

# Gain big value from Big Data - Govern the information



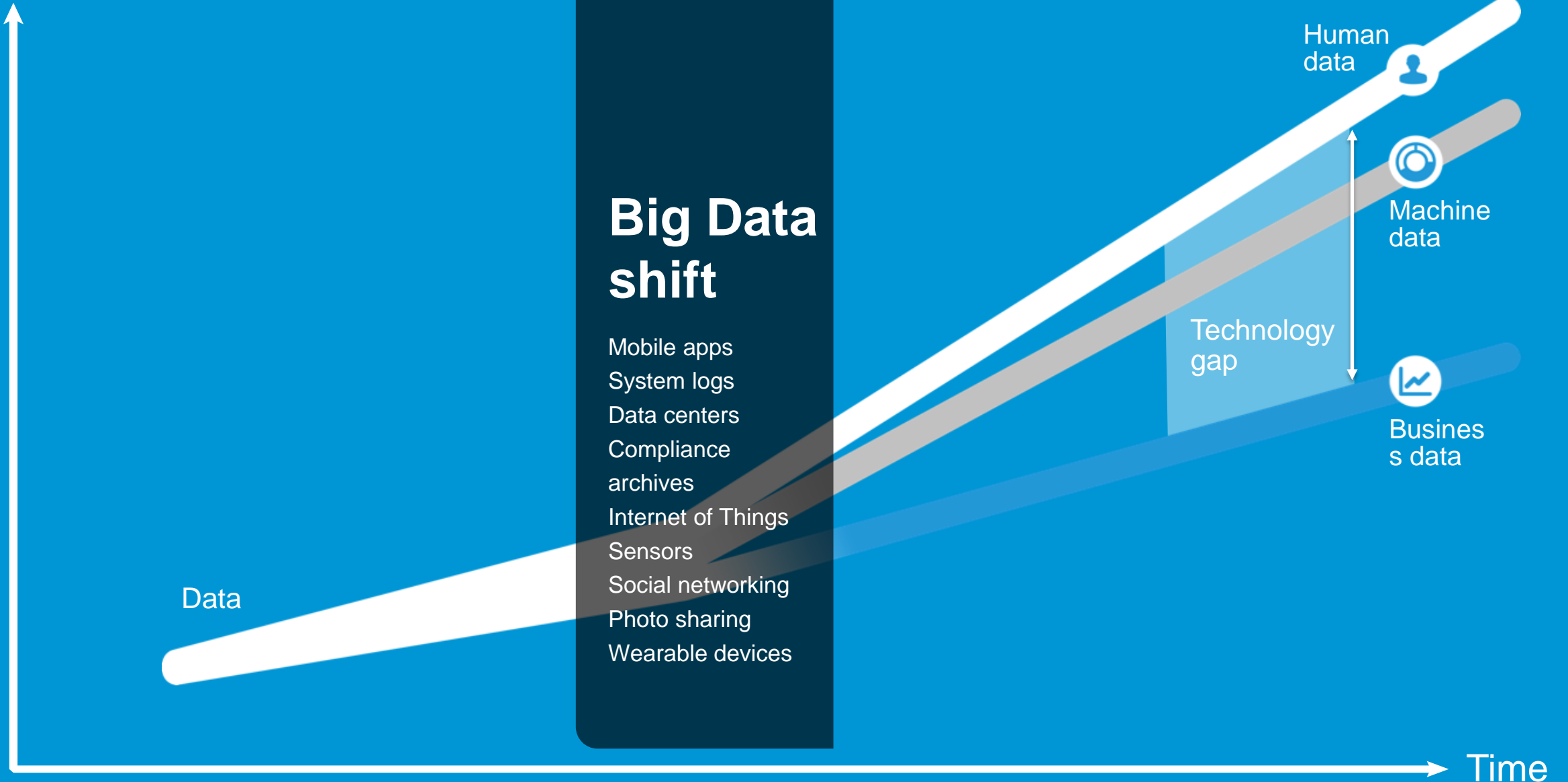
**Pawel Walczak**

HP Exstream

**Robert Lejnert (mental support)**

HP Software Big Data

Volume of data



## Big Data shift

Mobile apps  
System logs  
Data centers  
Compliance archives  
Internet of Things  
Sensors  
Social networking  
Photo sharing  
Wearable devices

Human data



Machine data



Business data

Technology gap

Time

# Data is your most strategic asset

**Monetize**

**Differentiate**

**Personalize**

**Monitor**

**Meter**

**Optimize**

**Predict**

**...and more**



# ... but also your greatest risk



**Regulate**

**Comply**



**Control**

**Secure**



**Address**

**Ensure**

# Optimizing the Big Data Balance Sheet

Monetize

Differentiate

Personalize

Monitor

Meter

Predict

**Assets**



**Liabilities**

Regulate

Comply

Control

Secure

Address

Ensure

# Why HP Software Big Data?

Our mission is to be the trusted partner for organizations to store, explore, govern, protect, and serve information and insights that fundamentally improve the outcomes of businesses, people, and the environment, while managing risk and meeting legal obligations.



# From Big Data to Smart Data



**Eliminate what  
is not  
important**



**Better manage  
what is  
important**



**Lower  
compliance-  
based risk**



**Automate as  
much as  
possible**

# Adaptive Intelligence + Big Data

Critical to effectively address all 3 forms of data

Annual  
Growth

## Machine Data

## Human Information

~100%

Sensors;  
Web logs;  
App logs;  
event  
monitors;  
security  
and  
intelligence  
systems.

← 90% of Information →

email,  
social  
media,  
documents  
and  
records,  
video,  
audio, and  
images

## Business Data

ERP; CRM;  
EDW

~10%

10% of Information

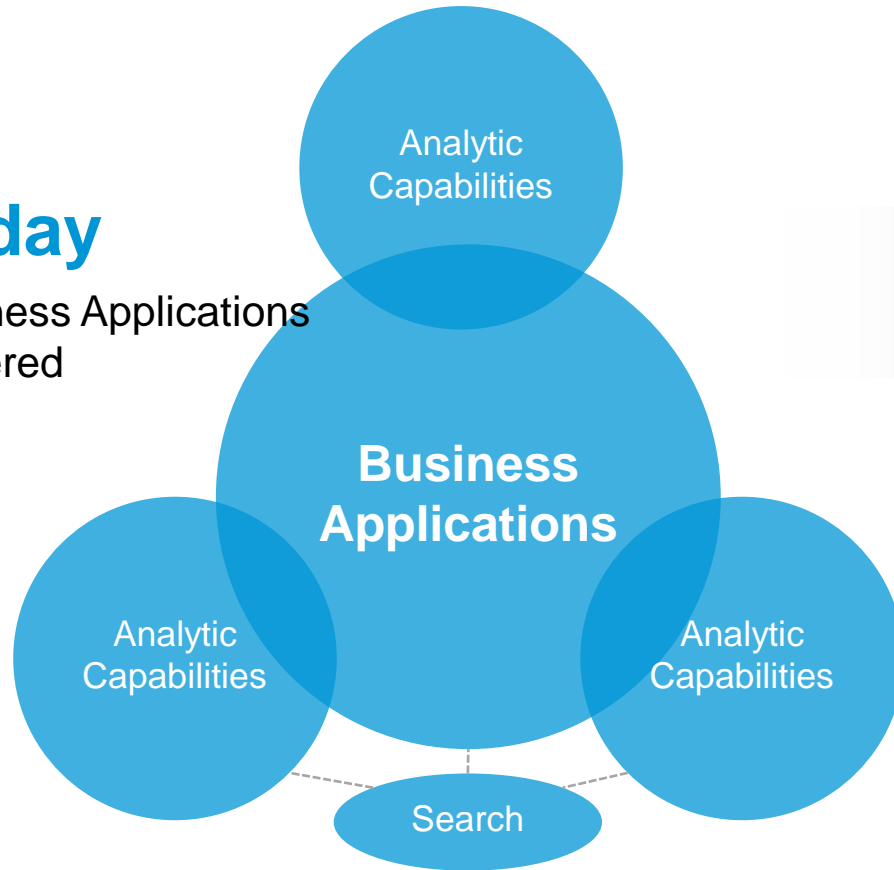


# The next shift in computing

Analytics move to center....of everything!

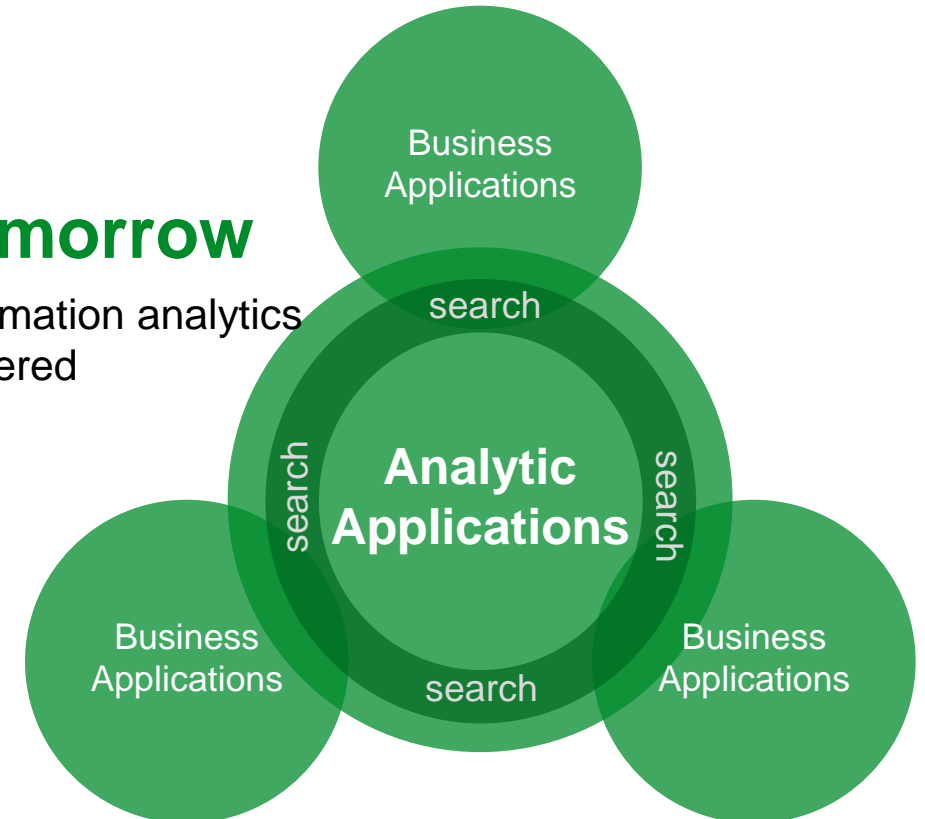
**Today**

Business Applications  
centered



**Tomorrow**

Information analytics  
centered



# Act on 100% of your information

 Increase  
**Efficiency**

 Increase  
**Productivity**

 Reduce  
**Cost**

 Increase  
**Revenue**

**Find**

**Enrich**

**Analyze**

**Act**

*500+ high-ROI, powerful, automated functions and services*

**Enterprise**



NOSQL  
PORTALS  
EMAIL  
...and more

**External and Cloud**



NEWS  
FORUMS  
BLOGS  
...and more



Language independent

Language independent



Social media



Video



Audio



Mobile



Documents



Texts



Customer communications



Email



Transactional data



IOT



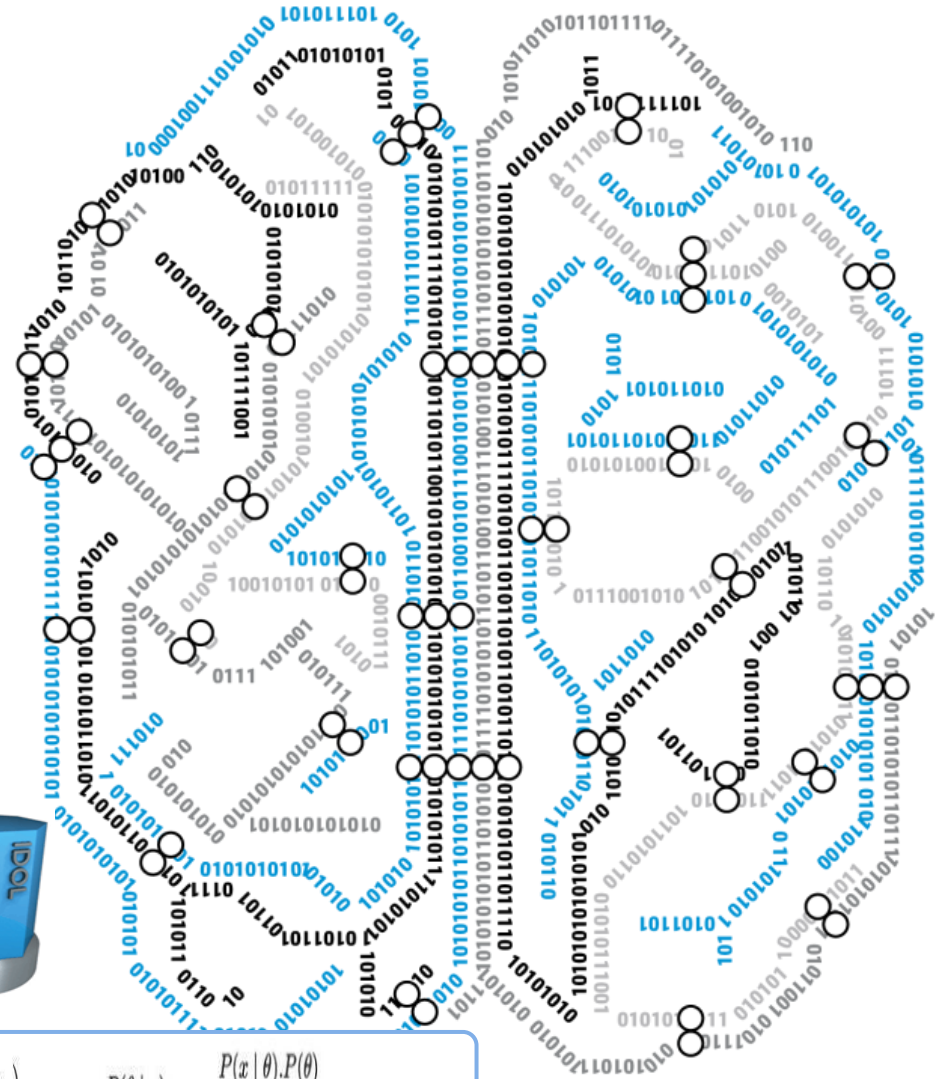
Images



Search engine

# IDOL: the OS for human information

- Only IDOL can handle the continuum of human information
  - Single processing layer for all data
  - Continuous learning ability
  - Superior speed, scalability, and simplicity
  - Built in security and compliance functionality
  - More than 400 seamless data connectors
  - Supporting 1000+ file types
  - Language independent
  - Process data in-memory, in-time, & in-place
- Ability to understand meaning makes IDOL totally unique in the market



$$H = -\sum p_i \cdot \log_2(p_i) \quad P(\theta | x) = \frac{P(x | \theta) \cdot P(\theta)}{\sum_{\theta \in \Theta} P(x | \theta) \cdot P(\theta)}$$

# Why is processing human information different?

- Human information is diverse: text, audio, video, social
- Information is dynamic
- Information is complicated
- Meaning is relative
- Ideas don't match - they have distance

**Keywords and metadata do not solve this problem.**

**The processing and retrieval of human information must be automated.**

“My grandma makes the best **apple** pie.”

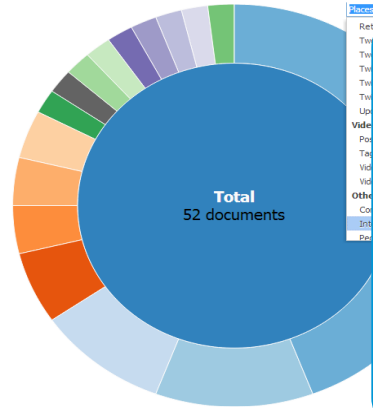
“**Apple** will begin selling the unlocked iPhone 5 in the US tomorrow.”

“Celebrity Gwyneth Paltrow kicked off the holiday season with a day of shopping with **Apple** and Moses.”

# IDOL – operating human information

Easy to use analytics for business users

## Native data enrichment



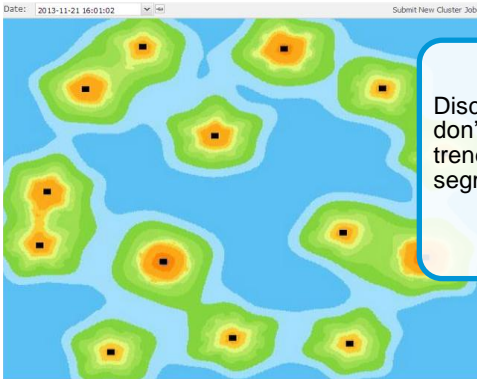
- People, places, companies
- Social, credit card #s, etc.
- Sentiment
- Other education
- Social media attributes – twitter # tags, followers etc

## Concept clouds & maps



- Discover related concepts – robust query handling
- Drill down and analyze - trends, geographies, segments

## Clusters – Hot, Breaking, Spectrographs



- Discover what you don't know - trends and segments

## > 400 data connectors to collect your data



- Email
- Agent/support notes
- CRM databases
- Live chat
- Blogs
- Forums
- Websites
- File Systems & SharePoint
- Social media
- Mainstream news
- Call recordings

## Scalable across languages & documents



- Language & industry-agnostic (statistical algorithms vs NLP)
- In-memory indexing (Fast!!)

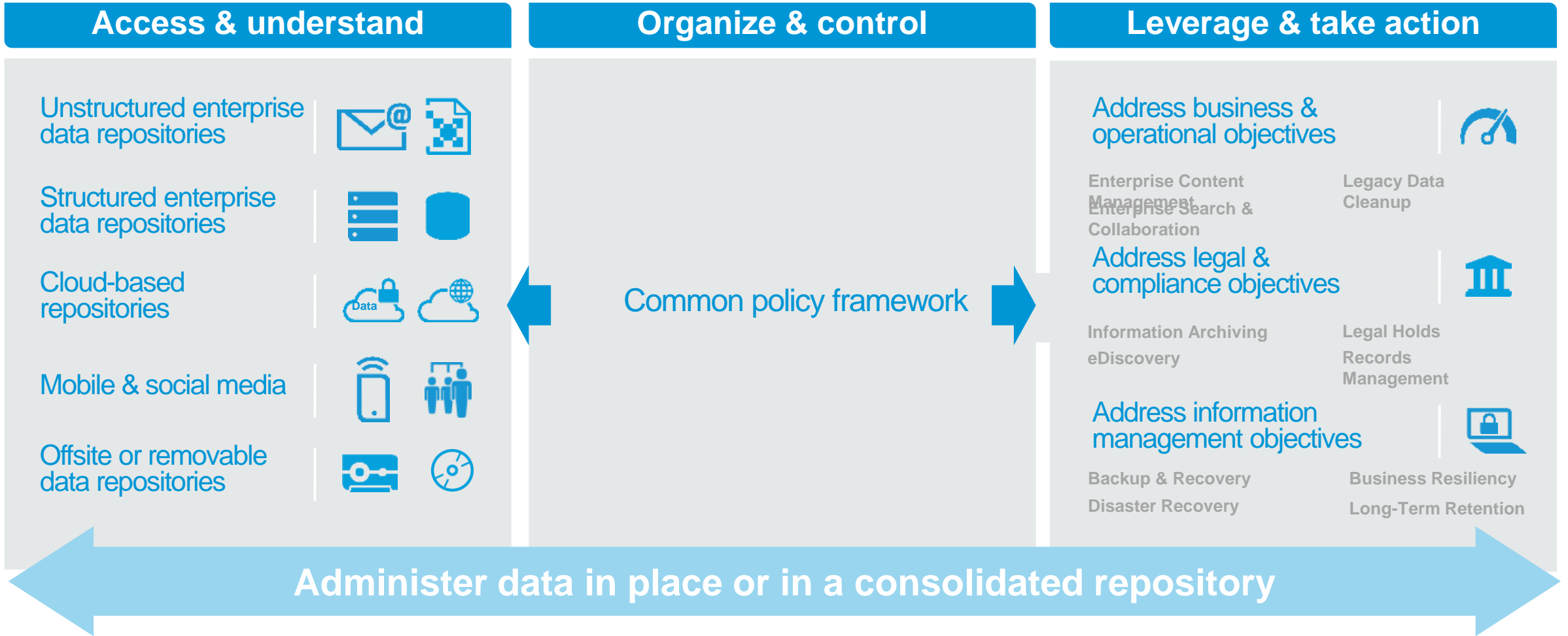
## Enterprise-grade



- Secure (cloud & on-prem)
- Workflows, roles & permissions
- Engagement
- Alerts, automation



# Managing risk and meeting governance requirements





# HP SW BigData family, powered by IDOL

## Information Management & Governance

## Information Optimization

### Data Protection

Server Data Protection  
Virtual Server Data Protection  
Remote & Branch Office Data Protection  
Endpoint Device Data Protection

### Information Archiving

Compliance  
Storage Optimization  
Database Archiving  
Policy Management  
Supervision

### eDiscovery

Litigation Readiness  
Policy Management  
Legal Hold

### Enterprise Content Mgmt

Policy-Driven Info Mgmt  
Legal Content Mgmt  
Business Process Mgmt  
Document Mgmt  
Records Mgmt  
Workflow Automation  
Legacy Clean Up

### Exstream

Customer Communication Mgmt

### Aurasma

Augmented Reality

### Marketing Optimization

Digital Experience Mgmt  
Web Optimization  
Search Engine Marketing  
Marketing Analytics  
Contact Center Mgmt  
Rich Media Mgmt

### Unified Information & Analytics

Voice of the Customer  
Video Surveillance  
Big Data Analytics  
Enterprise Search  
Knowledge Mgmt  
Content Access & Extraction

Software  
Cloud

**IDOL the OS** for human information

Hybrid  
OEM

Big Data

Cloud

Mobility

Security



# WorkSite

## The Electronic Project / Matter File

*Unify information in context, for enhanced productivity and service delivery*

### Unified digital “project” files

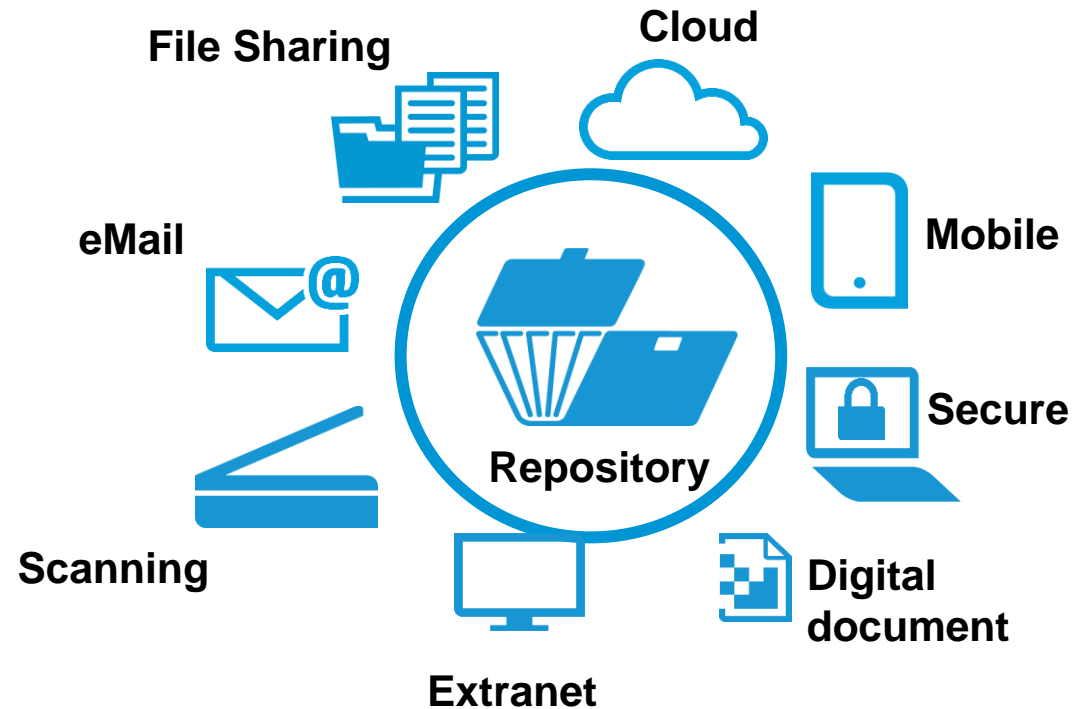
- Metadata and security inheritance
- OCR and search

### Access from any device, anywhere

- Web portal for partner access
- Full mobility client
- Mobile cloud file synch and share

### Secure, automated, comprehensive

- Security, audit trails - cloud and on-premises
- Notifications for edits and new documents
- Fully integrated with RM, BPM, capture





# HP ControlPoint

Gaining control over all enterprise content

- **Approach**

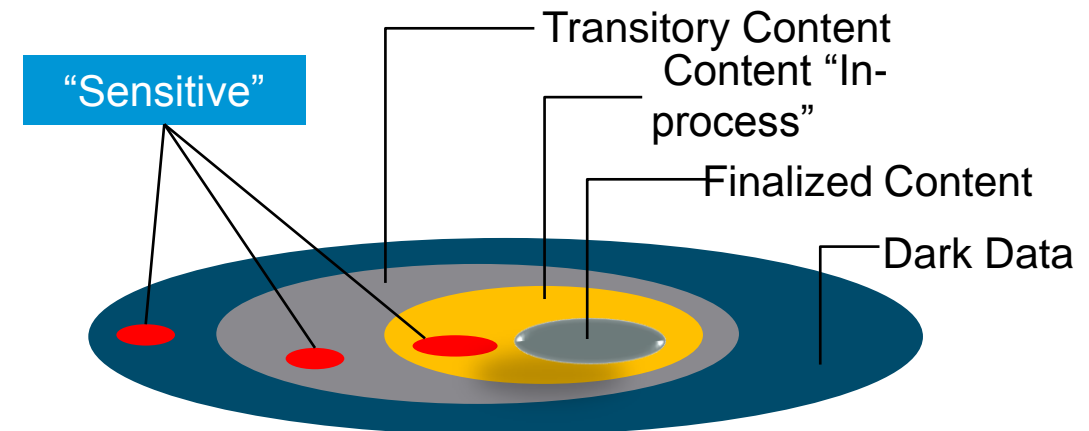
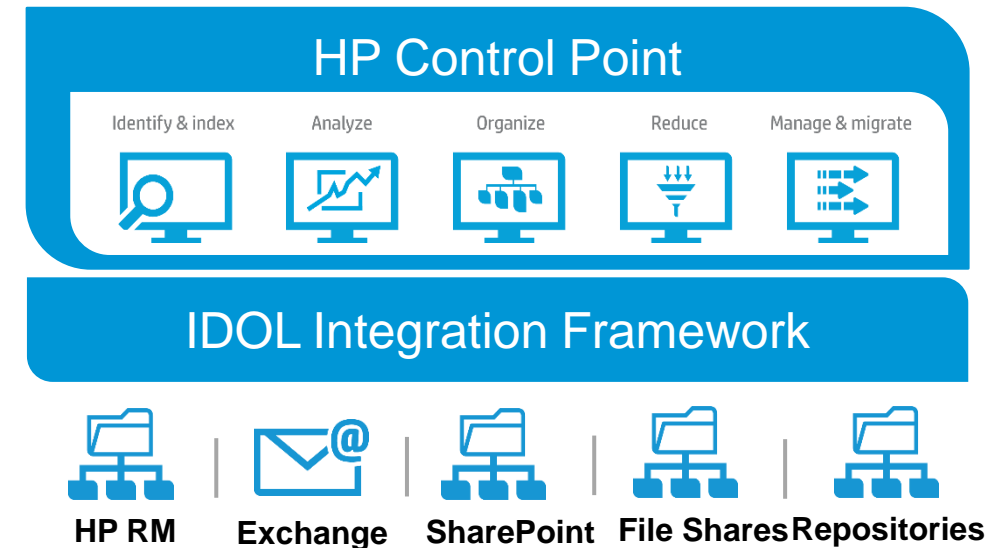
- Identify, classify, assess content for value & risk
- Ability to take action for cost /risk reduction, better compliance
- Consistent, automated policy –driven approach across multiple repositories

- **Benefits**

- Reduce Information footprint for cost & efficiency
- Improve eDiscovery Readiness
- Protect and secure sensitive information (e.g. PII, PHI)
- Automate Records Classification
- Improve compliance and defensible disposition

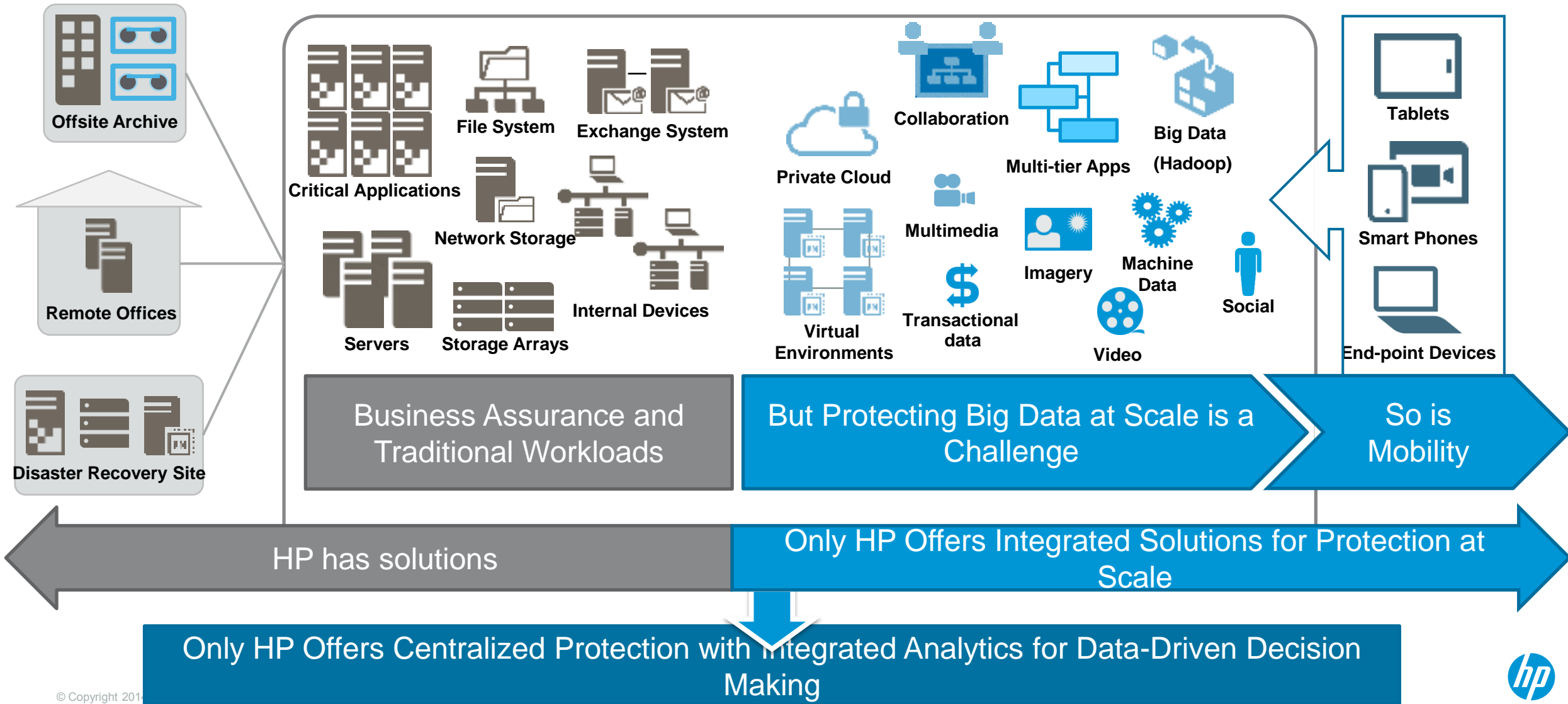
- **Offerings**

- Legacy Data Cleanup Assessment Service
- Information Governance for SharePoint
- Regulatory Record Keeping for Dodd-Frank Compliance



# Protecting today's enterprise

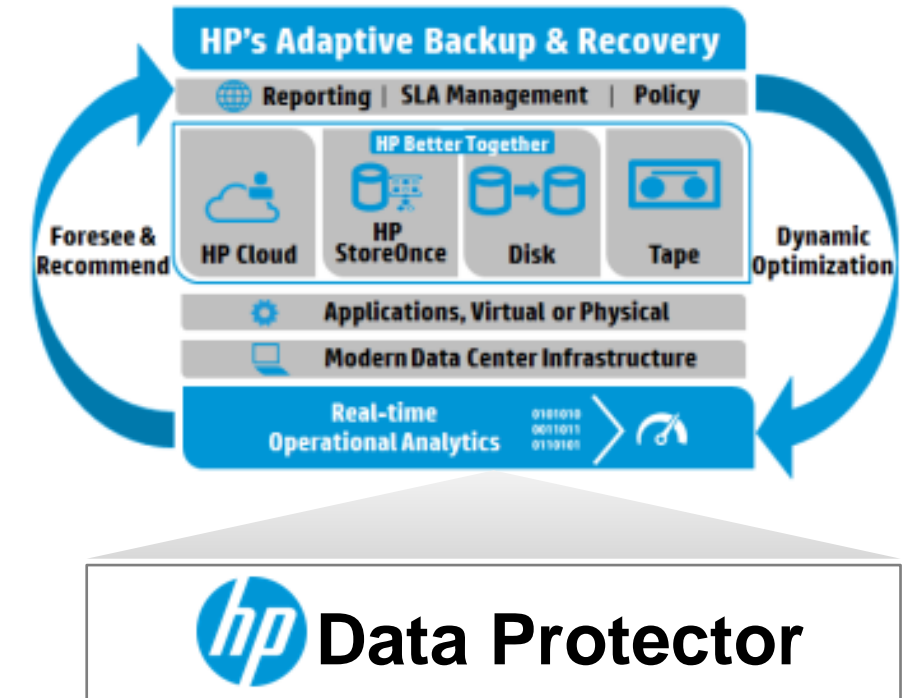
Traditional backup and recovery remains architected for the past



# HP Data Protector software

Rethinking backup and recovery for the modern data center

- HP StoreOnce™ Federated Deduplication
- Breakthrough Scalability and Performance
- Enterprise Application Protection
- Comprehensive Virtual Environment Support
- Extensive 3<sup>rd</sup> party device support
- Enhanced Automated Disaster Recovery



# HP Consolidated Archive

Solving business issues

**Unified information archiving** – Mitigate risk with access to virtually all data types and repositories ensures defensible policy management

**Intelligent data insight** – Gain rich data visibility and knowledge to understand its value

**Storage optimization** - Comprehensive data lifecycle and storage management help reduce the overall storage footprint

**Advanced search and analytics** – Respond more quickly with efficient identification of critical, responsive data

**End-to-end platform** - Integration with the HP Information Governance Portfolio to ensure complete data management and total value

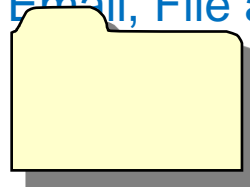


# HP Consolidated Archive - Features

- Archive device support: HP Storeall, Cloud, EMC Centera, NetAPP, Hitachi, NTFS, etc.
- Supports Journal or mailbox capture for Notes, Exchange, GroupWise
- Retention management – set by user/group, content type or folder
- User/group management – support for LDAP directory services and IDOL Community server
- Unified UI for administration across all archiving tasks
- Web-based archive search – HP CMail
- Integration with IDOL platform (including connectors for additional content type)



Focus on Email, File and SharePoint Archiving

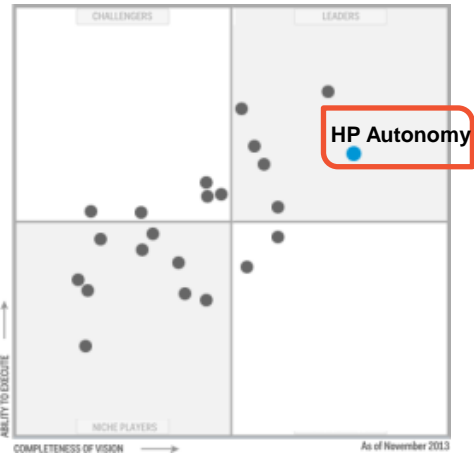


Microsoft  
Office SharePoint  
Server 2007

# Leading solutions across industries

Gartner

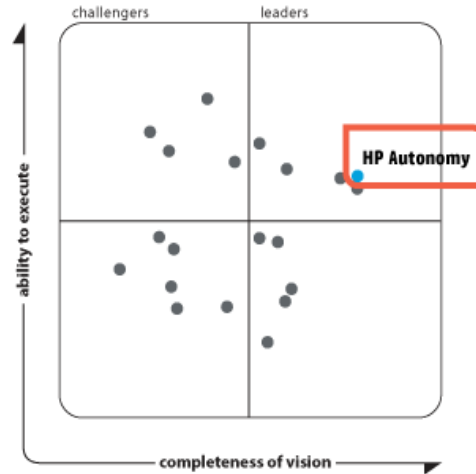
Magic Quadrant  
Information Archiving



Leader

Gartner

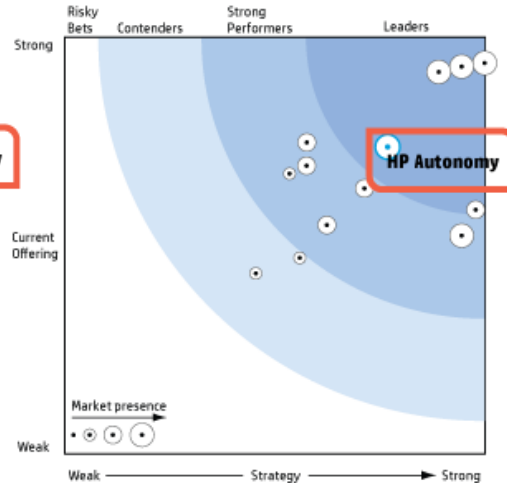
Magic Quadrant  
eDiscovery



Leader

Forrester

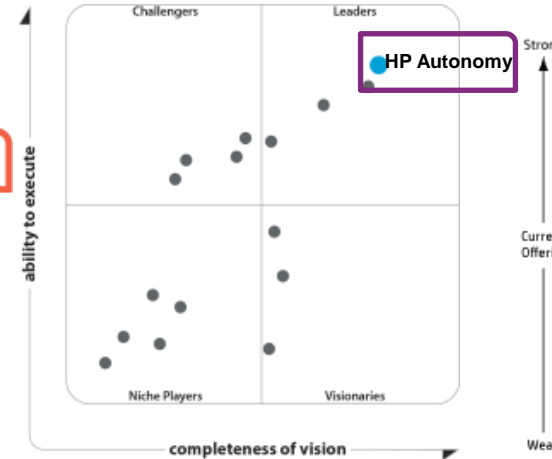
Wave  
Enterprise Content  
Management



Leader

Gartner

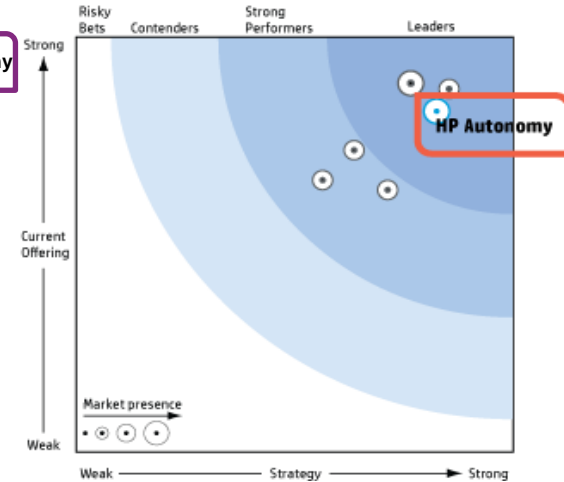
Magic Quadrant  
Customer  
Communications  
Management



Leader

Forrester

Wave  
Marketing Optimization

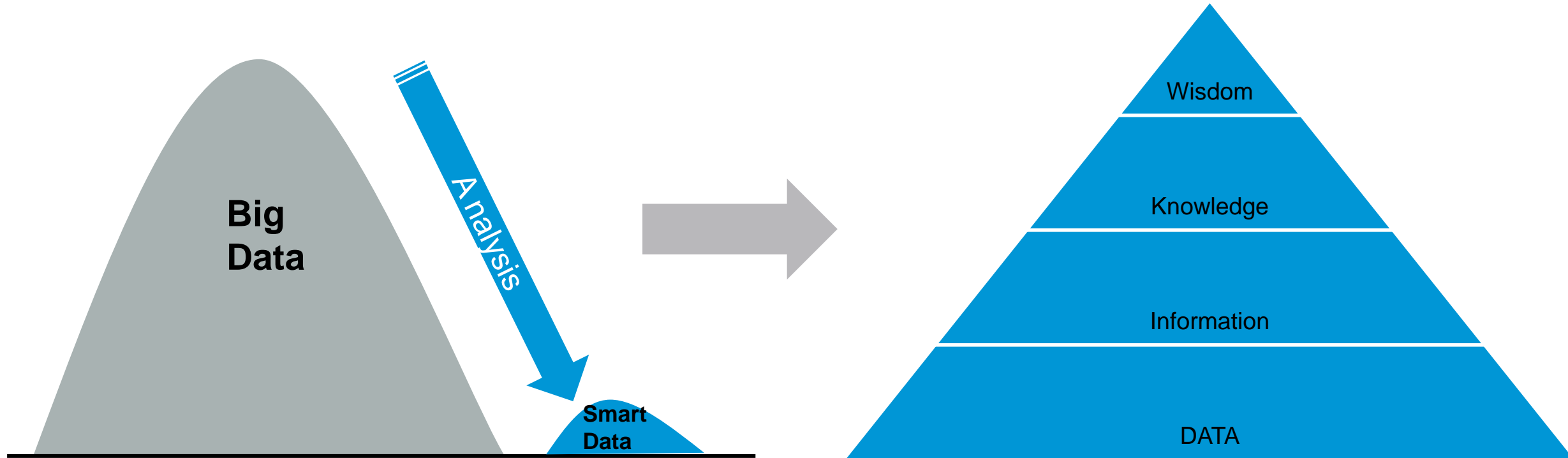


Leader

“HP has particular strengths in the areas of records management, information governance, and eDiscovery, drawing on solid technology from both the HP and Autonomy product teams.” - Forrester

# The Era of smart data has arrived

A unified data analysis for all Information



For the first time in the IT industry, there is a fundamental shift from the “T” to the “I”: **information management is the new source of competitive advantage.**



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# Thank you

