

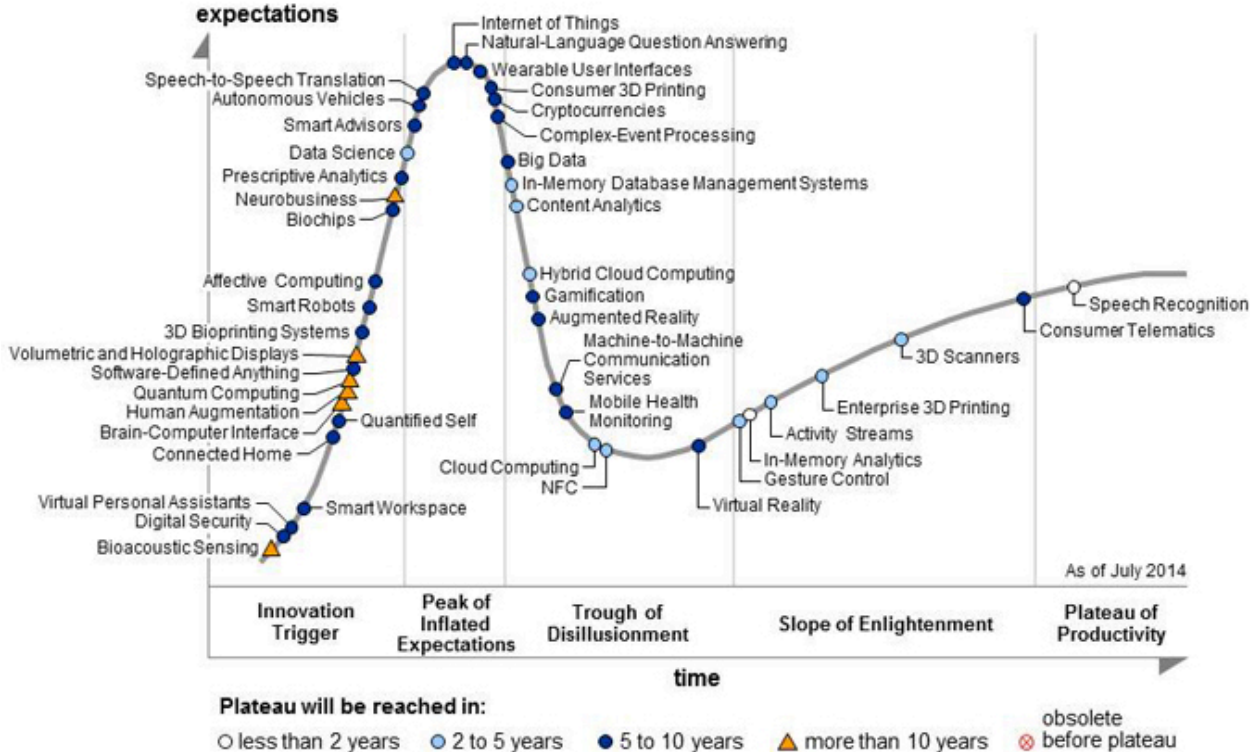


Data Management Cisco Data Virtualization

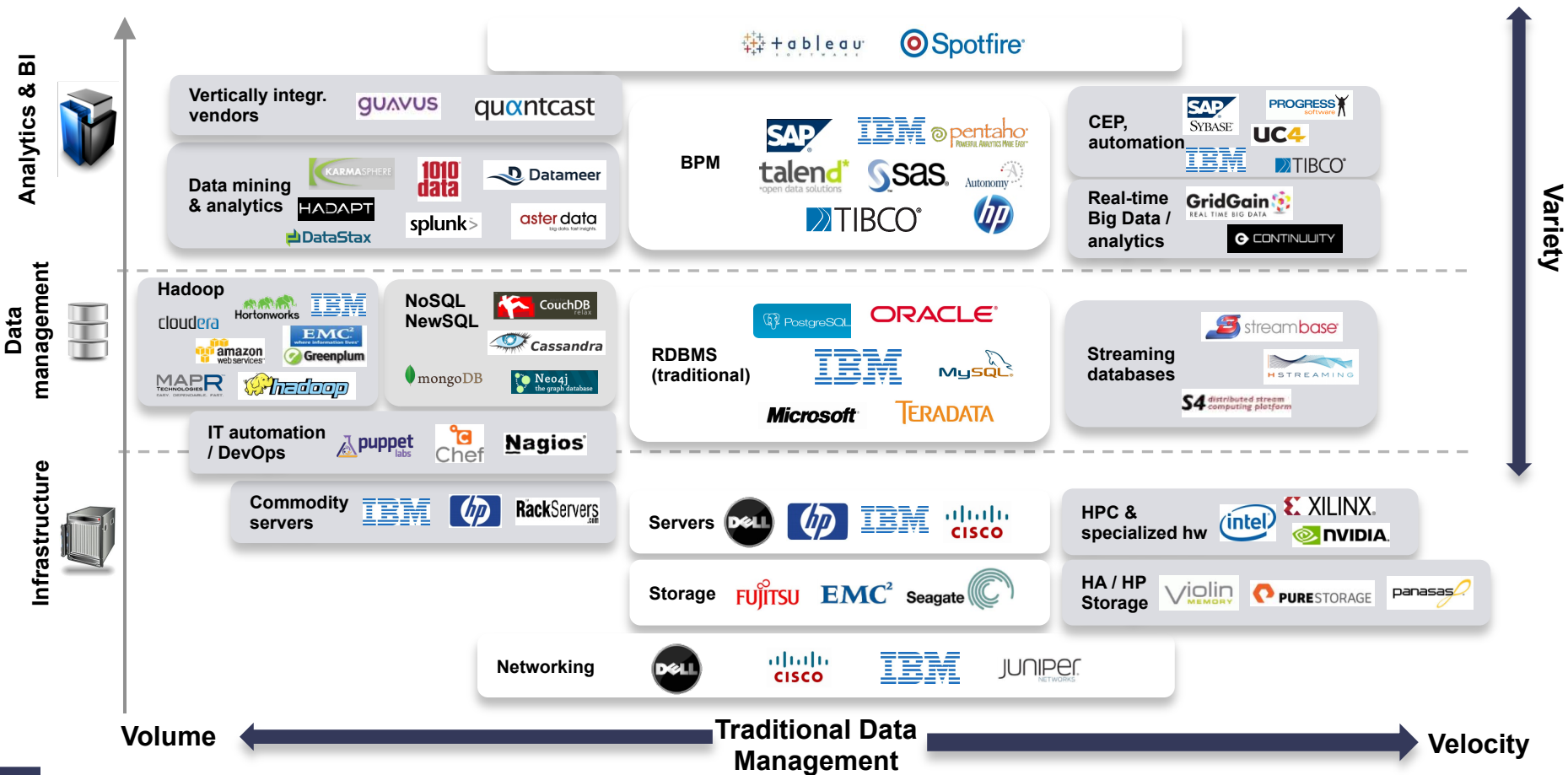
DC TechDays

September/Oktober 2014

Gartner's 2014 Hype Cycle for Emerging Technologies



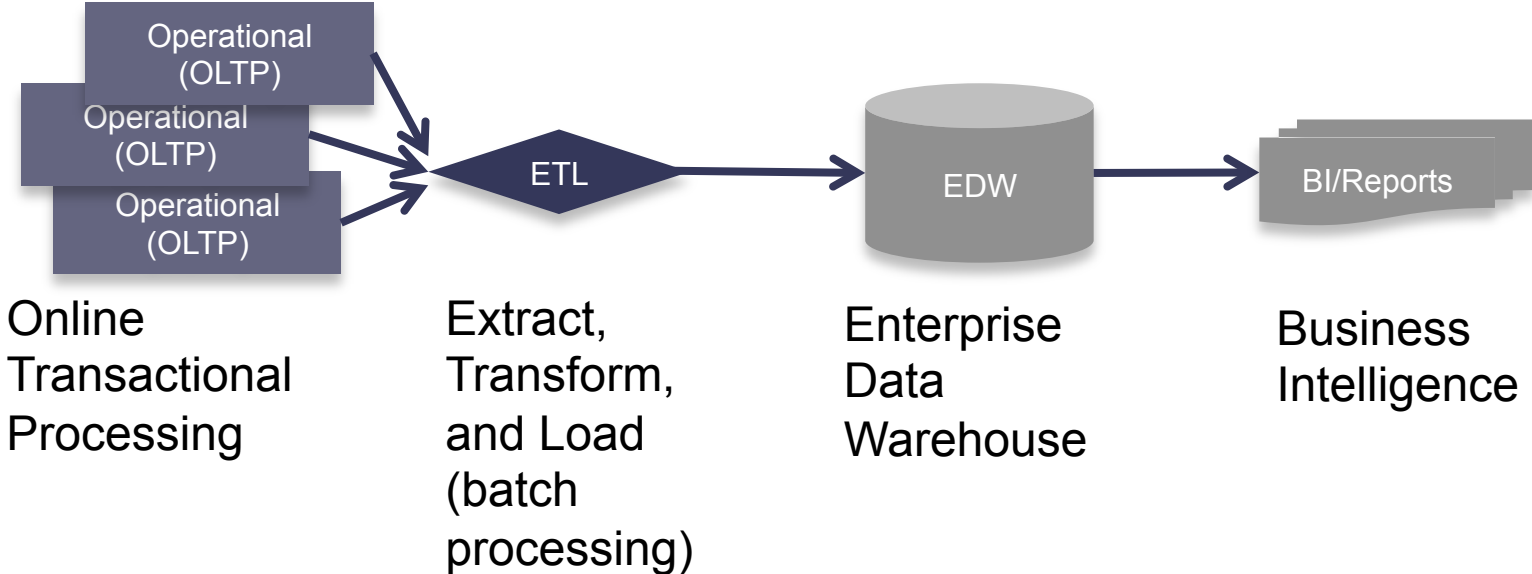
Technology Landscape Evolves Based on Data



*“Life is unfair, and the
unfairness is distributed
unfairly.”*

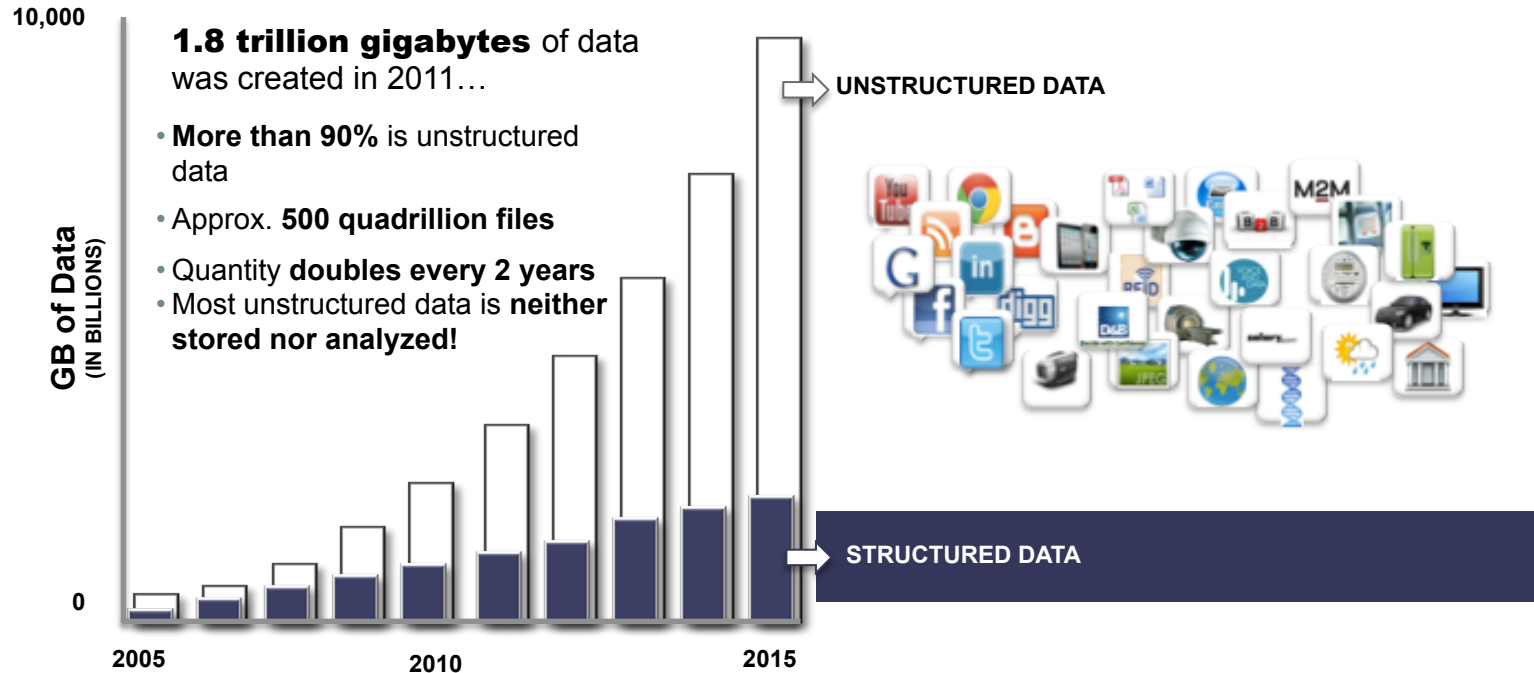
Russian proverb

Traditional Enterprise Data Management

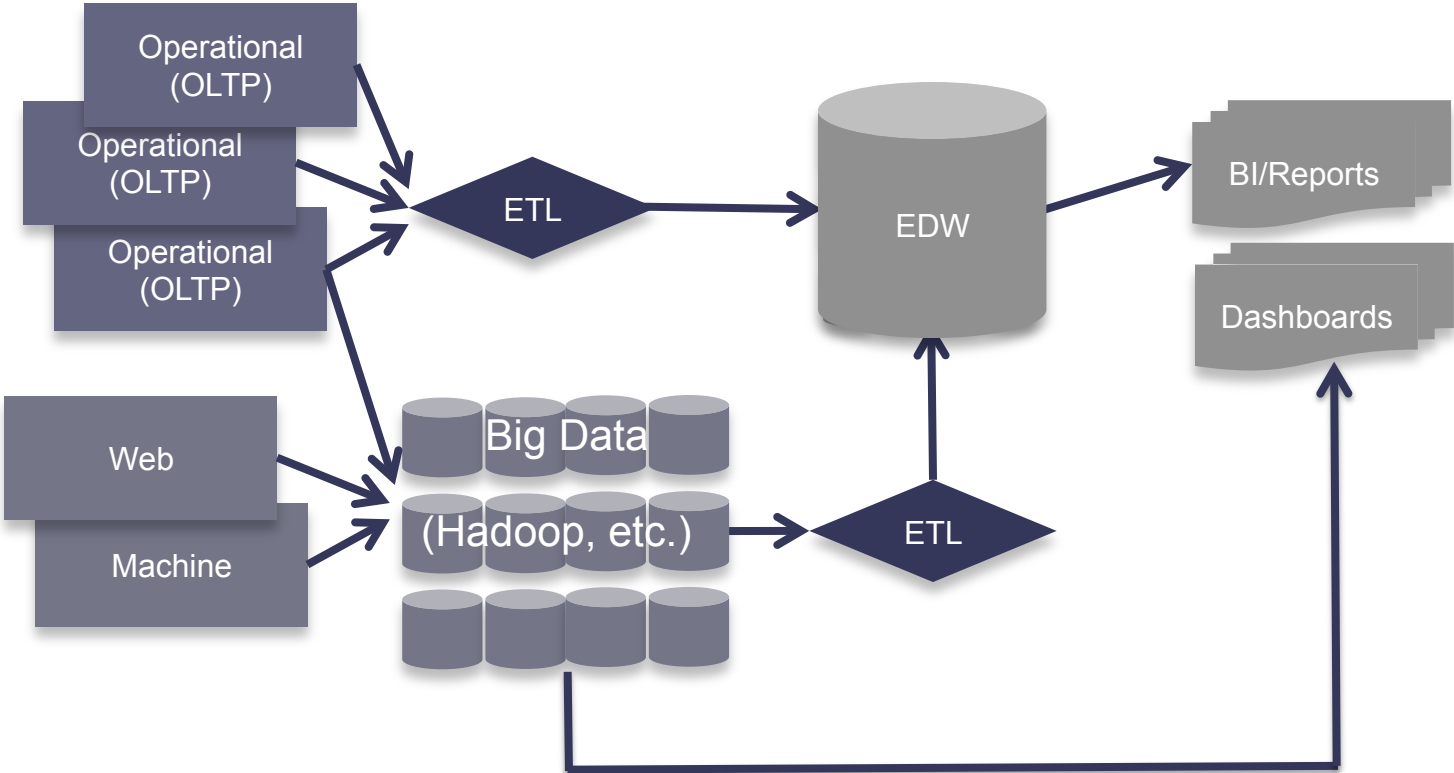


So what has changed?

The Explosion of Unstructured Data

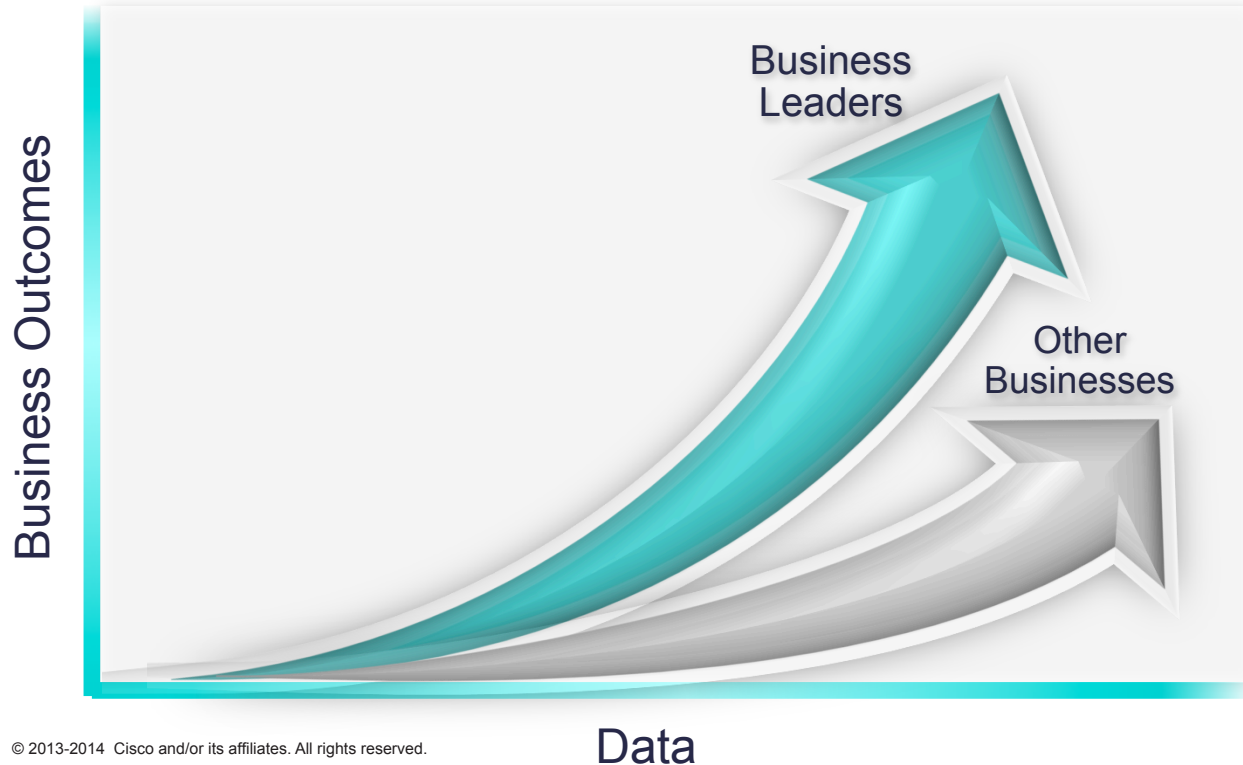


Enterprise Data Management with Big Data



Business Opportunity:

As Data Grows, Leading Businesses Use It To Drive Better Outcomes & Beat Their Competition



Business Outcomes

- Customer Profitability
- Faster Time to Market
- Cost Reduction
- Risk Management
- Compliance
- Overall Agility

Business Pain:

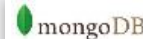
Data Silos Proliferating, Data Is Now Distributed Everywhere

How Does the Business Leverage All the Data?

Traditional
Data Sources



Big Data / IOE
Sources



Cloud Data
Sources



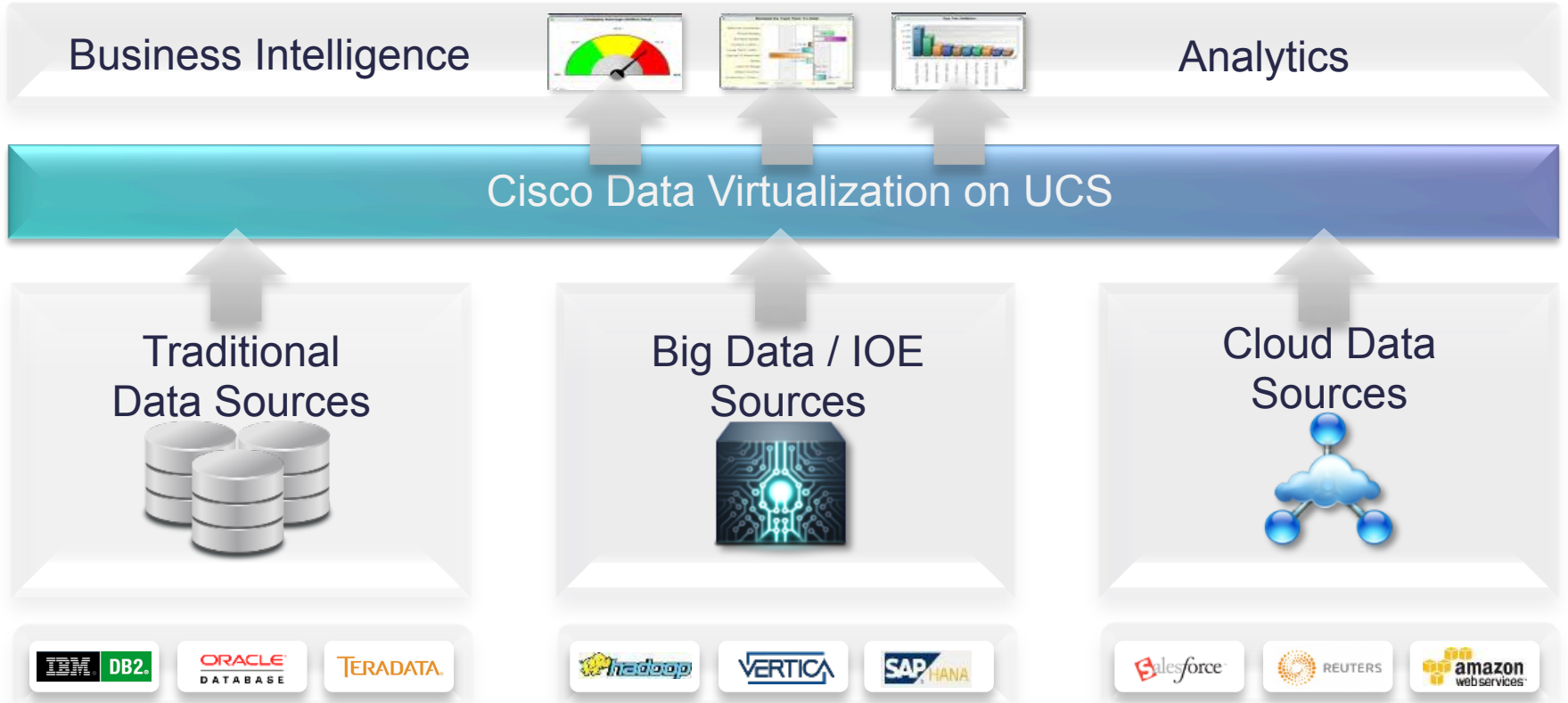
Through 2017, 90% of the information assets from big data analytic efforts will be siloed and unleveragable across multiple business processes.

Gartner



Business Pain:

Data Silos Proliferating, Data Is Now Distributed Everywhere



What is Cisco Data Virtualization?

Cisco Data Virtualization is agile data integration software that makes it easy to access data, no matter where it resides. Our integrated data platform lets you query all types of data across the network as if it is in a single place.

Cisco's Data Virtualization Suite



Packaged Apps



RDBMS



Excel Files



Data Warehouse



OLAP Cubes



Hadoop / "Big Data"



XML Docs



Flat Files



Web Services
Cisco Confidential

How Data Virtualization Works

Example Scenario

1

I need to build BI/Analytics application that looks like this...

2

The view or data service needs to look like this...

3

And the data comes from these sources, in these formats...



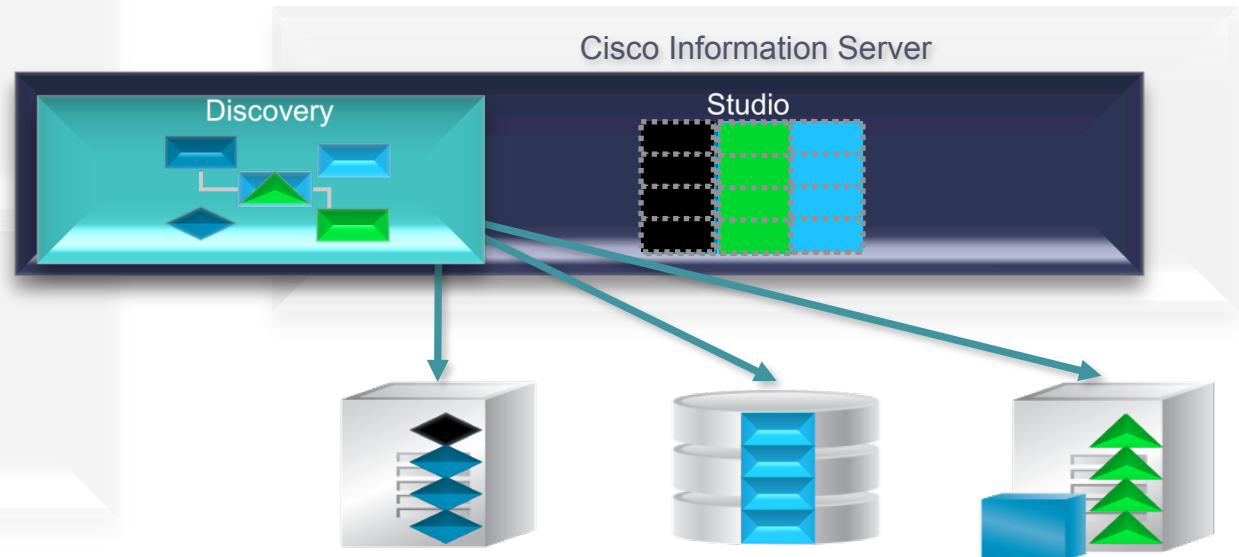
Discovery Within Design and Development

Design Steps

1. Introspect available data
2. Discover hidden relationships
3. Model individual view/service
4. Validate view/service
5. Modify as required

Benefits

- Automates difficult work
- Improves time to solution
- Increases object reuse



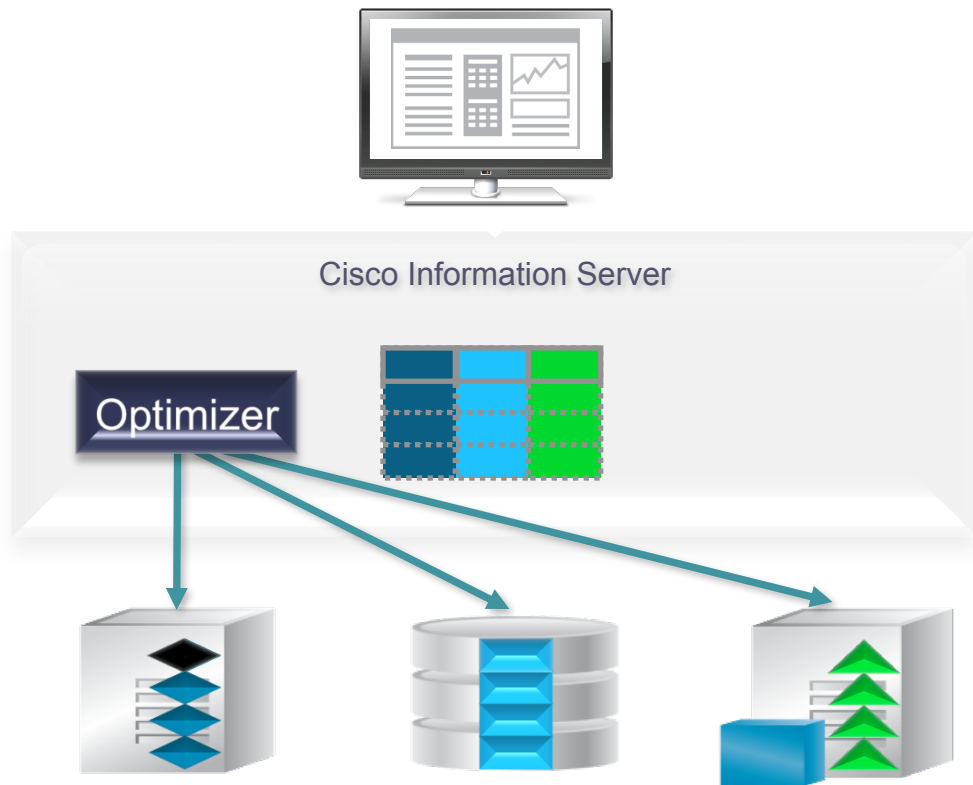
Data Virtualization Production

Production Steps

1. Application invokes request
2. Optimized query (single statement) executes
3. Deliver data in proper form

Benefits

- Up-to-the-minute data
- Optimized performance
- Less replication required



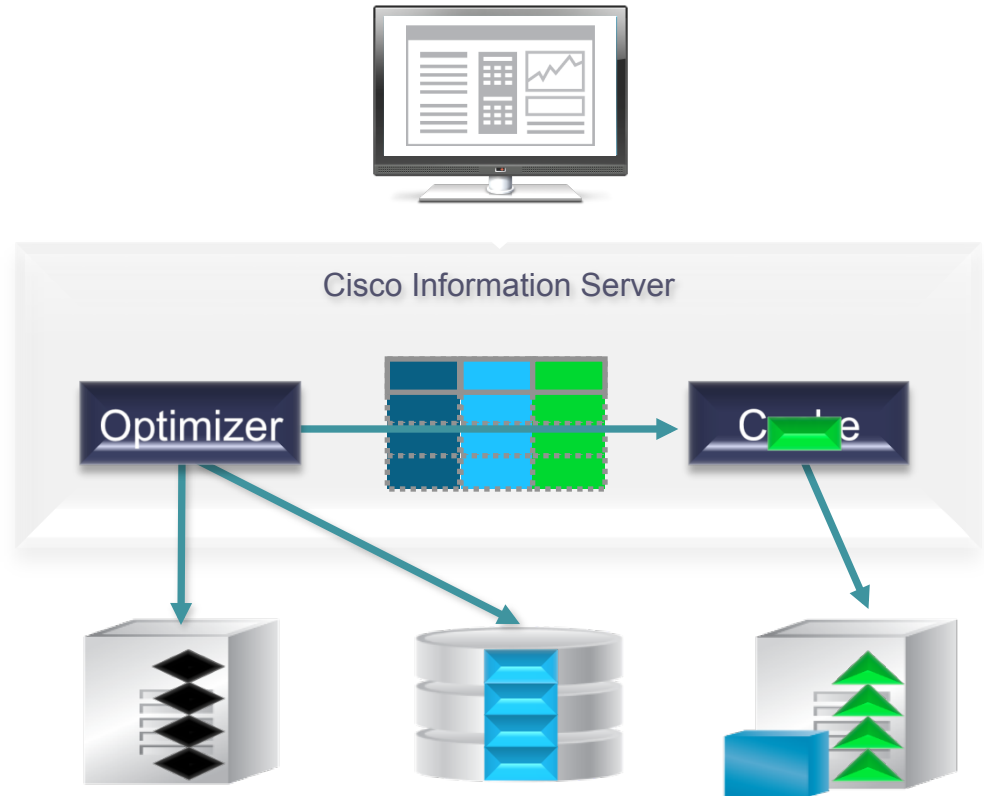
Data Virtualization Production with Caching

Production Steps

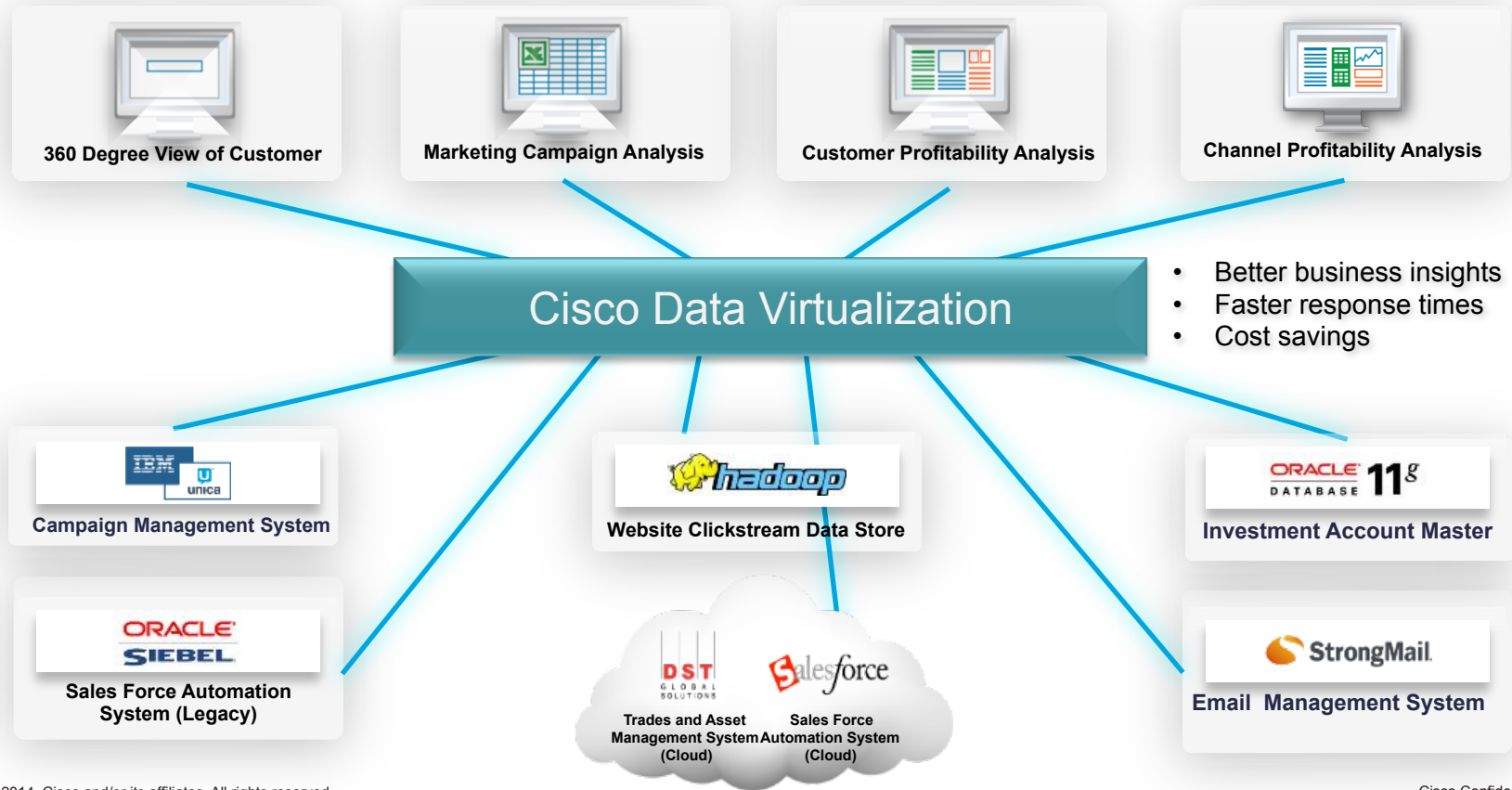
1. Cache essential data
2. Application invokes request
3. Optimized query (leveraging cached data) executes
4. Deliver data in proper form

Benefits

- Boosts performance
- Avoids network constraints
- Allows 24x7 availability



Example: Marketing Analytics



Example: Big Data - Integrate Hadoop & Enterprise

1

Make Hadoop data available to traditional SQL-based BI tools.



Cognos.
software
+ tableau

2

Combine Hadoop data with enterprise data from traditional data sources.

Data Virtualization Platform



3

Provide enterprise data from traditional data sources directly to map-reduce jobs in Hadoop.



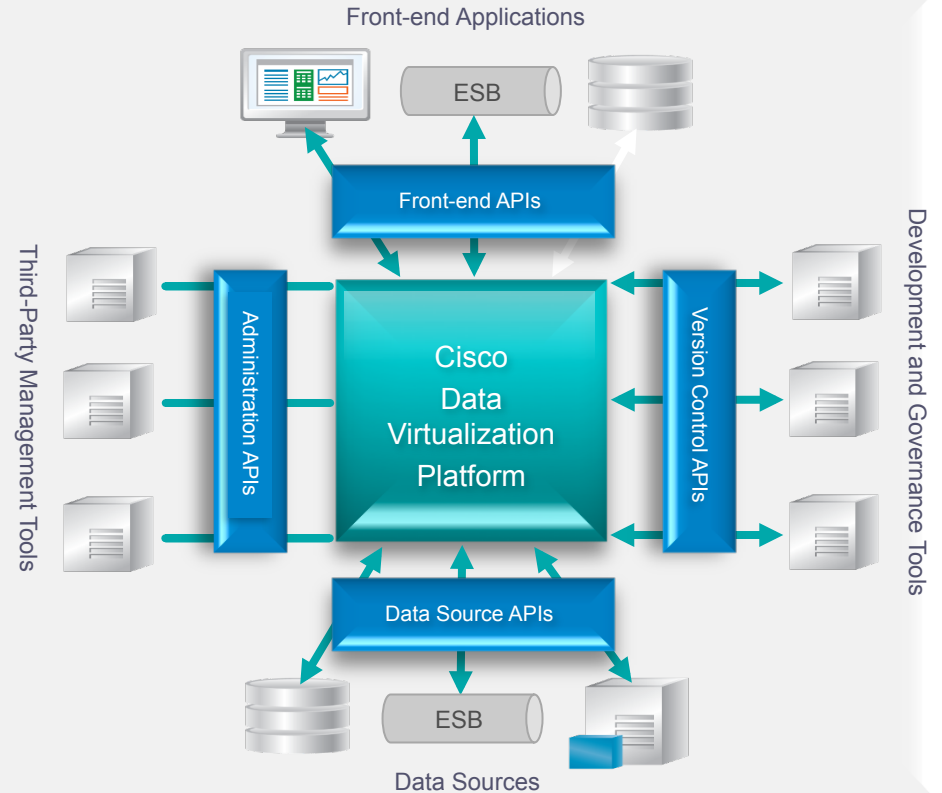
How Cisco Data Virtualization Fits In Your IT Environment

Vendor Neutral

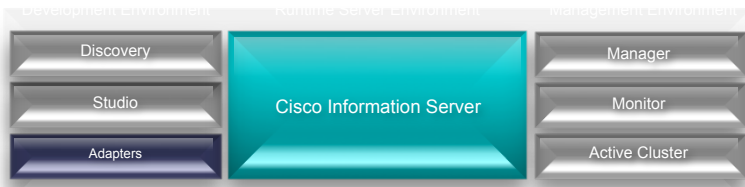
- Promotes vendor independence
- Not dependent on any application development or database platforms

Leverages Open Standards

- Front-end APIs
 - JMS, HTTP, REST, SOAP, JSON, XQuery, ODBC, JDBC, ADO.NET
- Data Source APIs
 - ODBC, JDBC, HTTP, SOAP, JSON, JMS, URI, POJO, Application APIs
- Administration APIs
 - Control and run views/services with scripting and third-party tools
- Development and Governance Tools
 - Subversion, Perforce, SourceSafe



Data Virtualization Data Source Adapters



Capabilities

- **Relational Databases**
- **Web Services**
 - SOAP, REST, ODATA
- **Tabular and XML Files**
- **Excel Spreadsheets**
- **LDAP Directories**
- **Hadoop / Hive / Impala**
- **Custom Java Adapter**
- **Applications**
 - SAP, Oracle EBS, Salesforce.com, Siebel
- **OLAP Cubes**
 - SAP BW

Cisco Data Virtualization

Better Business Outcomes, Faster, for Less

Business Intelligence



Analytics

Cisco Data Virtualization



**Immediate
Access**



**5-10x
Faster**



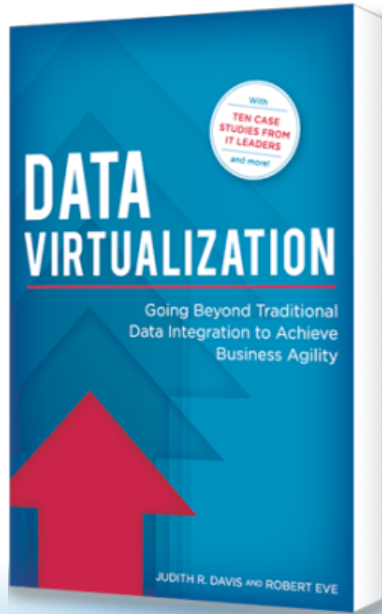
**Up to 75%
Cost Savings**

Higher Impact

More Agile

Less Expensive

The Impact of Cisco Data Virtualization



- **Largest Data Virtualization Customer Base**
 - Highly complex implementations
 - Proven business outcomes
- **Thought Leadership and Expertise**
 - We wrote the Book on Data Virtualization
 - Deepest data virtualization expertise
 - Hundreds of published articles and blogs
- **Performance Leader**
 - Most powerful optimization algorithms
 - Only vendor to offer network, compute and data synergies

Thank you.

