

Step 3: Hierarchical Data Model Design

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Canonical Model: One unified model, not source-specific schemas

Master Entities: Core entities (Person, Organization, Product) as the foundation

Source Lineage: SourceSystemKey tracks data origin for data quality and governance

Master Data Only: Focus on identity, relationships, and core attributes (excludes transactional data)

3.1 Entity: Person (Unified MDM Entity)

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Identifiers

PersonId (MDM generated)

SSN

TaxID

Attributes

Attributes

FirstName

LastName

MiddleName

NamePrefix

NameSuffix

FullName

DateOfBirth

Gender

MaritalStatus

PreferredLanguage

DeceasedDate

DeceasedFlag

DeceasedFlag

Classification

Ein

Employmentstatus

Relationshiptype

Roletype
Status

Field Groups

Address (OOTB - Extended)

Address (OOTB - Extended)

AddressLine1
AddressLine2
City
State
PostalCode
Country
AddressType
PrimaryFlag
StartDate
EndDate
County
Region
Latitude
Longitude

Longitude

SourceSystemKey (for unique identification from source systems)

Phone (OOTB - Extended)

Phone (OOTB - Extended)

PhoneNumber
PhoneType
PrimaryFlag
CountryCode
AreaCode
Extension
StartDate
EndDate
DoNotCallFlag

DoNotCallFlag

SourceSystemKey (for unique identification from source systems)

Email (OOTB - Extended)

Email (OOTB - Extended)

EmailAddress

EmailType
PrimaryFlag
StartDate
EndDate
DoNotEmailFlag
BounceFlag

BounceFlag

SourceSystemKey (for unique identification from source systems)

Identifier (OOTB - Extended)

Identifier (OOTB - Extended)

IdentifierValue
IdentifierType
PrimaryFlag
Issuer
StartDate
EndDate
VerificationStatus

VerificationStatus

SourceSystemKey (for unique identification from source systems)

Constituent (Custom - Extended)

Constituent (Custom - Extended)

Type
Status
StartDate
EndDate
SourceSystem

SourceSystemKey (for unique identification from source systems)

Ex (Custom - Extended)

Ex (Custom - Extended)

Type
Status
StartDate
EndDate
SourceSystem

SourceSystemKey (for unique identification from source systems)

3.2 Source System Integration

Source Systems

Banner (JDBC) → Entity and field groups
Workday (SOAP API) → Entity and field groups
Slate (API) → Entity and field groups
Salesforce (API) → Entity and field groups
SFAQ (API) → Entity and field groups
AffinaQuest (API) → Entity and field groups
SF-STU (API) → Entity and field groups
Snowflake (Database) → Entity and field groups
IAM (API) → Entity and field groups
Slack (API) → Entity and field groups

Cross-Reference Tracking

All source systems track cross-references using SourceSystemKey in field groups
Entities track cross-references using Identifier field group

3.3 Matching and Survivorship

Address matching: Match based on standardized address components; may use a unique key from the source system or a com...

Phone matching: Match on normalized phone number (country and area code); uniqueness may vary based on business requ...

Email matching: Match on lowercased, trimmed email address; not always unique depending on real-world usage....

Address crosswalk: Use reference/crosswalk tables to link and translate between keys of source and master addresses....

Survivorship: Configured at attribute level with source priority rules

Unique Identification: SourceSystemKey used to prevent duplicate records

3.4 Data Quality Rules

Address standardization: Centralized standardization to uniform format...

Phone standardization: Centralized standardization to uniform format...

Lookup value mapping: Map source values to MDM values via reference data...