

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...