

# InfoPlanet

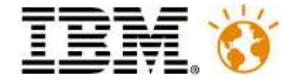
**Vista unica del cliente: integrare i dati  
che contano.**

**Esperienze dal settore privato,  
pubblico e sanità.**

**Nicola Nodari, *IM Solutions Business Development,*  
*IBM Italia***



# Business challenges associated with MDM



Improve strategic decision making & business agility



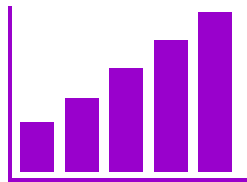
Lower operational costs



Improve customer service and customer intimacy



Master Data Management



Enter new markets, introduce new products, gain new customers

Cross-sell & Up-sell



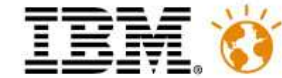
Comply with regulatory requirements and reduce risk



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## Business drivers – customer examples



### Revenue



*Qwest Telecommunications*

- Leveraged MDM to increase revenue by getting products to market faster than competitors
- Revenue increase over \$10M if time to market is reduced by 2 weeks

### Agility



*MetLife*

- Shifted from policy-centric systems to customer-centric strategy
- Faster time to market with new services and offerings due to real-time availability of key data

### Cost



*Panasonic*

- Reduced the time for creating and maintaining product information by up to 50%
- Reduced data entry errors from 5% to 0.1 %; saves €2 million per year

### Compliance



*Intuit*

- Recognized a 300% increase in customer privacy compliance across the entire organization
- MDM created single point of management for a global Intuit identifier for each party

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Our clients are powering their existing applications & business processes using IBM MDM



Make real-time product offers based on accurate & complete customer data



**Bank of America.**



Access clinical patient data on demand



*Sutter Health*  
*With You. For Life.*

Know-your-customer compliance & auditing



**BARCLAYS**

Accurate client identification for software purchasing processes



**intuit.**

Reduce time to market with new product introductions

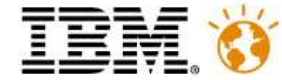


**Panasonic**

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# IBM is a leading MDM vendor...



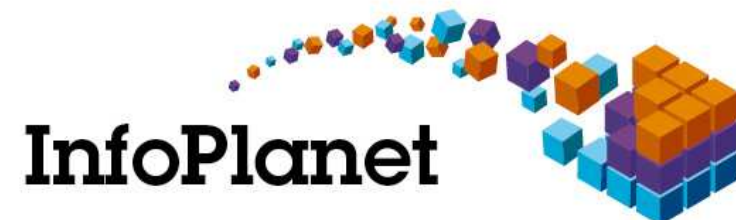
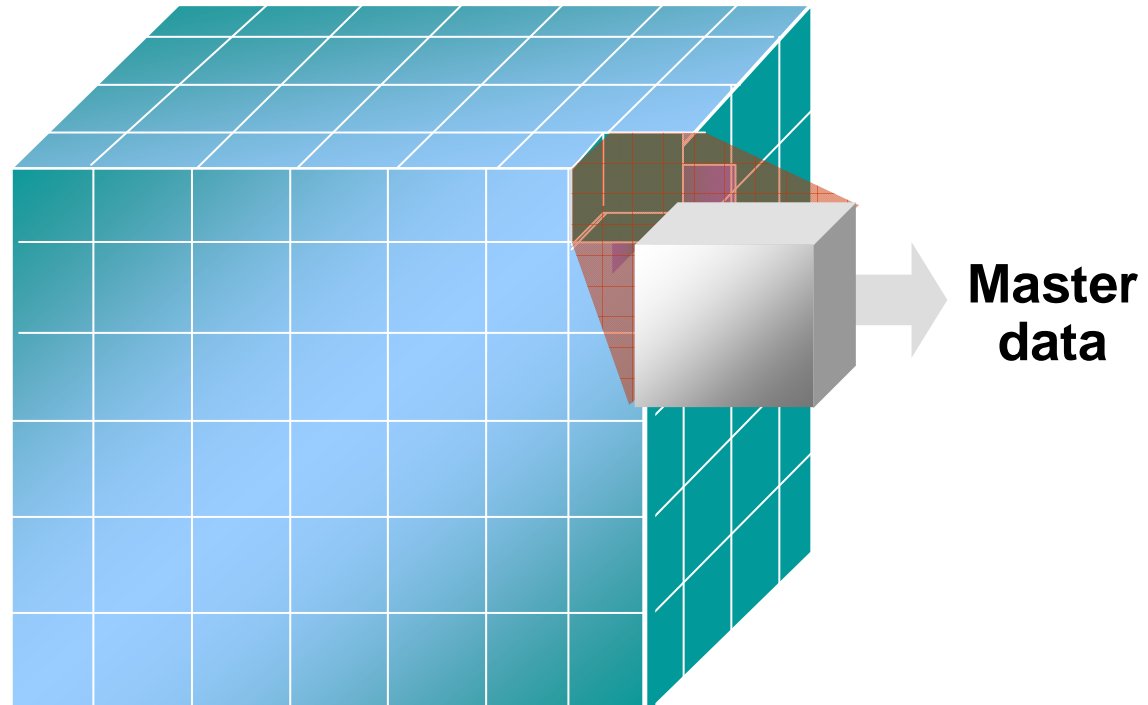
- 600+ customers across a variety of different industries
- Clients with 10+ years in production
- Significant 'transactional hub, system of record' implementations
- Implementations of customer/party, account, and product domains
- Implementations of all styles of MDM



## What is Master Data? Why is it important?

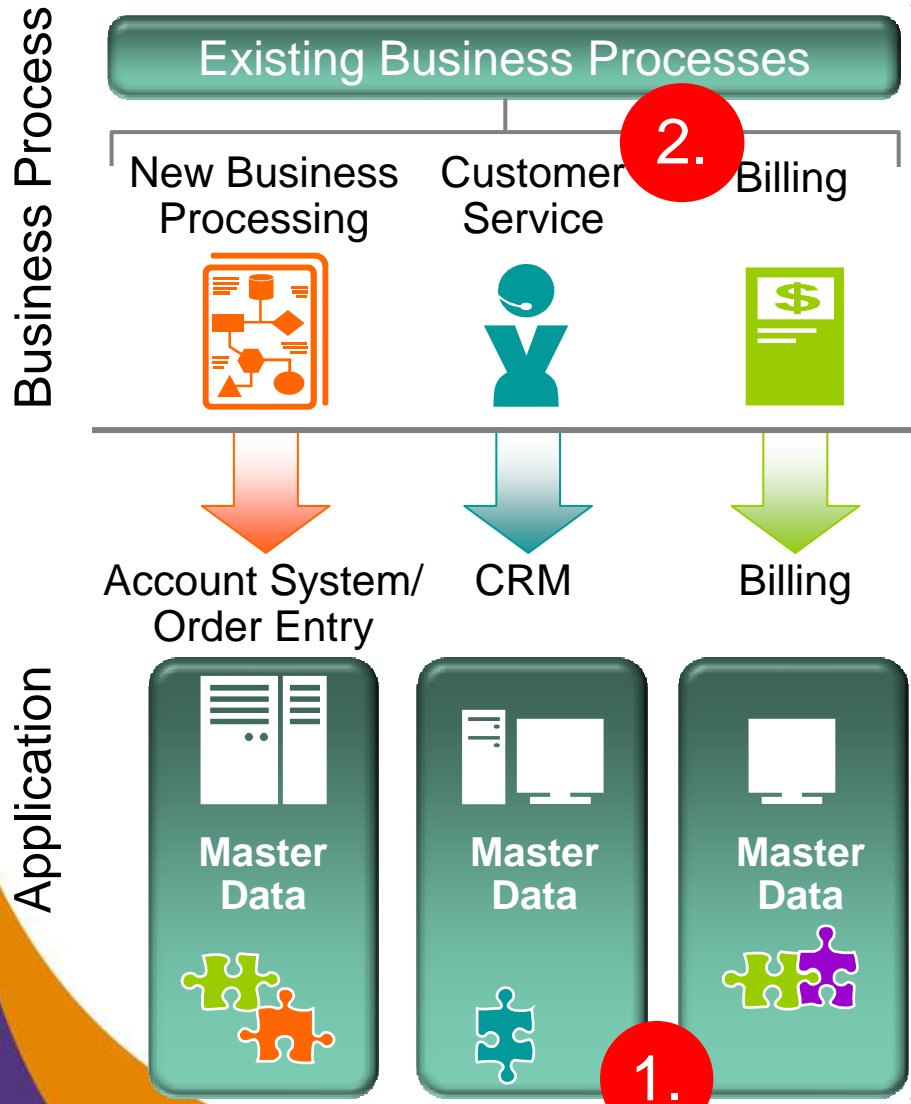
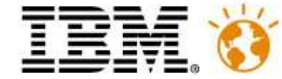


- **Master data** is a subset of all enterprise data
- **Master data** is the high-value, core information used to support critical business processes across the enterprise
- **Master Data** is information about customers, suppliers, partners, products, materials, employees, accounts and more
- **Master Data** is at the heart of every business transaction, application and decision





# Master data: 1. The problem with existing applications



1.

**Data is fragmented among applications.**

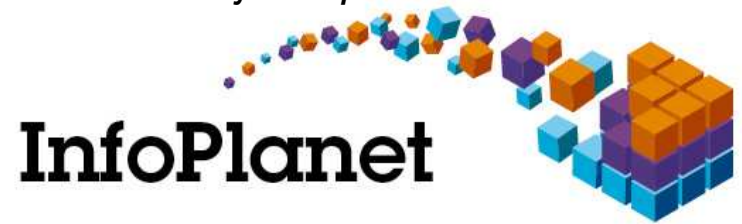
Existing processes don't have accurate and complete master data – hampers existing processes with incomplete understanding.

2.

**There is no process to manage data across applications**

Historically each business process required a discrete application.  
Who manages processes that span applications? No one.

*For companies pursuing an operational efficiency or cost reduction strategy, inefficient data is a major impediment*



# Master data: 2. The problem with Enabling New Business Processes



Business Process

## New processes are hard to implement

- 3. No application is designed to manage new processes

New processes often span applications

*For companies pursuing a differentiation strategy, new processes are the cornerstone of success*

Application

Account System/  
Order Entry



CRM

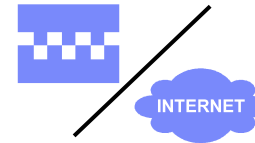


Billing



## New Business Processes

Multi-Channel Integration



Cross- & Up-sell



New Product Introduction



3.

- Who is my customer?
- What is their contact History?

- Who is my customer?
- What product should I offer?

- What is my product authoring process?

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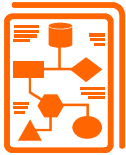
# Master Data: The Solution



Business Process

## Existing Business Processes

New Business Processing



Customer Service

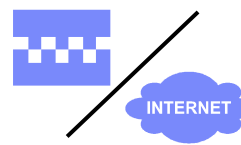


Billing



## New Business Processes

Multi-Channel Integration



Cross- & Up-sell



New Product Introduction



Application

## MDM Hub

**Act:** MDM Functionality Makes Data Actionable

**Manage:** Multiple Data Domains



Party  
Location

Account  
Asset

Product  
Custom

**Acquire:** Onboard data from source systems



Account System/  
Order Entry



CRM

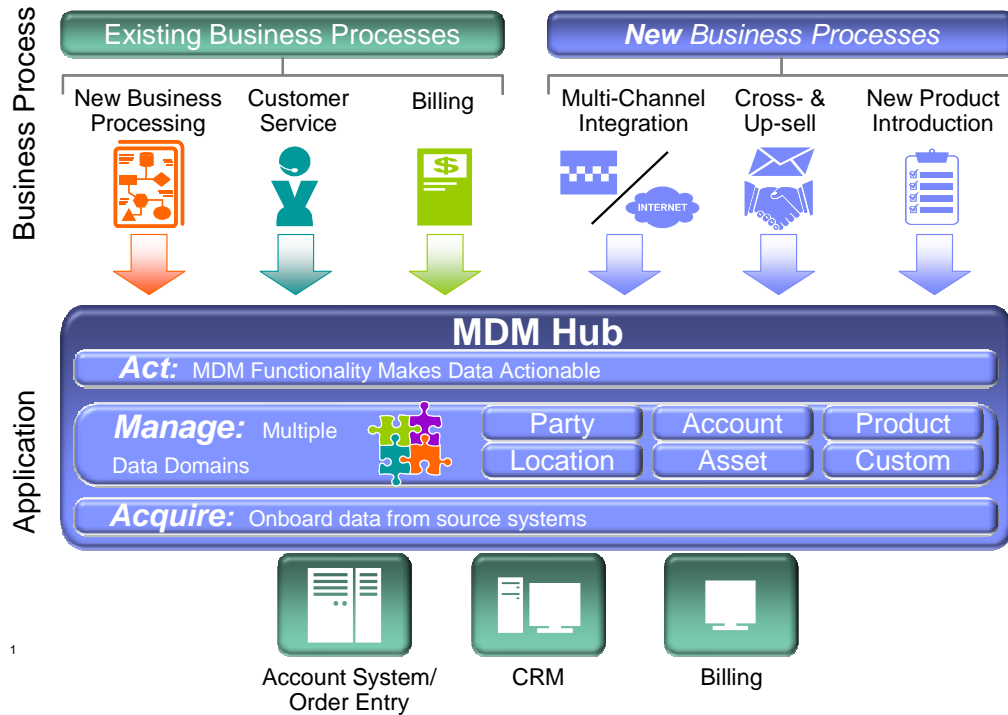
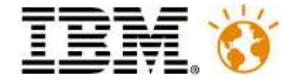


Billing

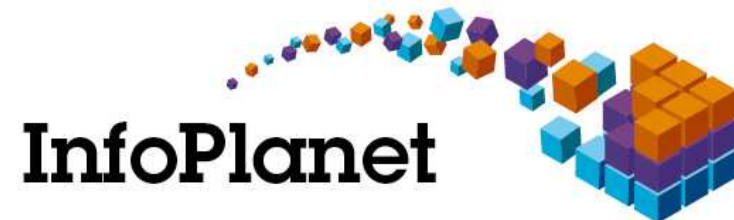
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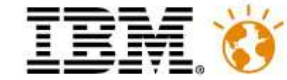
# Master Data: The Solution



1. MDM manages all master data domains – the complete profile – and supplies needed data in context to consuming applications
2. MDM improves existing business processes with accurate and complete master data
3. MDM enables new business processes, or re-engineering existing ones, based on MDM functionality
4. MDM supports all styles :  
**Registry, Transaction Hub, Collaborative Authoring**



# IBM InfoSphere Adaptive MDM: 3 core competencies



**Purpose:** Setup MDM and acquire source systems

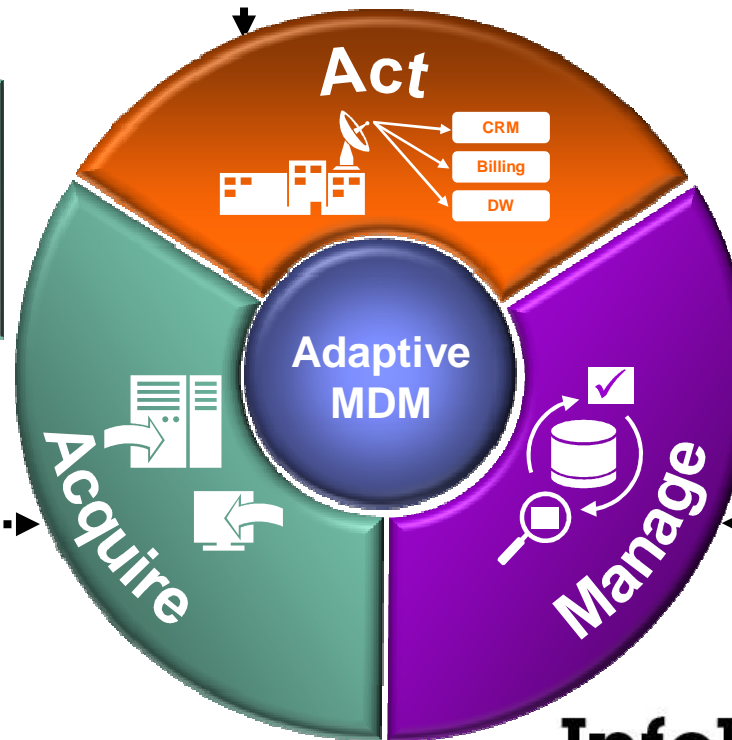
- Discover, Profile, Load
- Configure MDM

**Purpose:** Active usage within applications and business processes

- MDM Business Services
- MDM UI generation - widgets/views
- MDM UIs
- Event notification

**Purpose:** Create & proactively maintain master data

- Data quality and matching
- Multi-domain data
- Enrich core master data



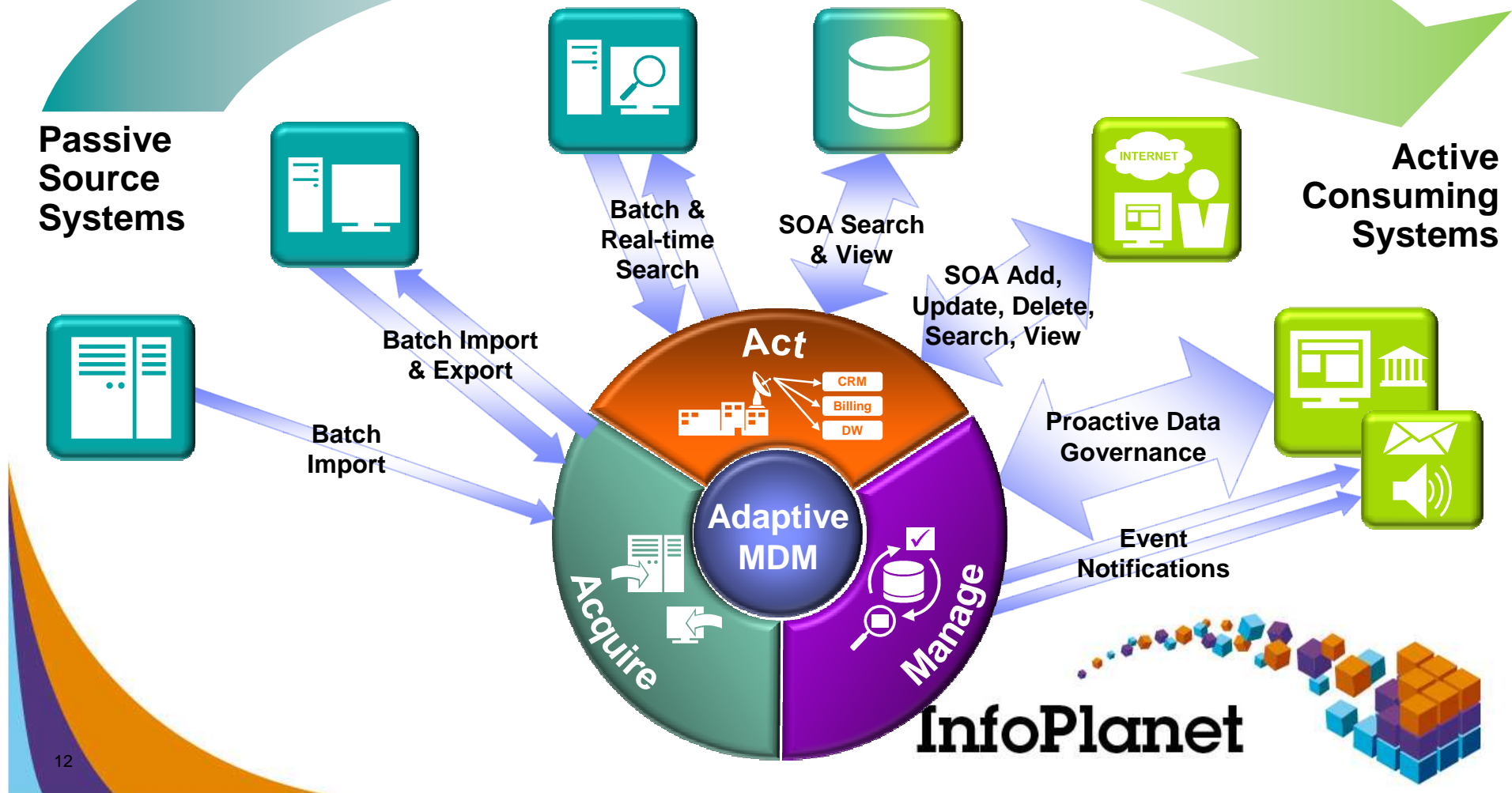
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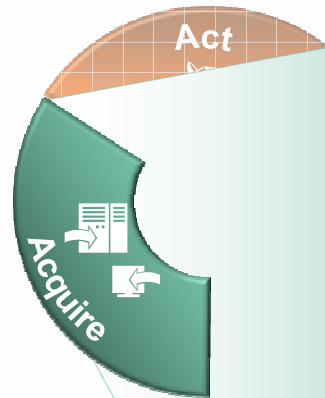


# IBM InfoSphere Adaptive MDM: 3 core competencies



1. Every meaningful MDM project should leverage ACT capabilities
2. The purpose of MDM is to convert passive source systems to **active** consuming systems
3. Significant business value is achieved by active usage of master data vs. passive, after-the-fact reconciliation





- **Purpose:** Setup MDM and onboard source system data into MDM. Communicate with that source system in batch mode (sometimes called consolidation) preparing that system for more real-time usage of MDM.
- **Key Differentiators:**
  1. Market leading EII platform – Information Server
  2. Faster time to discover, transform, and load data into MDM
  3. Ability to configure existing MDM data models and services to meet exact requirements, or configure new domains from the ground up



## Acquire



MDM Services/  
APIs



Data Import & Export



Source Data Discovery  
& Profiling

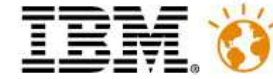


MDM Application  
Configuration





# Discover your Master Data

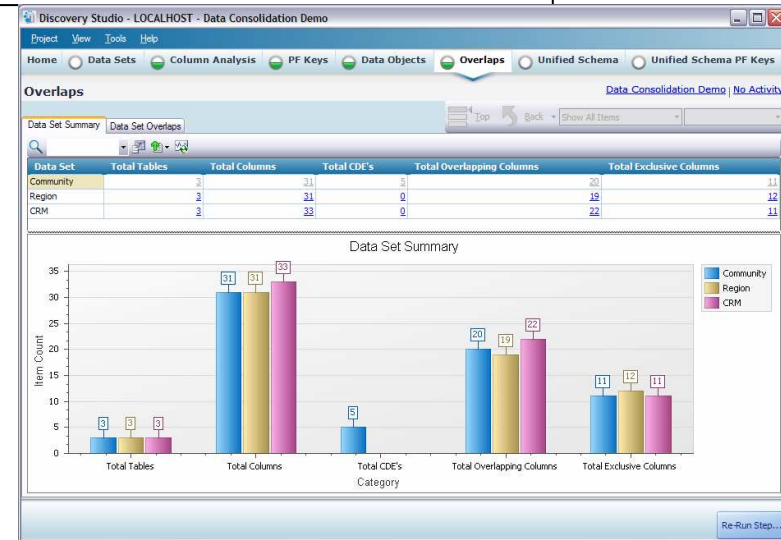


## Capabilities:

- Automatically discover and profile your master data
- Identify your master data objects (Ex. Customer, counterparty, invoice)
- Relate master data objects across multiple sources
- Identify critical data elements to populate your MDM solution

## Benefits:

- Increase your time to value by automating the analysis of your master data sources

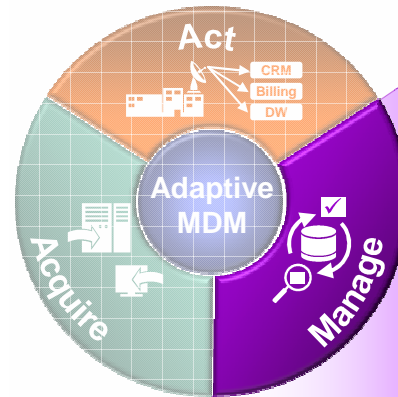


The screenshot shows the 'HR Data Overlap' section of the Discovery Studio interface. It displays a detailed table with columns for Data Set, Table, Column, Column Number, CDE, Cardinality, Selectivity, Non Nulls %, and Value Overlap with Benefits, Payroll, and Skillset.

Data Set	Table	Column	Column Number	CDE	Cardinality	Selectivity	Non Nulls %	Value Overlap with Benefits	Value Overlap with Payroll	Value Overlap with Skillset
EMP_ALL	EMP_ALL	EMP_ID	1		50	1.00	100%	82.2%	100%	82.2%
EMP_ALL	EMP_ALL	DEPT_ID	2		28	0.96	100%	0.5%	0.5%	28.3%
EMP_ALL	EMP_ALL	TITLE	3		20	0.40	100%	0.5%	0.5%	75.5%
EMP_ALL	EMP_ALL	MANAGER_ID	4		6	0.12	100%	83.3%	12.5%	83.3%
EMP_ALL	EMP_ALL	FIRST_NAME	5		49	0.98	100%	0.5%	0.5%	84.5%
EMP_ALL	EMP_ALL	LAST_NAME	6		50	1.00	100%	0.5%	0.5%	70.5%
EMP_ALL	EMP_ALL	ADDRESS_1	7		50	1.00	100%	0.5%	0.5%	70.5%
EMP_ALL	EMP_ALL	ADDRESS_2	8		1	0.02	100%	0.5%	0.5%	0.5%
EMP_ALL	EMP_ALL	ADDRESS_CITY	9		50	1.00	100%	0.5%	0.5%	82.2%
EMP_ALL	EMP_ALL	ADDRESS_STATE	10		23	0.58	100%	0.5%	0.5%	90.5%
EMP_ALL	EMP_ALL	ADDRESS_COUNTRY	11		44	0.88	100%	0.5%	0.5%	84.5%
EMP_ALL	EMP_ALL	ADDRESS_ZIP	12		50	1.00	100%	0.5%	0.5%	82.2%
EMP_ALL	EMP_ALL	PHONE_HOME	13		50	1.00	100%	0.5%	0.5%	82.2%
EMP_ALL	EMP_ALL	PHONE_CELL	14		50	1.00	100%	0.5%	0.5%	0.5%
EMP_ALL	EMP_ALL	PHONE_WORK	15		50	1.00	100%	0.5%	0.5%	0.5%
EMP_ALL	EMP_ALL	EC_NAME	16		48	0.96	100%	0.5%	0.5%	0.5%
EMP_ALL	EMP_ALL	EC_PHONE_1	17		50	1.00	100%	0.5%	0.5%	0.5%
EMP_ALL	EMP_ALL	DATE_HIRED	18		50	1.00	100%	82.2%	100%	82.2%
EMP_ALL	EMP_ALL	DATE_TERMINATED BY	19		23	0.46	100%	83.3%	95.5%	43.5%
EMP_ALL	EMP_ALL	DATE_TERMINATED BY	20		50	1.00	100%	0.5%	0.5%	0.5%







- **Purpose:** Create & proactively maintain a single version of the truth
- **Key Differentiators:**
  - True multi-data domain: Pre-built functionality & meaningful relationships among data domains
  - Proactive data management: Detect data patterns, corruption events to get ahead of data quality problems
  - Ability to enrich core domains with “new” MDM-owned data
  - Data storage: Store source records to link and create a virtual view, a single master record, or both (a hybrid)

## Manage

**Enrich**  
MDM-owned “new”  
enterprise data

**Improve**  
Matching and data quality

**Report & Monitor**

**Multi-Domain Capabilities**

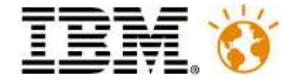
Customer	Patient	Provider	Prospect
Supplier	Product	Account	Location

**The MDM Database**

Master Data Records	History & Audit Trails
Source System Records	Links to Unstructured Content

15

# Matching & searching



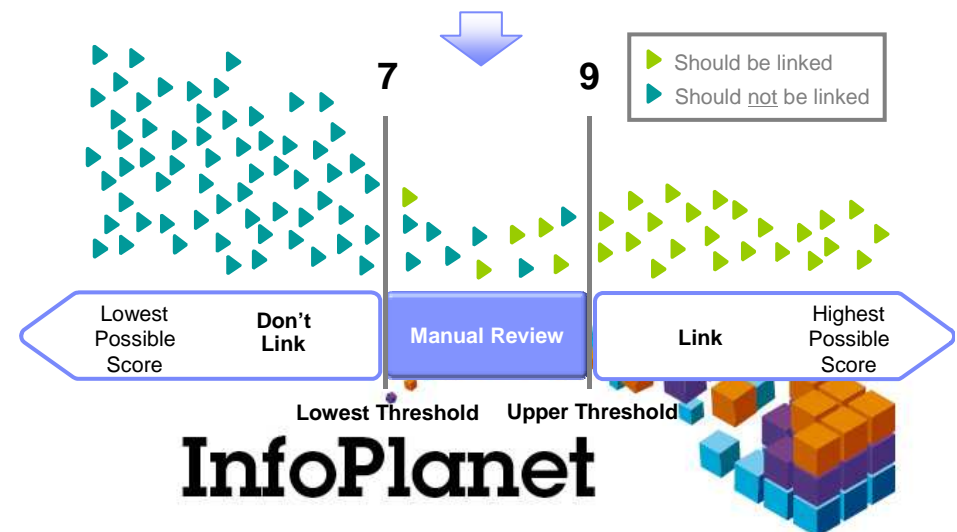
- **Step 1:** Optimizes data for statistical comparisons
  - Normalizes & compacts data, creates derived data layer source data remains intact
  - Phonetic equivalences, tokenization, nicknames, etc.
- **Step 2:** Finds all the potential matches
  - Casts a wide net – all matches on current or historical attributes, prevents misses
  - Partial matches, reversals, anonymous values, etc.
- **Step 3:** Scores accurately via probabilistic statistics
  - Compares attributes one-by-one and produces a weighted score (likelihood ratio) for each pair of records
  - Frequency weights specific to your business
  - Edit distance, proximity of match
- **Step 4:** Custom threshold settings
  - Single or dual threshold models
  - Link, don't link, don't know – “learns” from manual input

Data:	Derived:	Hash Buckets:
Robert	RBT	121213444
Potter	PTR	34839020



OUTP:2346016980	CED:8069016243	Weight	Match Code
POTTER	POTTER	3.96	Equal Word
ROBERT	BOB	0.89	Nickname
A	ALLEN	3.78	Initials matches first character of word

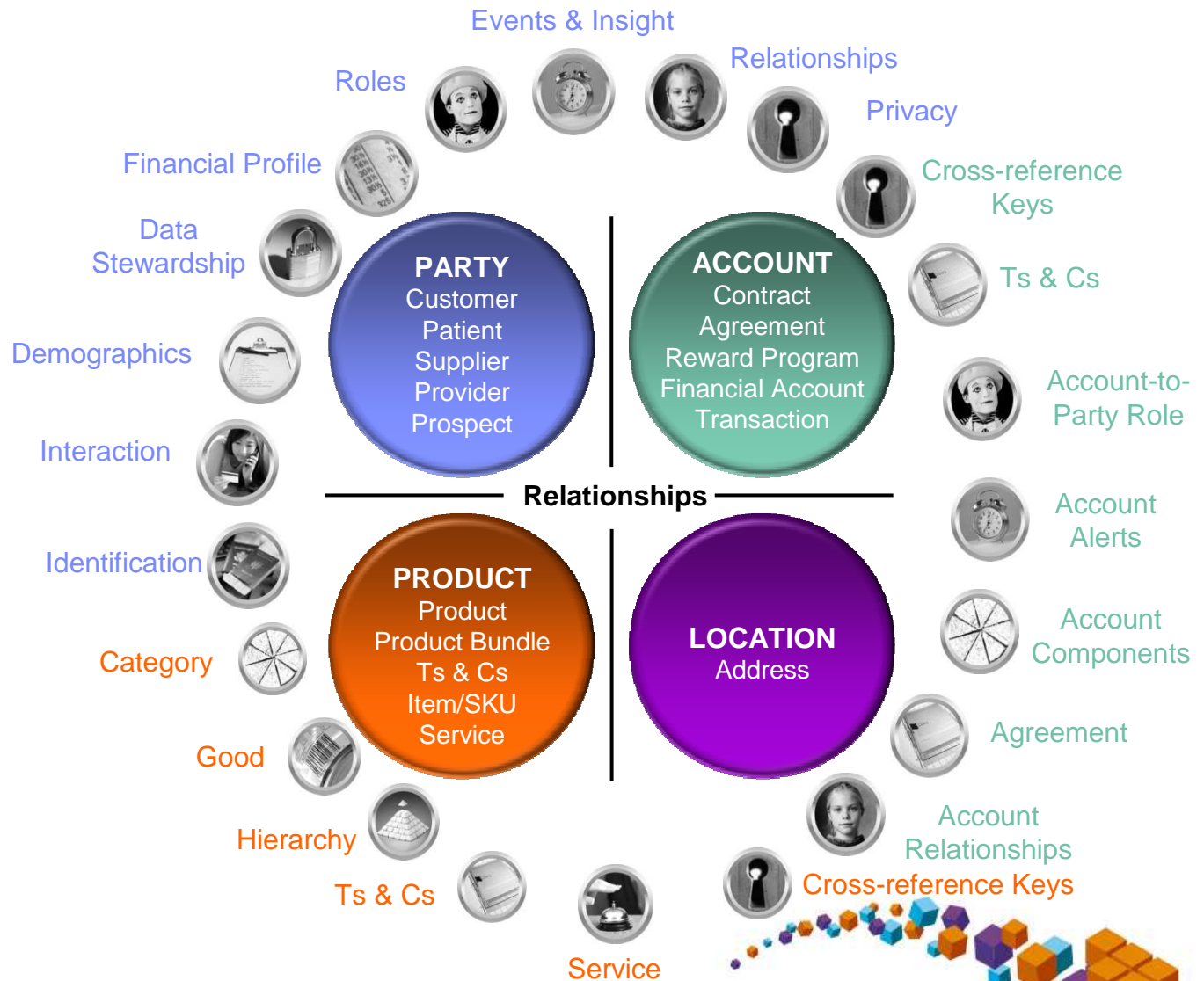
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# IBM InfoSphere MDM data domains

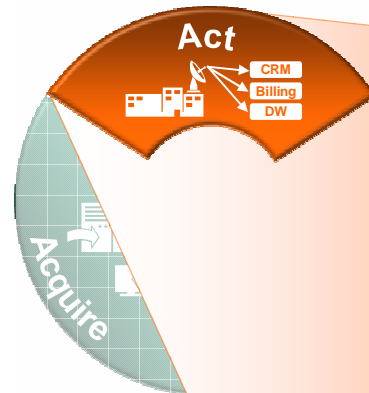


- Multiple primary domains
  - Party, product, account, location
- Pre-built, multi-domain relationships & capabilities
- Support data objects available to primary domains
  - Interactions
  - Hierarchies
  - Groups/households
  - Preferences/privacy
  - Alerts
  - Events



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- **Purpose:** Active real-time use of master data within applications and business processes. MDM proactively communicates events to other systems
- **Key Differentiators:**
  1. Significant number of pre-built business services – 800+ in total, lower cost, faster time to value
  2. MDM UI widgets and tooling – integrate MDM functionality into your existing applications
  3. MDM user interfaces – complete and configurable UIs
  4. Notification – push data to other applications data stores via pub/sub, batch export



# SOA - IBM MDM: Powering your contact center



MDM Server - Business Services Categories

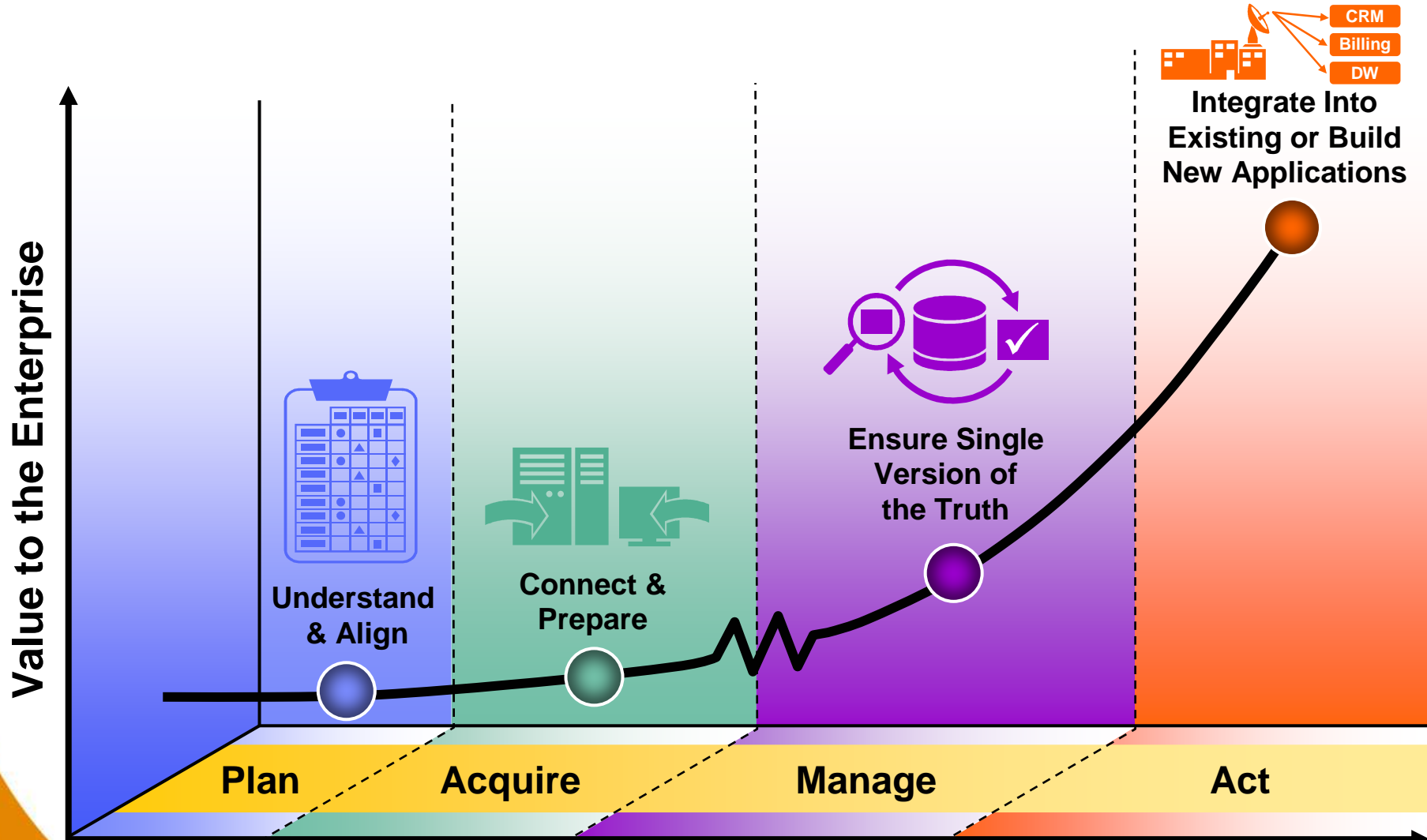
Party Demographic Services	Roles-related Services	Customer Service and Sales Services	Account Services	Product Services
Party Basic Demographics Definable Demographics Party Names Party Values Party Search Delete Party Delete Party History	Party Macro Roles Contract Party Roles Relative/Claim Party Roles Grouping Party Roles Hierarchy Part Roles Relationship Party Roles Search by Party Role	Interaction History Campaigns Privacy Customer Preferences Party Values (Value Notes/Alerts)	Contract Contract Component Contract Party Role Contract Details Contract Location Contract Terms & Contract T&C Override Contract Product Contract Note/Alert Contract Search Contract Relationship Value Package Mgmt	Product Product Type Hierarchy Product Values Product Search Product Terms & Product Relationship T&C Product Category Product Identification Product Equivalency ID Product Content Mgmt Def Product Relationships Product Structures Category Hierarchy Category Hierarchy Values Terms & Conditions Terms & Conditions Param
Party Relationship Services	Location Services	Data Stewardship Services	Contract Services	History & Audit Services
Party Relationships Party Groupings Hierarchy Management Role Relationships Line of Business	Address Contact Method Household Location Group Role Location Address Standardization Address Demographics	Duplicate Suspect Collapse/Split Merge View Collapse with Rules Source System Data Data Decay Metadata Suspect Search Create Search	Contract Contract Component Contract Party Role Contract Location Billing Relative/Claim Contract Note/Alert Contract Search Contract Relationship Holding	Party History Audit Trail Account History Audit Trail Product History Audit Trail Transaction Audit Log Delete Party History
Party Financial Profile Services	Party Identification & Directory Services	Events & Customer Insight Services		
Bank Account Credit Cards Payroll Deduction Income Source	Party Identification Party Equivalency ID Search Party Equivalency System Key ID Account Abilities Keys	Party Events Events Customer Value Profile Corruption Management Needs Analysis KYC Questionnaire		

Channel Process:	MDM Service & Data:
<b>Customer:</b> "I am moving next week and I would like my address to be updated"	<b>MDM Service:</b> <ul style="list-style-type: none"> <li>Update party address</li> </ul>
<b>CSR:</b> "I see you called last month to ask about a mortgage"	<b>MDM Service:</b> <ul style="list-style-type: none"> <li>Get All Interactions by Party</li> </ul>
<b>CSR:</b> "I see you didn't open a mortgage with us - may I ask where your mortgage business is held?"	<b>MDM Service:</b> <ul style="list-style-type: none"> <li>Get All Interactions by Party</li> <li>Add Interaction</li> <li>Add Interaction Relationship (links to the call last month)</li> <li>Add Account (MDM to store <i>competitive</i> account data in account data model)</li> </ul>
<b>CSR:</b> "I see that you were on the website looking at mutual funds. May I answer any further questions for you?"	<b>MDM Service:</b> <ul style="list-style-type: none"> <li>Get All Interactions by Party</li> <li>Update Interaction</li> </ul>



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# IBM® MDM: Value to the Enterprise



3 Core Competencies

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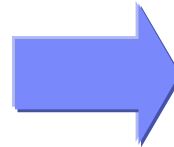


***No Organization defines and implements their MDM strategy at one time***

## The Starting Point

### All Clients Initially:

1. Identify a particular data domain that needs improving
2. Identify a specific business process or application that would benefit from better master data
3. Determine which style best suits their initial needs – a view, a full master record, or a collaborative authoring system



## The Journey

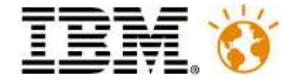
### Over time, all clients will:

1. Identify new business processes or applications to use the phase 1 Master Data Domain
2. Identify new data domains to be mastered and their relationship to their initial phase 1 data domain
3. Identify new requirements to expand their usage style or migrate from one style to another

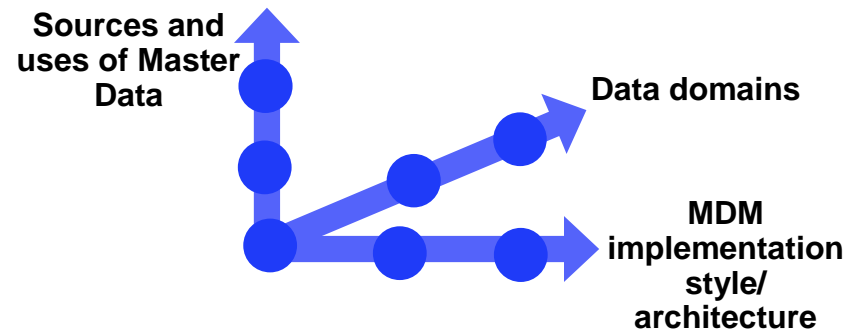
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## The MDM Journey – A product / technology perspective



- For large enterprises, a Master Data Management implementation is most successful when executed as a **multi-phase journey**
  - Minimizes time to value
  - Helps build organizational alignment
  - Reduces risk
- An MDM journey can follow multiple dimensions



- The IBM® InfoSphere™ Adaptive MDM portfolio offers the broadest set of best of breed MDM capabilities available in the market, and enables clients to advance along their MDM journey with a single, trusted vendor

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# Our clients: The MDM journey



## Starting Point:

## Current State:

	<p>Vendor master hub</p>	<ul style="list-style-type: none"> <li>▪ Vendor master hub integrated with product domain</li> <li>▪ New product introduction – collaborative authoring for PIM</li> <li>▪ Product master catalogue</li> </ul>
	<p>Plan member master hub (customer info system)</p>	<ul style="list-style-type: none"> <li>▪ Person identity hub (prospects, members)</li> <li>▪ Member master integrated to identity hub</li> <li>▪ Prospect and Blue association prospect data feeds</li> </ul>
	<p>Customer information system – hybrid, small profile</p>	<ul style="list-style-type: none"> <li>▪ Expanded customer profile</li> <li>▪ Transaction hub deployment</li> <li>▪ Operational product catalogue</li> <li>▪ Product bundle authoring/creation</li> </ul>
	<p>Customer-centric view of relationship with Allstate</p>	<ul style="list-style-type: none"> <li>▪ Customer hub for party &amp; household</li> <li>▪ Peripherals database for preferences &amp; interactions</li> </ul>
	<p>Customer master profile</p>	<ul style="list-style-type: none"> <li>▪ Customer master profile</li> <li>▪ Vendor and product operational master</li> <li>▪ Collaborative authority of product, vendor, and location</li> </ul>

*Grazie*

