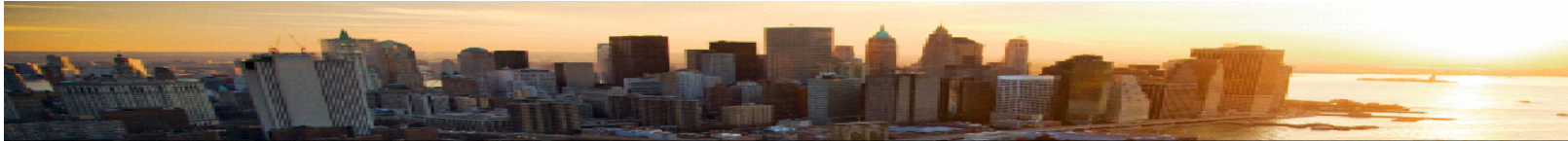
- Streamline Application Upgrades and Migrations
  - Important for packaged applications space.
  - Reduce time allocated for database conversion
  - Reduce downtime during transition
    - One recent client stated 1 hour downtime = \$5M
  - Deploy new version quickly
    - Revenue recognition
    - Competitive Advantage



# Enterprise Challenge: Application Retirement

## Optim Data Growth Solution

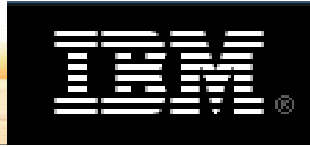




# Optim Data Growth Solution (Archiving)

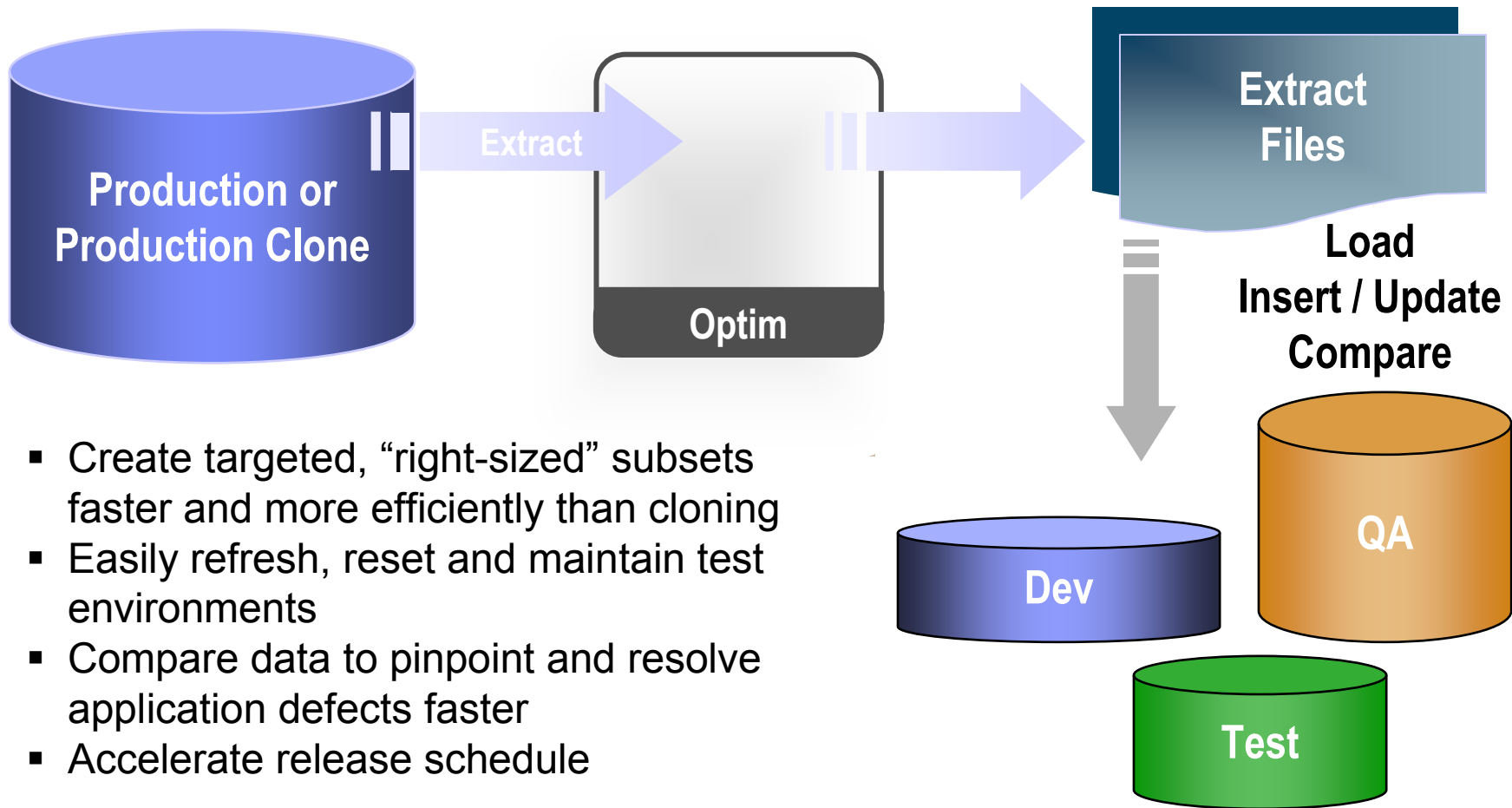
## Benefits

- Consolidate/Retire Enterprise Application Instances
  - Remove or consolidate a system from active service, while retaining access to its business-critical data
    - Migrate portfolio to lower-cost platform
    - Consolidate and eliminate unsupported databases and versions
  - Reduce IT infrastructure costs (hardware, software, labor costs)
  - Reduce infrastructure complexity (eliminate confusion)
  - Reclaim assets

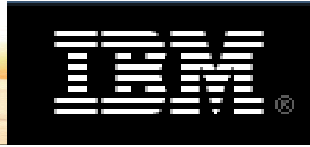


# Enterprise Challenge: Test Data Management

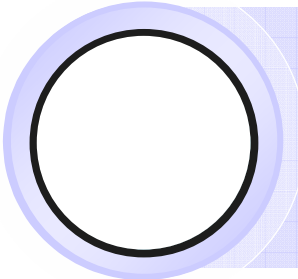
## Optim Test Data Management Solution



- Create targeted, “right-sized” subsets faster and more efficiently than cloning
- Easily refresh, reset and maintain test environments
- Compare data to pinpoint and resolve application defects faster
- Accelerate release schedule



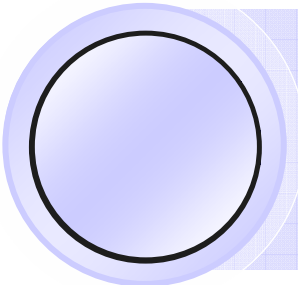
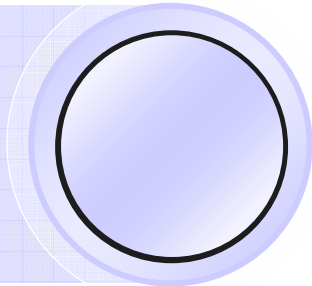
# Why Do Something? TDM Saves Money



*Eliminated downtime associated with rebuilding test environments - savings of up to \$250,000 per year. Achieved more than \$100,000 annual savings collectively for 10 to 15 projects.*

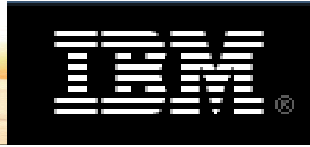


*Reduced the time needed to create a test environment by up to 90% (from 20 days to just 2 days). Improved time-to-deployment of new application functionality, contributing to critical business/financial initiatives.*



*Reduced operational cost and improved efficiencies by reducing the size of test database from 1.2TB to 24GB*





# Enterprise Challenge: Data Privacy & Compliance

## Optim Data Privacy Solution

A comprehensive set of data masking techniques to transform or de-identify data, including:

- String literal values
- Arithmetic expressions
- Lookup values
- Character substrings
- Concatenated expressions
- Intelligence
- Random or sequential numbers
- Date aging

### Example 1

Patient Information			
Patient No.	123456	SSN	333-22-4444
Name	Erica Schafer		
Address	12 Murray Court		
City	Austin	State	TX Zip 78704

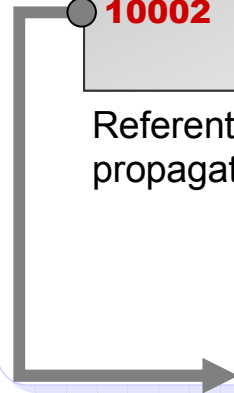
Data is masked with contextually correct data to preserve integrity of test data

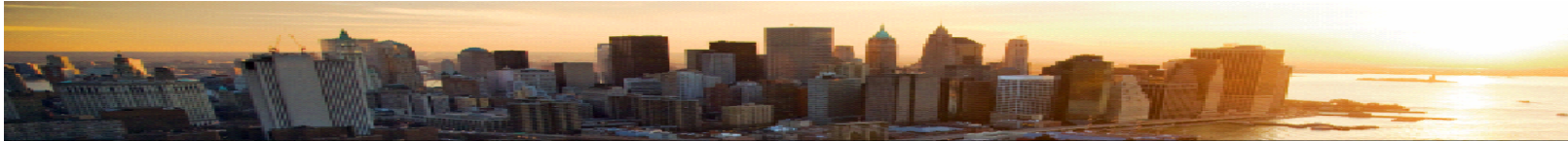
### Example 2

Personal Info Table		
PersNbr	FirstName	LastName
10000	Jeanne	Renoir
10001	Claude	Monet
<b>10002</b>	<b>Pablo</b>	<b>Picasso</b>
	⋮	

Referential integrity is maintained with key propagation

Event Table		
PersNbr	FstNEvtOwn	LstNEvtOwn
<b>10002</b>	<b>Pablo</b>	<b>Picasso</b>
<b>10002</b>	<b>Pablo</b>	<b>Picasso</b>



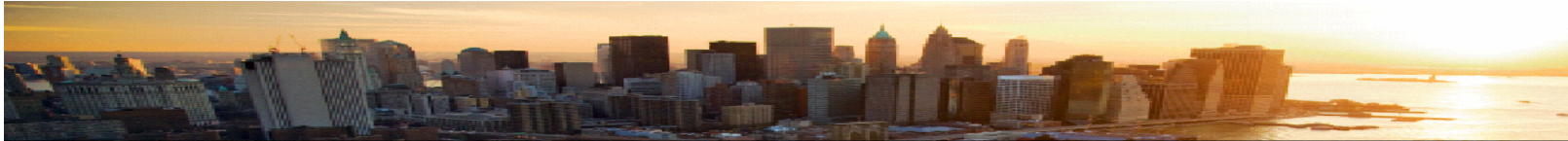


## The Cost of a Data Breach

- \$197
  - Cost to companies per compromised record
- \$6.3 Million
  - Average cost per data breach “incident”
- 40%
  - % of breaches where the responsibility was with Outsourcers, contractors, consultants and business partners

\* Sources: Ponemon Institute, Privacy Rights Clearinghouse, 2007





# Success: Data Growth and Test Data Management

About the Client:

Container Shipping, € 5.9 Billion Annually



- **Application:**

- Oracle E-Business Suite (OCEAN)

- **Challenges:**

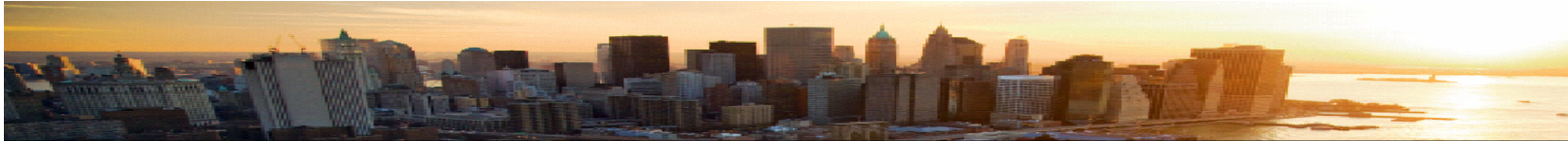
- Improving OCEAN (GL, AP, AR, CM, and AX) service levels to support an increasing number of global business users by managing continued data growth
- Improving time to deliver new deployments of OCEAN enhancements world wide (India, China, Italy) by improving testing efficiencies
- Reducing storage capacity requirements and reducing time to create and administer 9 clones of the production environment for testing purposes

- **Solution:**

- Optim Data Growth Solution and Optim Test Data Management Solution for Oracle E-Business Suite

- **Client Value:**

- Improved service levels and optimized database utilization by archiving historical data on a 5-year rolling window to manage continued data growth
- Increased the number of new OCEAN deployments for new countries from 2 to 4 a year by implementing test data management capabilities to improve testing processes
- Reduced storage requirements by 75 percent through archiving to manage the size of production environments and replacing cloning with subsetting to create realistic right-sized development and testing environments

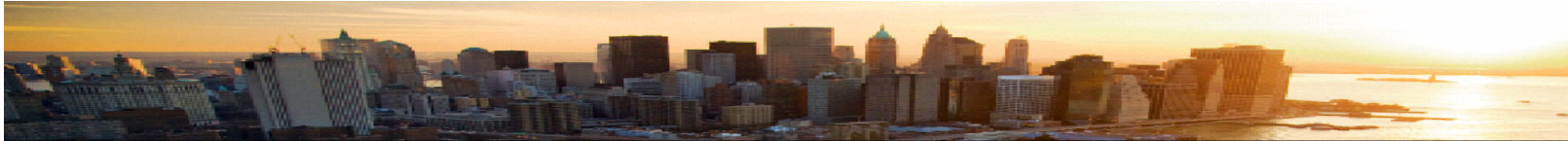


# Success: Improving Siebel Performance while Controlling Storage Costs



## About the Client: Global Leader in Shipping & Logistics

- Application:
  - Oracle® Siebel CRM
- Challenges:
  - Eliminating hardware costs associated with 20% annual growth in Siebel system
  - Reverse performance decline associated with rapid data growth
  - Minimize downtime windows for backups, maintenance, upgrades
- Solution:
  - IBM Optim™ Data Growth Solution for Siebel® CRM
- Results:
  - Improved application response for over 8500 global users by archiving 23.9 million Activities & 10.1 million Leads in first purge
  - Stabilized data growth; *no additional hardware or storage required*, resulting in cost savings & re-allocation of existing hardware
  - Decreased internal service tickets and debugging time due to system performance issues
  - Prevented “batch window creep” for routine weekly downtime



# IBM Optim Solutions Yield Stronger Business Outcomes

## ▪ **Optimize Performance**

- Archive historical transactions to improve application performance
- Accelerate delivery of revenue-generating applications



## ▪ **Control Costs**

- Reduce infrastructure & storage costs
- Identify application errors early in the development lifecycle



## ▪ **Mitigate Risk**

- Enable prompt accurate responses to e-discovery & audit requests
- Protect the privacy of confidential data within development environments



# Compliance mapping for IBM Data Server

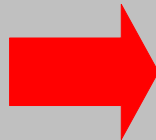


Requirement	Feature	Applicable Regulation	Description	Available IBM Solutions
Prevent Intrusion	Access Control	All	Assigns unique userid and passwords, privileges assigned based on userid	Label-based Access Control
Auditing	Audit Database Privileges	Sarbanes Oxley HIPAA PCI	Audit privilege granting	DB2 Audit Management Expert
	Audit Database Access	ALL	Provide audit trail to data access	DB2 Audit Management Expert Tivoli Compliance InSight Manager
Protect Privacy	Encryption	Privacy Laws GBA HIPAA PCI	Encrypts data	Database Encryption Expert
	Test Data Privacy		Provides test data masking	Optim Test Data Management and Optim Data Privacy Solutions
Data Retention and Retirement	Data Archiving	Sarbanes Oxley HIPAA	Archives data	Optim Data Growth Solution

# PCI – Specific areas of compliance

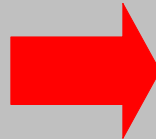


Requirement 3  
*Protect Stored Data*



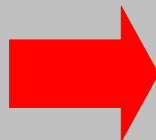
*Encryption is the ultimate protection mechanism (if someone breaks through all other protection mechanisms and gains access to encrypted data, they will not be able to read the data without further breaking the encryption)*

Requirement 6.3.4  
*Production data (live PANs) are not used for testing or development*



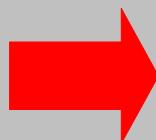
*Develop software applications based on industry best practices and incorporate information security throughout the software development lifecycle. Production data (live PANs) are not used for testing or development [PANs - personal account numbers]*

Requirement 7  
*Restrict access to data by business “need to know”*



*Limit access to computing resources and cardholder information to only those individuals whose job requires such access*

Requirement 10  
*Track and monitor all access to network resources and cardholder data*



*Logging mechanisms and the ability to track user activities are critical. The presence of logs in all environments allows thorough tracking and analysis when something does go wrong*

Requirement 10.7  
*Retain your audit trail history for a period that is consistent with its effective use, as well as legal regulations*

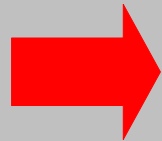


*An audit history usually covers a period of at least one year, with a minimum of 3 months available online*

# PCI – Specific areas of compliance

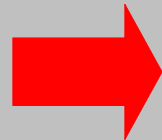


Requirement 3  
*Protect Stored Data*



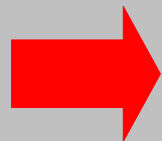
**Database Encryption Expert**

Requirement 6.3.4  
*Production data (live PANs) are not used for testing or development*



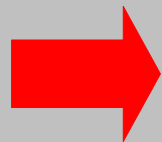
**Optim Data Privacy Solution**

Requirement 7  
*Restrict access to data by business “need to know”*



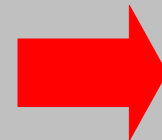
**Label-based Access Control**

Requirement 10  
*Track and monitor all access to network resources and cardholder data*



**DB2 Audit Management Expert**  
**Tivoli Compliance InSight Manager**

Requirement 10.7  
*Retain your audit trail history for a period that is consistent with its effective use, as well as legal regulations*

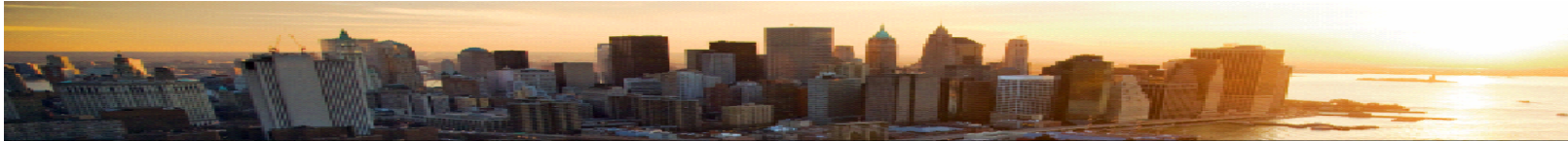


**Optim Data Growth Solution**



Questions?





# **IBM** Information On Demand

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You

