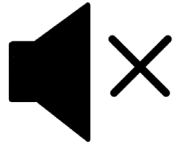


Apr 18th, 2023

Introduction to Reference 360

- Sourya Dass, Senior Solutions Architect

Housekeeping Tips



- Today's Webinar is scheduled for **1 hour**
- The session will include a webcast and then your questions will be answered live at the end of the presentation
- All dial-in participants will be muted to enable the speakers to present without interruption
- Questions can be submitted to "All Panelists" via the **Q&A option** and we will respond at the end of the presentation
- The webinar is **being recorded** and will be available on our **INFASupport YouTube channel** and **Success Portal** - where you can download the **slide deck** for the presentation. The link to the recording will be emailed as well.
- Please take time to complete the **post-webinar survey** and provide your feedback and suggestions for upcoming topics.

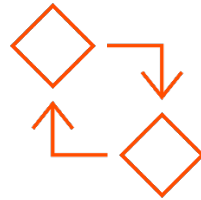
Feature Rich Success Portal



Bootstrap trial and
POC Customers



Enriched Customer
Onboarding
experience



Product Learning
Paths and Weekly
Expert Sessions

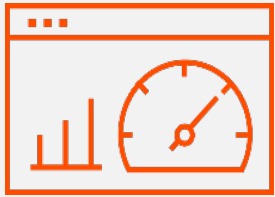


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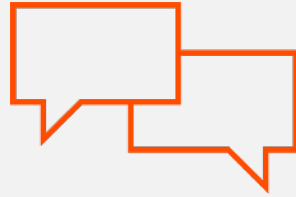
Tailored training and
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More Information



Success Portal

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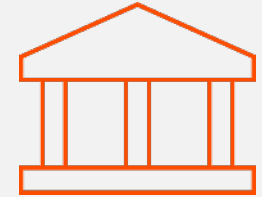
Communities & Support

<https://network.informatica.com>



Documentation

<https://docs.informatica.com>



University

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Reference 360

**Sourya Dass, Senior Solutions Architect
Customer Success**



What is Reference Data?

“Reference data is data that is used to structure and constrain other data. As the name suggests, reference data is designed to be referenced by a wide variety of other data. This is done in order to create a standard vocabulary and structure across diverse systems and data sources.”

Reference Data
<ul style="list-style-type: none">• Usually consists only of a list of permissible values and attached textual descriptions (customer type, cost center type, chart of account classification)
<ul style="list-style-type: none">• A change to the reference data values may require an associated change in business process to support the change
<ul style="list-style-type: none">• <i>Example:</i> Adding a new product classification (e.g. restricted sales item) or a new profit center will result in a modification to the business processes to manage those items

Why is Reference Data Important?

Reference data applies to all industries and departments. Without good reference data, management and regulatory reporting becomes very time consuming and potentially unreliable. Some examples of the impact of bad reference data are:

- **Coding error** - If reference data is misunderstood, data entry operators can make “coding errors.” For example, if a data entry operator onboarding an institutional customer does not understand the difference between “HF-Hedge Fund” and “AM-Asset Manager” they can invoke the wrong compliance checks which the prospective customer cannot possibly comply with.
- **Miscommunications across enterprise systems** - If different systems do not share the same reference data, they cannot communicate effectively. For example System 1 may send System 2 records with different Trading Codes which could lead to transaction rejection.
- **High costs and errors in data integration** - Differences in implementation of reference data create the need for “mappings” in systems that integrate data such as data warehouses. If System 1 and System 2 both feed into a data warehouse, the warehouse must “map” the Codes between the two sources.

Internal
Compliance
Issues

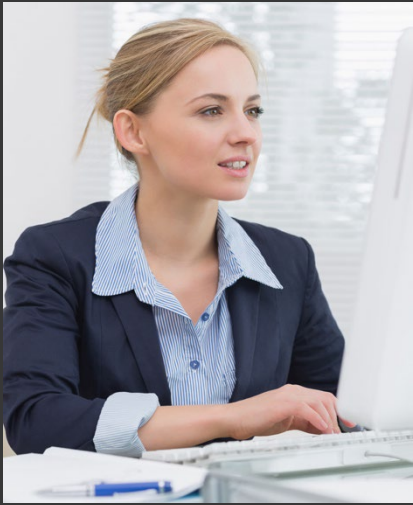
Regulatory
Reporting
Issues

Bad Customer
Experience

Operational
Inefficiencies

Poor Employee
Productivity

Who are the Stakeholders of Reference Data Management?



Data Governance
Office



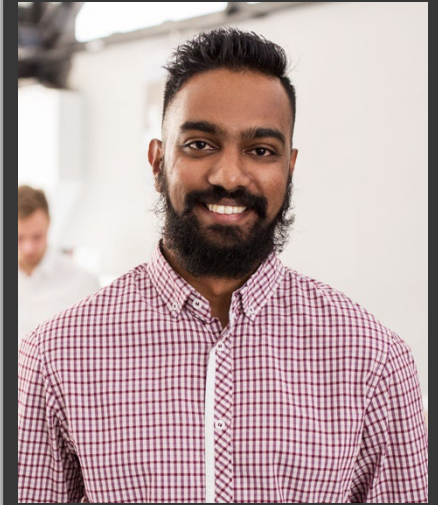
Data Owner



Data Steward



Data Consumer



Data Architect

Drivers – Why Govern Reference Data?

Data Quality

- Unreliable mastering
- Incomplete/inaccurate data
- Failed transactions
- Incorrect and redundant versions
- Failed data governance

Inconsistent Reporting

- Incorrect customer segments
- Unreliable campaign targeting
- Inaccurate financial reports
- Inaccurate sales reporting

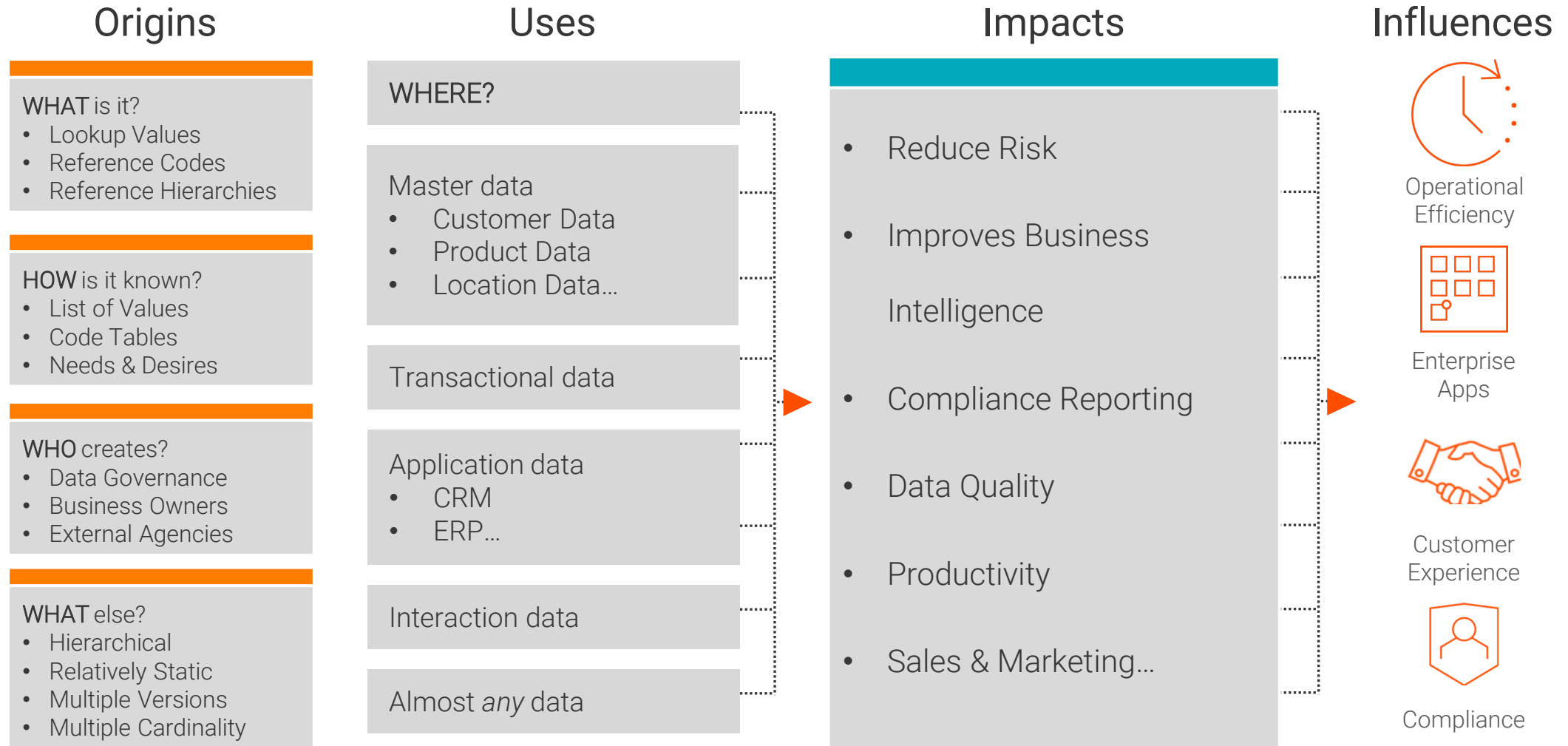
Compliance

- External reporting requirements (Risk Reporting with BCBS 239)
- Data Interchange requirements (HL7, EDI)
- External publishing requirements (ICD, EDI)
- Inaccurate financial reporting
- Security and entitlements issues

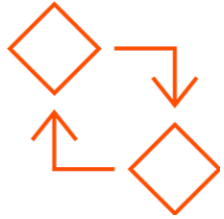
Operational Overhead

- Failure in data transformation
- Additional QA effort
- Additional manual effort
- Poor customer experience

Reference Data in an Enterprise



Types of reference data



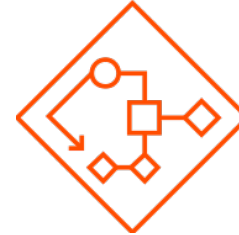
Simple Lookup

Simple codes and associated attributes at a single record level. Examples are country codes, prefix codes, region codes, etc.



Relationship Lookup

Relationships that define the nature of the connection between two simple or hierarchical lookups, such as person A works for company B or the sales hierarchy for USA Branch



Hierarchical Lookup

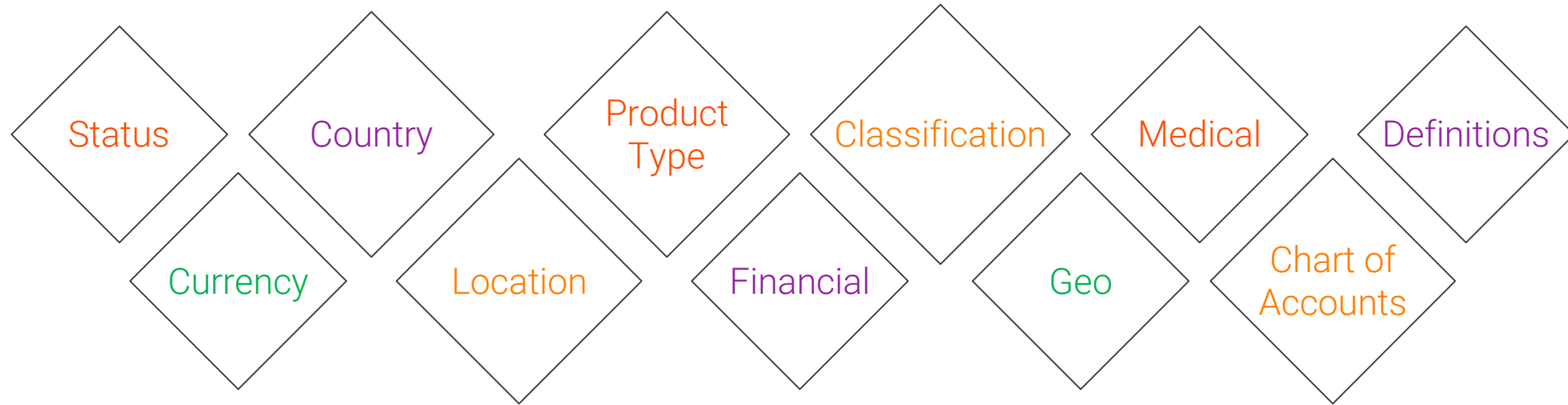
The context of a hierarchy brings simple relationships between the instances of entities in the same domain. For examples, products can be organized into a product hierarchy



Complex Lookup

Parent-child relationships between instances of entities in two different domains. For example, people could roll up into branches and branches can be rolled up into regions and regions then rolled up into operating companies

Reference Data **Examples**



Nature of Reference Data

- Relatively finite/low volume
- Hierarchical
- Multiple versions of same set
- International standards

Also Known As

- Lookup values
- List of values
- Code tables
- Drop-down values

Occurs In

- All MDMs
- ETL Mappings
- Data Warehouse
- Applications
- Spreadsheets
- Relational Databases
- Unstructured text

Reference data = “coded, semantically stable, relatively static data sets shared by multiple constituencies”
(people, systems, & other master data domains)

Common Reference Data Challenges

- No trusted view of reference data
- Bad data quality
- Leading to....

Internal
Compliance
Issues

Regulatory
Reporting
Issues

Bad Customer
Experience

Operational
Inefficiencies

Poor Employee
Productivity

Reference Data Management Process

Monitor

- Track changes
- Monitor change frequency
- Monitor data quality trends
- Reports

Share

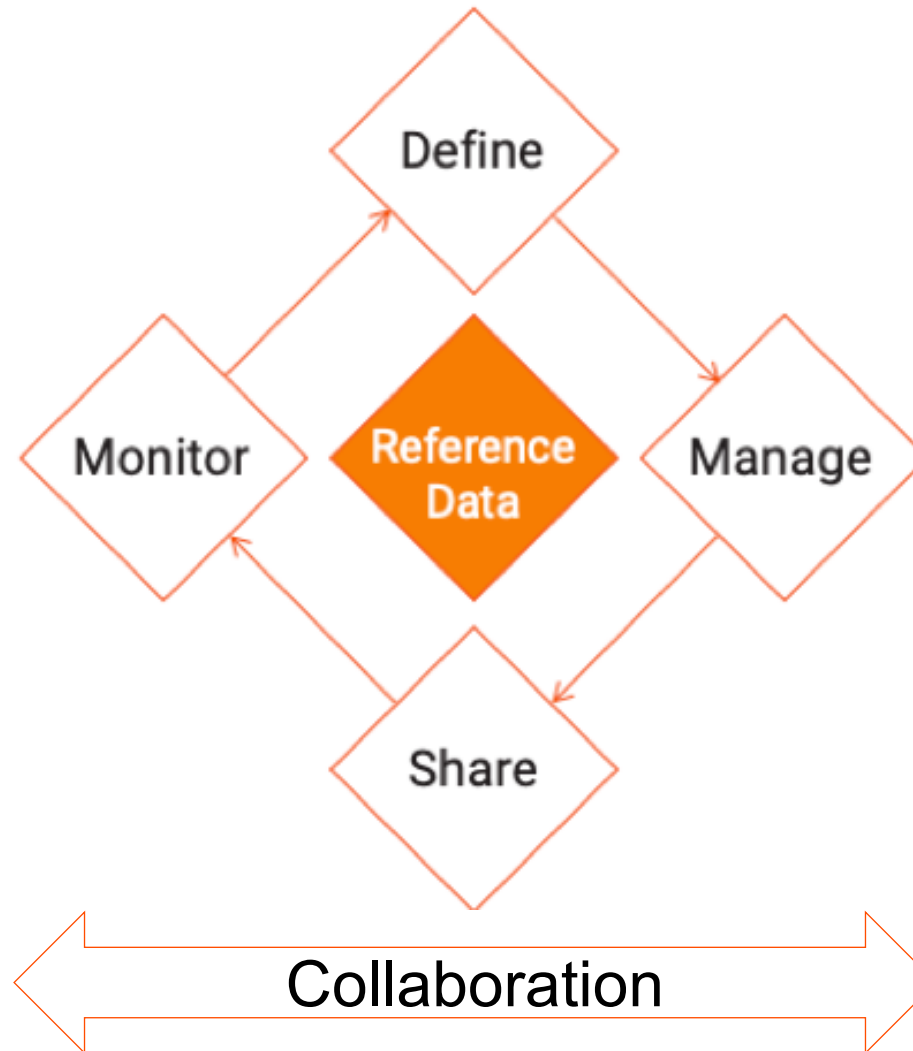
- Collaborate via workflow
- Bulk import/export
- Publish to DI
- Real-time translations

Define

- Business Terms
- Reference Data Sets
- Data Model
- Rules

Manage

- Reference Data Sets
- Code values, Versions
- Dependencies
- Cross-references
- Hierarchies



Business

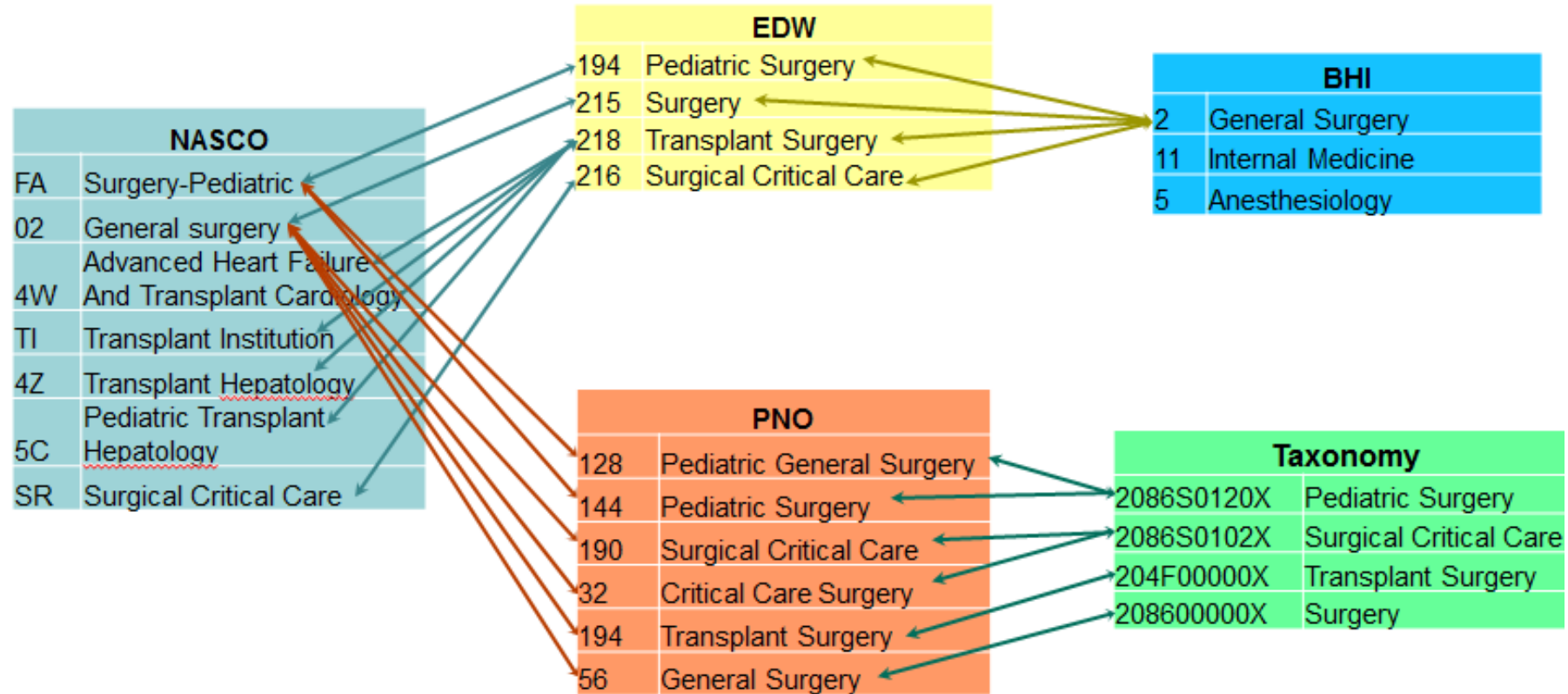
Technology



Reference data spread

	Multi-Domain RDM Use Cases	Real-Time / Transactional RDM Use Cases
Public (External)	Countries & Subdivisions (FIPS10) Currencies (ISO 4217) Time Zones (ISO 8601) Industry Classification (NAICS, ISIC)	Security Prices SWIFT BIC Codes (Payments) ICD-9/10 Codes (Healthcare) ACORD/ISO Codes (Insurance)
Private (Internal)	Legal Entities Chart of Accounts Organizations Employees (i.e., much of HR & Finance Data)	Reference data required for transaction processing

HealthCare – Specialty Mapping



- *Individual tables represent source systems.*
- *Any specialty row, from any source may be related to one or more specialties from another source.*

Our Solution



Reference 360 Concepts



- **Reference Data Sets** - contain a category of reference data, such as country codes or currency codes. May be hierarchical or flat structure. May be dependent on other reference data sets.



- **Code Lists** - a set of code values for a particular application, within a reference data set

- **Code Values** - a unique value, such as a business term, code, or lookup value, within a code list

- **Attributes** – component of a code value, such as a Code, Name, Description



- **Crosswalks** - a one-way relationship between code values in a pair of code lists; provides a way to translate between the code lists



- **Hierarchies** - show how code values are related to other code values in a hierarchy or higher-level categorization, such as World, Region, Country, Sales Area

- **Workflows** – create a draft to propose changes to a code list, submit your proposed changes for approval. This creates a task and initiates an approval workflow

- **Enums** – customizable static values within R360, such as Status, Confidentiality, Applications

Key Concepts

- **Reference Data Sets**

- Hierarchical reference data sets
- Dependent reference data sets

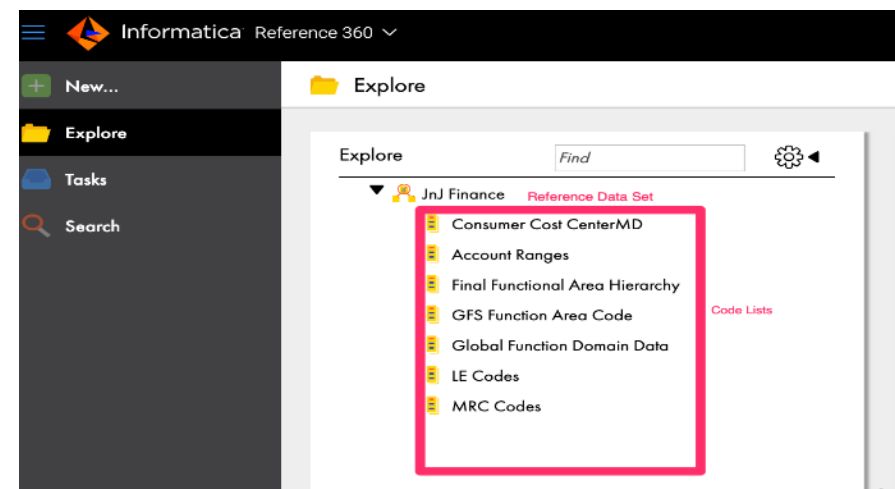
- **Code lists**

- Code value
- Attributes

- **Crosswalks**

- **Workflows**

- Comparisons
- History



The screenshot shows the 'Consumer Cost CenterMD to MRC Codes' workflow in Informatica Reference 360. The 'Value Mappings' tab is active, displaying a table of mappings between Consumer Cost CenterMD and MRC Codes. A 'Target Code List' panel on the right shows a list of MRC codes.

Consumer Cost CenterMD	MRC Codes
1000000845 1000000845 210001 4160 1393 210001	004160 SYS. OPERATIONAL IT
1000000854 1000000854 210001 4160 1393 210001	004160 SYS. OPERATIONAL IT
1000000862 1000000862 210001 4160 1393 210001	004160 SYS. OPERATIONAL IT
1000000982 1000000982 310000 4160 1641 310000	004160 SYS. OPERATIONAL IT
1000000987 1000000987 310001 4160 1641 310001	004160 SYS. OPERATIONAL IT
1000000991 1000000991 310000 4160 1641 310000	004160 SYS. OPERATIONAL IT
1000001027 1000001027 410001 4160 1641 410001	004160 SYS. OPERATIONAL IT
1000001268 1000001268 920000 2490 1396 920000	002490 MEXICO - SUPPLY CHAIN
1000001465 1000001465 710000 2490 1394 710000	002490 MEXICO - SUPPLY CHAIN
1000001697 1000001697 510000 2490 1396 510000	002490 MEXICO - SUPPLY CHAIN
1000001724 1000001724 820001 2490 1396 820001	002490 MEXICO - SUPPLY CHAIN
1000001749 1000001749 210001 2490 1396 210001	002490 MEXICO - SUPPLY CHAIN
1000001759 1000001759 920000 2490 1396 920000	002490 MEXICO - SUPPLY CHAIN
1000001953 1000001953 110100 2490 1396 110100	002490 MEXICO - SUPPLY CHAIN

Target Code List

MRC Codes
000942 Actelion Pharma UK
000944 JRF-France
000945 McNeil UK - Approver 4971
000946 DePuy CBS USA
000947 FASE Shared Srv Ctr Pragu
001010 Cilag Korea
001020 Advanced Care Prod
001030 PBC Stephen Cosgrave
001050 Actelion Pharma HU
001090 AMO UK
001110 Chicopee
001130 Personal Prod WW
001140 J&J Adv Materials
001150 PBC Lars Peter Harbing

Informatica MDM - Reference 360

One stop shop for Enterprise Reference Data

- Enable business owner to manage enterprise reference data sets
- Self-service module for data governance
- Cloud-based application
- Versioning, collaboration and lifecycle management
- Manage reference data hierarchies and cross-walks
- Deliver reference data to enterprise applications, business processes that need it
- Import & export of external & 3rd party reference data sets

The screenshot displays the Informatica Reference Data Management interface. The main window shows a hierarchy of SBI Codes under the 'Values' tab. The hierarchy is as follows:

- 0.1 Agriculture and related service activities (Code: 01, Parent Code: 1381 SBI)
 - 0.1.1 Growing of non-perennial crops (Code: 011, Parent Code: 01)
 - 0.1.1.1 Growing of vegetables, roots and tubers (Code: 0113, Parent Code: 011)
 - 0.1.1.2 Growing of fibre crops (Code: 0116, Parent Code: 011)
 - 0.1.1.3 Growing of other non-perennial crops (Code: 0119, Parent Code: 011)
 - 0.1.2 Growing of perennial crops (Code: 012, Parent Code: 01)
 - 0.1.2.1 Growing of grapes (Code: 0121, Parent Code: 012)
 - 0.1.2.2 Growing of pome and stone fruits (Code: 0124, Parent Code: 012)
 - 0.1.2.3 Growing of other tree and bush fruits and nuts (Code: 0125, Parent Code: 012)
 - 0.1.2.4 Growing of beverage crops (Code: 0127, Parent Code: 012)
 - 0.1.2.5 Growing of spices, aromatic, drug and pharmaceutical crops (Code: 0128, Parent Code: 012)
 - 0.1.2.6 Growing of other perennial crops (Code: 0129, Parent Code: 012)
 - 0.1.3 Growing of plants for ornamental purposes (Code: 013, Parent Code: 01)
 - 0.1.3.1 Growing of plants for ornamental purposes (Code: 0130, Parent Code: 013)
 - 0.1.4 Animal production (Code: 014, Parent Code: 01)
 - 0.1.4.1 Raising of dairy cattle (Code: 0141, Parent Code: 014)
 - 0.1.4.2 Raising of other cattle (no dairy cattle) (Code: 0142, Parent Code: 014)
 - 0.1.4.3 Farming of horses and donkeys (Code: 0143, Parent Code: 014)
 - 0.1.4.4 Raising of sheep and goats (Code: 0145, Parent Code: 014)

The right-hand pane shows a detailed view for the selected code 'Growing of fibre crops' (Code: 0113). The details include:

- Effective Date: 10/25/2016
- Status: Published
- Owner Group: Risk
- Name: Growing of non-perennial crops
- Dutch Name: Teelt van overige eenjarige gewassen
- Code: 0113
- Description:
- Sales Team: Farming Team

Below the main view, there are several smaller panels showing different views of the data, including a list of codes and a bar chart.

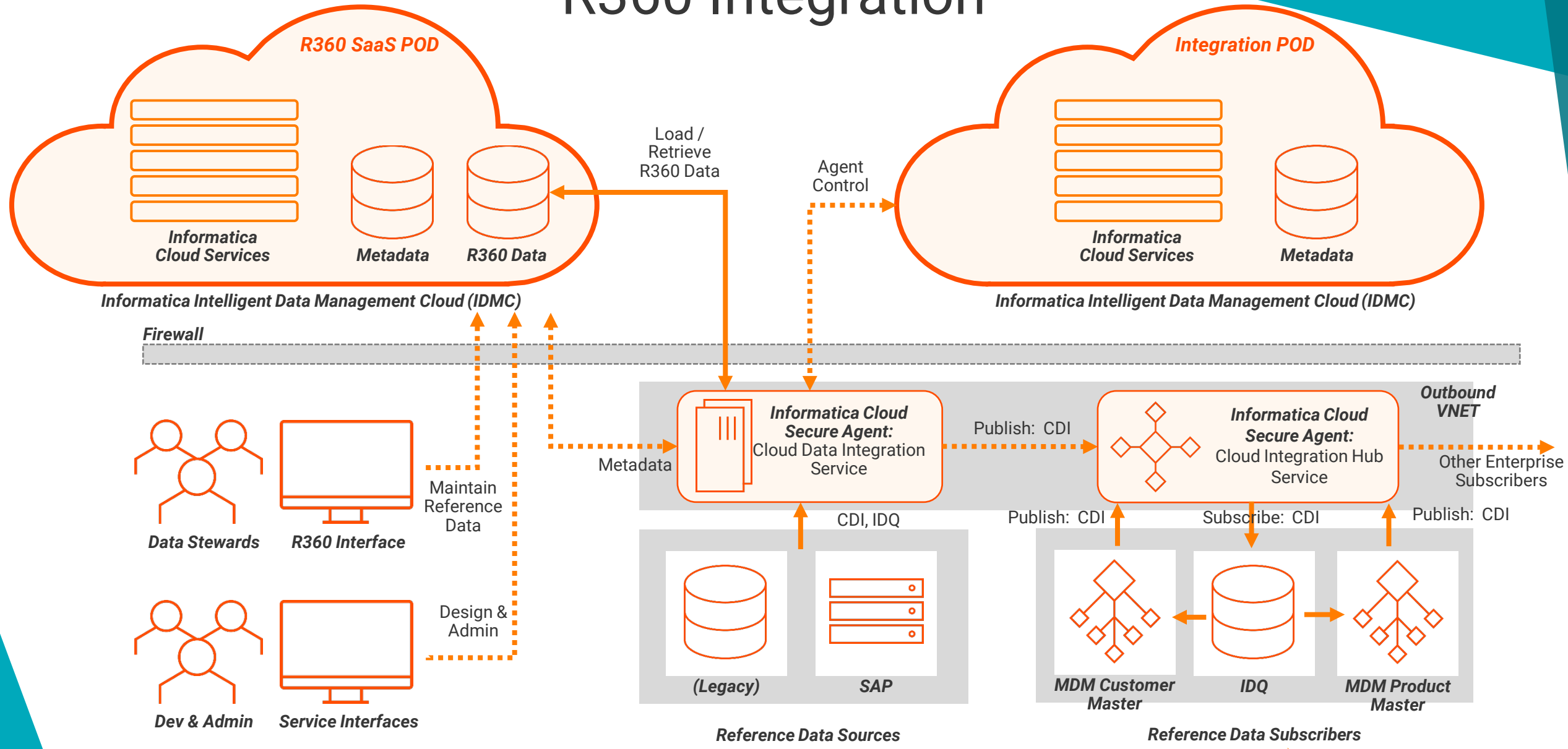
Informatica MDM - Reference 360

One stop shop for Enterprise Reference Data

- Enable business owners to manage enterprise reference data sets, hierarchies and cross-walks
- Provide versioning, collaboration and lifecycle management for reference data
- Avoid inconsistent reporting, remove operational overhead and ensure compliance
- Save time and energy by delivering quality reference data to all the enterprise applications and business processes.

The screenshot displays the Informatica Reference Data Management interface. The main window shows a hierarchy of SBI Codes under the 'Values' tab. The 'SBI Codes' dropdown is set to 'Values'. The main table lists codes with columns for Order, Name, Code, and Parent Code. The 'Growing of fibre crops' code (011) is expanded, showing sub-codes like 'Growing of vegetables, roots and tubers' (0113) and 'Growing of other non-perennial crops' (0119). A detailed view on the right shows the 'Growing of fibre crops' code (0113) with fields for Effective Date (10/25/2016), Status (Published), Owner Group (Risk), Name (Growing of non-perennial crops), Dutch Name (Teelt van overige eenjarige gewassen), Code (0113), and Sales Team (Farming Team). A sidebar on the left contains navigation options like New, Home, Recent, Favorites (4), Entity Explorer, Task Manager, Search, Industry Codes, and SBI Codes. A bottom panel shows a table with columns for Long description, String, Sales Team, Reference Data, Sales Team, Name, and Enterprise Sales Team. A bar chart is visible in the bottom right corner.

R360 Integration



Workflows in Reference 360

Approval Workflow	Description	Activity
One-step	One-step approval workflows contain one approval task. This workflow is the default approval workflow for all code lists.	<p>An approver can approve the changes, reject the changes, or send the changes back to the originator.</p> <p>If the changes are approved, the changes become part of the active version of the code list.</p>
Multi-step	Multi-step approval workflows contain multiple approval tasks.	<p>The first approver can approve the changes or send back the changes to the originator.</p> <p>If the first approver approves the changes, the next approver can approve the changes or send the changes back to the originator.</p> <p>The next approver can also approve the changes or send the changes back to the originator.</p> <p>After the task reaches the final approver, the final approver can approve the changes, reject the changes, or send the changes back to the originator.</p> <p>If the changes are approved, the changes become part of the active version of the code list.</p>

Thank you

