



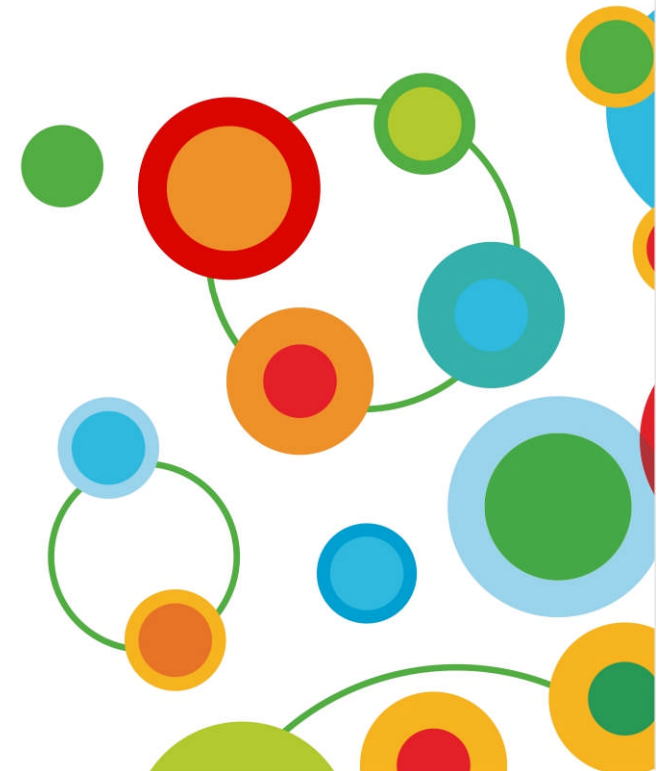
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# Information Management & Analytics Forum **2013**

Return on Information: The New ROI

## Managing the Data Lifecycle from Requirement to Retirement

**Najiah Abide - Information Management, IBM**

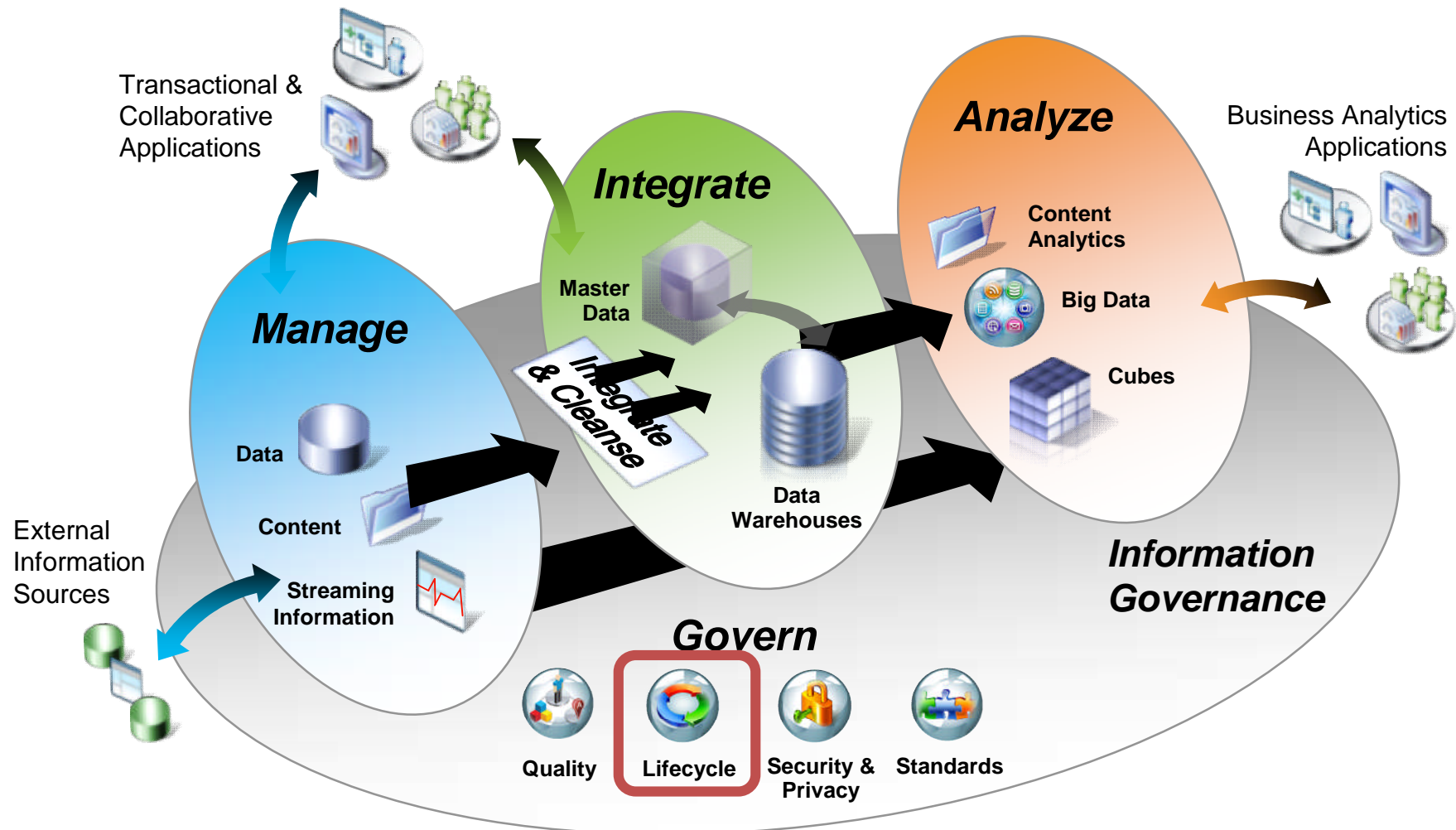


# What we'll discuss

- Challenges managing the lifecycle of application data
- What's at Stake
- Leveraging an Information Governance Approach
- Optimizing the data lifecycle
  - Discover & Define
  - Develop & Test
  - Optimize & Archive
  - Consolidate & Retire
- IBM InfoSphere Solutions for Data Lifecycle Management

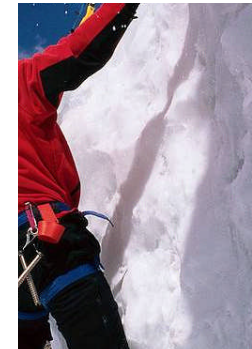


# Success requires governance across the “Information Supply Chain”



# Data lifecycle management challenges

- New application functionality to meet business needs is not deployed on schedule
- Disclosure of confidential data kept in test/development environments
- Application defects or database errors are discovered after deployment
- Increased operational and infrastructure costs impact IT budget



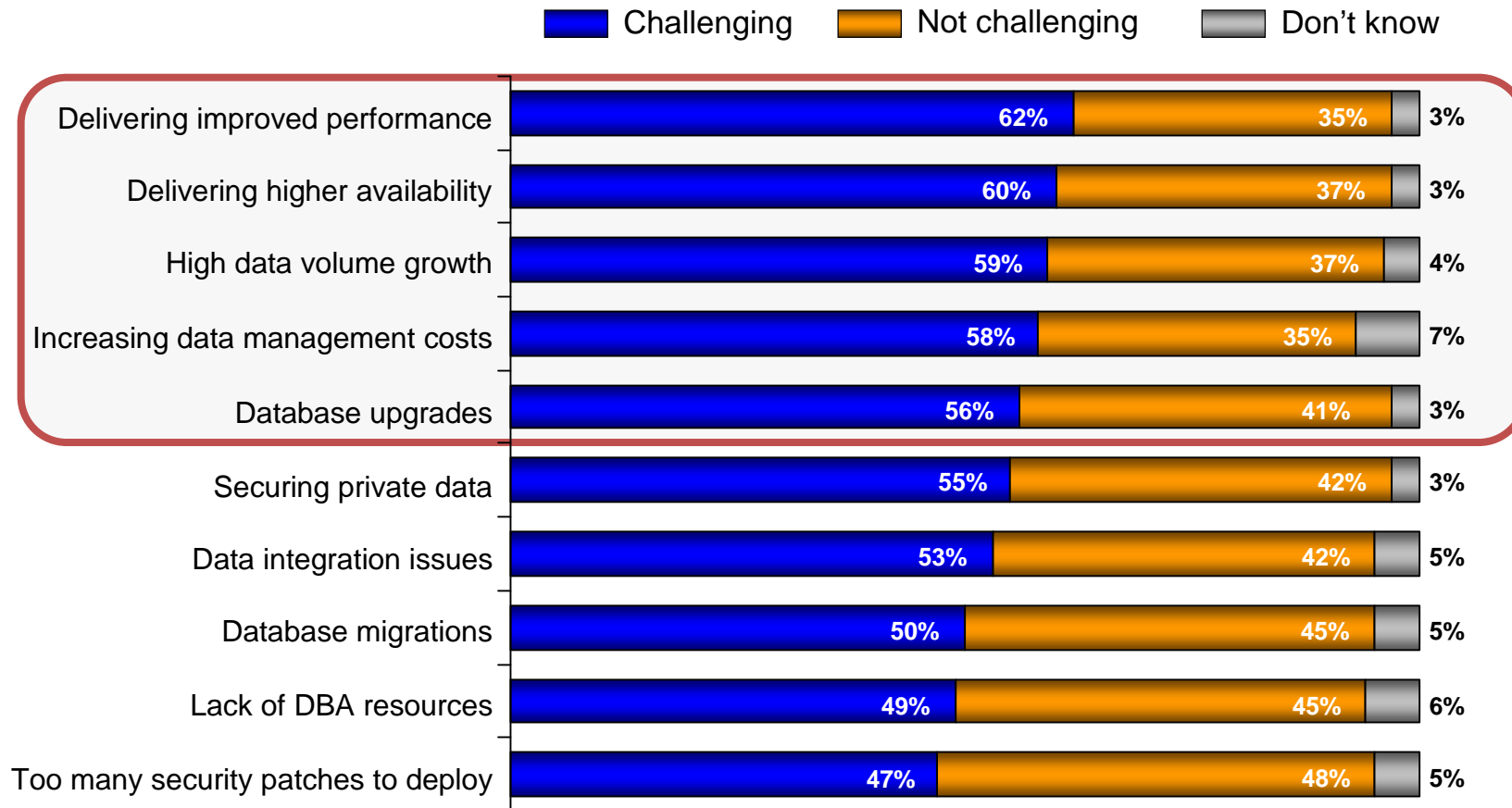
“ *Forrester estimates that 75% of data stored in large OLTP applications is typically inactive.* ”

Source: Noel Yuhanna, Forrester Research Inc.,  
*Your Enterprise Data Archiving Strategy*, February 2011

# Making applications more efficient remains a major concern

Data volume growth remains a major concern for most

***“What are the key database management issues you see as challenging your organization?”***



Base: 194 enterprise database management professionals

Source: November 2010 Global Database Management Systems Online Survey; Forrester Research, Inc.

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# The real organizational impact of ignoring application efficiency



## High Capital Expenditures

- Increased capital expenditures for data storage
    - Server CPU's, disk storage systems, database software, power, space, management...
- 



## Decreased Productivity

- Business users losing productivity because systems are not available
  - Large amount of time by database administrators spent improving performance vs. adding new capabilities
- 



## Missed Service Level Agreements

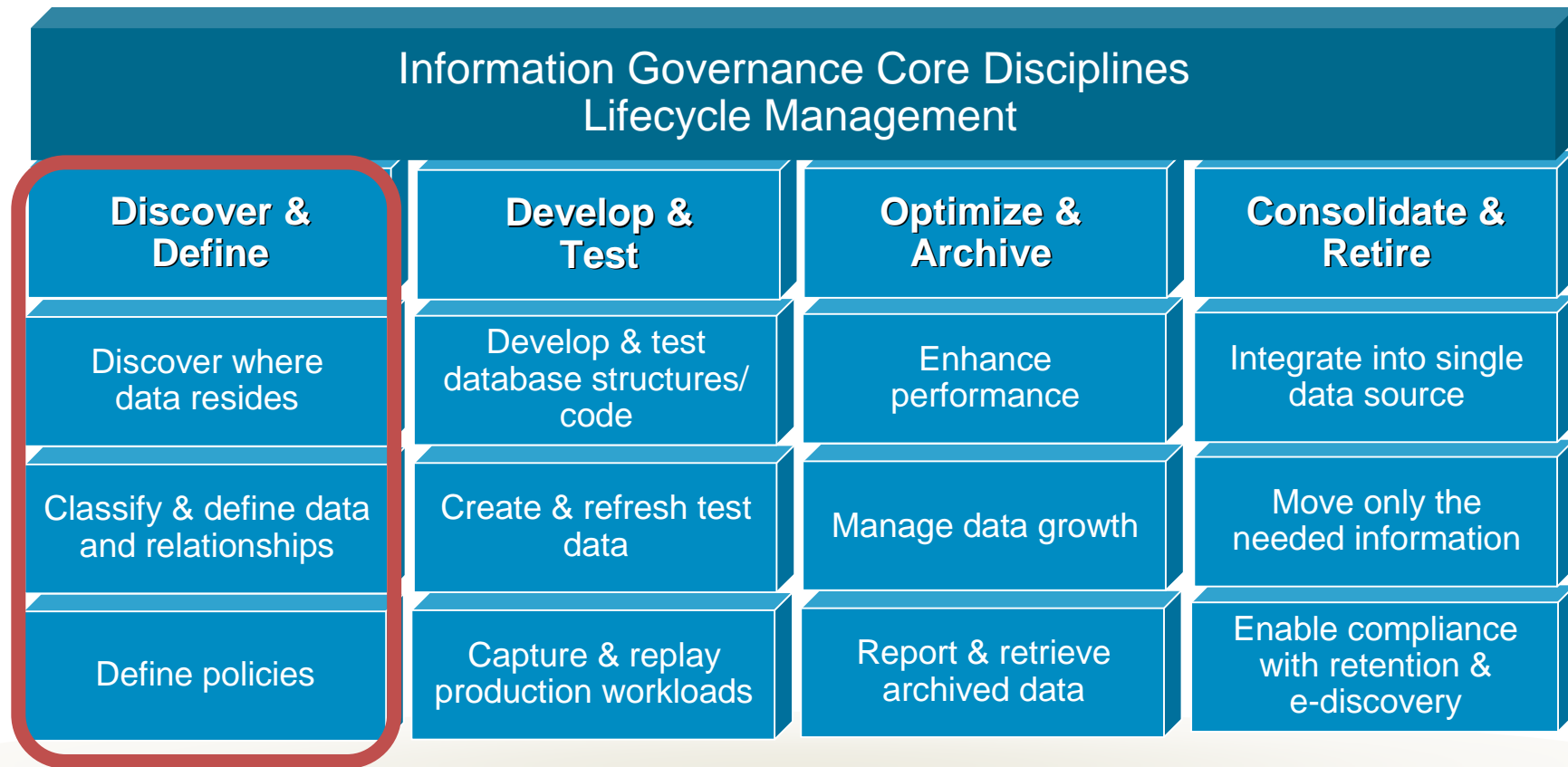
- Extended time and failures when backing up databases for recovery efforts
  - Unable to meet deadlines (end of quarter results, updates, upgrades)
- 



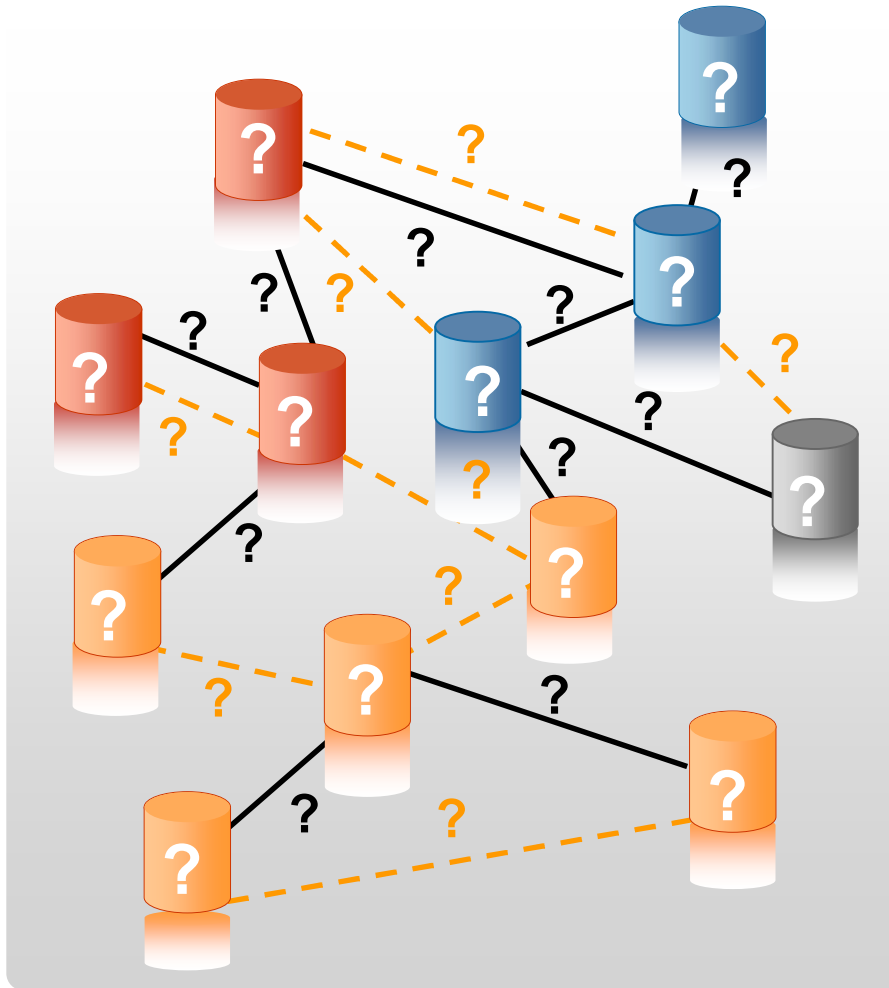
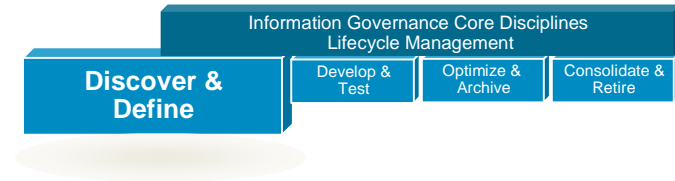
## Ad Hoc Test Data Deployment

- Lengthy time to setup and deploy test environments
- Deploying applications that partially tested

# Requirements for managing data across its lifecycle



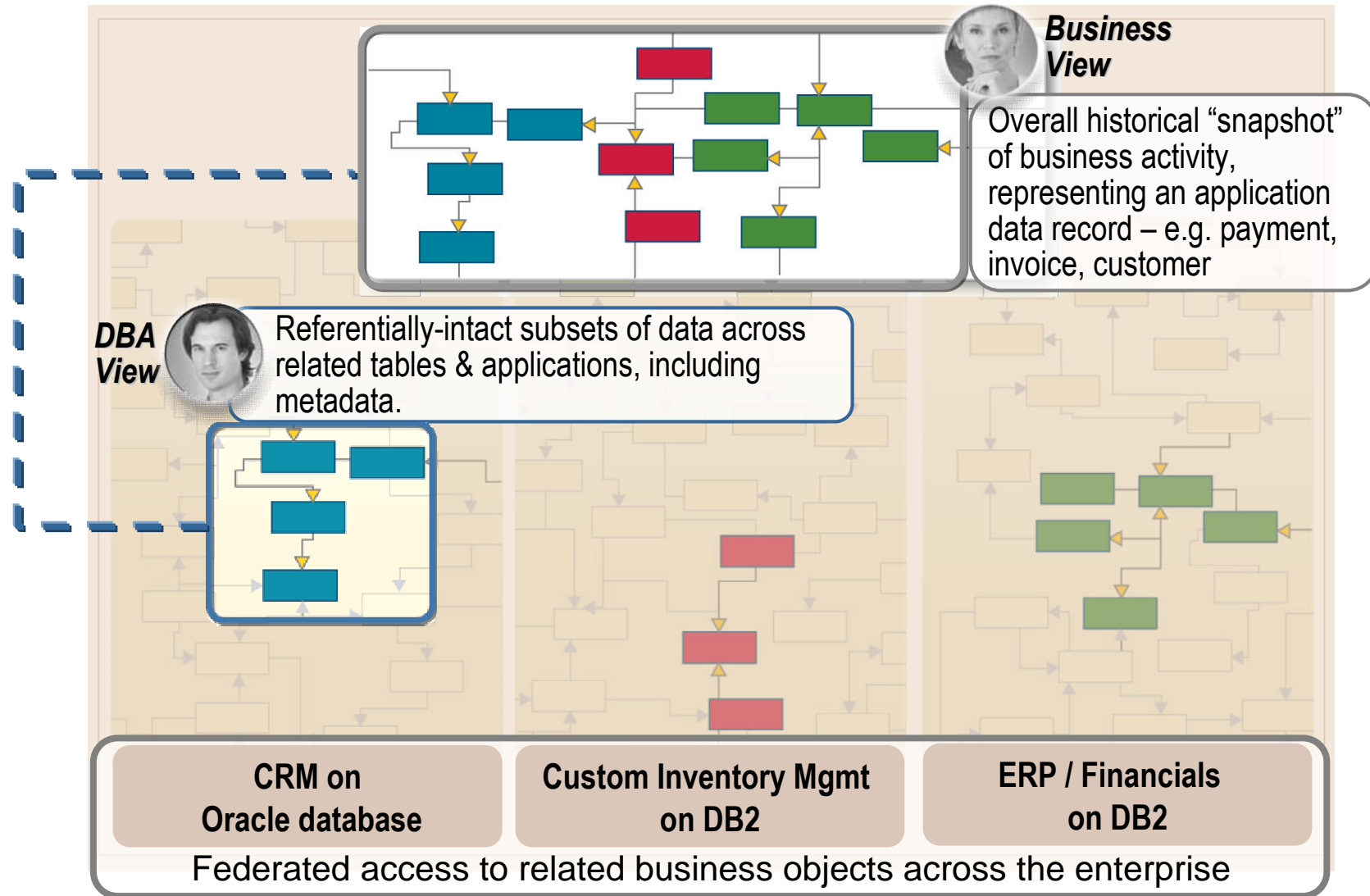
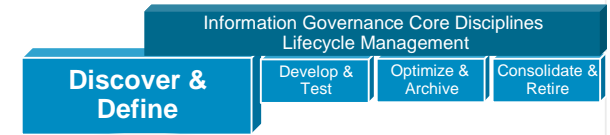
# You can't govern what you don't understand



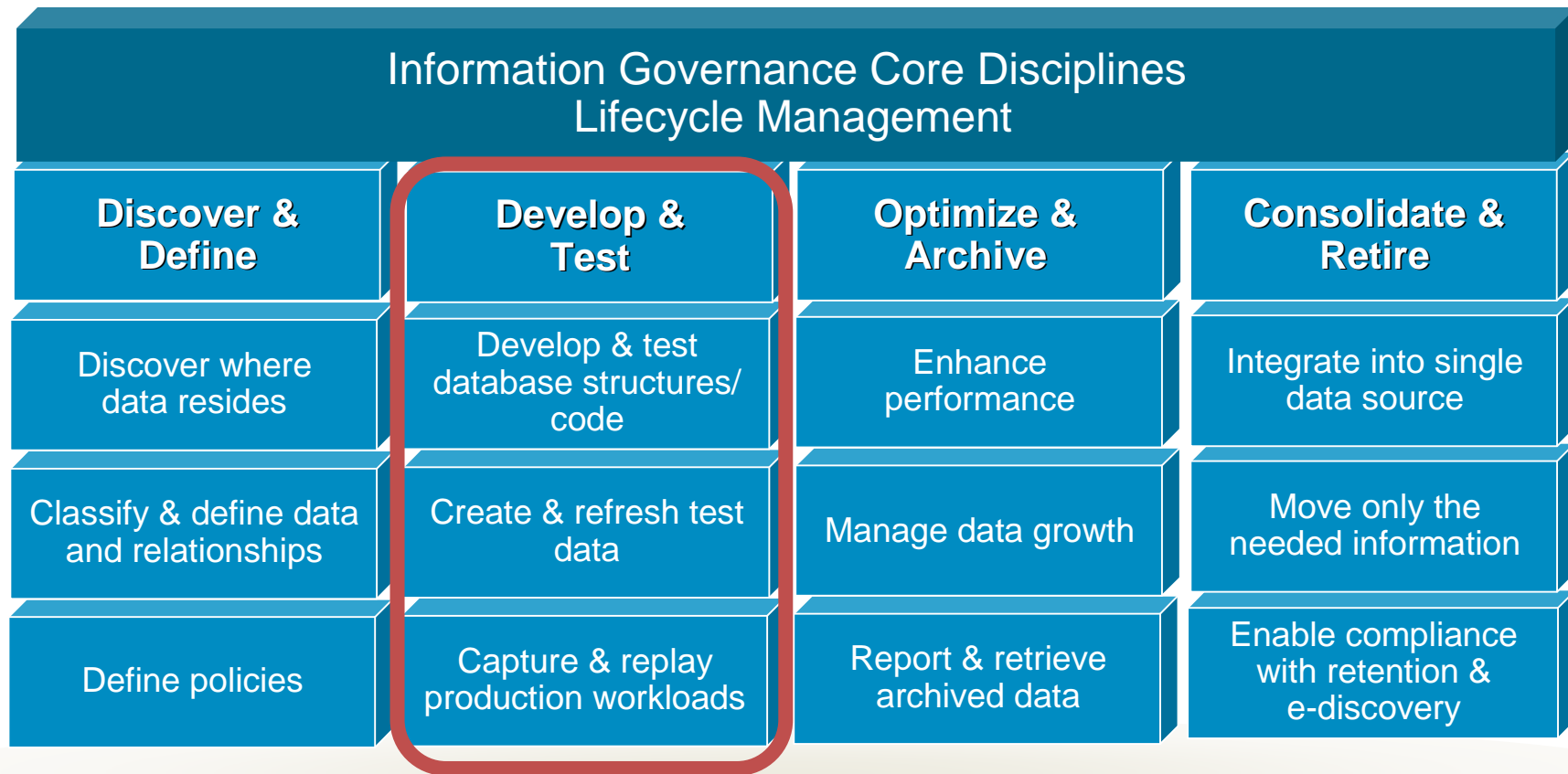
- Complex data relationships within and across sources
- Historical and reference data for archiving
- Test data needed to satisfy test cases
- Sensitive data identification



# Discover & define business objects across heterogeneous databases & applications



# Requirements for managing data across its lifecycle



# Organizations continue to be challenged with building quality applications



## Increasing Costs



Defects are caught late in the cycle

## Increasing Risk



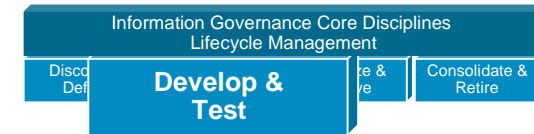
Mandatory to protect data and comply with regulations

## Time to Market

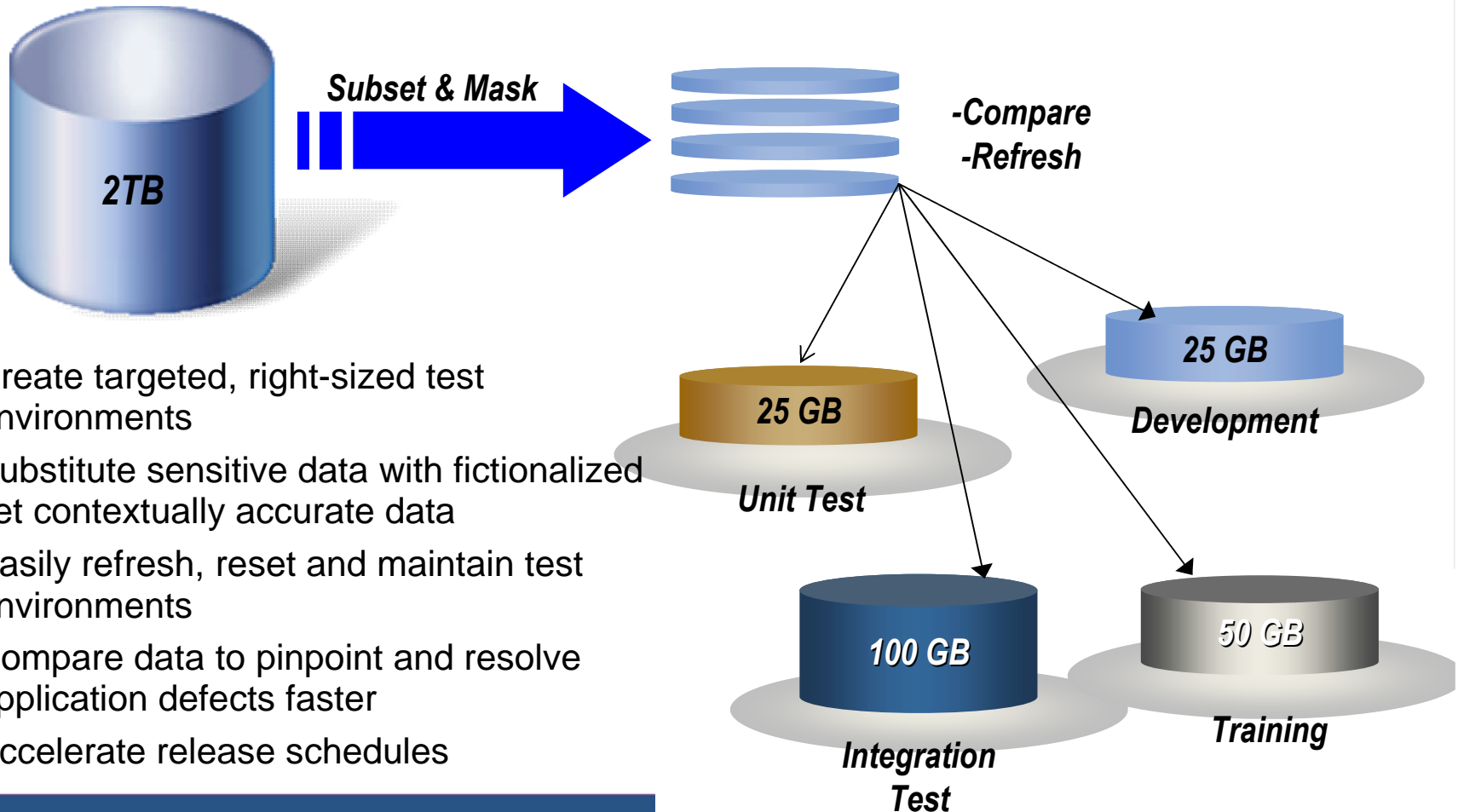


Lack of realistic test data and inadequate environments

# Employ effective test data management practices



*Production or Production Clone*



- Create targeted, right-sized test environments
- Substitute sensitive data with fictionalized yet contextually accurate data
- Easily refresh, reset and maintain test environments
- Compare data to pinpoint and resolve application defects faster
- Accelerate release schedules

# Improve application quality and delivery efficiency with InfoSphere Optim Test Data Management Solution



## Reduce Cost

**Automate** creation of realistic “right sized” test data to reduce the size of test environments

## Reduce Risk

**Mask** sensitive information for compliance and protection

## Speed Delivery

**Refresh** test data speeding testing and application delivery

- Understand what test data is needed for test cases
- Create “right-sized” test data by subsetting
- Ensure masked data is contextually appropriate to the data it replaced, so as not to impede testing
- Easily refresh & maintain test environments by developers and testers
- Automate test result comparisons to identify hidden errors
- Support for custom & packaged ERP applications in heterogeneous environments

# Organizations continue to be challenged with building quality applications



## Increasing Costs

**\$300 billion**

Annual costs of software-related downtime.<sup>d</sup>

**32%**

Low success rate for software projects<sup>e</sup>

## Increasing Risk

**45,000+**

Number of sensitive records exposed to 3<sup>rd</sup> party during testing<sup>c</sup>

**62%**

companies use actual customer data to test applications<sup>a</sup>

## Time to Market

**37%**

Satisfied with speed of software development<sup>f</sup>

**30-50%**

Time testing teams spend on setting up test environments, instead of testing<sup>b</sup>

a. The Ponemon Institute. The Insecurity of Test Data: The Unseen Crisis

b. NIST, Planning Report. The Economic Impacts of Inadequate Infrastructure for Software Testing

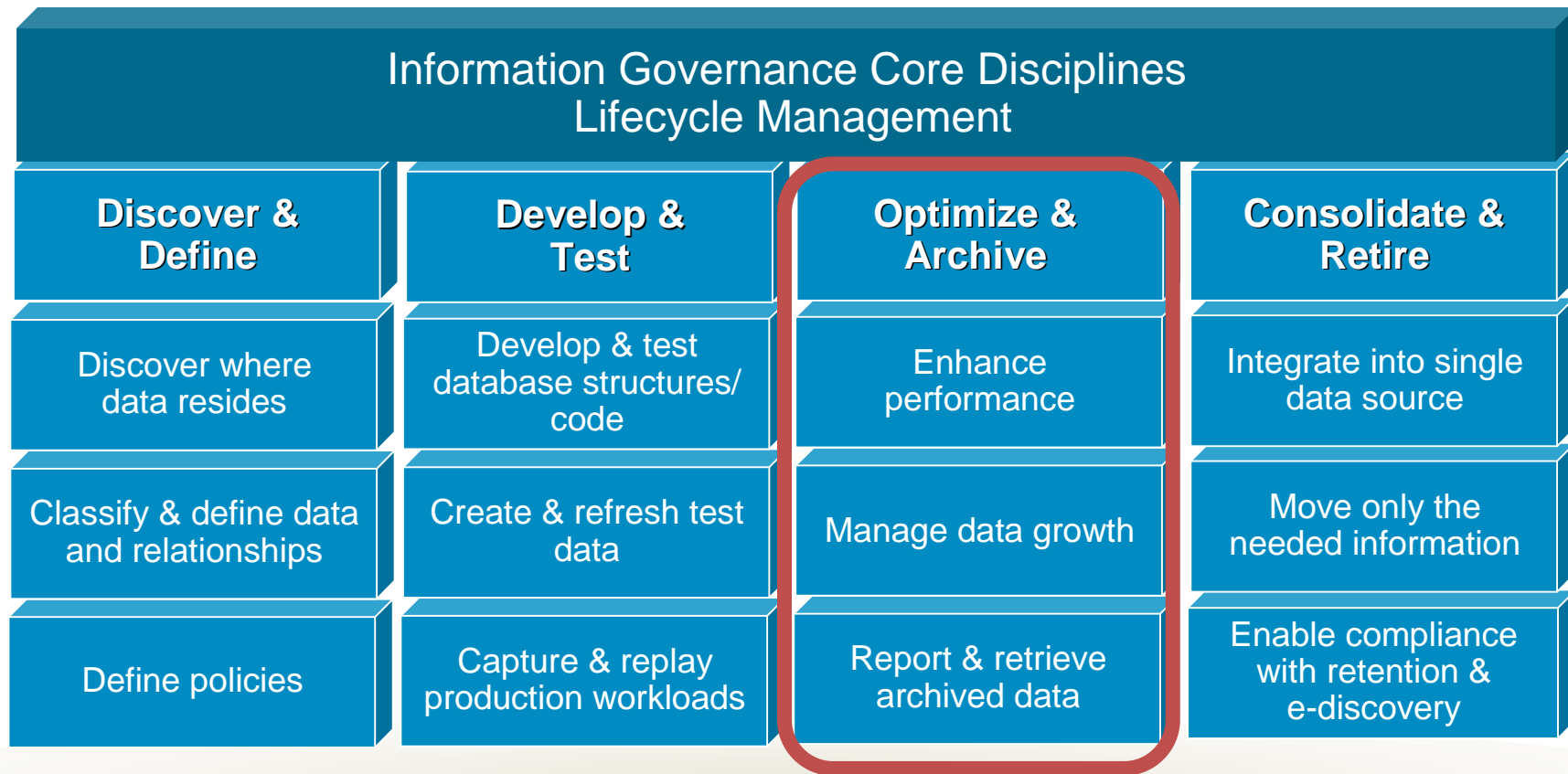
c. Federal Aviation Administration: Exposes unprotected test data to a third party <http://fcw.com/articles/2009/02/10/faa-data-breach.aspx>

d. The Standish Group, *Comparative Economic Normalization Technology Study*, CHAOS Chronicles v12.3.9, June 30, 2008

e. The Standish Group, *Chaos Report*, April 2009

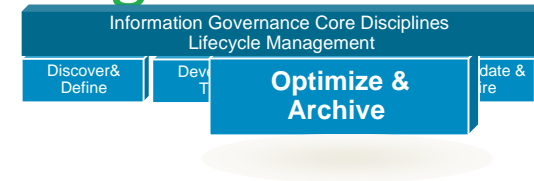
f. Forrester Research, *"Corporate Software Development Fails To Satisfy On Speed Or Quality"*, 2005

# Requirements for managing data across its lifecycle





# Organizations have been increasingly challenged with successfully managing data growth



## Increasing Costs



Buying more storage is not a “cheap” fix when you add the operational burden

## Poor Application Performance



Business users & customers wait for application response; DBA's spend majority of time fixing performance issues

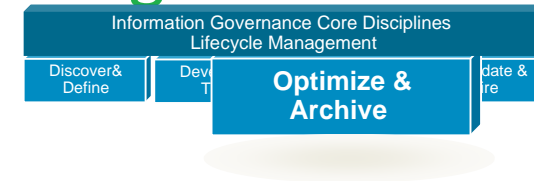
## Manage Risk & Compliance



The “keep everything” strategy can impact disaster recovery and data retention & disposal compliance



# Organizations have been increasingly challenged with successfully managing data growth



## Increasing Costs

**3-10x**

Cost of managing storage over the cost to procure<sup>a</sup>

**\$1.1 billion**

Amount organizations will have spent in 2011 on storage<sup>b</sup>

## Poor Application Performance

**80%**

The time DBA's spend weekly on disk capacity issues<sup>c</sup>

**250 hours**

The amount of time needed to run "daily" batch processes<sup>d</sup>

## Manage Risk & Compliance

**50%**

of firms retain structured data for 7+ years<sup>e</sup>

**57%**

of firms use Back-up for data retention needs<sup>e</sup>

(a) Merv Adrian, IT Market Strategies, "[Data Growth Challenges Demand Proactive Data Management](#)", November 2009

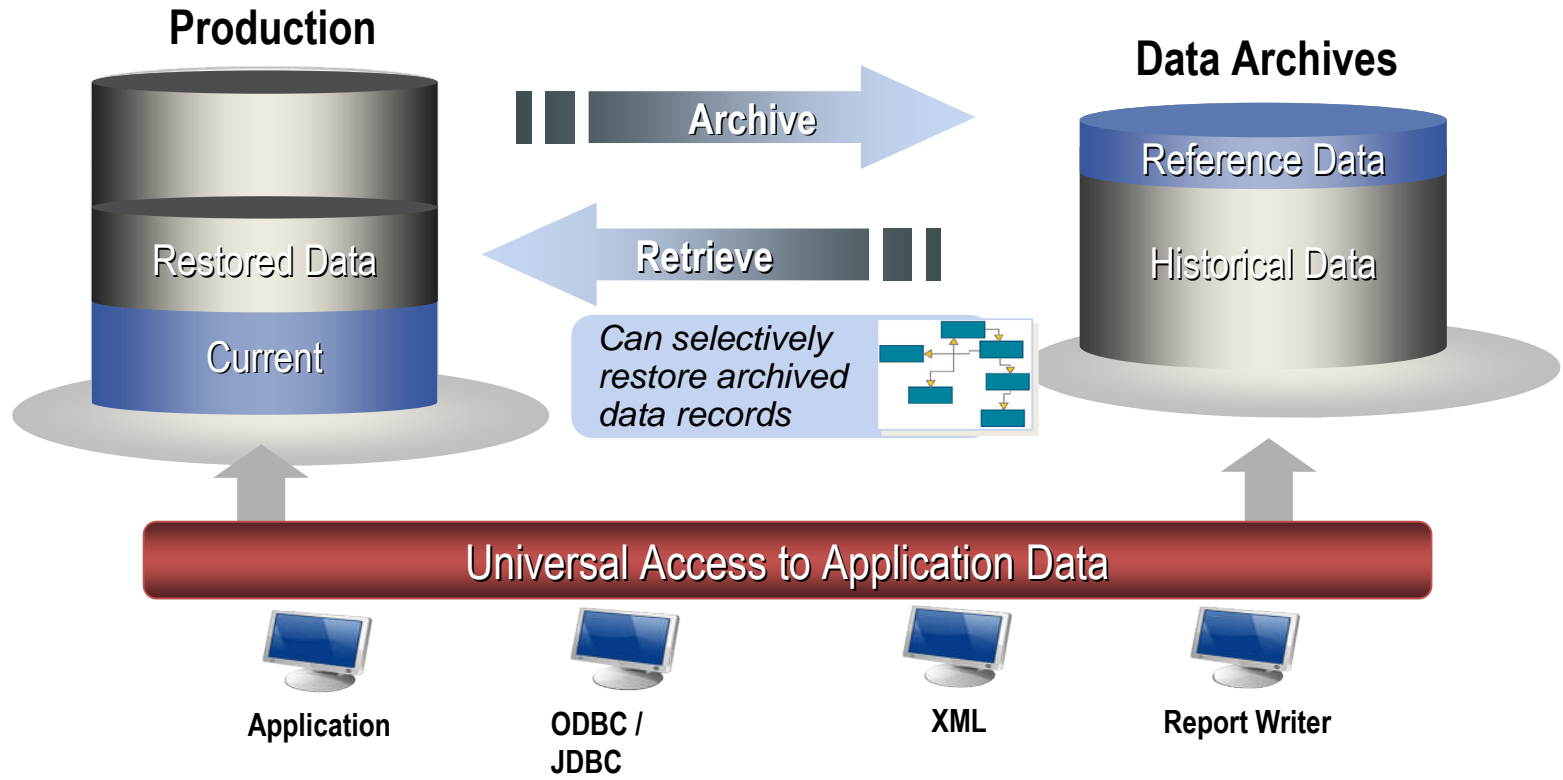
(b) IDC, "Worldwide Archival Storage Solutions 2011–2015 Forecast: Archiving Needs Thrive in an Information-Thirsty World", October 2011

(c) Simple-Talk, "[Managing Data Growth in SQL Server](#)", January 2010

(d) IBM Client Case Study: [Toshiba TEC Europe](#); archiving reduced batch process time by 75%

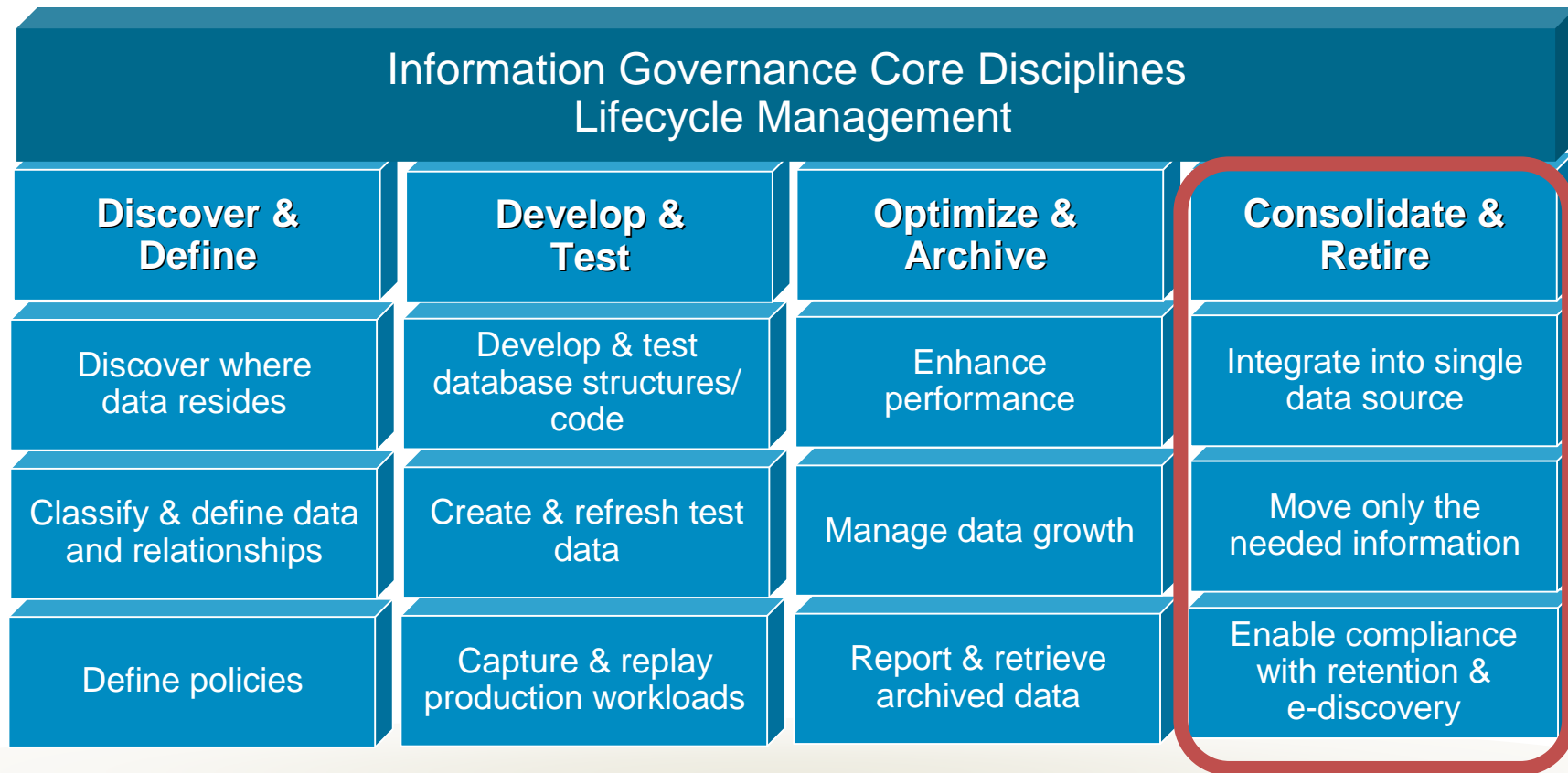
(e) IDC Quick Poll Survey 2011, "Data Management for IT Optimization and Compliance", November 2011

# Archive historical data for data growth management



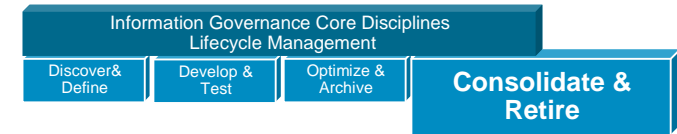
Data Archiving is an intelligent process for ***moving*** inactive or infrequently accessed data that still has ***value***, while providing the ability to ***search and retrieve*** the data

# Requirements for managing data across its lifecycle



# When it's time to retire or consolidate applications

- Application portfolio has redundant systems acquired via mergers and acquisitions
- Line of business divested; application is no longer needed
- Legacy technologies not compatible with current IT direction
  - Old database and/or application versions no longer supported by manufacturer
- Required technical skills or application knowledge no longer available
- Budget pressures – do more with less



***In almost ALL cases, access to legacy data MUST be retained while the application and database are eliminated***

# Retire redundant and legacy applications

Information Governance Core Disciplines  
Lifecycle Management

Discover &  
Define

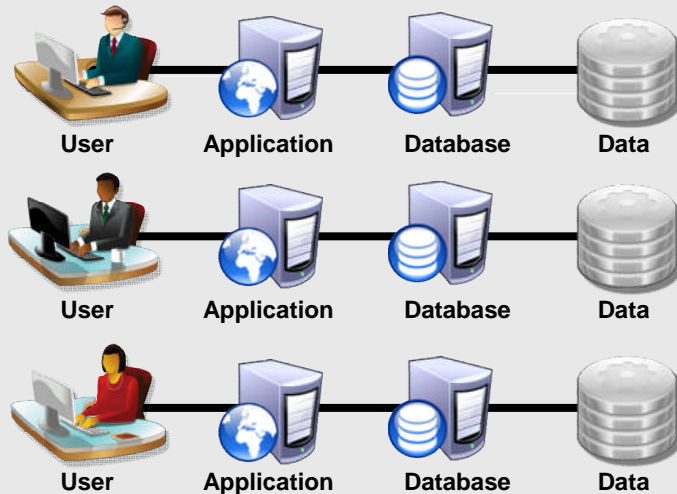
Develop &  
Test

Optimize &  
Archive

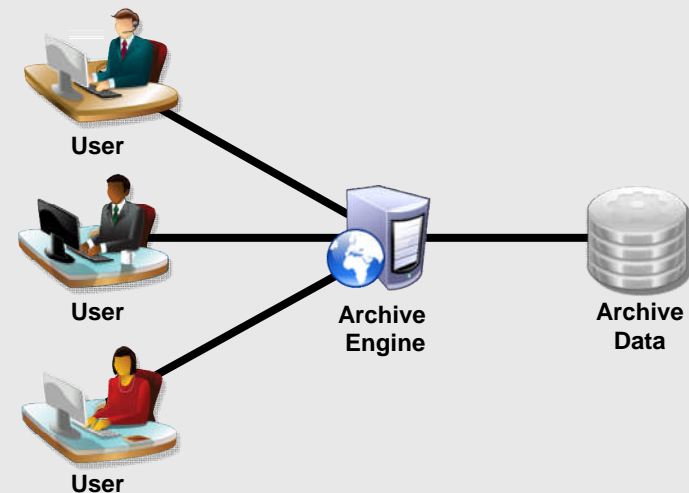
**Consolidate &  
Retire**

- Preserve application data in its business context
  - Capture all related data, including transaction details, reference data & associated metadata
  - Capture any related reference data that may reside in other application databases
- Retire out-of-date packaged applications as well as legacy custom applications
  - Leverage out-of-box support of packaged applications to quickly identify & extract the complete business object
- Shut down legacy system without a replacement
  - Provide fast and easy retrieval of data for research and reporting, as well as audits and e-discovery requests

## *Infrastructure before Retirement*



## *Archived Data after Consolidation*



# Effectively archive and manage data growth with InfoSphere Optim

## Reduce Costs

**Reduce** hardware, software, storage & maintenance costs of enterprise applications

## Improve Performance

**Improve** application performance & streamline back-ups and upgrades

## Minimize Risk

**Support** data retention regulations & safely retire legacy/redundant applications

- Discover & identify data record types to archive across heterogeneous environments
- Intelligently archive data to improve application performance and support data retention
- Capture & store historical data in its original business context
- Define & maintain data retention policies consistently across the enterprise
- Ensure long-term, application-independent access of archived data via multiple access methods
- Support for custom & packaged ERP applications in heterogeneous environments
- Leverage comprehensive solution for application consolidation and retirement across your enterprise

# What is the market saying?

“ IBM’s Optim product line led the database archiving and ILM segment in 2010 with a 52.3% share, and showed nearly 18% growth in 2010.

Source: IDC – Worldwide Database Development & Management Tools 2010 Vendor & Segment Analysis, December 2011

“ Today, IBM continues to lead the industry with the most comprehensive data archiving solution and the largest installed base ... IBM’s customers spoke highly of the Optim solution’s reliability and strong performance.

Source: Forrester Research – “Your Enterprise Data Archiving Strategy”, N. Yuhanna, February 2011

“ Organizations can realize benefits in the form of improved operational and capital cost savings, improved IT and end user efficiency, as well as higher levels of data protection and application performance [with InfoSphere Optim].

Source: Forrester Research – Total Economic Impact Study for InfoSphere Optim, October 2009

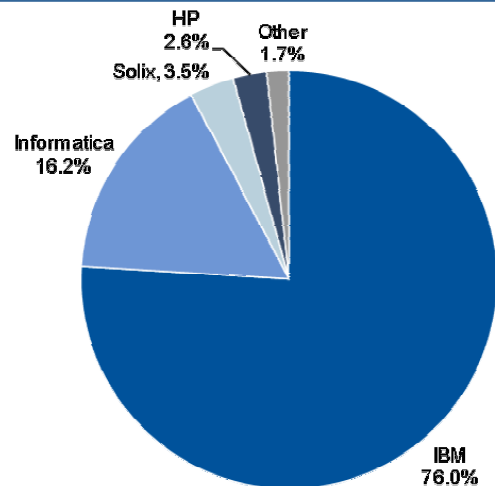


# Gartner key findings

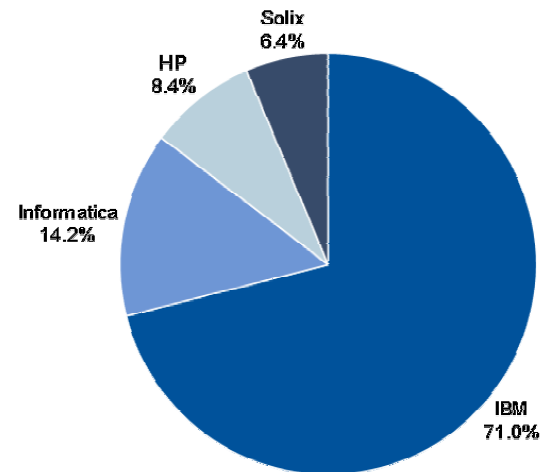
“ We believe the market for database archiving and application retirement is vibrant and dynamic, and will see continued solid growth over the next five years.

“ Organizations are looking to database archiving vendors that offer packaged and custom application support in order to control storage growth, improve application performance, and support compliance, audit and e-discovery activities.

**Vendor Market Share by 2010 Revenue**



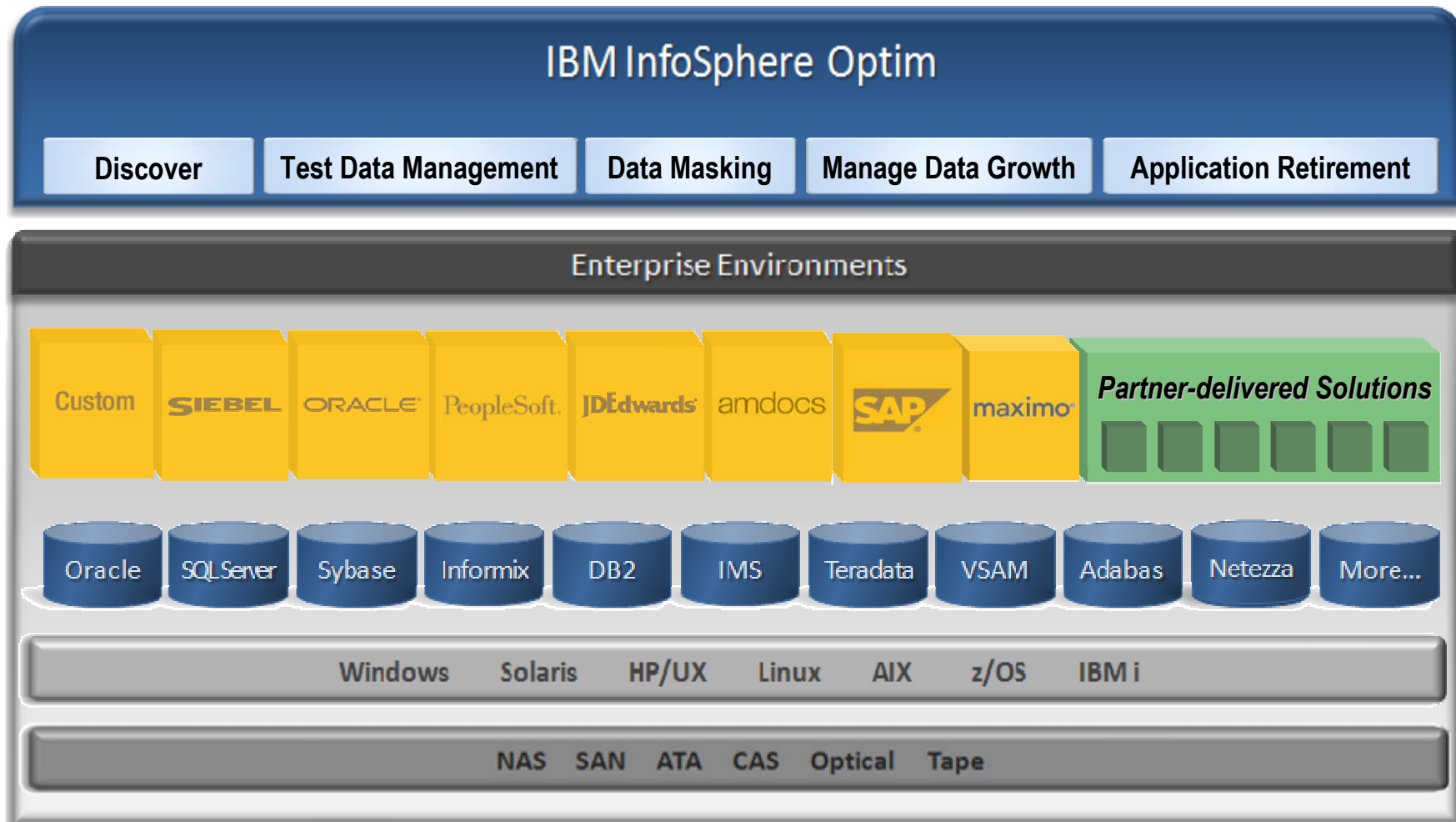
**Vendor Market Share by Total Number of Customers**



Source: Gartner, Inc., "Market Trends: World, Database Archiving Market Continues Rapid Growth, 2011", S. Childs & A Dayley, September 2011



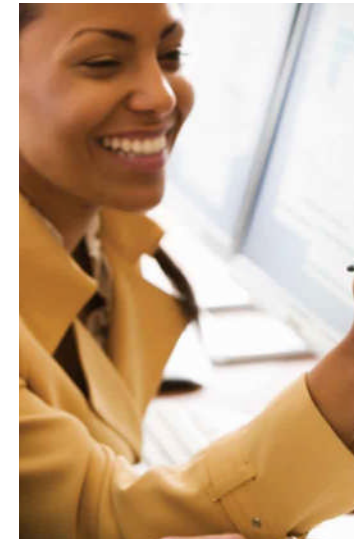
# IBM InfoSphere Optim supports the heterogeneous enterprise



Single, scalable, heterogeneous information lifecycle management solution provides a central point to deploy policies to extract, archive, subset, and protect application data records from creation to deletion

# IBM provides the expertise to manage the data lifecycle improving application efficiency

- Reduce the cost of data storage, software and hardware
- Improve application efficiency and performance
- Reduce risk and support compliance with retention requirements
- Speed time to market and improve quality



***The top challenge for 43% of CFOs is improving governance, controls, and risk management***

*CFO Survey: Current state & future direction, IBM Business Consulting Services*

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Thank you

