



Building the Information Infrastructure

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IT Organizations Are Now Facing New Challenges

- Information is growing more than 60%-70% annually
 - 1 million TB external RAID shipped in 2005 – 12 million by 2010
- IT infrastructures are becoming more complex
 - 60% of service downtime caused by configuration error
 - 80% of IT budget consumed by operations
- Information security and protection is at the forefront of IT concerns
 - 82 percent of commercial enterprises do not feel their data are secure or “adequately protected”
 - 75% of US companies suffer data loss each year
- Information is increasingly subject to regulatory requirements
 - More than 20,000 information-focused regulations worldwide
- Information is managed inconsistently and often captive in application “silos”
 - Average number of discrete applications in enterprise-level companies: 1100
 - 90% of unstructured information is unmanaged

The IT Infrastructure World is Changing

from
Platform-centric

to
Service-oriented

Static

Dynamic

Procedural

Web-based / Orchestration

Physical resources

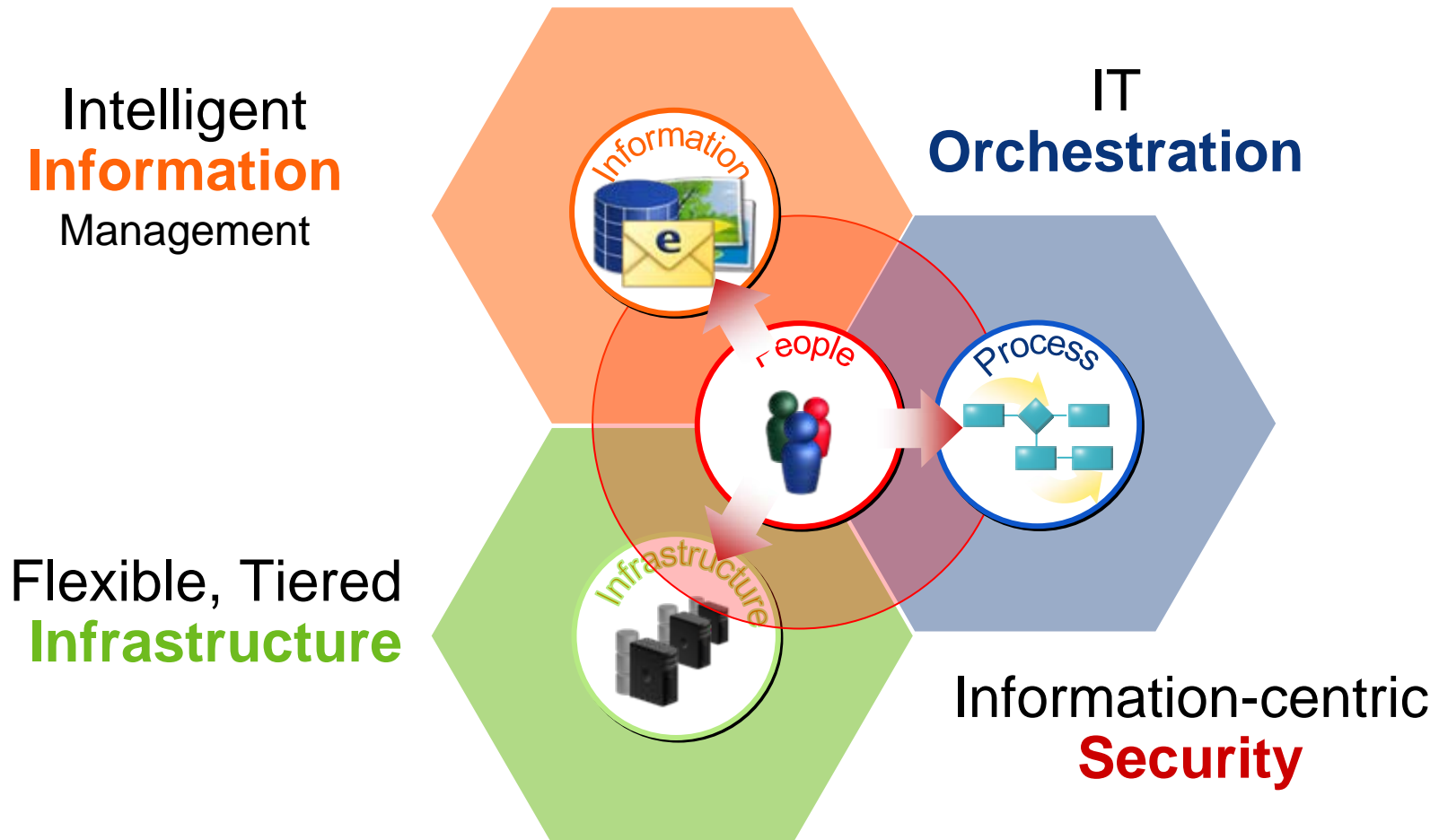
Virtual environments

Framework management

Model-based management

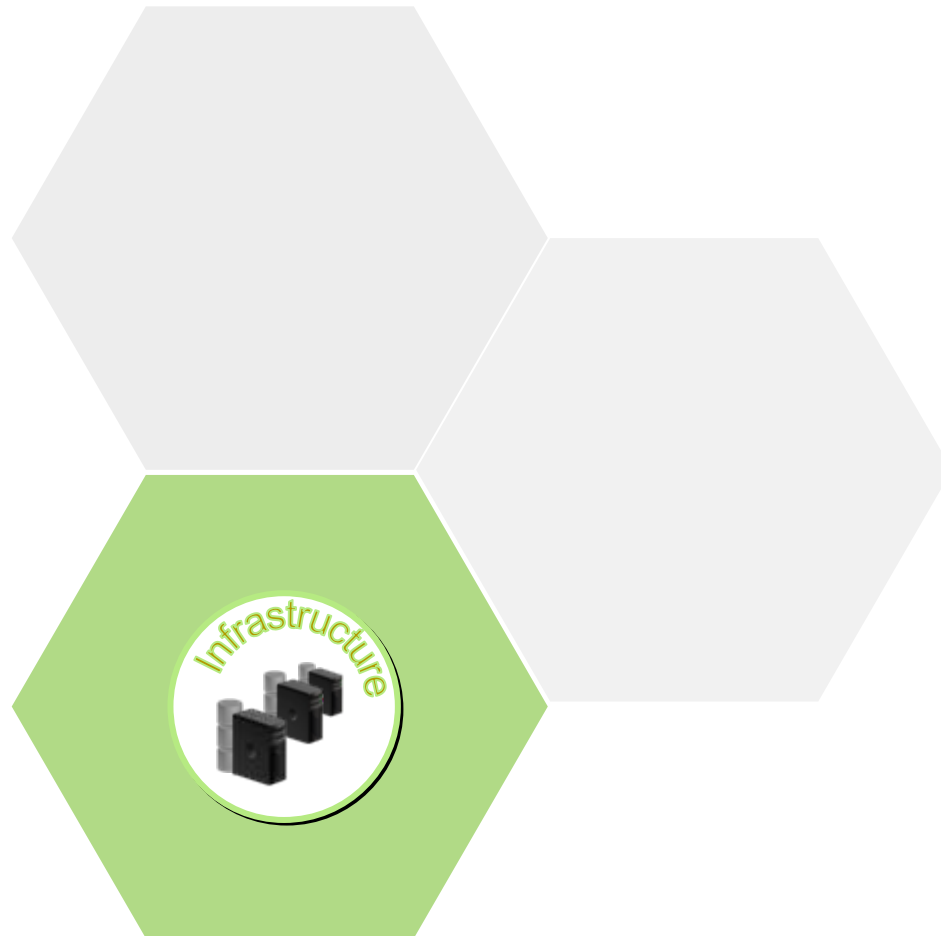


Our Vision: Information Infrastructure



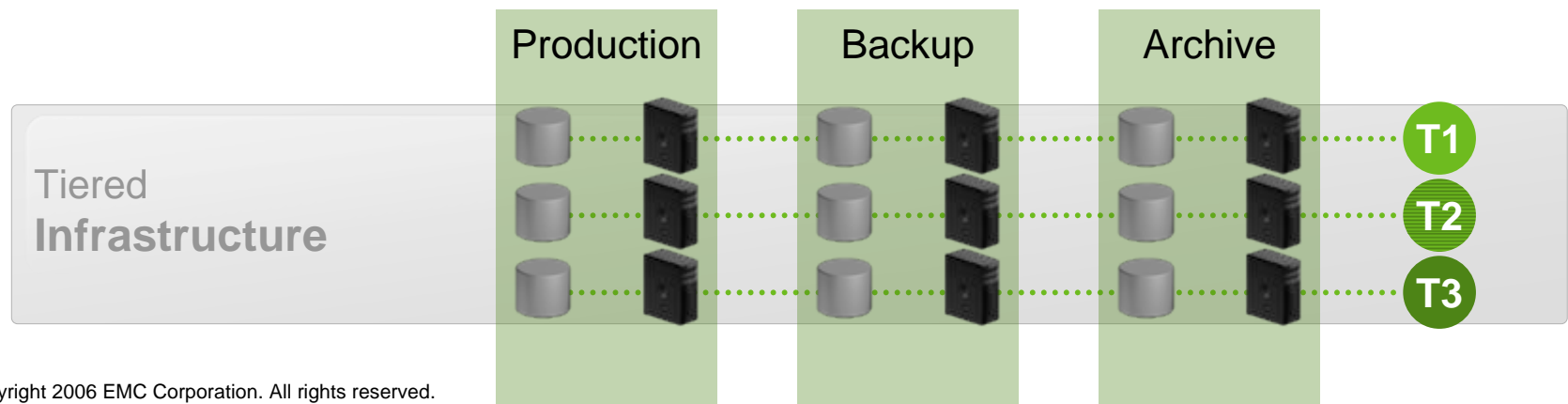
Our Vision: Information Infrastructure

Flexible, Tiered
Infrastructure



Tiered Infrastructure: Tiered Storage Platforms

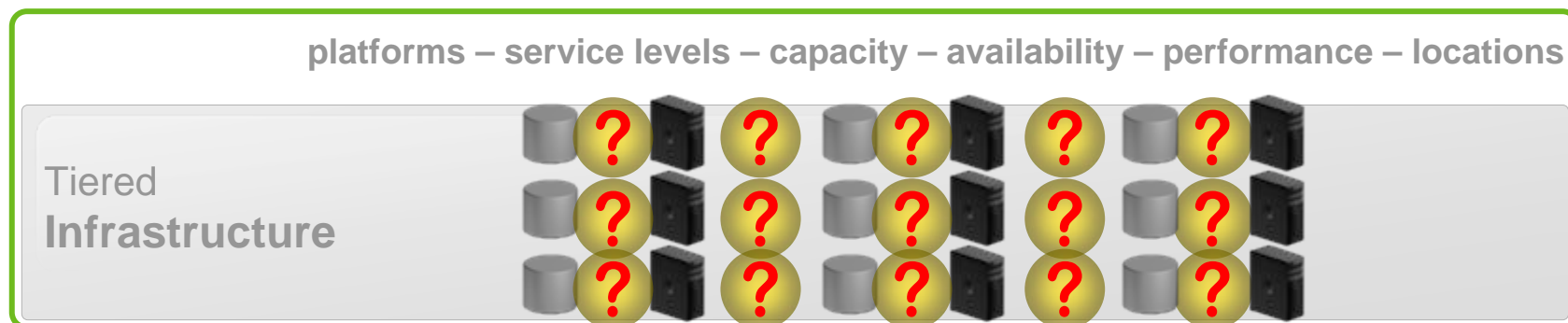
- Tiered Storage
- Tiered Service Levels
 - Non disruptive maintenance, migration and testing
- Tiered Protection
 - Recover sites, applications, volumes or files to the right RTO/RPO
- Tiered Security



Bringing Flexibility to Tiered Infrastructure

Challenges

- Static resources
- Static service levels
- Can't optimize resources
- Can't manage change without disruption



Bringing Flexibility to Tiered Infrastructure

Solution

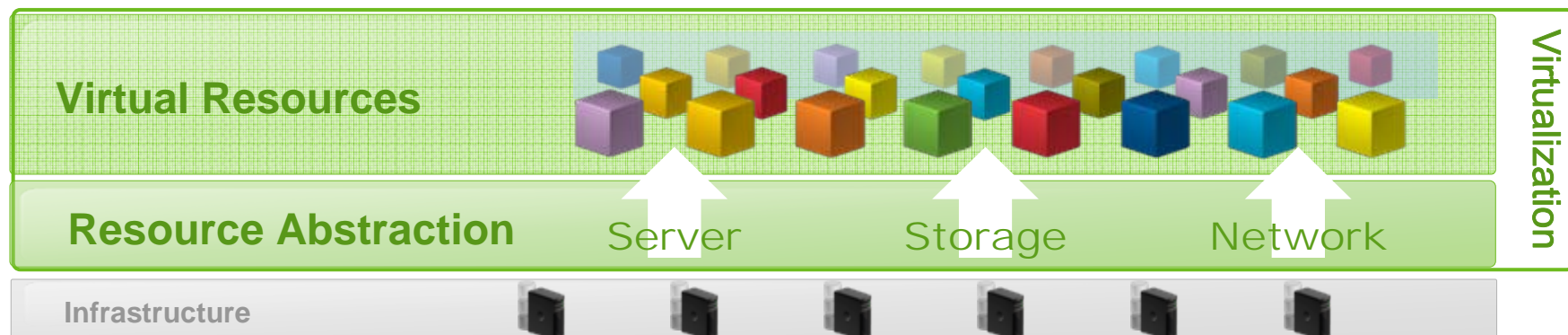
- Virtualization unlocks server, storage and network services from their physical containers
- Virtual resources enable dynamic provisioning
- Tiered resources to optimize cost



Bringing Flexibility to Tiered Infrastructure

Solution

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The Benefits of Flexible Tiered Infrastructure

Optimized

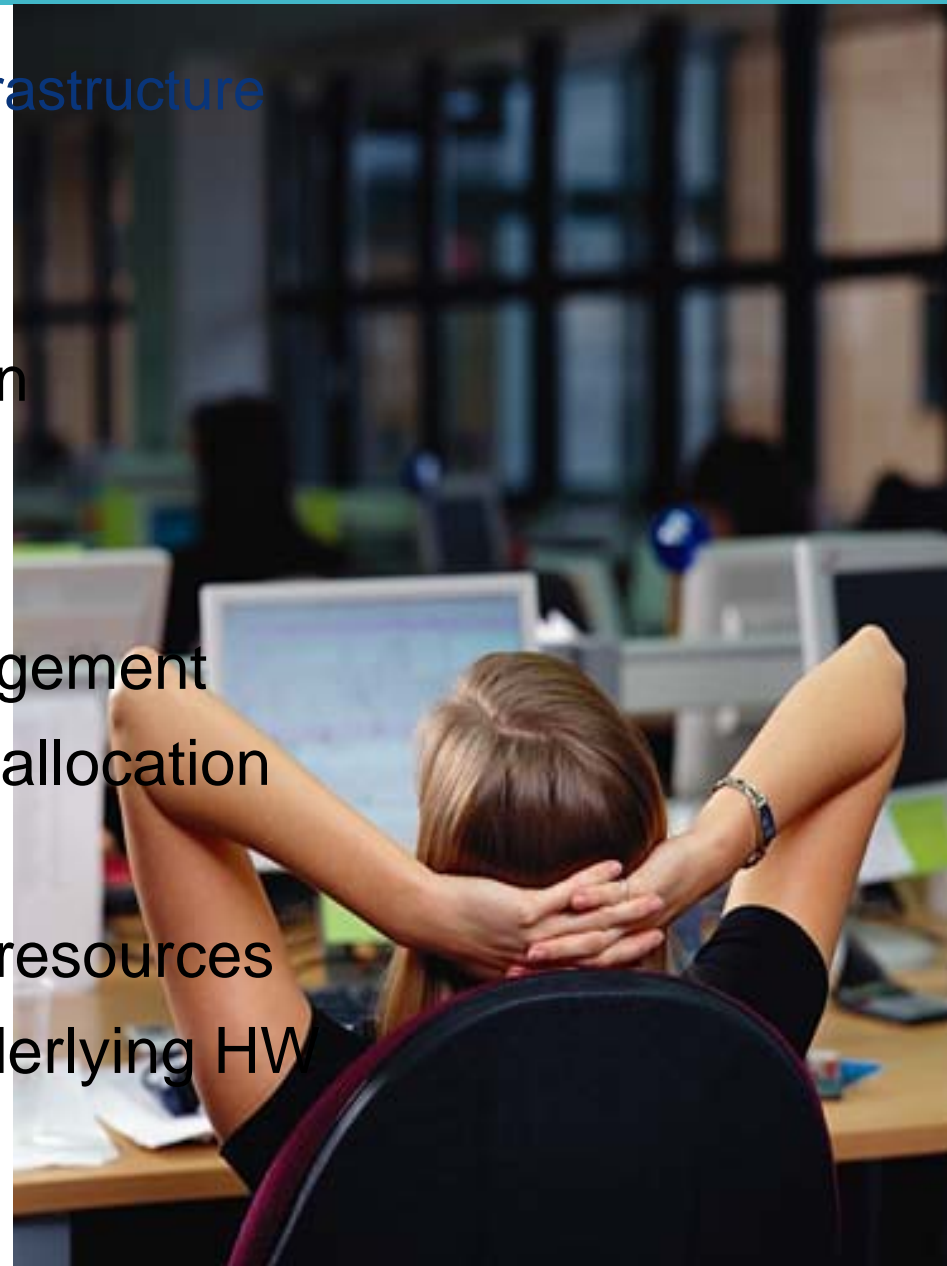
- Maximize resources utilization
- Tiers and prioritizes resource

Flexible

- Non-disruptive change management
- Pools resources for dynamic allocation

Simple

- Consistent logical view of all resources
- Shields the complexity of underlying HW

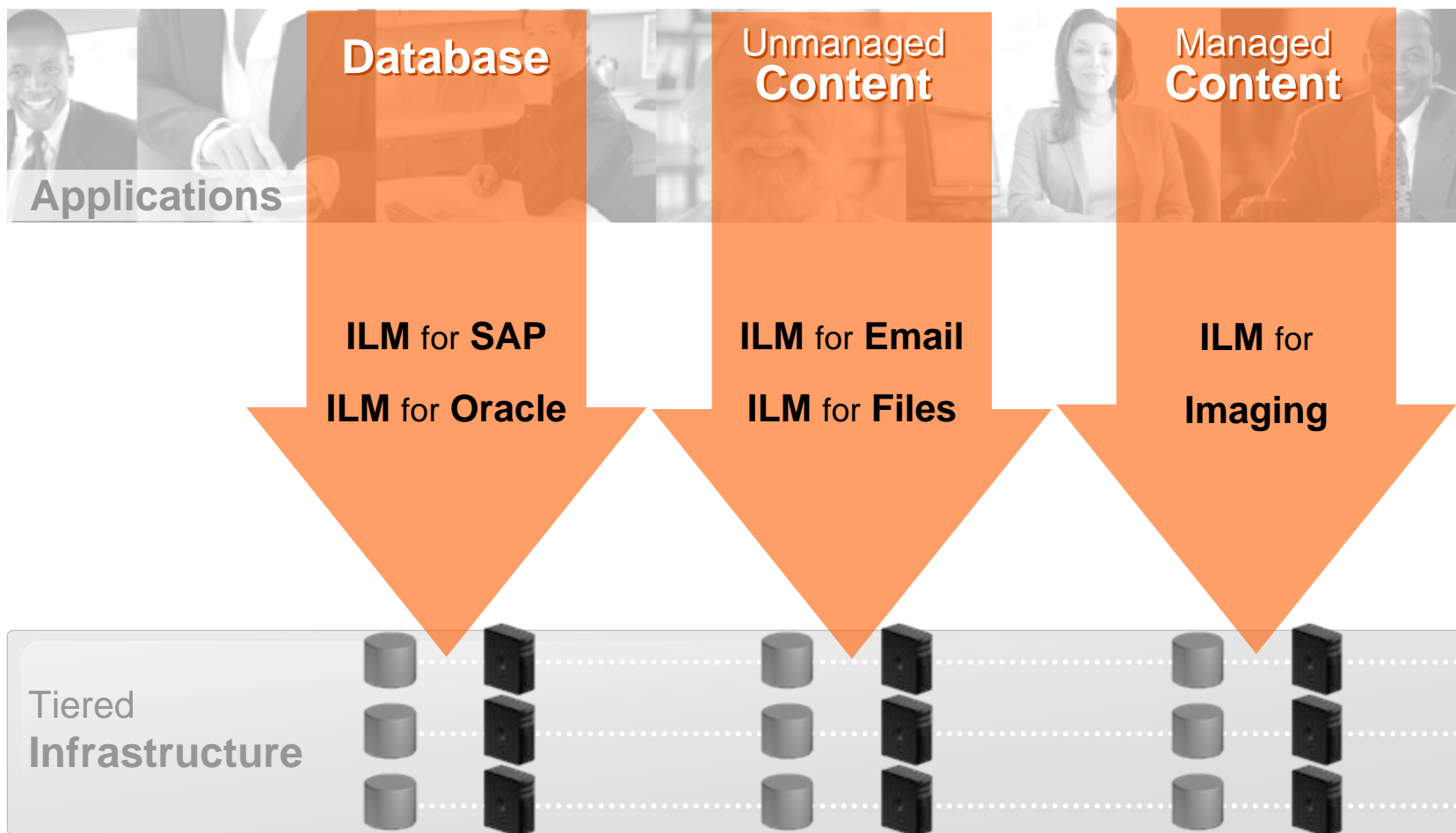


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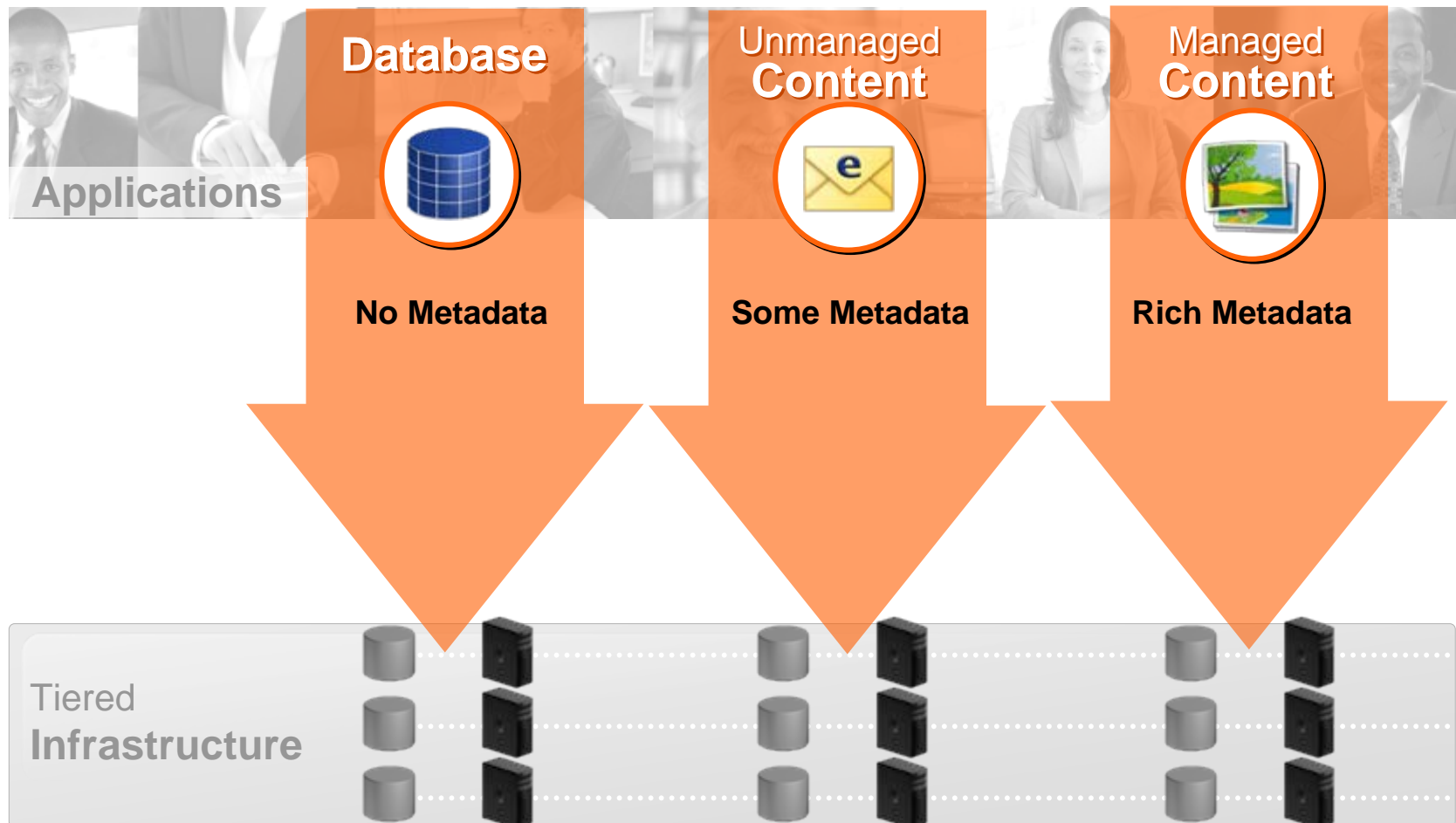
Intelligent
Information
Management



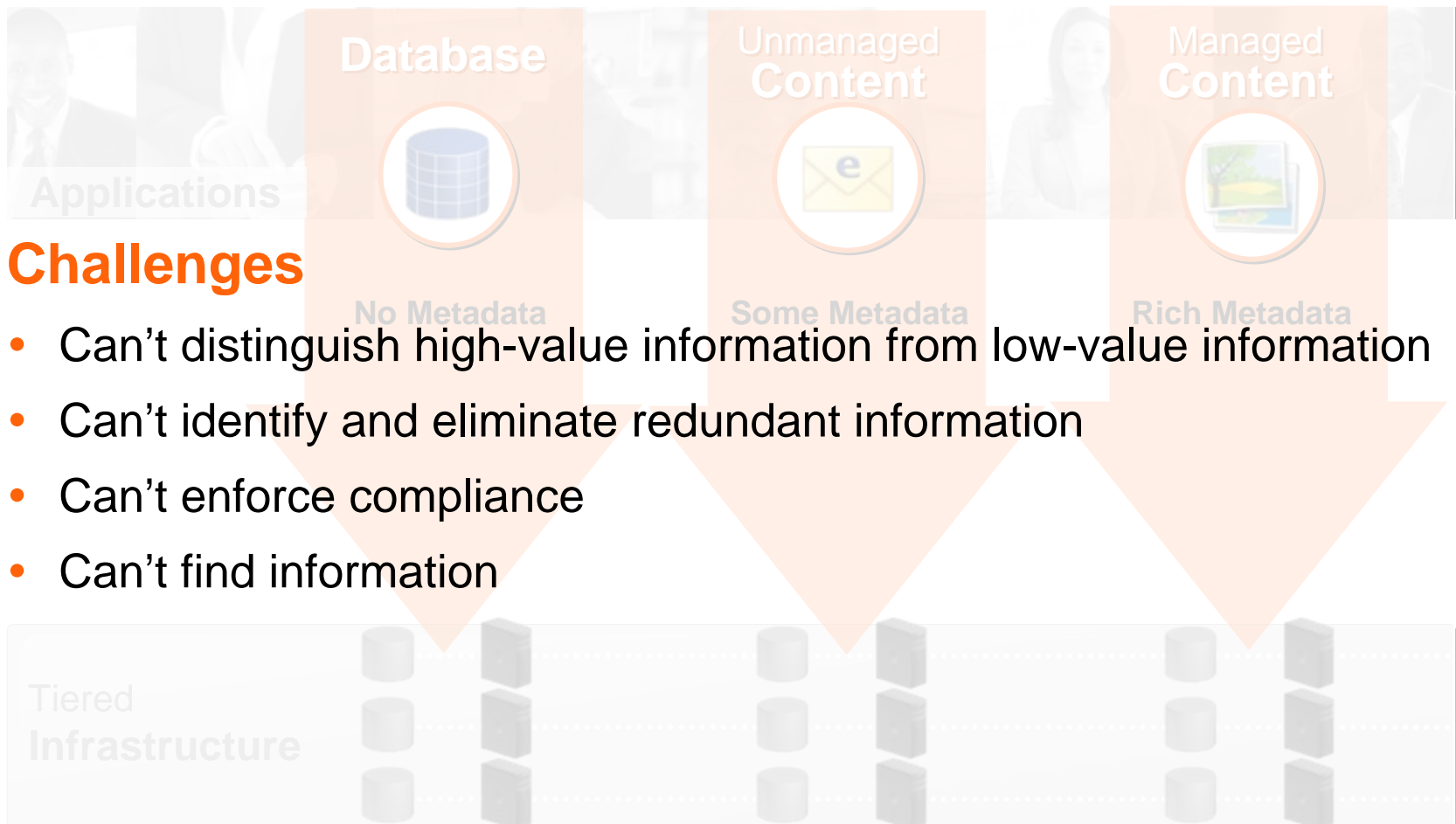
Today's ILM



Toward the Next Generation ILM

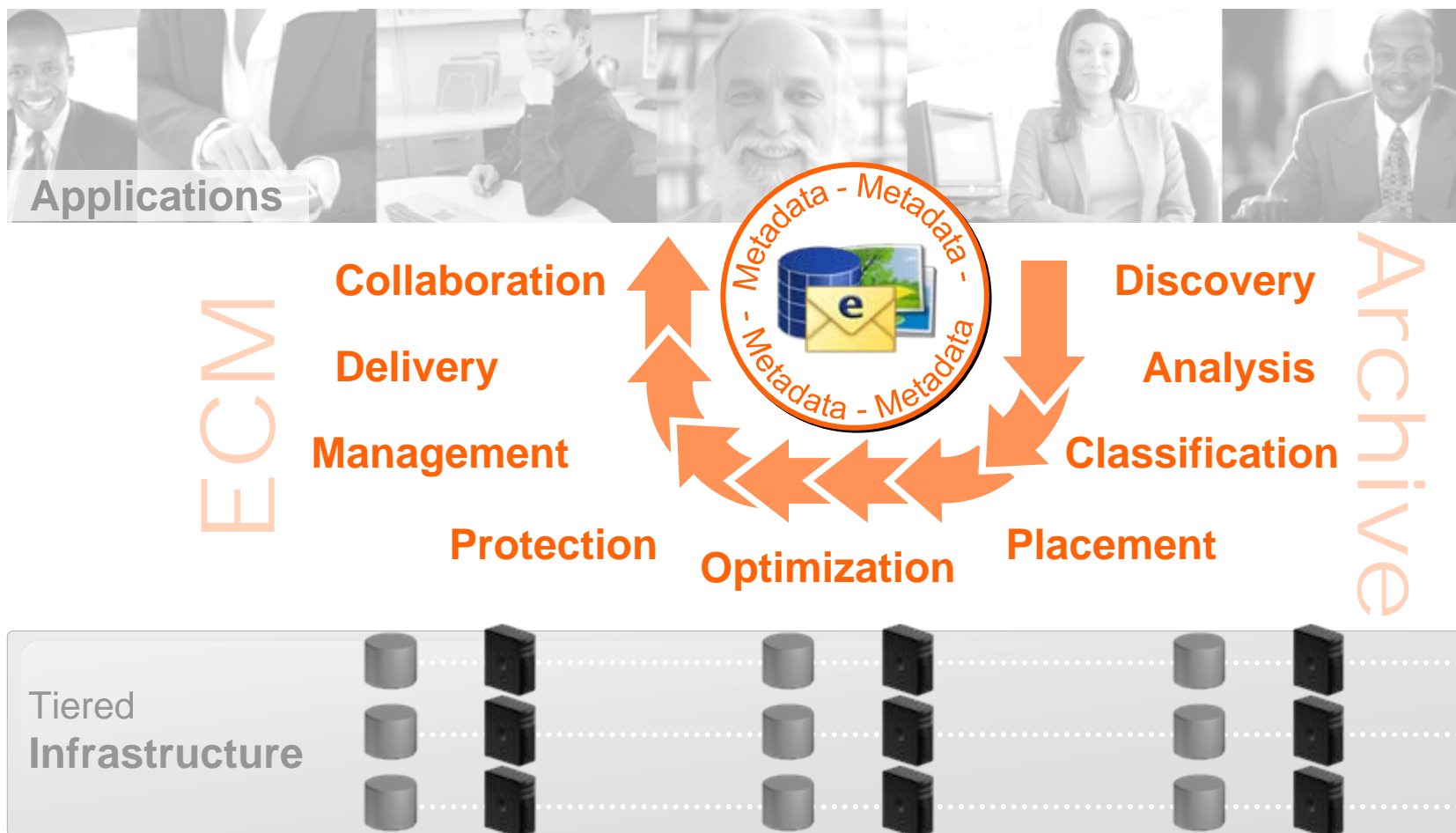


Toward the Next Generation ILM



Intelligent Information Management

Common Archival and Content Management

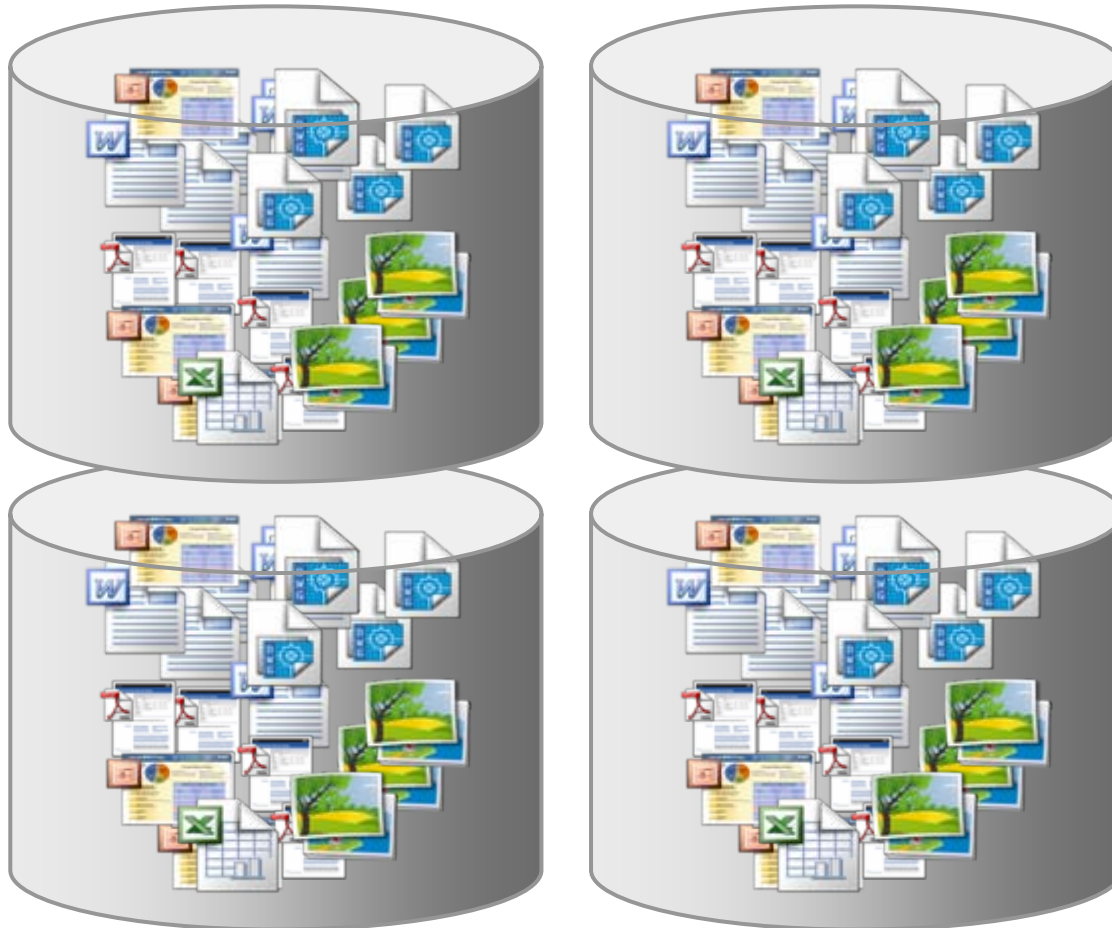


EMC Infoscope – *New!* Launched 9/18/06

- End-to-end automation for more intelligent file management
 - Built-in file discovery, classification, migration, and search capabilities
 - Policies align IT resources with business needs
- Powerful new software to advance information lifecycle management strategy
 - Management of files based on business value
- Only EMC can offer a solution with such breadth and depth
 - Seamless integration of EMC core technologies



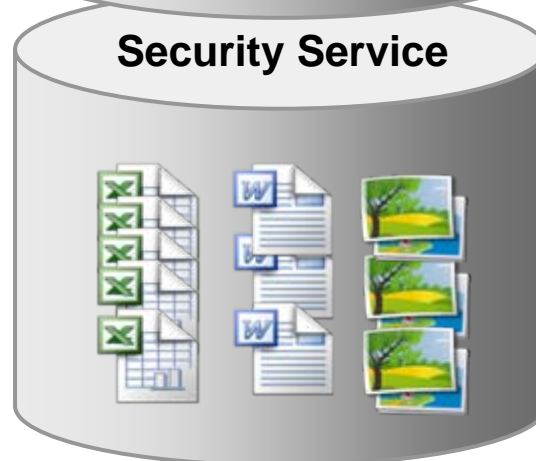
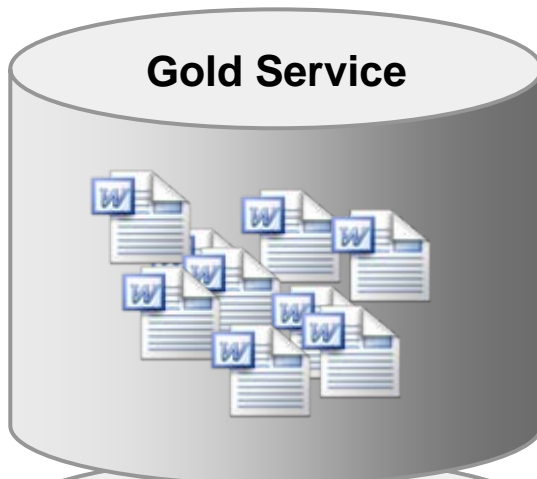
The Traditional Approach: *Before*



- No idea what's inside these files: Are they *Legal* documents? *Customer* information? Directions to the restaurant?
- Businesses at risk: Are files protected? Secured?
- All files are managed the same way, due to a lack of knowledge needed to determine whether the content presents value or risk to the business

EMC Infoscapes: *After*

Files are Secured, Saved, and Stored Based on Business Value and IT Objectives



- 1 Unified EMC Infoscapes console
- 2 Search
- 3 Analysis and reports

The Benefits of Intelligent Information Management (IIM)

Less Risk

- Compliant Retention, Protection, and Security management, with support for Search and Discovery

Managed to SLO's

- Availability and Recoverability meets appropriate service levels based on information criticality

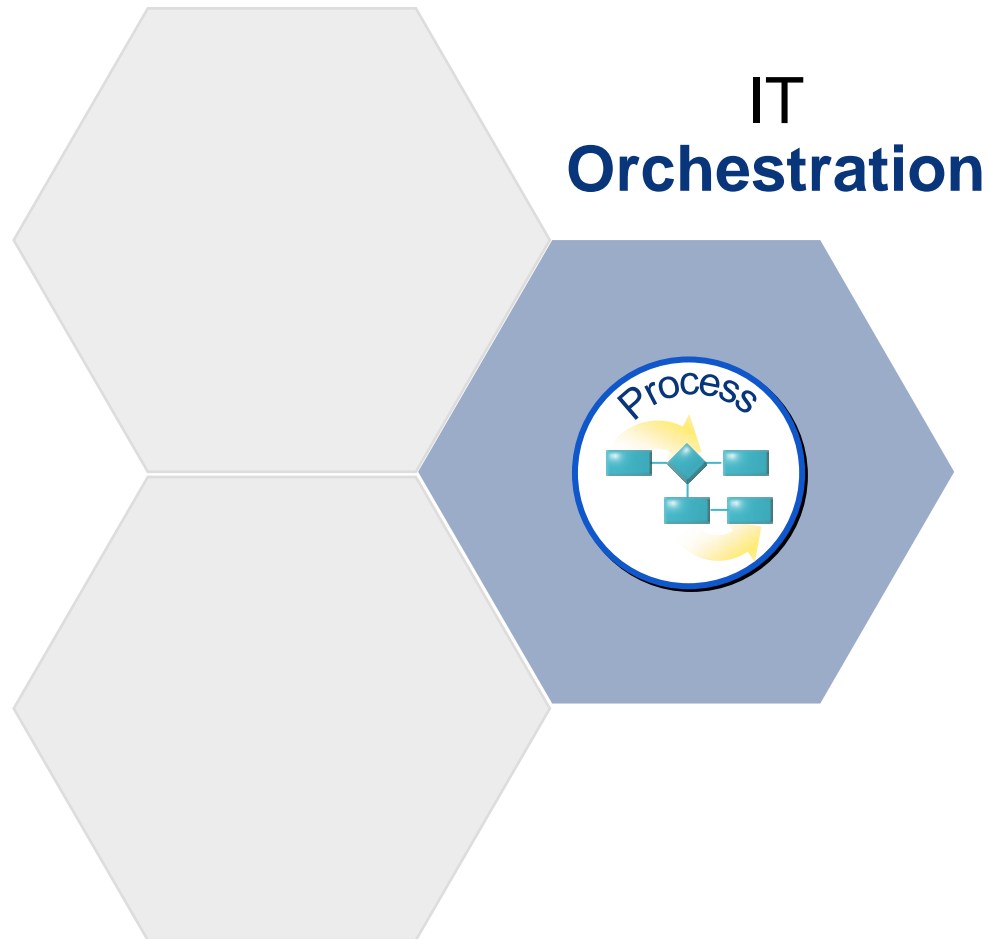
Cost

- Information continuously online at the lowest cost
- Optimize storage placement eliminates data redundancy

Access

- Index/search across structured, unstructured, and semi-structured information

Our Vision: Information Infrastructure

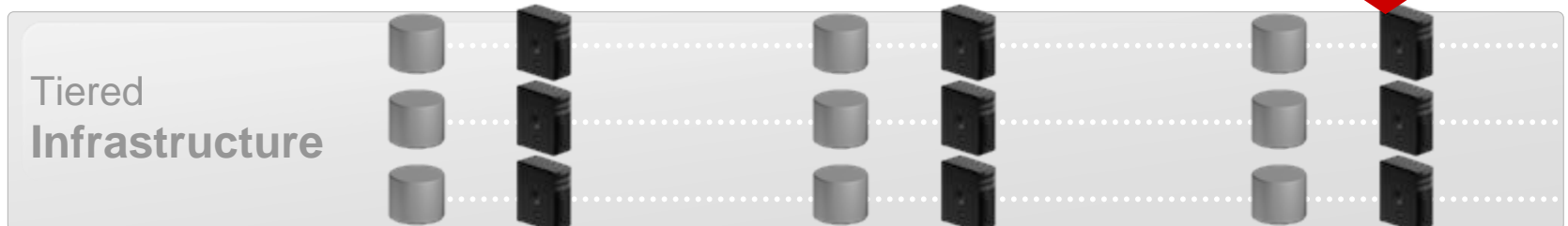
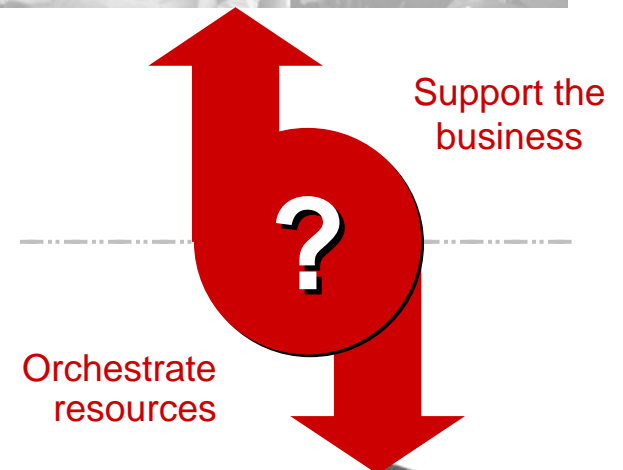


Challenge: Responding to Business Change

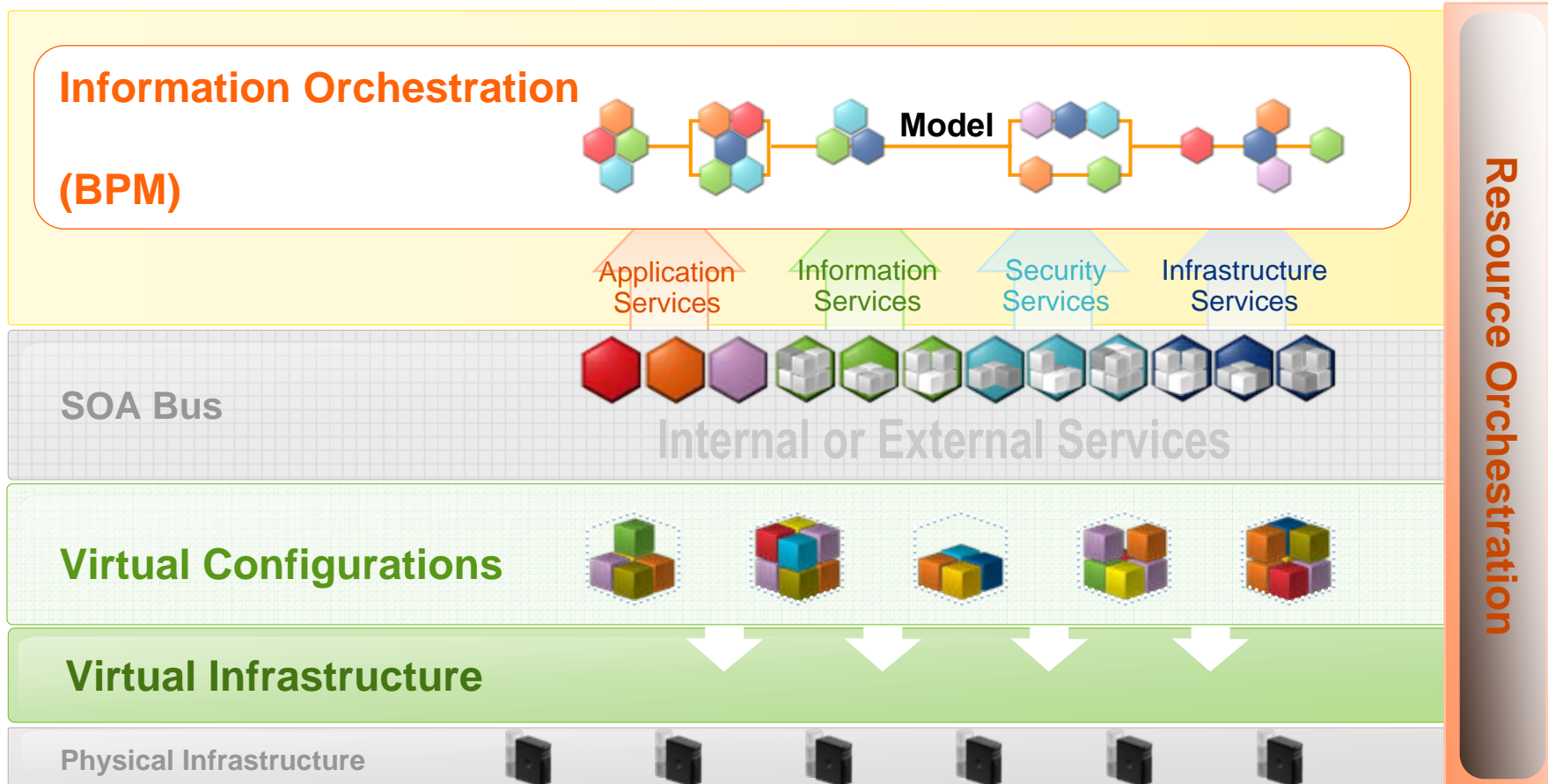


Applications

- Can't respond rapidly to change
- Can't orchestrate from top-to-bottom
- Can't understand relationships between apps and resources



IT Orchestration

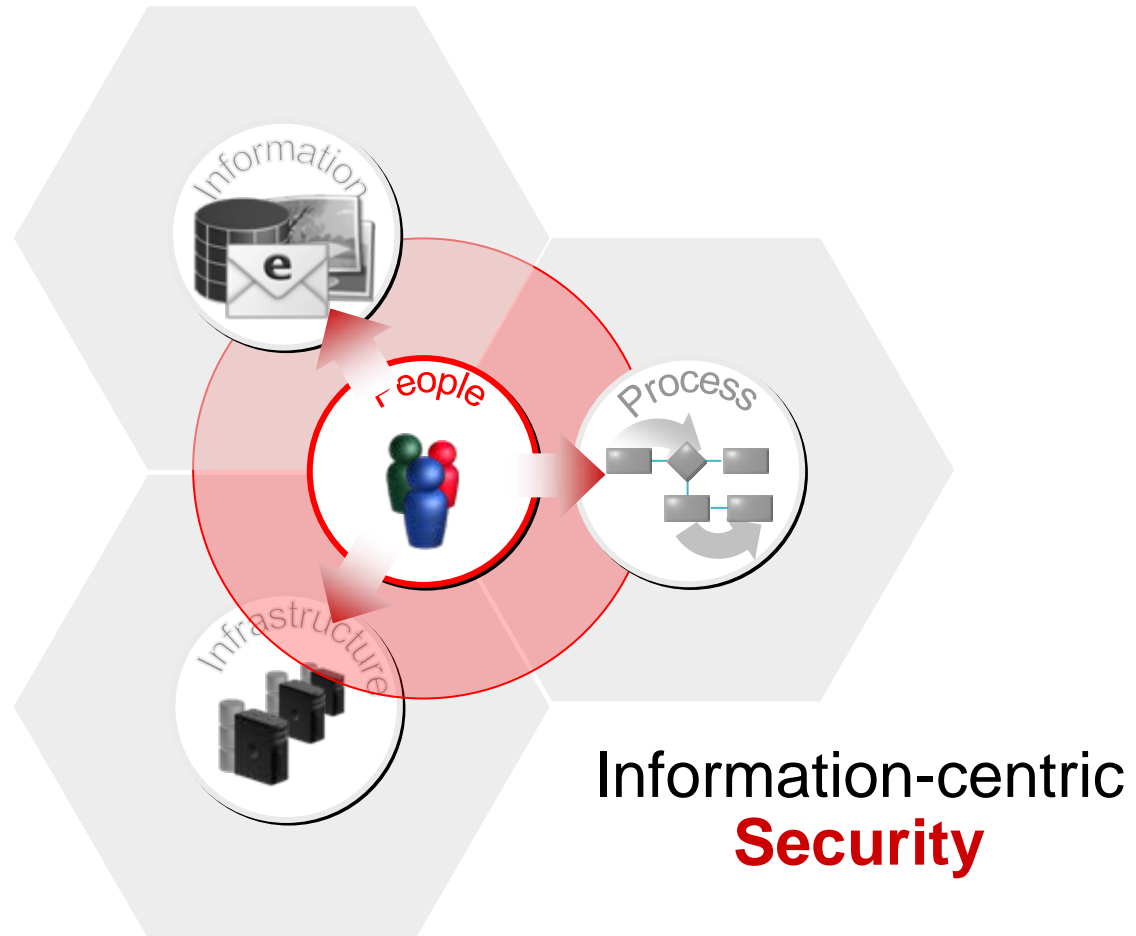


The Benefits of IT Orchestration

- End-to-end SLA/SLO Management
- Cross-domain orchestration
- Feasible
- SOA-based
 - Component SW Model



Our Vision: Information Infrastructure



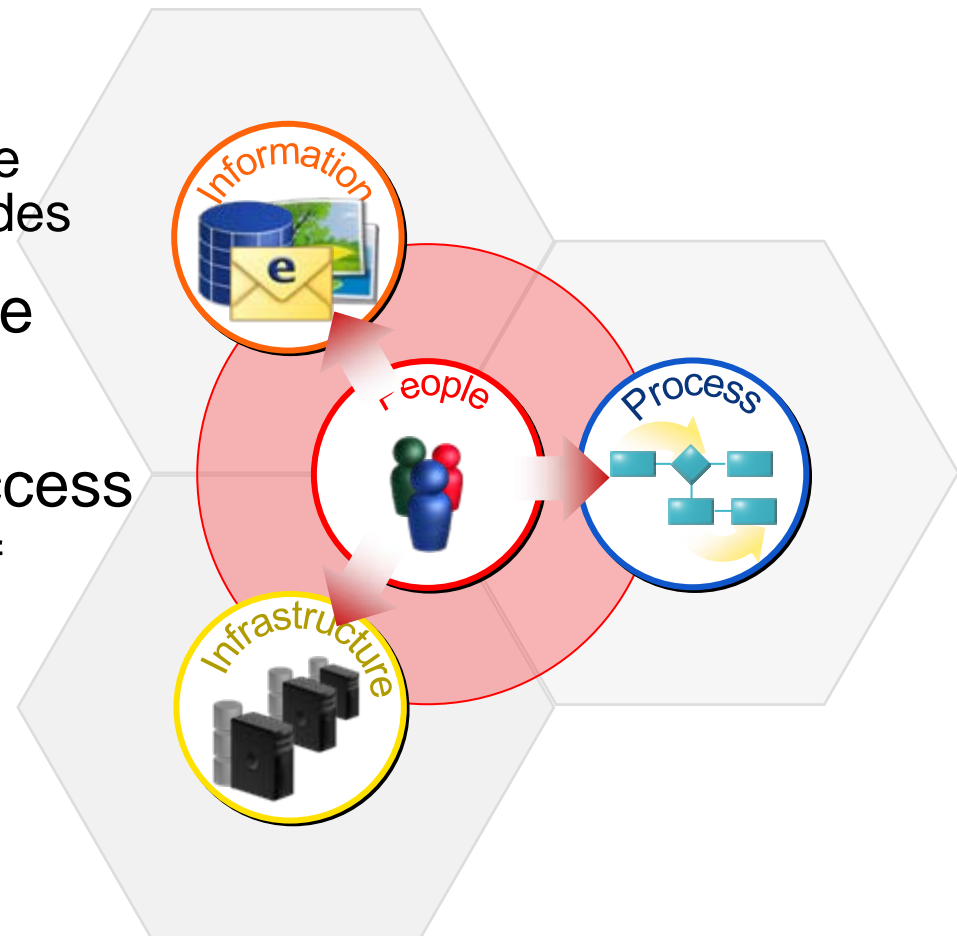
Challenge: Securing Information

- Perimeter security is not sufficient
 - Insider threats
- Information itself needs better protection
 - Information must be available EVERYWHERE
- Prove who you are wherever you are
- Protection requires proof

Information-centric Security

Identity & Access Management, Encryption & Key Management

- **Securing the Information**
 - Information must be secure regardless of where it resides
- **Securing the Infrastructure**
 - Embedded, unobtrusive
- **Managing Identity and Access**
 - Federated management of identities, roles and teams
 - Data and systems
- **Ensure Compliance**
 - SEIM



Information-centric Security

*Identity & Access Management, Encryption, Key Management & **Accountability***



Leader in Security Information Management

- Captures data from security, network and enterprise applications, to mainframe, desktop and storage devices
- Enables security and compliance solutions to transform log data into meaningful intelligence



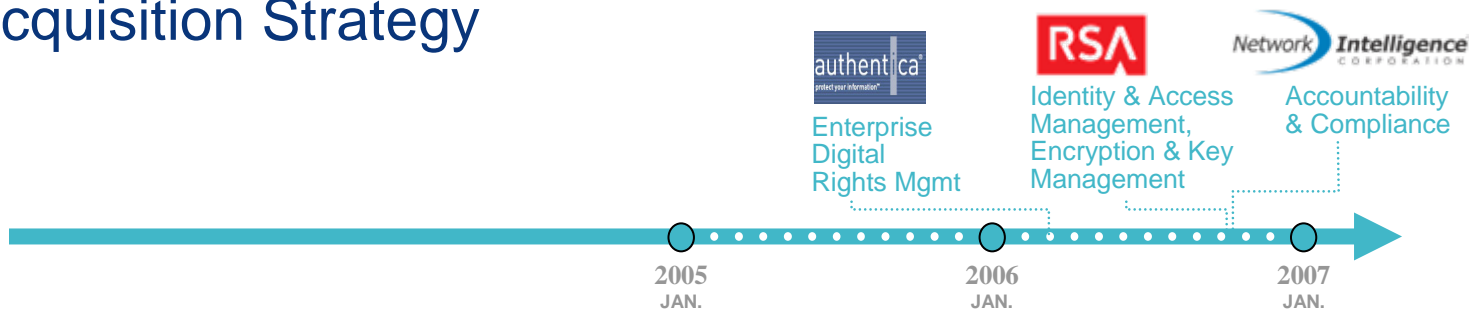
The Benefits of Information-centric Security

- Focus is on the asset – Your Information
- Information is secure everywhere
- Ties to IAM
- Ties to Compliance

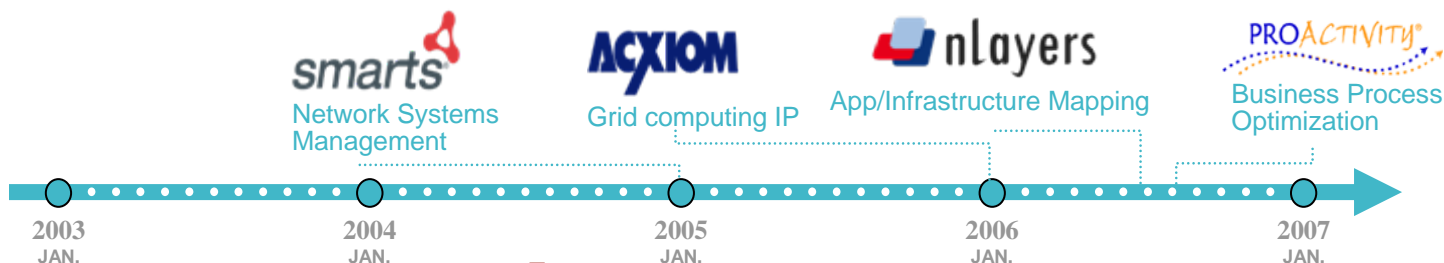


EMC and our Acquisition Strategy

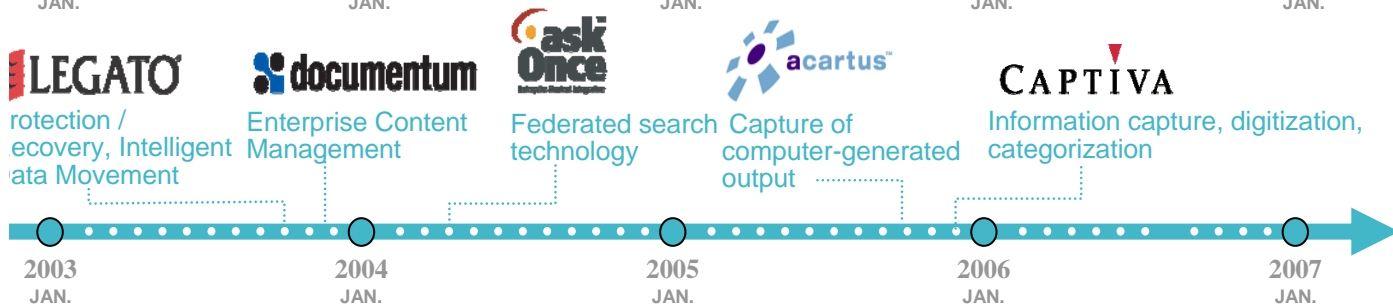
Information-centric Security



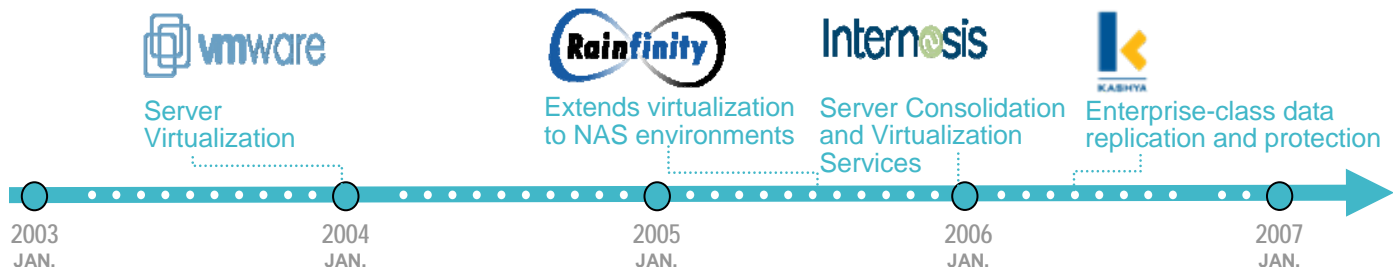
IT Orchestration



Intelligent Information Management



Tiered, Flexible Infrastructure



5 Billion Businesses:



Security



*Resource Management**



Content Management

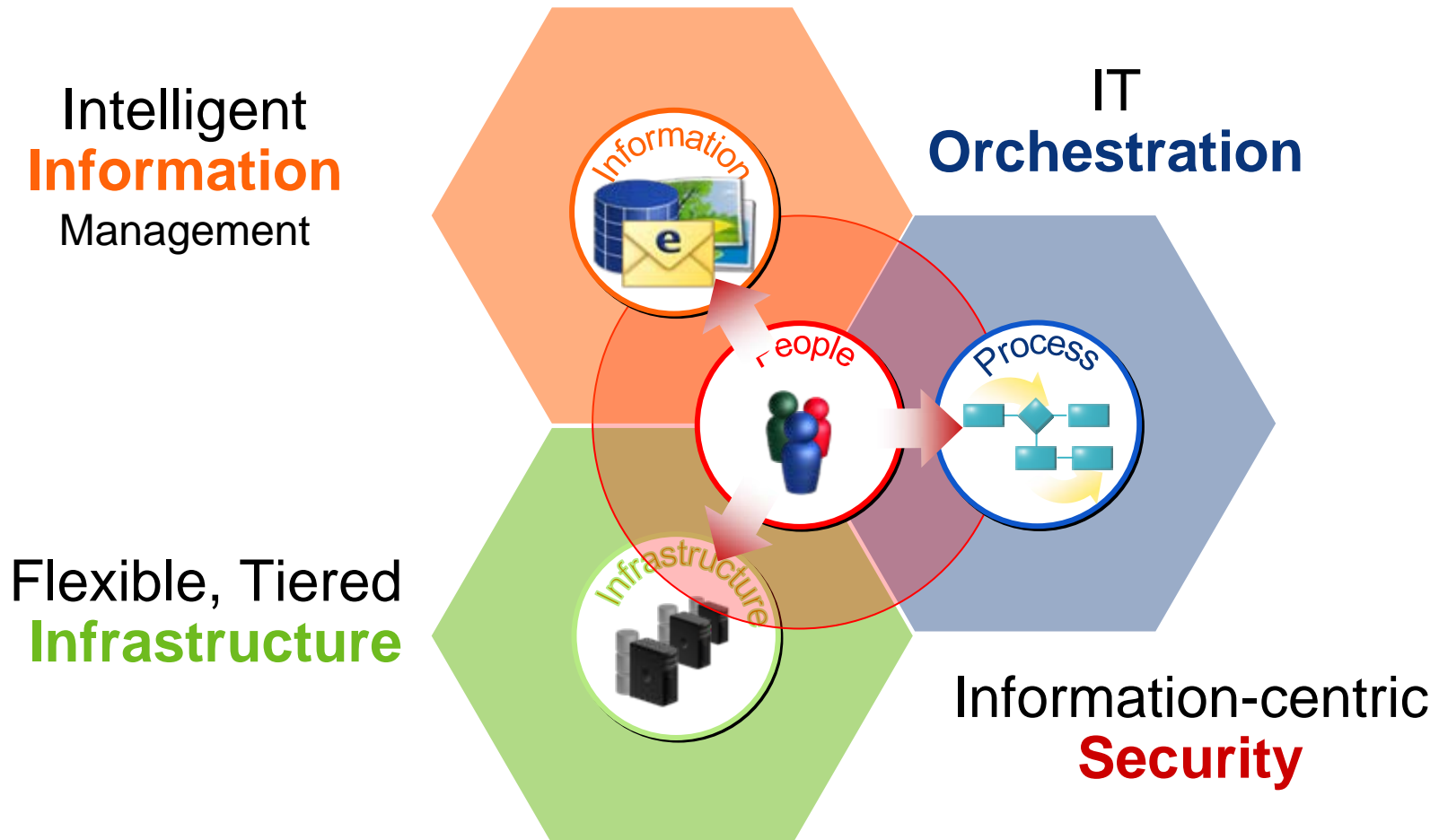


Virtualized Infrastructure | Storage Virtualization



*with existing Resource Management products

Our Vision: Information Infrastructure



Thank you!

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