IBM

Module 01   MDM Overview

IBM InfoSphere Master Data Management
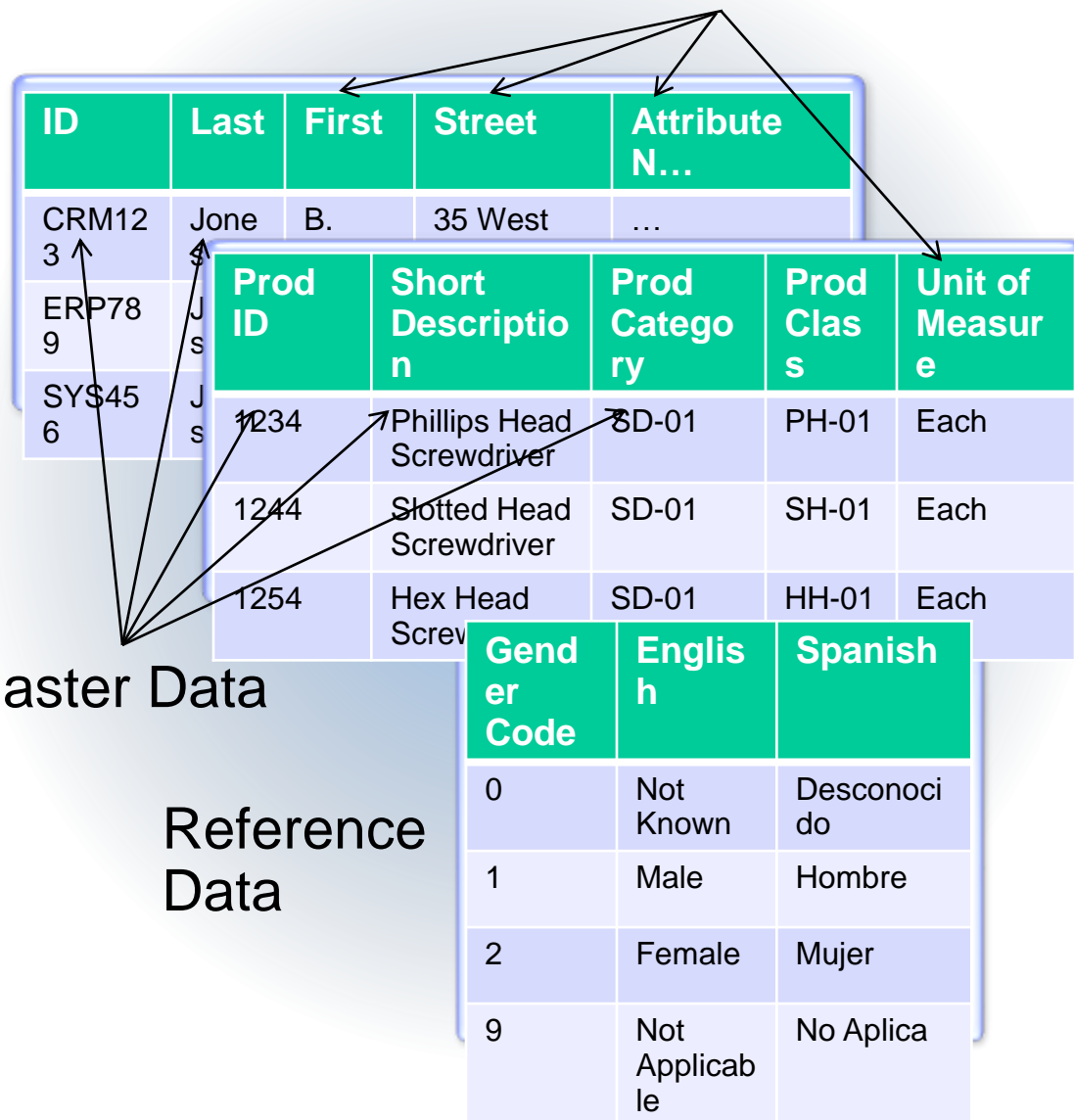
Module Objectives

After completing this topic, you should be able to explain:

- Master data, Master Data Management and its importance

- IBM InfoSphere MDM

- IBM InfoSphere MDM v11 new features, functionalities and its strategy

What is Master Data? Why important?

- **Master data** is the high-value, core information used to support critical business processes across the enterprise

- **Master Data** is information about customers, suppliers, partners, products, materials, employees, accounts and more

- **Master Data** is at the heart of every business transaction, application and decision

- **Master Data** is not metadata or reference data

Metadata

ID	Last	First	Street	Attribute N…
CRM123	Jone s	B.	35 West	…
ERP789	J s			
SYS456	J s			

Master Data

Prod ID	Short Description	Prod Category	Prod Class	Unit of Measure
1234	Phillips Head Screwdriver	SD-01	PH-01	Each
1244	Slotted Head Screwdriver	SD-01	SH-01	Each
1254	Hex Head Screw	SD-01	HH-01	Each

Reference Data

Gender Code	English	Spanish
0	Not Known	Desconocido
1	Male	Hombre
2	Female	Mujer
9	Not Applicable	No Aplica

Master Data Domains

Party

Product

Account

Location

- **Party** can reflect any legal entity, whether individual or organization.
- **Product** encompasses both physical goods as well as services.
- **Account** includes terms and conditions, and associated relationships.
- **Location** may serve as a primary or secondary domain.

Multi-domain Relationship Management

- Not only must these domains be managed but also the complex relationships among them...

What is Master Data Management (MDM)?

- A discipline that provides a consistent understanding of master data entities

- A set of functionality for data governance that provides mechanisms & governance for consistent use of master data across the organization

- Is designed to accommodate, control and manage change

SOURCE SYSTEMS

ERP
Name: **Billie Jones**
Address: **36 West 15th Street**
Address: **NY, NY 32453**

CRM
Name: **William Jones**
Address: **53 West 15th St.**
Address: **Toledo, OH 12345**

Warehouse
Name: **B. Jones**
Address: **35 West 15th St.**
Address: **Toledo, OH 12345**

Sales
Name: **Barbara Jones**
Address: **35 West 15th St.**
Address: **Toledo, OH 12345**

MASTER DATA MANAGEMENT

Spouse of

Barbara Jones
35 West 15th Street
Toledo, Ohio 12345

William Jones
35 West 15th Street
Toledo, Ohio 12345

Holds accounts

Account #429
Policy #A43C

Products owned

Item #44958
Item #99038
Item #00298

OPERATIONAL APPLICATIONS

Call Center

Web Apps

Transactional Applications

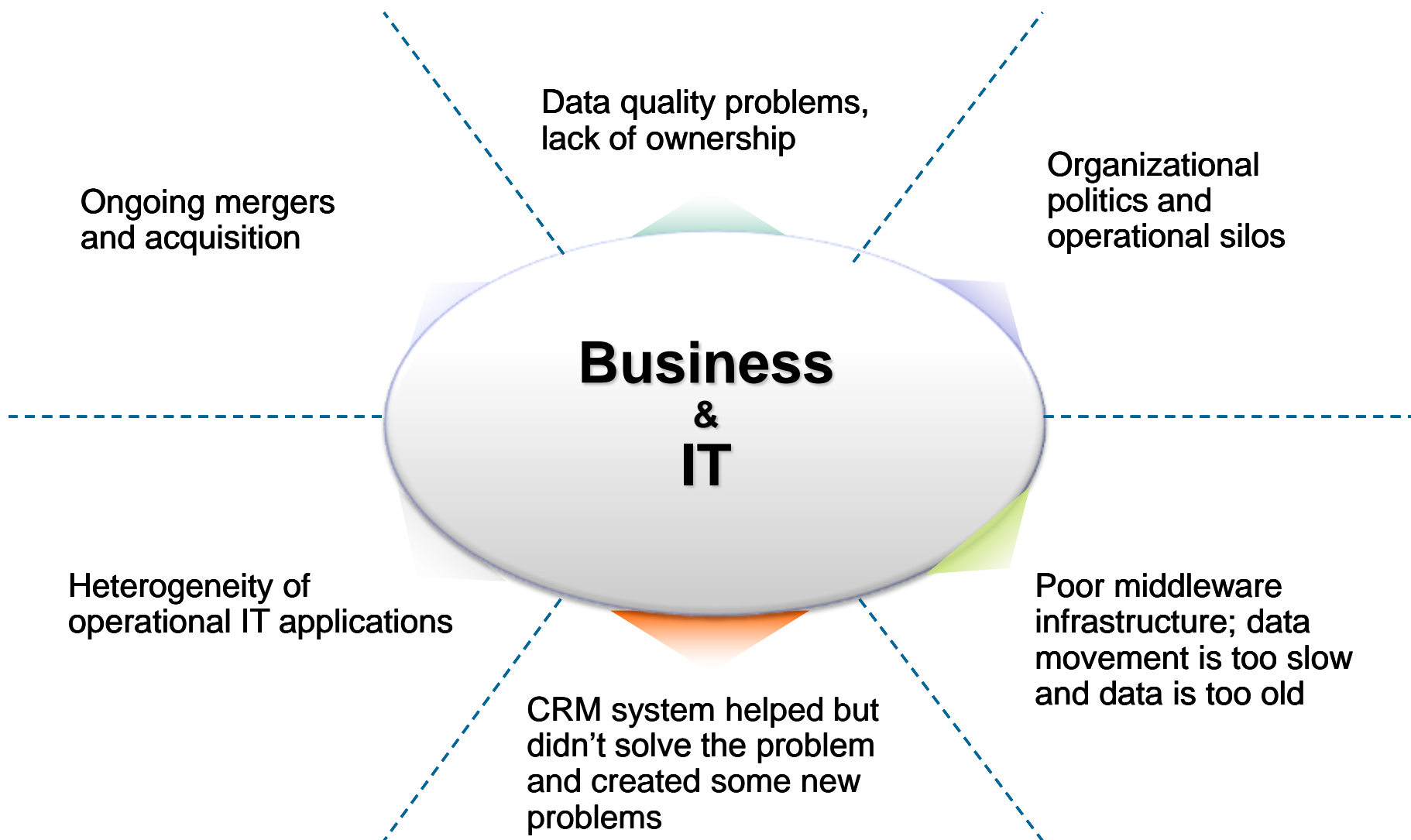## ANALYTICAL APPLICATIONS

Campaign Management

Warehouse/ Analytics

Big Data

Challenges to Creating Trusted Views of Master Data

Data quality problems, lack of ownership

Organizational politics and operational silos

Ongoing mergers and acquisition

Business & IT

Heterogeneity of operational IT applications

Poor middleware infrastructure; data movement is too slow and data is too old

CRM system helped but didn't solve the problem and created some new problems

MDM aligns with key business priorities

Improve business agility

Integrate new systems (M&A) in weeks

Lower operational costs

Eliminate 2 of 3 CRM systems

Improve customer service

Reduce time to search for customers by 58%

Measurable Results

New market and product strategy

Increase campaign yields by 5%

Cross-sell & Up-sell

Increase average deal size by 2%

Comply with regulations

Improve privacy preference compliance by 10%

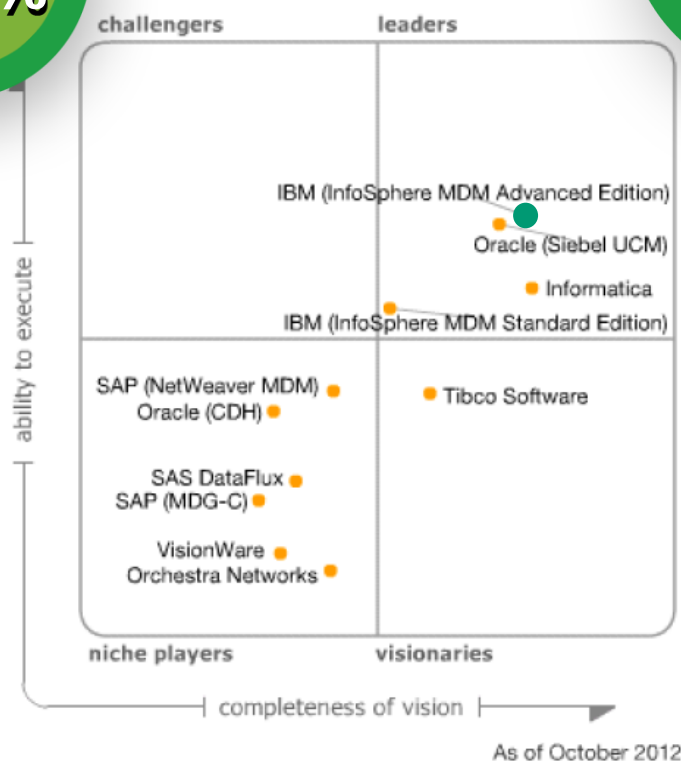# IBM InfoSphere MDM – #1 Market Share

(Source: Gartner – Forecast: Master Data Management Worldwide, 2010-2015, 9 Sep 2011)
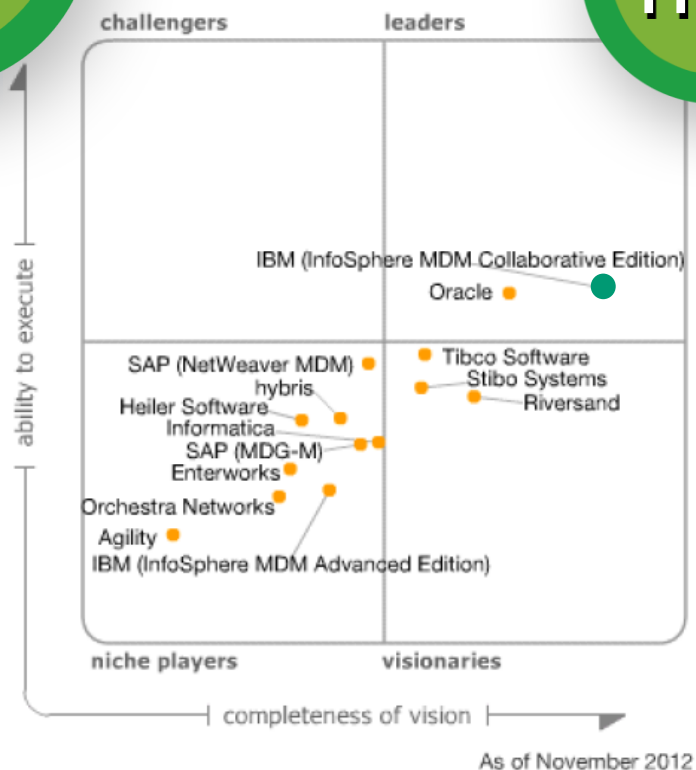
IBM is the Market Leader in Master Data Management

#1 40.3%

IBM #1 20.1%

#2 11.2%

MDM for Customer Data

challengers | leaders

ability to execute

IBM (InfoSphere MDM Advanced Edition)
Oracle (Siebel UCM)
Informatica
IBM (InfoSphere MDM Standard Edition)

SAP (NetWeaver MDM)
Oracle (CDH)

Tibco Software

SAS DataFlux
SAP (MDG-C)

VisionWare
Orchestra Networks

niche players | visionaries

completeness of vision

As of October 2012

MDM for Product Data

challengers | leaders

ability to execute

IBM (InfoSphere MDM Collaborative Edition)
Oracle

SAP (NetWeaver MDM)   Tibco Software
hybris   Stibo Systems
Heiler Software   Riversand
Informatica
SAP (MDG-M)
Enterworks
Orchestra Networks
Agility
IBM (InfoSphere MDM Advanced Edition)
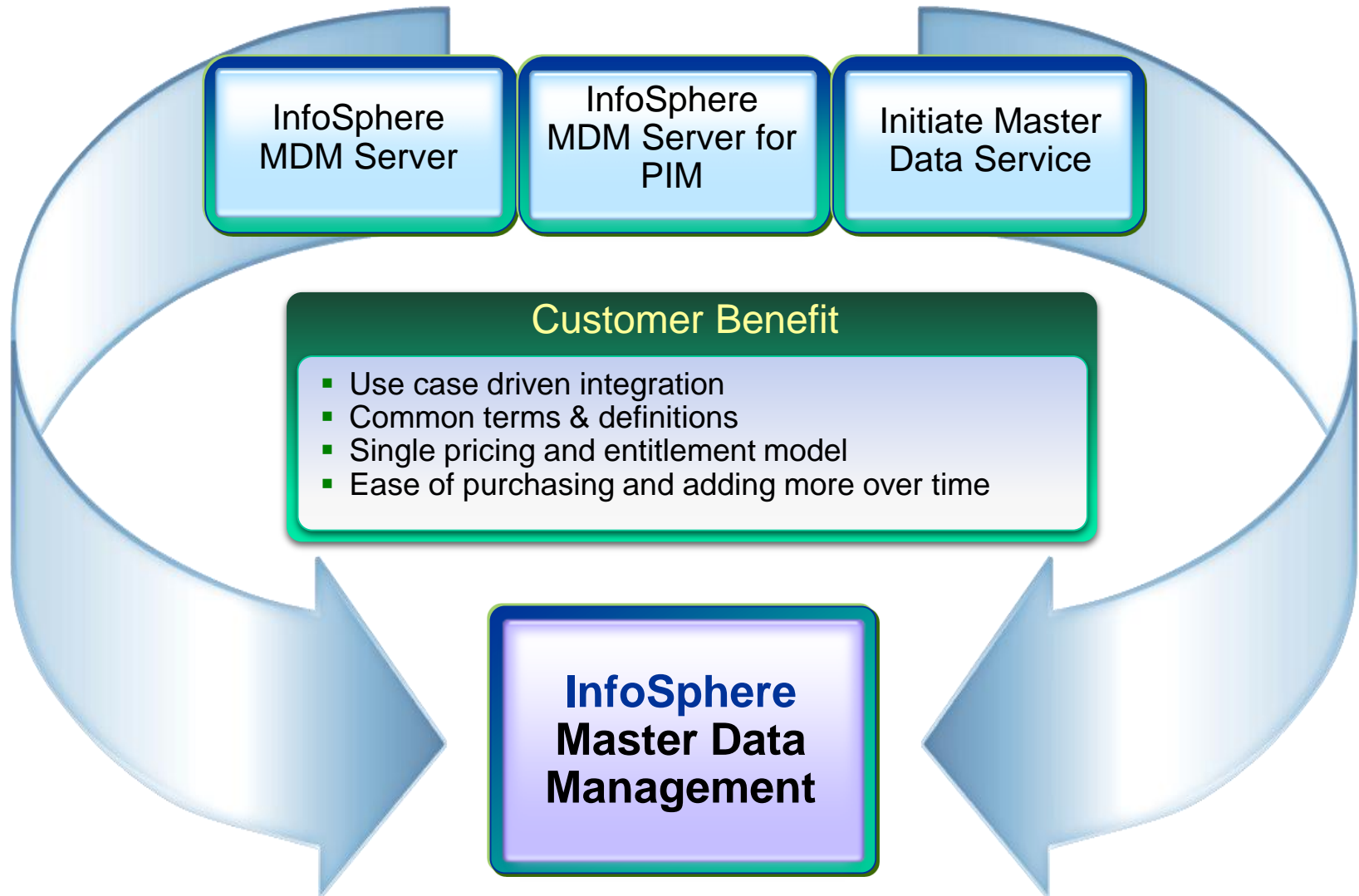
niche players | visionaries

completeness of vision

As of November 2012

Source of Market Share Data: Gartner MDM Forecast: Master Data Management, Worldwide, 2010-2015, November 2012

A Tale about IBM InfoSphere MDM

InfoSphere MDM Server

InfoSphere MDM Server for PIM

Initiate Master Data Service

Customer Benefit

- Use case driven integration
- Common terms & definitions
- Single pricing and entitlement model
- Ease of purchasing and adding more over time

InfoSphere **Master Data Management**

IBM InfoSphere MDM v11.0 Editions

IBM InfoSphere Master Data Management

Enterprise Edition
Comprehensive
address all your MDM needs with a single comprehensive solution

Advanced Edition
Strategic
strategically transform your organization through improved business processes and applications

Standard Edition
Registry
delivers business value for MDM projects with the quickest time to value

Collaborative Edition
Collaborative Authoring
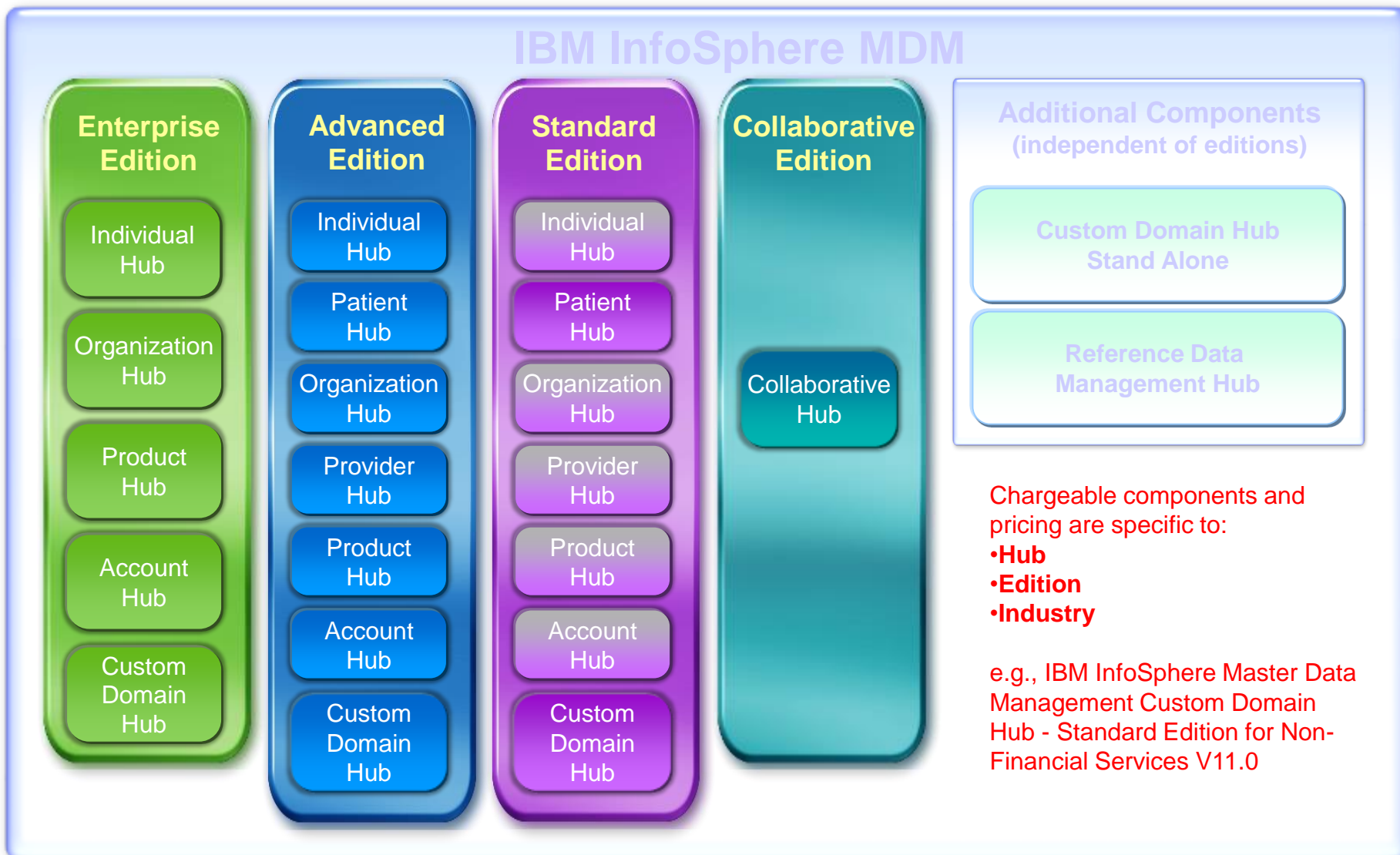streamline workflow activities across users involved in authoring and defining master information

Custom Domain Hub Stand Alone
Enables delivery of trusted information based on custom data domains

Reference Data Management
Manage and define reference data as an enterprise standard

IBM InfoSphere MDM Packaging

IBM InfoSphere MDM

Enterprise Edition	Advanced Edition	Standard Edition	Collaborative Edition
Individual Hub	Individual Hub	Individual Hub	
Organization Hub	Patient Hub	Patient Hub	
Product Hub	Organization Hub	Organization Hub	Collaborative Hub
Account Hub	Provider Hub	Provider Hub	
Custom Domain Hub	Product Hub	Product Hub	
	Account Hub	Account Hub	
	Custom Domain Hub	Custom Domain Hub	

Additional Components (independent of editions)

Custom Domain Hub Stand Alone

Reference Data Management Hub

Chargeable components and pricing are specific to:
- **Hub**
- **Edition**
- **Industry**

e.g., IBM InfoSphere Master Data Management Custom Domain Hub - Standard Edition for Non-Financial Services V11.0

IBM InfoSphere MDM – A Solution for all Use Cases

MDM Business Use Cases	Enterprise	Advanced	Standard	Collaborative
Advanced Catalog Management	✓			✓
Asset Management	✓			✓
Centrally Manage Customer Preferences	✓	✓		
CIF Augmentation / Replacement	✓	✓		
Complex Product Definition	✓			✓
Customer Loyalty	✓	✓	✓	
Enterprise Master Catalog	✓	✓		✓
Federal / State / Local Citizen Hub	✓	✓	✓	
Global Data Synchronization	✓			✓
HC Payer – Claims/Eligibility/Member 360	✓	✓	✓	
Hierarchy Management	✓	✓	✓	✓
Improve Call Center Customer Service	✓	✓	✓	
Improve Campaign Marketing Effectiveness	✓	✓	✓	✓
Infrastructure Rationalization/Modernization	✓	✓		
Insurance Underwriting	✓	✓	✓	

IBM InfoSphere MDM – A Solution for all Use Cases

MDM Business Use Cases	Enterprise	Advanced	Standard	Collaborative
Law Enforcement Information Exchange	✓	✓	✓	
Mergers and Acquisitions	✓	✓	✓	✓
Multi-Channel Commerce	✓	✓	✓	✓
New Product Introduction	✓			✓
Operational Efficiency	✓	✓	✓	✓
Pharmacy Exchange	✓	✓	✓	
Parts Management	✓			✓
Product Factory	✓	✓		✓
Product Information Management	✓			✓
Product Bundling	✓			✓
Reference Data Management	✓	✓		
Risk & Compliance	✓	✓	✓	
SOA Alignment	✓	✓		✓
Supplier Collaboration	✓			✓
Supplier Onboarding	✓			✓

Why IBM InfoSphere Master Data Management?

InfoSphere Master Data Management
Improves operational and analytical systems

Complete
- All domains, styles, use cases, industries
- Master data governance
- Pre-built, extensible and customizable data models and services

Accessible
- Designed for big data
- Cloud and mobile options
- Integration across InfoSphere solutions
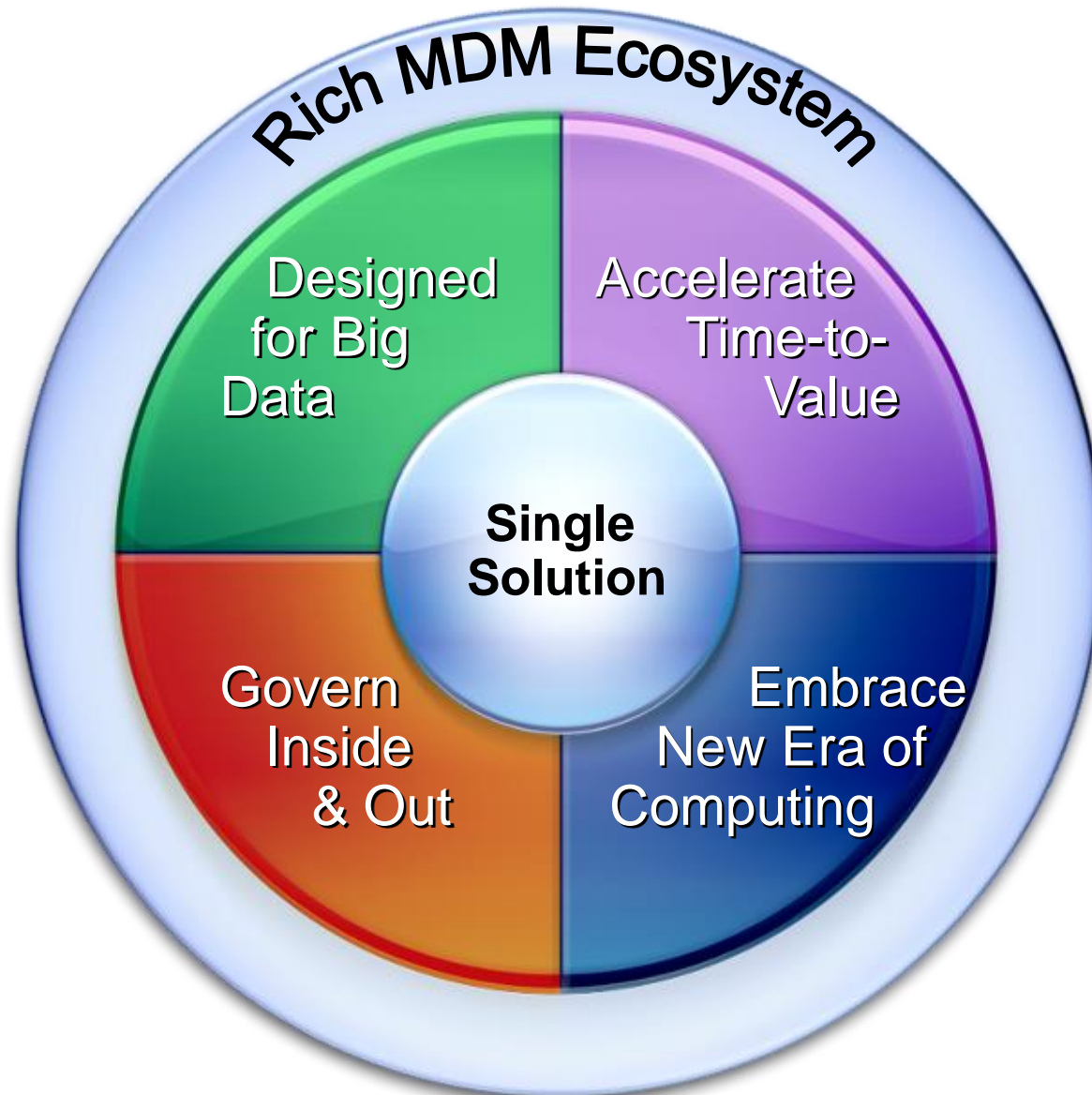- Optimized for real time

Flexible
- Virtual, physical and hybrid styles in a single solution
- Collaborative workflow
- Reference data management
- Entity resolution

Proven
- #1 market share
- 800 + customers
- Lowest risk, Quickest time to value
- Global reach
- Scalability, performance

InfoSphere MDM Strategy

Rich MDM Ecosystem

- Designed for Big Data
- Accelerate Time-to-Value
- Single Solution
- Govern Inside & Out
- Embrace New Era of Computing

InfoSphere MDM Strategy

Designed for Big Data

- Scale into the billions of records
- Combine structured master data with insights from unstructured data
- Integrate with IBM's capabilities for exploring and visualizing big data

Accelerate Time-to-Value

- Simplify implementation process
- Pre-built accelerators
- Easily adjust MDM implementation 'style'
- Built into broader IBM solution offerings

Rich MDM Ecosystem

Designed for Big Data

Accelerate Time-to-Value

Single Solution

Govern Inside & Out

Embrace New Era of Computing

Govern Inside & Out

- Built-in governance capabilities unique to MDM
- Integrated to IBM InfoSphere
- Support both 'passive' and 'active' governance of master data
- Support OOTB governance policies + client-unique policies

New Era of Computing

- MDM 'patterns' for IBM Pure Application System
- Expose master data easily to mobile platforms
- Exploit mobile-device generated data as part of master data (e.g. geolocation)

MDM v11 New Features and Functionality

Accelerate Time to Value

- Virtual, physical and hybrid MDM styles in a single instance
- Modular implementations and upgrades
- Collaborative authoring UI enhancements
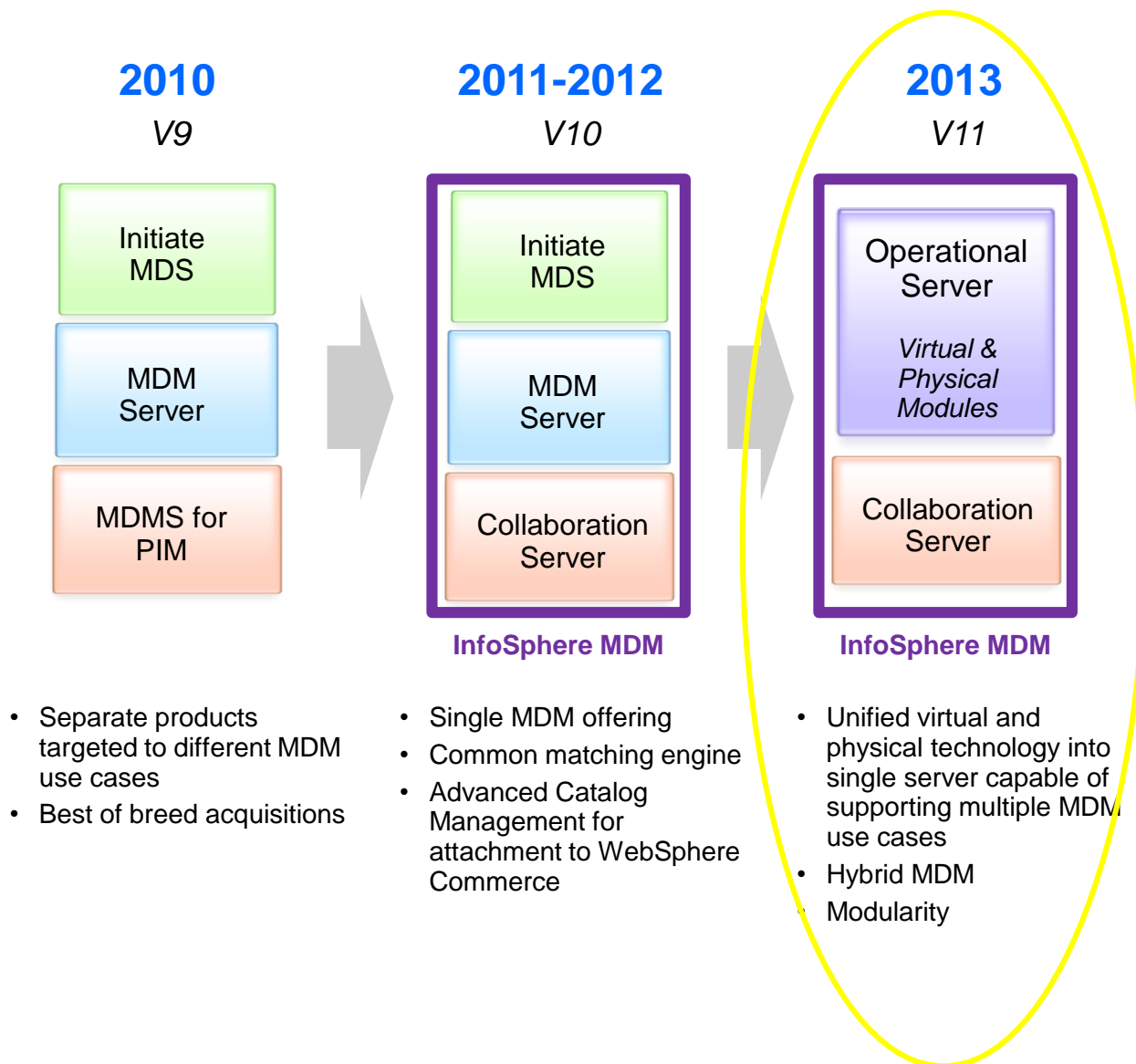
Designed for Big Data

- Augment master data with unstructured text
- Expanded patient hub to include clinical attributes

Governance Inside & Out

- Data quality via integration with InfoSphere Information Server
- Enhanced hierarchy support for reference data
- Dashboard for collaborative authoring workflow
- Task KPIs to monitor master data quality

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Transforming InfoSphere MDM into a unified MDM solution

2010	**2011-2012**	**2013**
V9	*V10*	*V11*

2010 — *V9*
- Initiate MDS
- MDM Server
- MDMS for PIM

2011-2012 — *V10*
- Initiate MDS
- MDM Server
- Collaboration Server

InfoSphere MDM

2013 — *V11*
- Operational Server *Virtual & Physical Modules*
- Collaboration Server

InfoSphere MDM

2010
- Separate products targeted to different MDM use cases
- Best of breed acquisitions

2011-2012
- Single MDM offering
- Common matching engine
- Advanced Catalog Management for attachment to WebSphere Commerce

2013
- Unified virtual and physical technology into single server capable of supporting multiple MDM use cases
- Hybrid MDM
- Modularity

20

Unification of MDM Virtual & Physical

- **Multi-style, multi-domain MDM in a single operational hub**
  - Single database instance and schema
  - Engine co-residence (WAS container)
  - Simplified deployment and management (based on OSGi)
  - Unified MDS/MDMS workbench for configuration and customization
  - Unified MDS/MDMS installer
  - Integration with IBM Support Assistant Data Collector

IBM

Business Use Cases Benefit from Hybrid MDM

Thin amount of prospect attributes – *Registry Approach*

Immediately Post Acquisition

Persist large number of customer attributes *Centralized Approach*

Business Processes Integrated

Maintain and move prospect and customer information seamlessly in a single solution; persist information *Hybrid Approach*

InfoSphere MDM

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MDM and Big Data Must Work Together

Master Data
Management

Core Big Data
Technologies
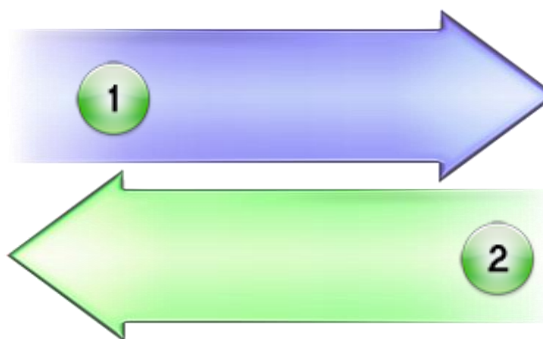
1 MDM creates
context for big data.

MDM system provides
trusted information and
operationalizes insights
from big data

2 Big data creates
context for MDM.

Big data provides new
insights from social media
and other sources for
customer profile

The 5 Key Use Cases

Big Data Exploration
Find, visualize, understand all big data to improve decision making

Enhanced 360º View of the Customer
Extend existing customer views (MDM, CRM, etc) by incorporating additional internal and external information sources

Security/Intelligence Extension
Lower risk, detect fraud and monitor cyber security in real-time

Operations Analysis
Analyze a variety of machine data for improved business results

Data Warehouse Augmentation
Integrate big data and data warehouse capabilities to increase operational efficiency

MDM v11 New Features and Functionality

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Master Data Governance in MDM 11

- **Business Processes require trusted data**

- **Trusted data requires data governance**

- **IBM providing capabilities to facilitate construction and adoption of these applications**
  - MDM Application Toolkit (MDAT) - Improved
  - Master Data Policy Monitoring (MDPM) – Improved
  - Master Data Policy Remediation (MDPR) - Improved
  - Master Data Governance Dashboard (MDG) - New
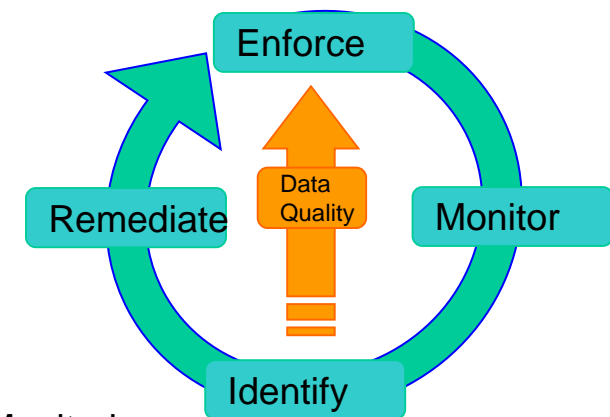
Enforce   policy rules through Master Data Policy Remediation

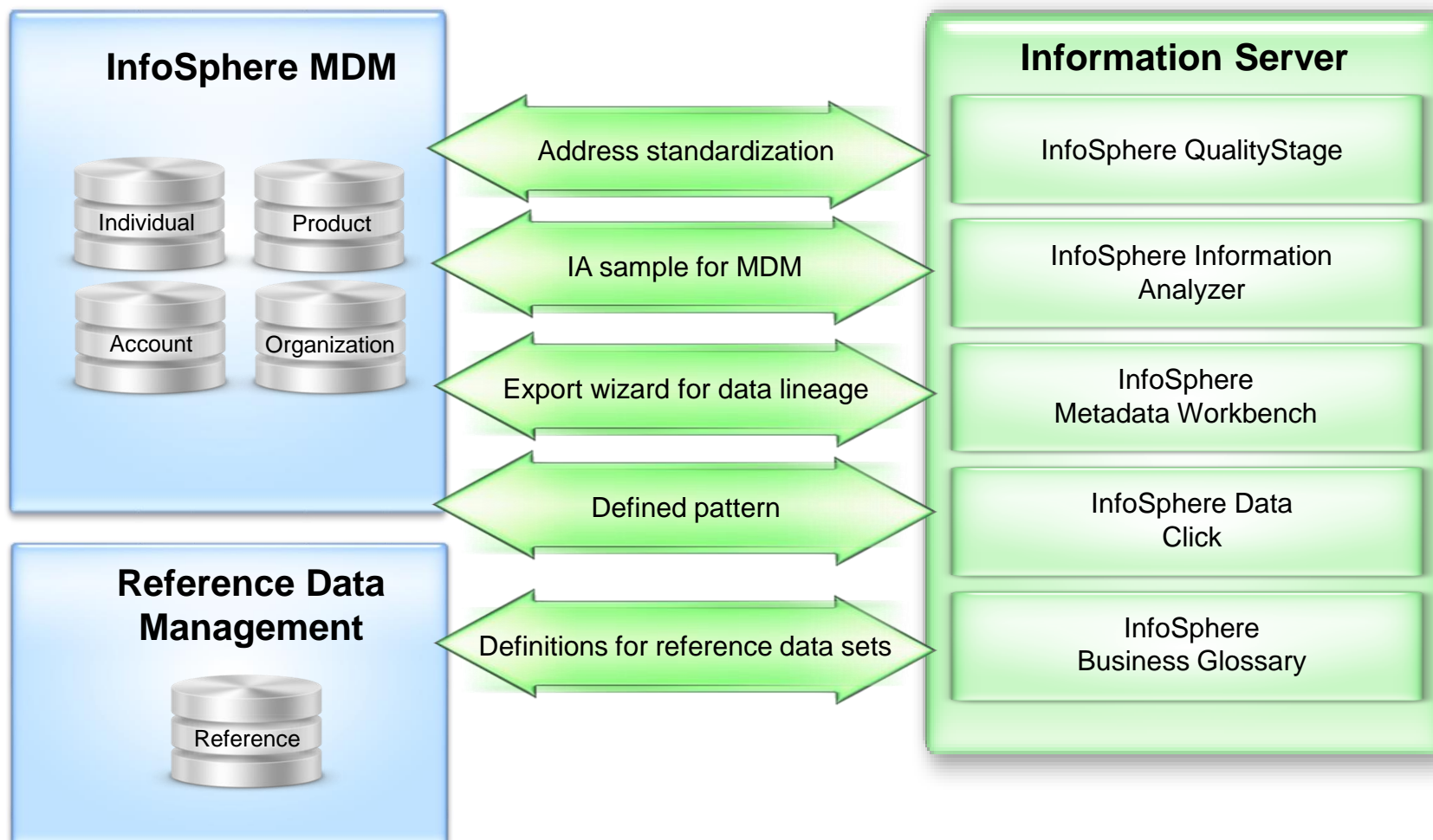**Monitor**   the effectiveness of your rules through Master Data Policy Monitoring

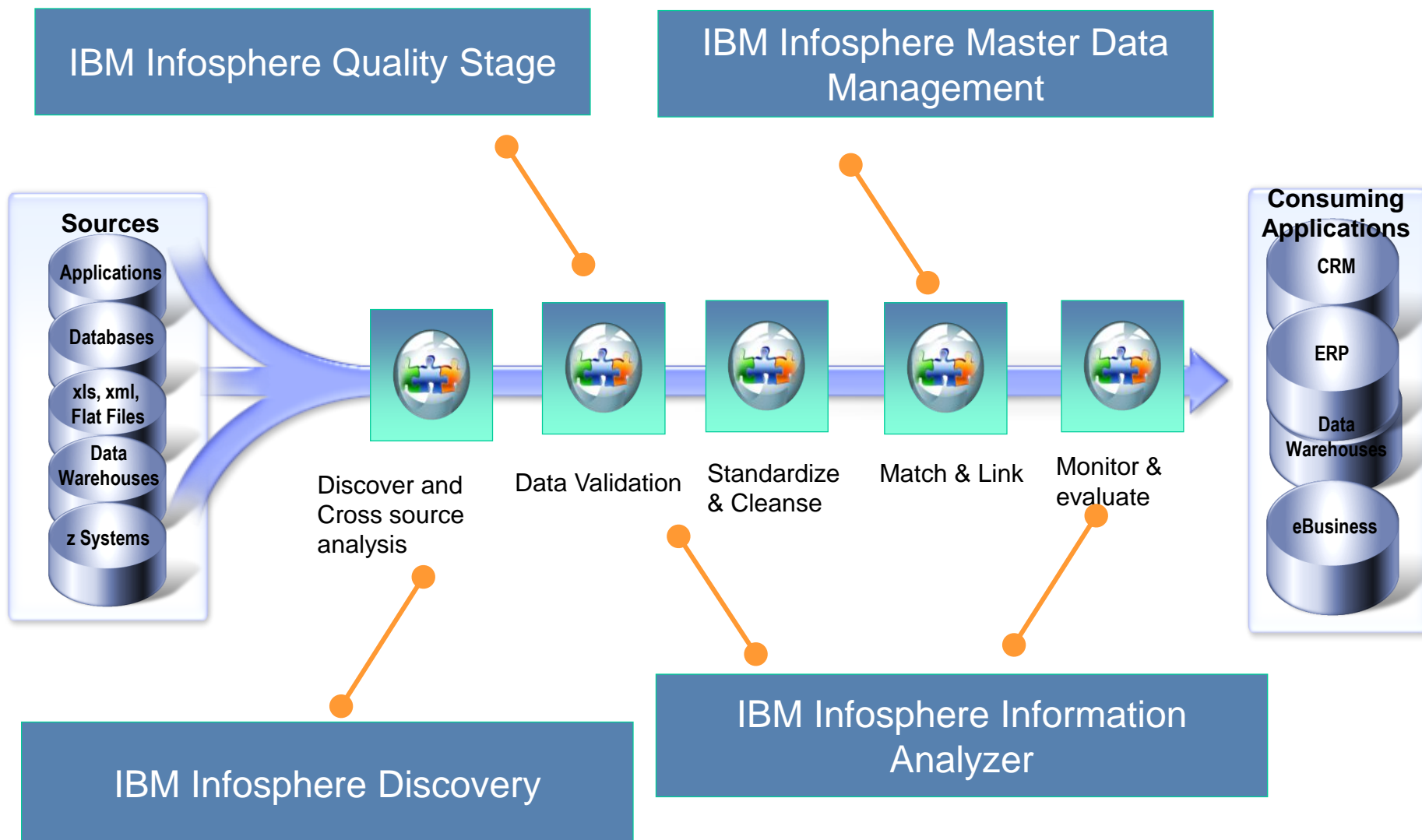**Identify**   quality issues through Master Data Policy Monitoring and the MDG console

Remediate   data quality issues through Master Data Policy Remediation and the MDG console

Integration with Information Server

InfoSphere MDM

Individual

Product

Account

Organization

Reference Data Management

Reference

Address standardization

IA sample for MDM

Export wizard for data lineage

Defined pattern

Definitions for reference data sets

Information Server

InfoSphere QualityStage

InfoSphere Information Analyzer

InfoSphere Metadata Workbench

InfoSphere Data Click

InfoSphere Business Glossary

Integration Flow – MDM & Data Quality

Summary

InfoSphere Master Data Management
Improves operational and analytical systems

Complete	Accessible	Flexible	Proven
▪ All domains, styles, use cases, industries ▪ Master data governance ▪ Pre-built, extensible and customizable data models and services	▪ Designed for big data ▪ Cloud and mobile options ▪ Integration across InfoSphere solutions ▪ Optimized for real time	▪ Virtual, physical and hybrid styles in a single solution ▪ Collaborative workflow ▪ Reference data management ▪ Entity resolution	▪ #1 market share ▪ 800 + customers ▪ Lowest risk, Quickest time to value ▪ Global reach ▪ Scalability, performance