



# IBM INFORMATION INTEGRATION...

## MAKING DATA SIMPLE

Kyle Jones

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Information Integration & Governance



# Today's Agenda



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**Value Model and Overall Strategy**

**The Watson Data Platform**

**Information Integration & Governance Overview**

**IBM Bluemix Data Connect**

**Cognos Data Manager to DataStage**

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Digital disruption is upon us. Data is the new strategic asset for creating digital value and competitive advantage



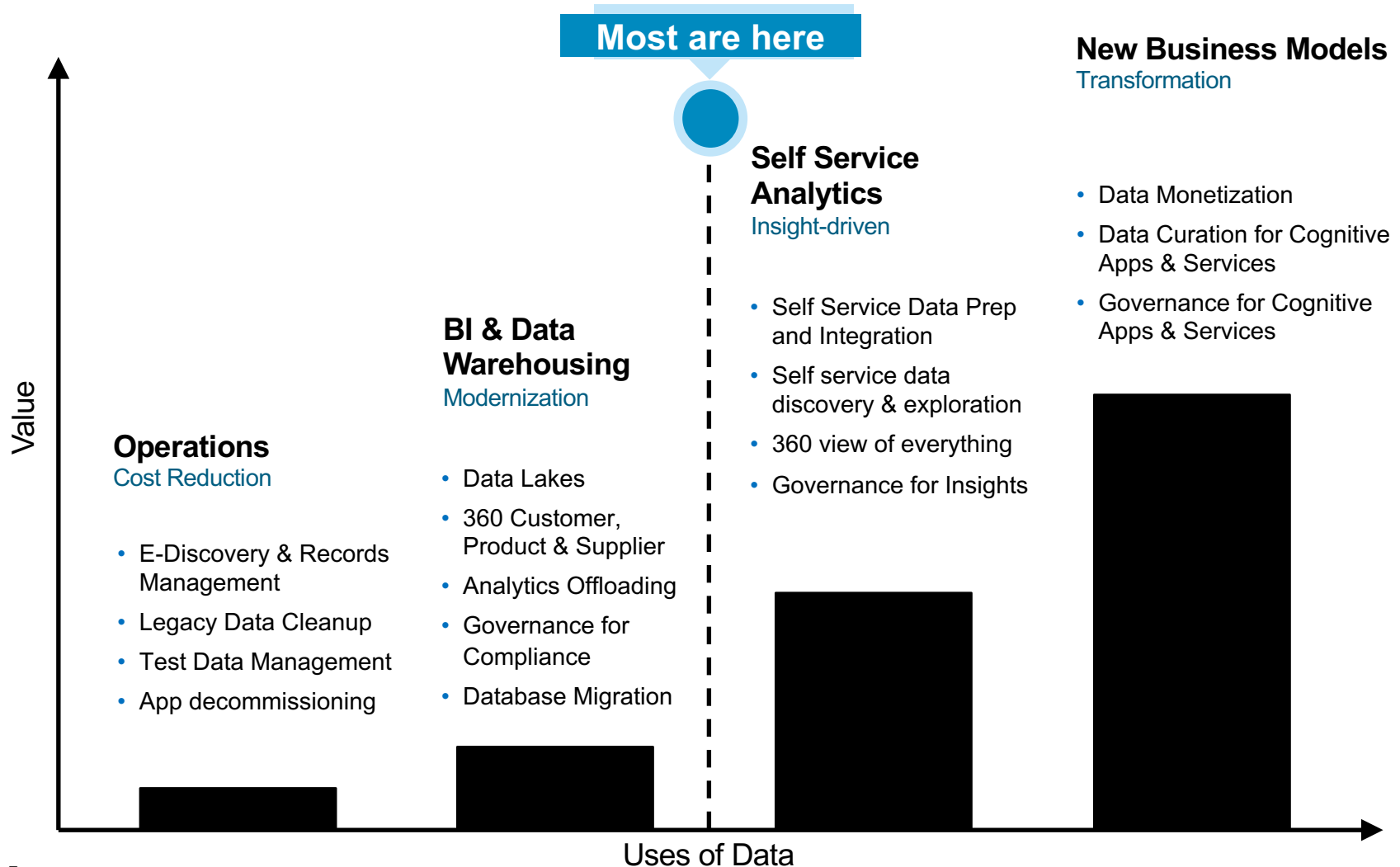
**Yet only 15% of organizations have the capability to leverage data and advanced analytics across their organization.**

*2015 HBR Insight Economy Study*



# The Value Model helps you understand new uses of data

And where you are in your data-driven journey



## Businesses Need...

***Make  
It Simple***

Ubiquitous  
and Trusted  
Data Access

**Agile  
Provisioning**

***Enrich  
The Experience***

Collaborative  
User  
Interaction

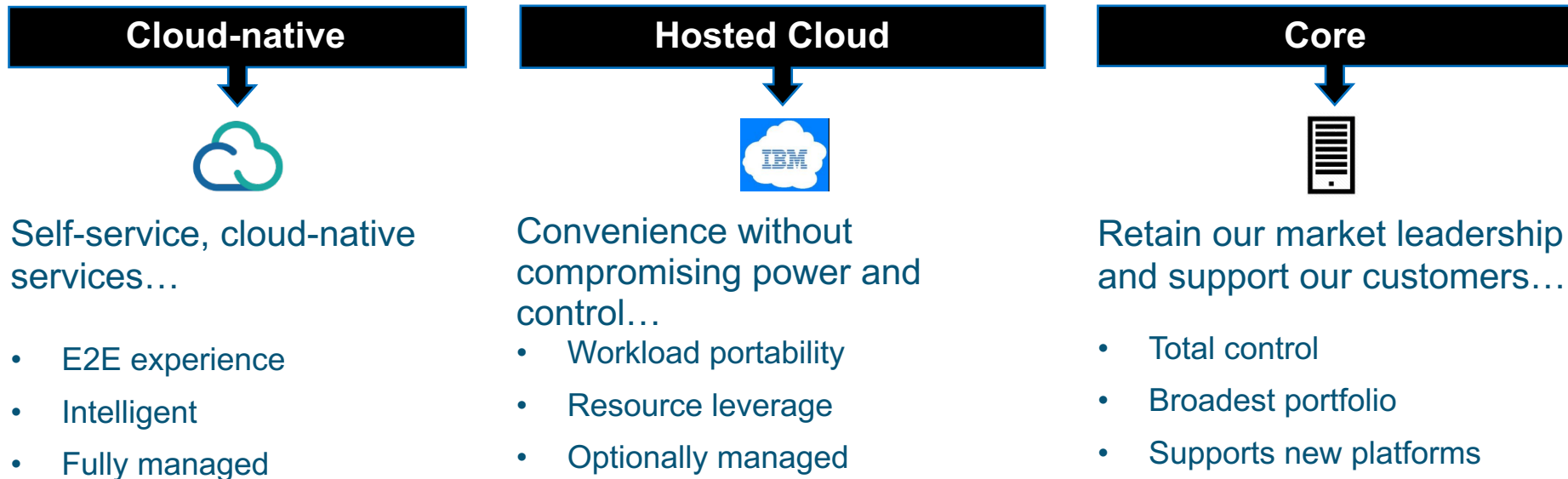
Analytics  
Anywhere

***Accelerate  
The Value***

**Agile Insight to  
Operations**

# IBM's strategy is Cloud First while fully embracing Hybrid

## Cloud-First Statement of Direction and Design Principles



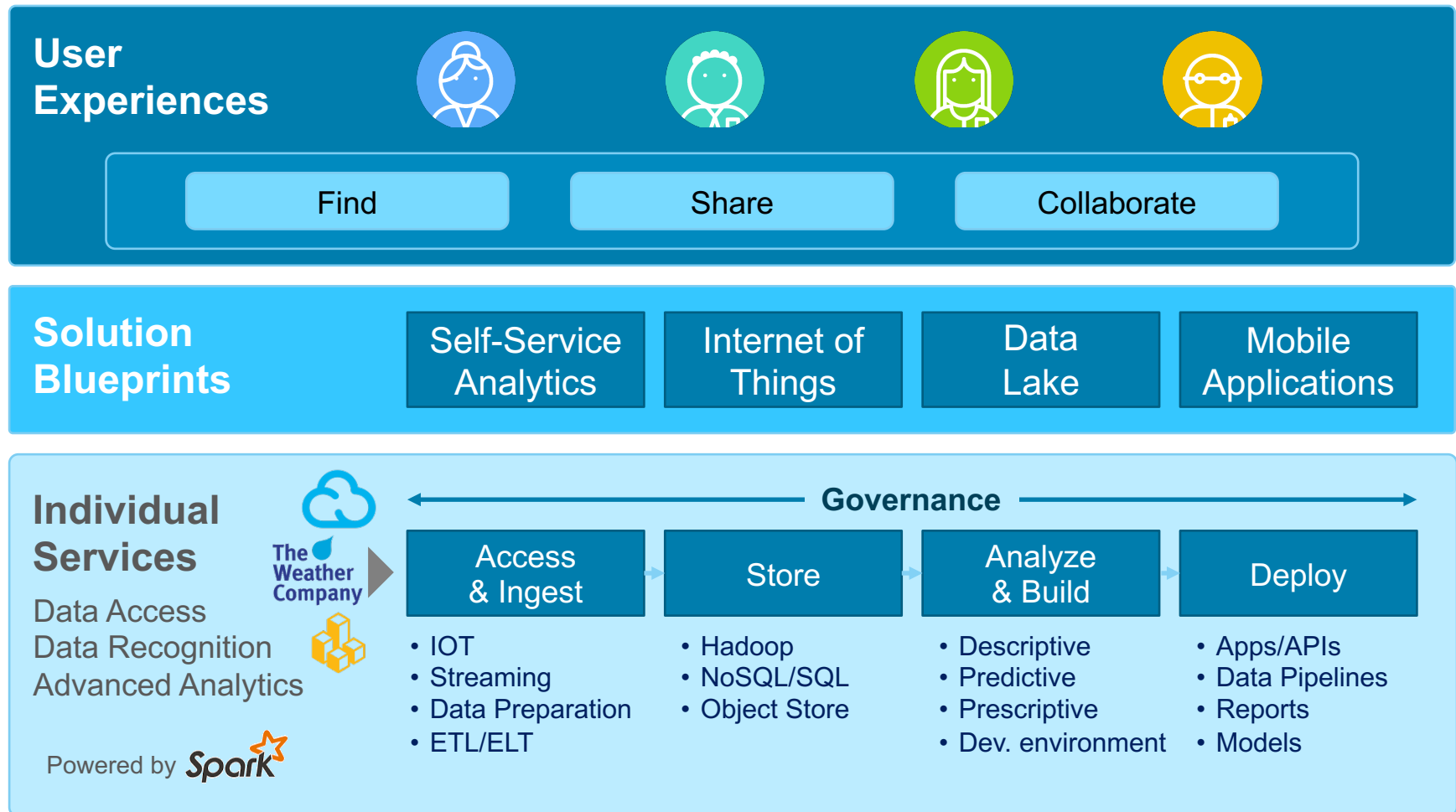
### Hybrid (Q1-2017)



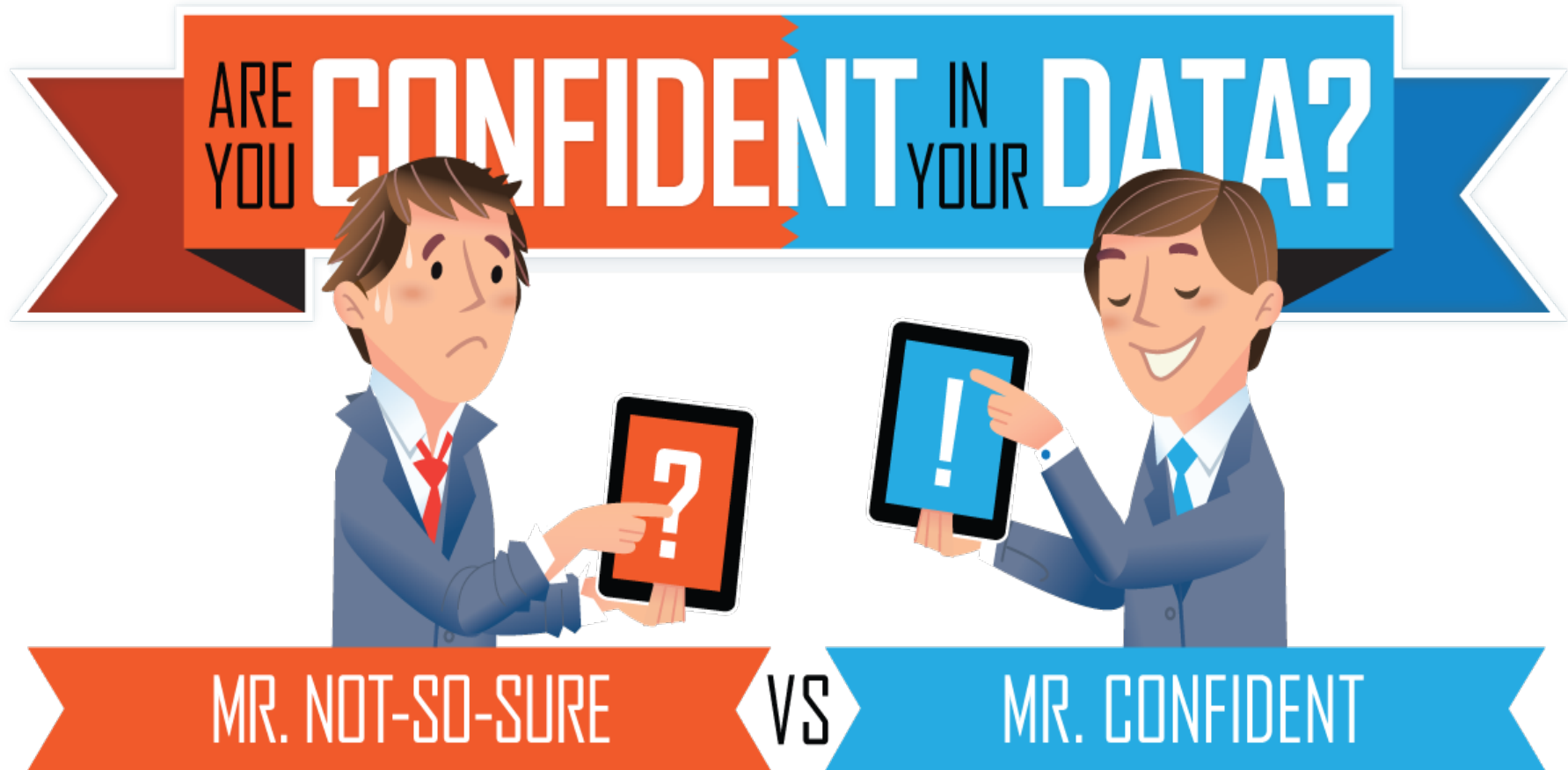
Leverage cloud technologies to deliver the best of both worlds

- User experiences for specific personas
- Shared execution
- Unified governance

# The Watson Data Platform **Provides Choice** of Collaborative User Experiences, Solution Blueprints, and Individual Services



# Understanding Your Data Is The Basis For Confidence



Wall Street Journal – Top Priorities for CIO's, *February 10, 2016*

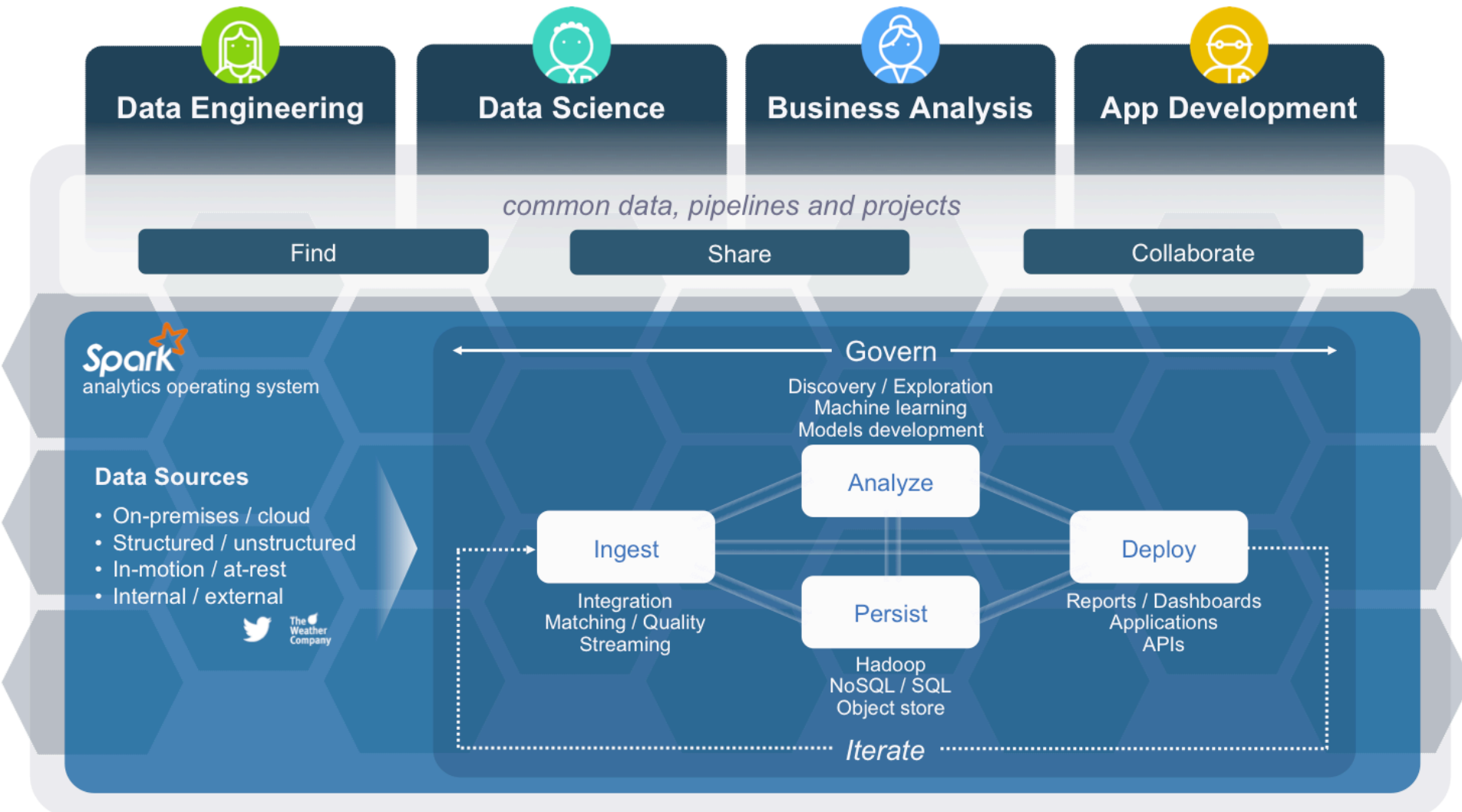
**\*\*Create Data Culture\*\***

**\*\*Confront Data Politics\*\***

**\*\*Deliver Analytics in Everyday Decisions\*\***

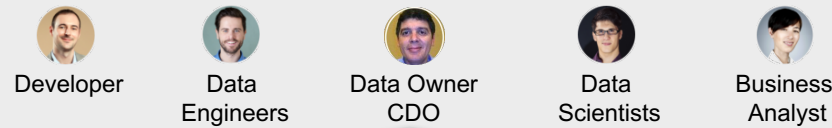
**\*\*Understand Data Quality\*\***

# Governance is the foundation of The Watson Data Platform





# The Integrated Digital Enterprise is Hybrid



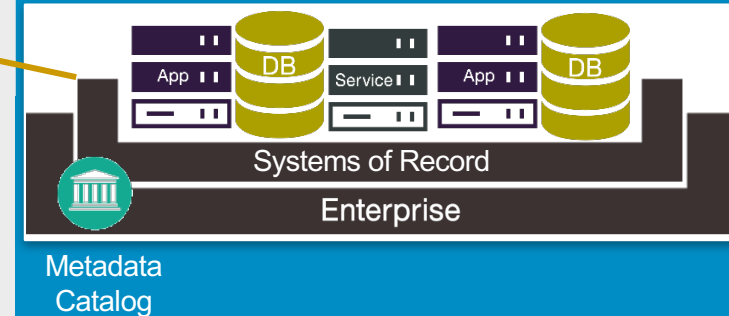
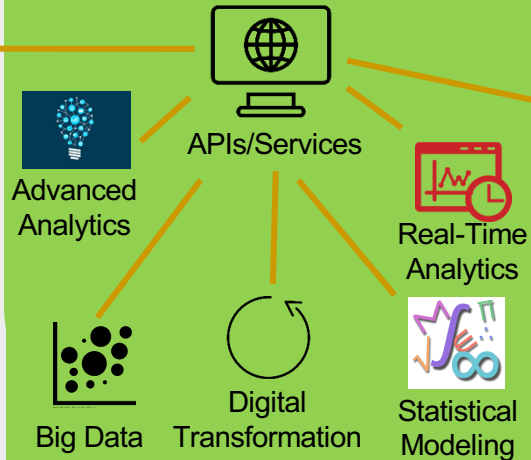
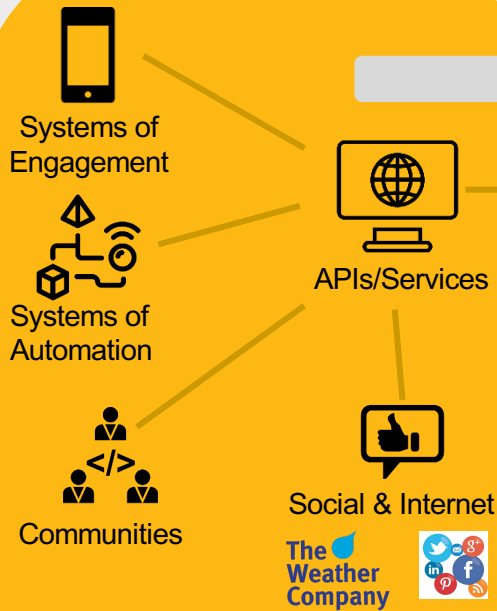
Self-Service  
Data & Analytics

Public Cloud

On-Premises

Private Cloud

Systems of Insights

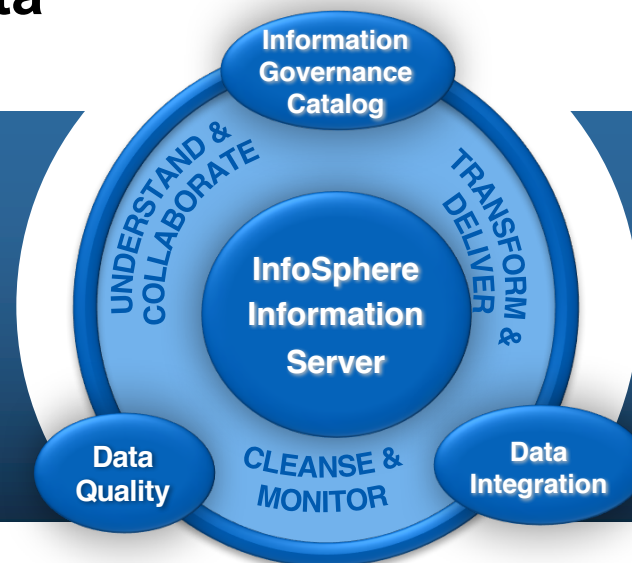


Information Governance & Security

# Information Empowerment for your Data Ecosystem now available on the Cloud

## .. powered by Information Server

Integrating and transforming data and content to deliver accurate, consistent, timely and complete information on a single platform unified by a common metadata layer



### Information Governance Catalog

#### *Understand & Collaborate*

- Catalog technical metadata & align w/ business language
- Manage (big) data lineage
- **New** compliance reporting

**NEW**



### Data Quality

#### *Cleanse & Monitor*

- Analyze & validate w/ **enhanced** classification
- Cleanse & standardize
- Define, manage & monitor data rules + exceptions

**NEW**



### Data Integration

#### *Transform & Deliver*

- Massive scalability
- Power for any complexity
- Deliver in batch and/or real-time with change capture

**NEW**

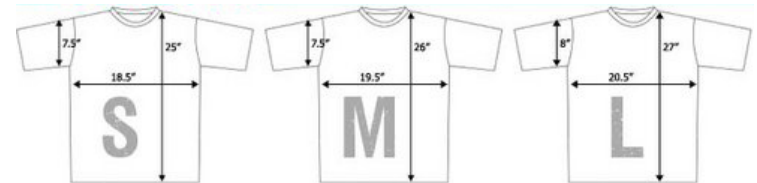
- common connectivity • shared metadata • security (**new** data privacy functions included)
- common execution engine with flexible deployments (**new** native on YARN)

## New Hosted Offerings



# Hosted

## Simple Sizing & Turn-key Provisioning



- **IBM Information Server Enterprise Edition on Cloud**
- **IBM Information Server Data Quality on Cloud**
- **IBM DataStage on Cloud**
- **IBM Information Governance Catalog on Cloud**
- **IBM MDM on Cloud**

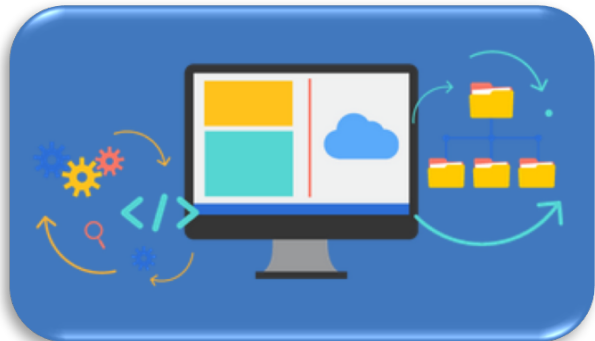


# Information Integration on Cloud Use Cases



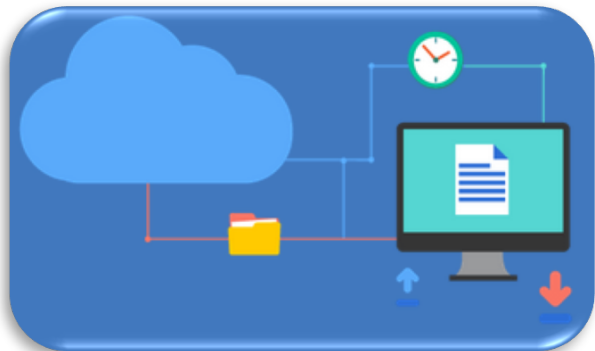
## **Extend your ETL infrastructure**

Expand your Integration environment or begin transitioning into a private or public cloud with flexible deployment options and subscription pricing.



## **Establish ad hoc environments**

Extend your on-premises capacity to quickly create new environments for ad hoc development and testing or for limited duration projects.



## **Start new projects in the cloud**

Move straight to the cloud without establishing an on-premises environment. Realize faster time-to-value, reduce administration burden and use low-risk subscription pricing.

# Information Server on Cloud Enterprise Edition Production Packages

	Small		Medium		Large	
<b>Machine</b>	Virtual		Virtual		Bare Metal	
<b>Tiers</b>	Engine	Service Metadata	Engine	Service Metadata	Engine	Service Metadata
<b>Memory (GB)</b>	16	16	32	32	64	32
<b>CPU/Core</b>	4	4	8	8	12	8
<b>Storage</b>	100 GB SAN 500 GB SAN	100 GB SAN 500 GB SAN	100 GB SAN 1 TB SAN	100 GB SAN 1 TB SAN	2 x 1.7TB SSD	2 x 960GB SSD
<b>Network</b>	1Gbps 250 GB Bandwidth	1Gbps 250 GB Bandwidth	1Gbps 1000 GB Bandwidth	1Gbps 1000 GB Bandwidth	1Gbps 5000 GB Bandwidth	1Gbps 5000 GB Bandwidth
<b>OS</b>	RHEL 7.2		RHEL 7.2		RHEL 7.2	
<b>Max Concurrent Users</b>	2		5		10	
<b>Config Files</b>	Two Node		Multi Node		Multi Node	
<b>Cluster Configuration</b>	No		Yes		Yes	
<b>Part Number</b>	D1P41LL		D1P42LL		D1P43LL	

# Information Server on Cloud Enterprise Edition Non-Prod Packages

	Small Non Production		Medium Non Production	
<b>Machine</b>	Virtual		Virtual	
<b>Tiers</b>	Engine	Service Metadata	Engine	Service Metadata
<b>Memory (GB)</b>	16	16	32	32
<b>CPU/Core</b>	4	4	8	8
<b>Storage</b>	100 GB SAN 500 GB SAN	100 GB SAN 500 GB SAN	100 GB SAN 1 TB SAN	100 GB SAN 1 TB SAN
<b>Network</b>	1Gbps 250 GB Bandwidth	1Gbps 250 GB Bandwidth	1Gbps 1000 GB Bandwidth	1Gbps 1000 GB Bandwidth
<b>OS</b>	RHEL 7.2		RHEL 7.2	
<b>Max Concurrent Users</b>	2		5	
<b>Config Files</b>	Two Node		Multi Node	
<b>Cluster Configuration</b>	No		Yes	
<b>Part Number</b>	D1PYDLL		D1PYELL	



# Who Wants Master Data Management on Cloud?

## Large Enterprises

are increasingly adopting cloud IT strategies at the corporate level with a bias to SaaS and cloud application solutions

## MDM Customers

who are looking to quickly stand up development and test environments

## Existing IBM Customers

that have purchased other SaaS applications, are looking for Cloud based MDM to augment those applications

## Smaller Enterprises

attracted by the promise of better economics for an MDM on Cloud solution – ie. who need lower initial and ongoing costs and simpler deployment

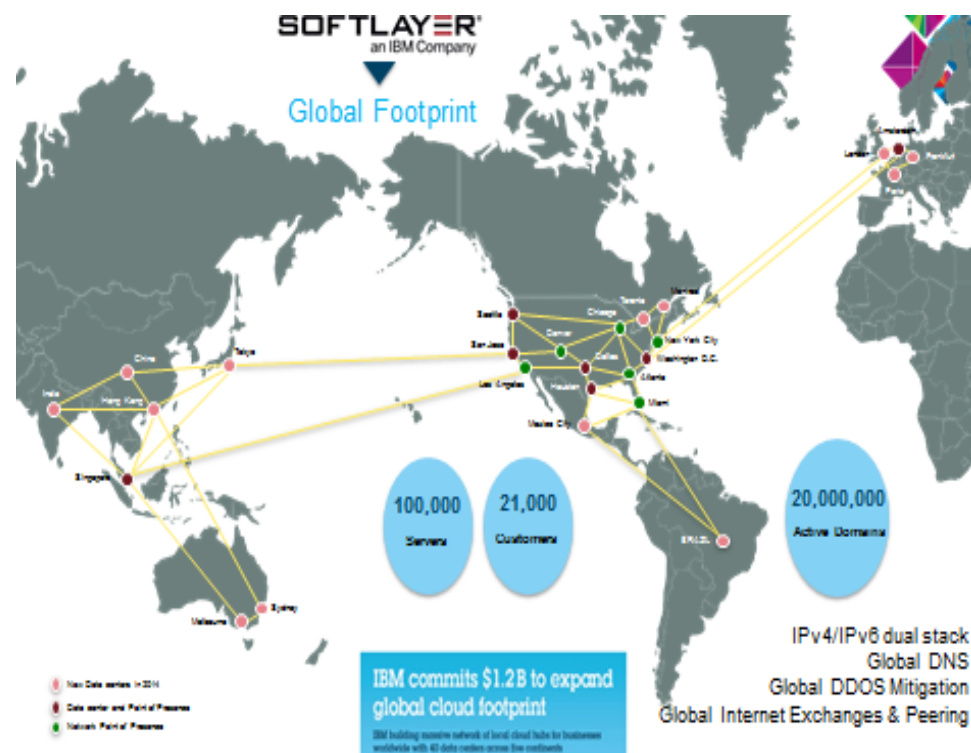
## SaaS Solutions needing MDM function

SaaS application solutions need to have MDM capability built in

# Scope and Key Features For MDM on Cloud

GA: Mid June 2016

- Complete environments for *Development and Production MDM usage* under single part numbers
  - Part number includes h/w and s/w and pre-installation of the software
  - Servers sized and configured for optimum balance of reliability, security and price
  - Dev/Test environment is expandable with additional components
- Simplified per instance licensing - no RVU or record counts - multi-domain entitlement - includes all domains and is the same across all industries
  - **Small:** Rated for a scale of approximately 5 million party individual records and 35 TPS
  - **Medium:** Rated for a scale of 30 million party individual records and 100 tps
  - **Large:** Rated for a scale of 50 million party individual records and 250 TPS
- Priced favorably compared to on-premise offering



# Master Data Management on Cloud Plans and Prices

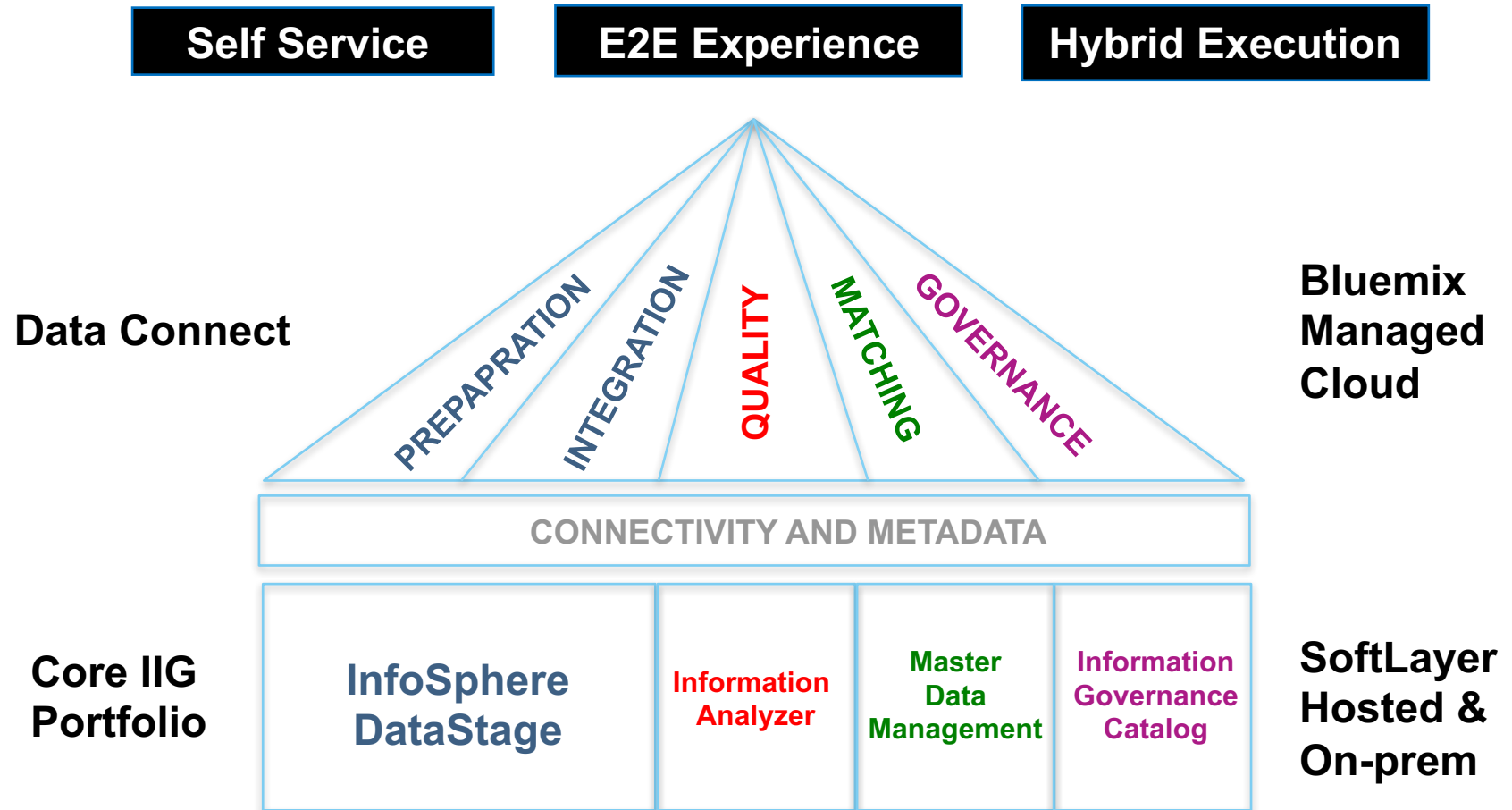
	Small	Medium	Large	Non Production (for Dev/Test)
<b>Machine</b>	Virtual	Virtual	Bare Metal	Virtual
<b>Part Number</b>	<b>D1N67LL</b>	<b>D1N68LL</b>	<b>D1N69LL</b>	<b>D1N6ALL</b>
<b>AppServer #cores &amp; memory</b>	8 32 GB	16 64 GB	24 128 GB	4 16GB (for each of 2 virtual MDM runtimes)
<b>DB #cores &amp; memory</b>	4 32 GB	8 64 GB	12 256GB	4 16GB (for each of 2 virtual MDM runtimes)
<b>BPM Server #cores &amp; memory</b>	8 32 GB	8 64 GB	16 64 GB	8 32GB (Process Center)
<b>IIS #Cores &amp; memory</b>	8 32GB	8 32GB	8 32GB	4 16GB (for each of IIS dev runtime and designer client)
<b>Network</b>	1Gbps 2000 GB Bandwidth	1Gbps 2000 GB Bandwidth	1Gbps 2000 GB Bandwidth	1Gbps 2000 GB Bandwidth

# The Future...





# Bluemix Data Connect is the next generation of our entire Information Integration & Governance portfolio



# Maximize your resource utilization through hybrid execution

- Optimize your integration workload based on data locality and resource availability
- DataStage already enables you to design your transformation once and run it on the PX Engine, a Hadoop cluster, or a database
- Bluemix Data Connect provides a new web-based self-service designer with a code-gen frameworks to support similar runtime targeting

InfoSphere DataStage Designer

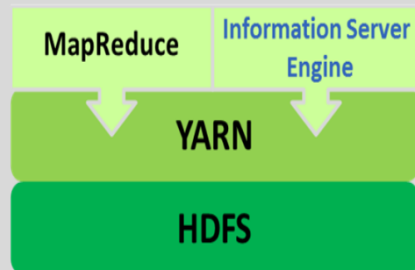
Data Connect UI

Execute “Anywhere”

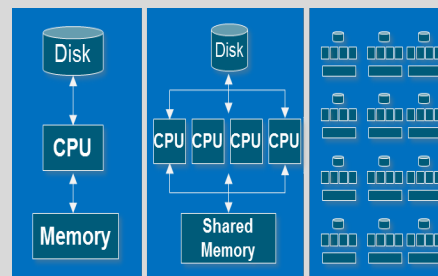
Databases



Hadoop 2.0



PX ETL Engine



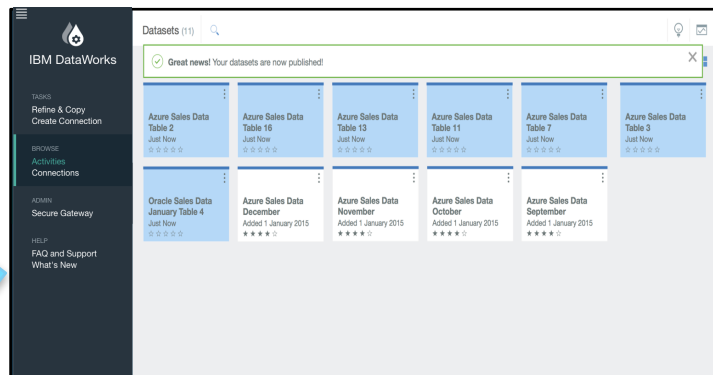
Spark as a Service / Local



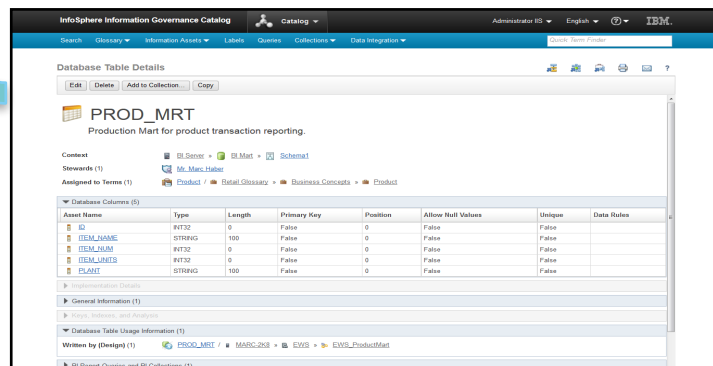


# Unified Governance Use Cases

## Consume IGC Datasets in Data Connect

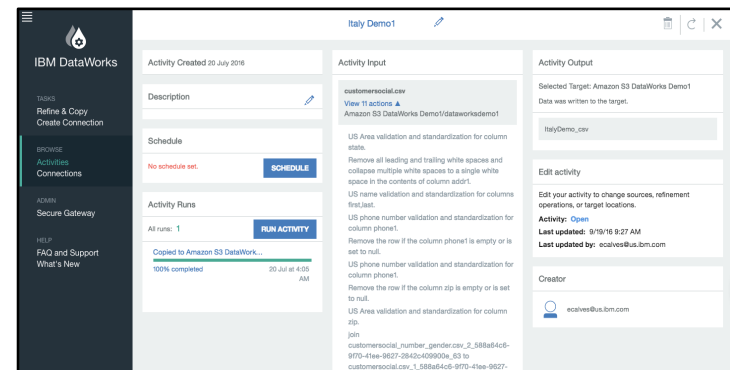


## Data Connect Datasets

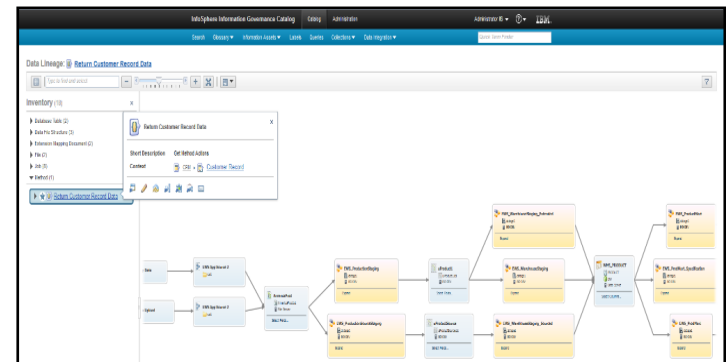


## IGC Dataset Catalog

## Visualize Data Connect Lineage in IGC



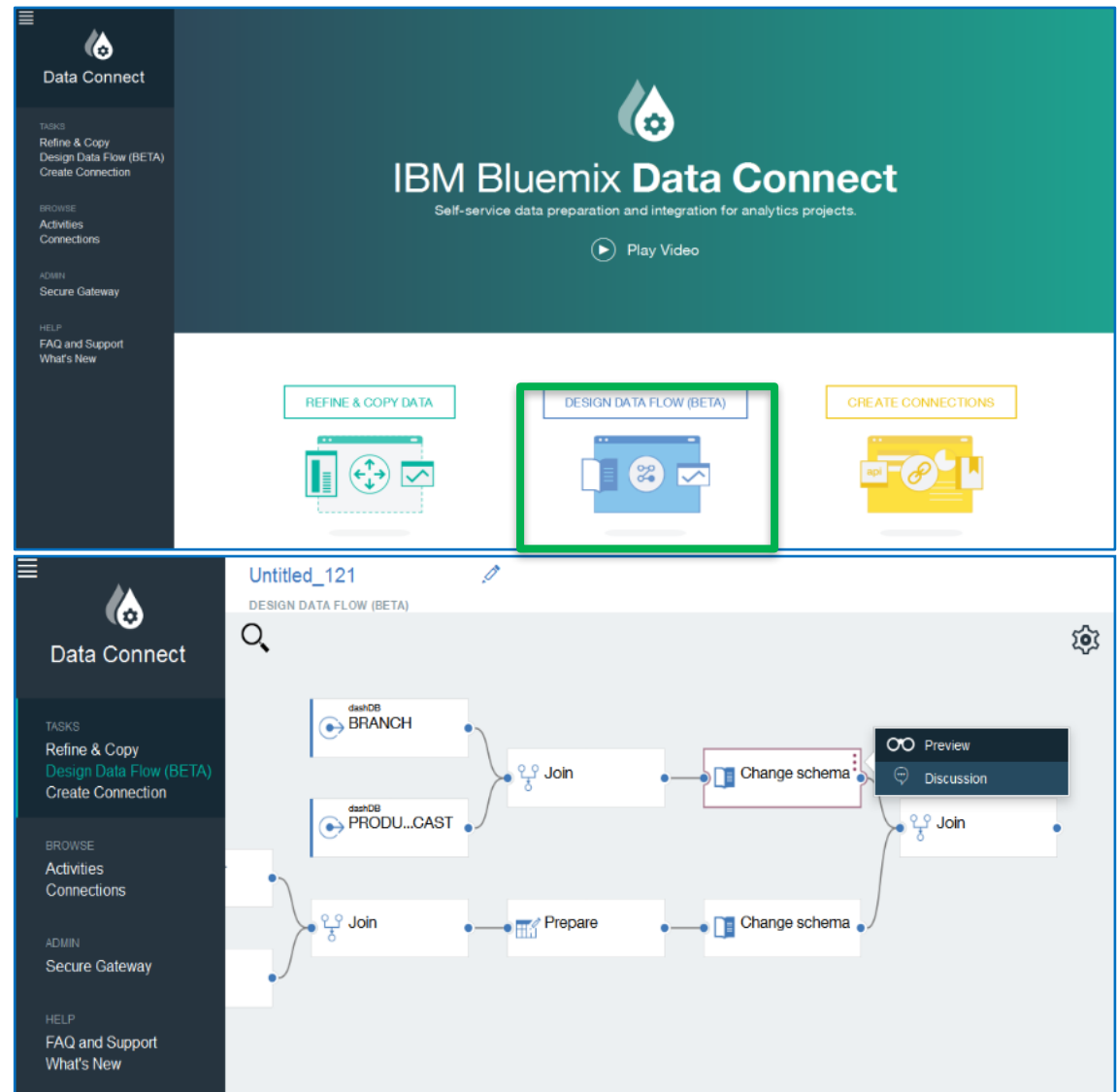
## Data Connect Metadata



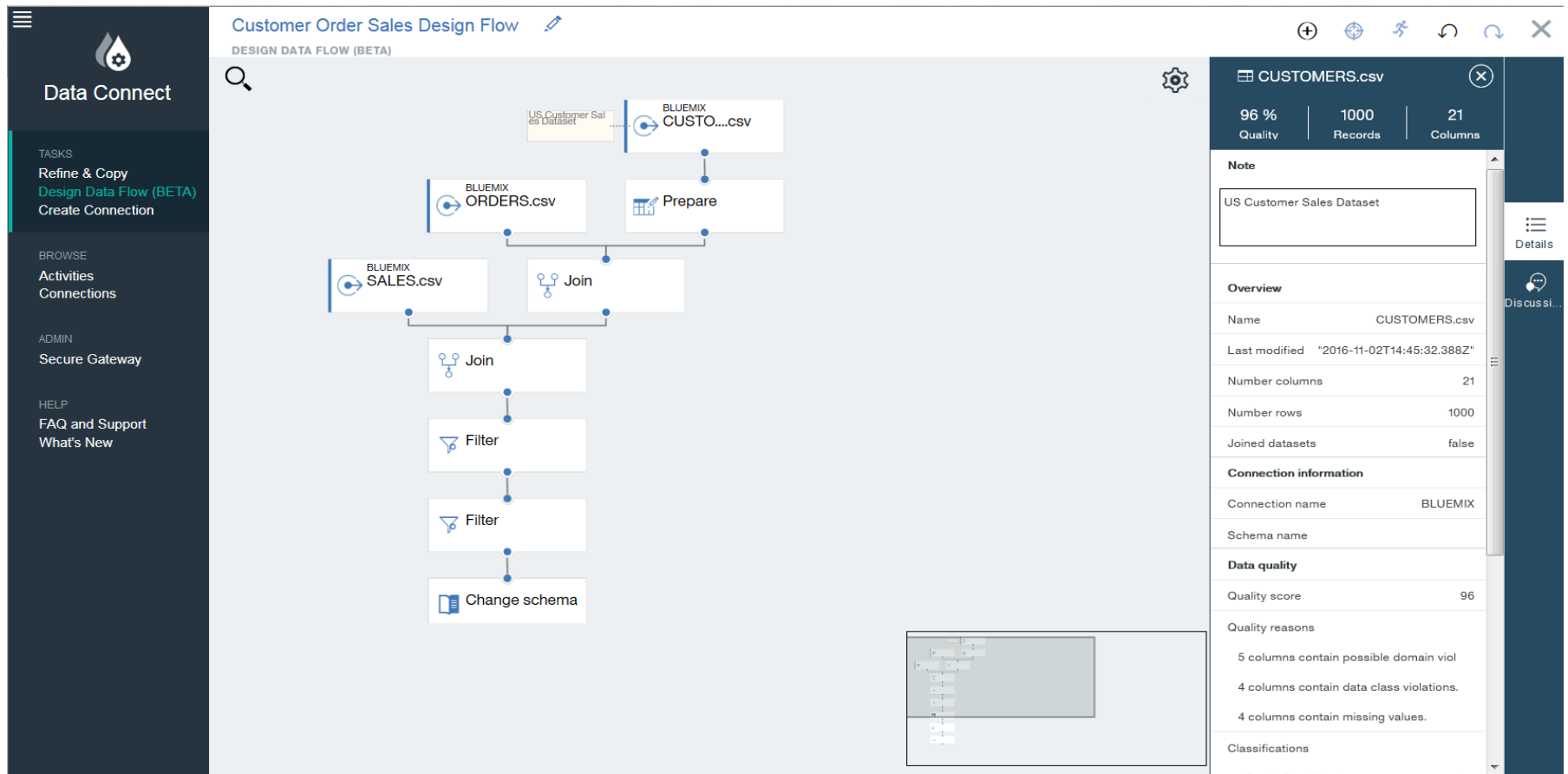
## IGC Dataset Lineage

## Data Connect – Design Data Flow

- **Self-service** data flow composition for Data Engineers
- **Simple** composition of sophisticated data integration work flows
- **Seamless integration** within the Data Connect service interface
- **Validation** of data and data flows at every step in the workflow



# Data Connect – Data Integration



- A simple and intuitive design data flow canvas seamlessly integrated within the Data Connect interface
- Easily build one to many sophisticated design data flows in one activity on one canvas
- Combine, transform and validate data at every step within multiple data flows simultaneously
- Execute each data flow independently or together as one activity and target different data sources

# An End-to-End Information Integration User Experience...

**Refine & Copy**

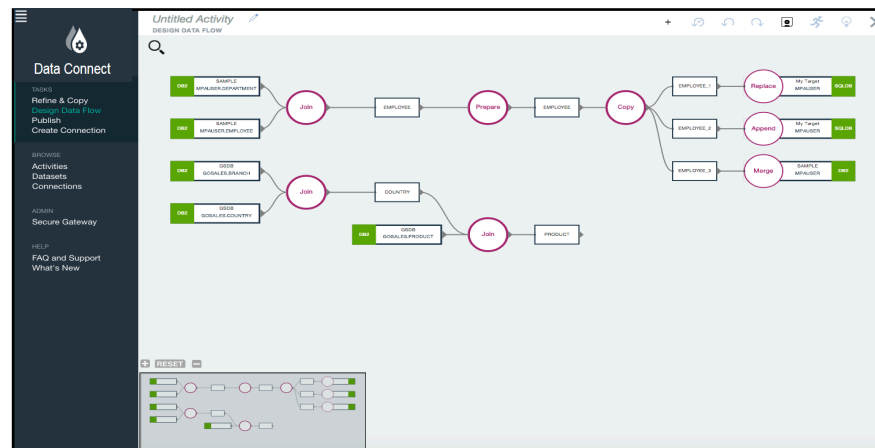
Connect Data → Select Data → Refine → Copy to Target

**CUSTOMERS**

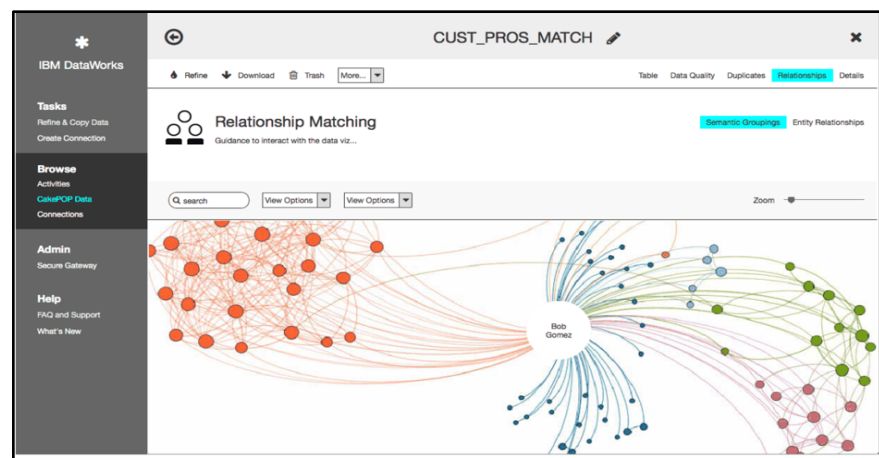
CUST_ID	CUSTNAME	ADDRESS1	CITY	STATE	COUNTRY_CODE
10019	George Presley	1940 Badger Pond L...	Decatur	IL	US
10021	Vivian Ong	830 O Corner Street	Dello	BS	IT
10022	Tracy Whitmore	4671 Fairfax Drive	Denmark	KS	US
10023	Meaghan Noel	2622 Turkey Pen Lane	Denver	CO	US
10025	Victor Oden	3316 Watson Lane	Denver	CO	US
10026	Roland Proctor	493 Davis Lane	Denver	CO	US
10027	Cody Gumble	2268 Golden Street	Denver	CO	US
10028	Cheryl West	3551 Single Street	Denver	MO	US
10029	Richard Goodson	2543 Hawke Nest L...	Denver	CO	US
10030	Dennis Ramon	1064 Sundown Lane	Des Moines	IA	US
10031	Richard White	4138 Sycamore Fork...	Desana	VC	IT
10032	Ashleigh Klain	3299 Walton Street	Dessighofen	DE	US
10033	Chad Richards	4031 Ward Road	Detroit	MI	US
10035	Robert Fletcher	1897 Parli Court	Detroit	MI	US
10036	Linda Newcome	1049 Passaic Street	Deuil-la-barre		FR

1 to 25 of 1000 records

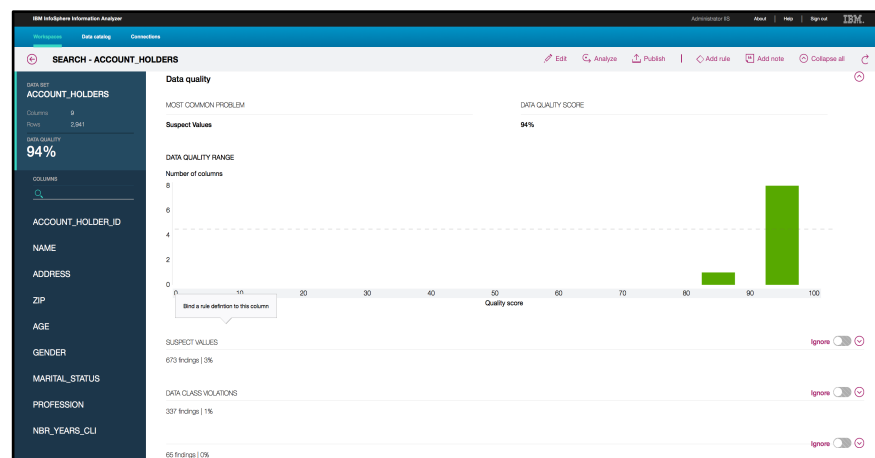
## Data Preparation – GA



## Data Integration – In Beta Now!



## Entity Matching Q1-2017



## Data Quality Assessment Q1-2017

# Self-Service Features of the Data Connect Service

## Data Preparation (GA)

- Library of 25+ connectors to on-premises and cloud data sources
- 75+ shaping operations to cleanse and standardize data
- Ability to enrich datasets by joining tables from various data sources
- Activities can be easily operationalized and re-run when the data is updated

## Data Integration – In Beta Now

- Canvas-based interface with zooming, auto/manual positioning of nodes and layout
- Additional transformation operations, including mapper and other data combination options
- Built-in data preparation node that launches the Data Connect shaper
- Ability to preview data at any step in the flow
- View history of changes for each node

## Entity Matching Q1-2017

- Self-service and intuitive analytics on master data for non-technical business users
- Self-service augmentation of master data with other data sources
- Seamless integration with data preparation and movement tools
- Empowers users to discover and unlock insights – MDM for everyone!

## Data Quality Assessment Q1-2017

- Self-service and intuitive data quality management for non-technical business users
- Automated data profiling, classifications, and quality assessment
- Consistent metrics and user experience across on-premises and cloud
- Analyze HDFS files in addition to relational databases

# Introducing the IBM DataFirst Method

The more you put data to work in your organization, the better the outcome

The IBM DataFirst Method is our expertise to ensure your success to get from where you are now, to where you need to be



## Start Anywhere

Focus on your biggest business opportunity



## Fill the Gaps

Strategy. Expertise. Skills. No more and no less



## Build Value at Every Step

Achieve a data-driven culture, one initiative at a time

Ensures client success through **repeatable** & **actionable** use cases/engagements  
Provides an entry point and a roadmap to the future for your client's journey

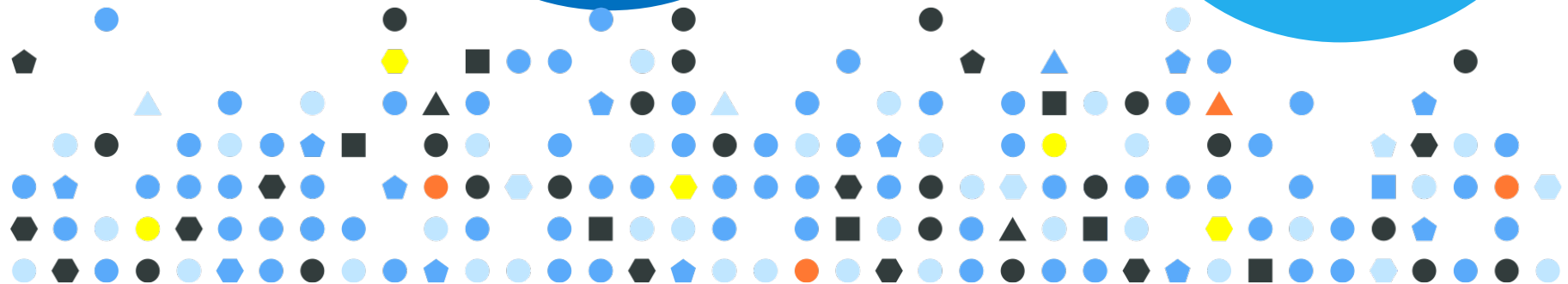
# Next Steps Toward Your Success

Discuss the  
DataFirst Method  
approach with your  
IBM Representative

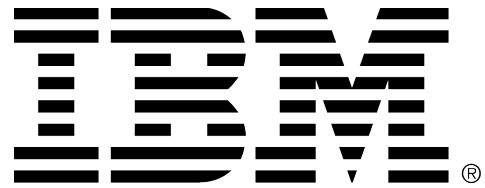
Run the cost  
analysis to  
get started with  
Bridge to Cloud

Try an IBM Cloud  
Data Service on  
IBM Bluemix®

Visit our  
IBM Analytics  
Technology website  
for more information







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