

Module 18 **Physical_DataModel**

IBM InfoSphere Information Server for Data Quality



Module Objectives

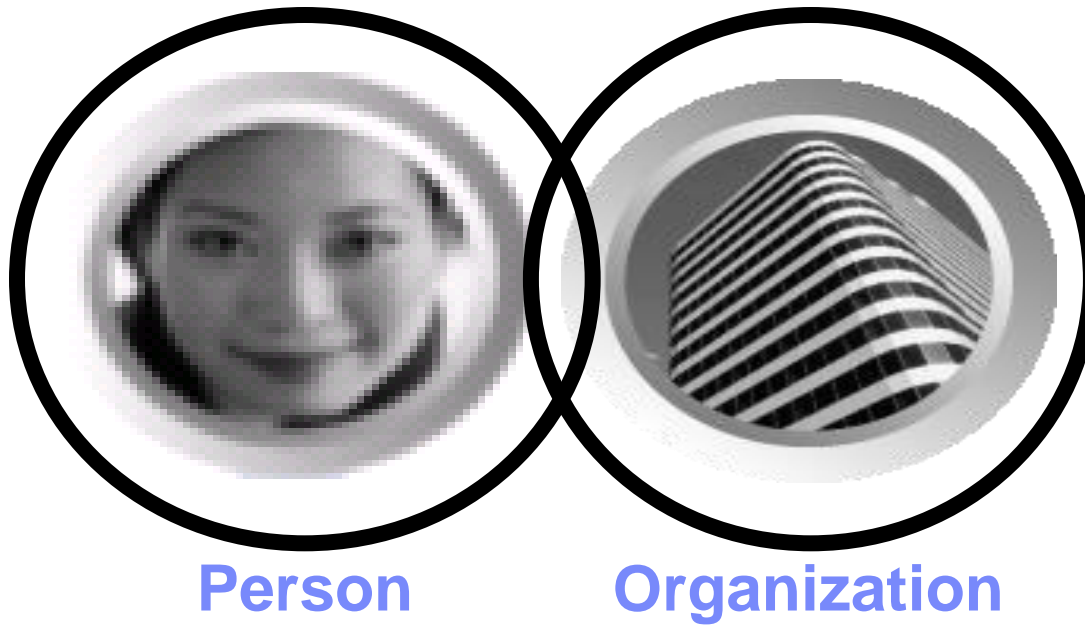
After completing this topic, you should be able to explain:

- the InfoSphere MDM Physical Party Data Model
- the InfoSphere MDM Physical Account Data Model

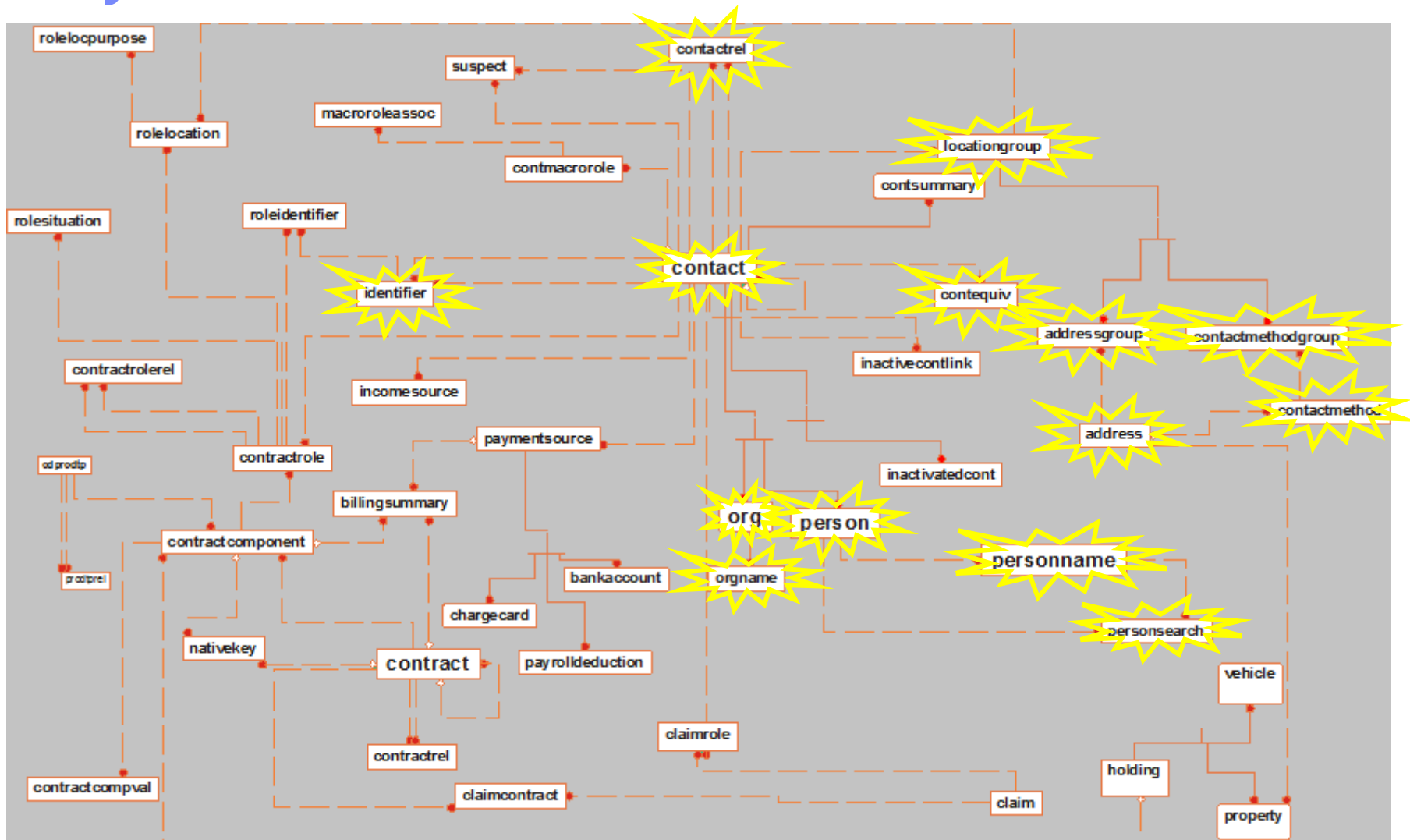
MDM Physical Data Model

- MDM Physical Data Model
 - Party Domain
 - Party
 - Person and Organization
 - PersonName and OrganizationName
 - Party Relationship
 - Party Identification and ContEquiv
 - Party Location
 - PartyAddress and PartyContactMethod
 - Address and ContactMethod
 - Other Party Entities
 - Common Entities within Party Domain
 - Account Domain

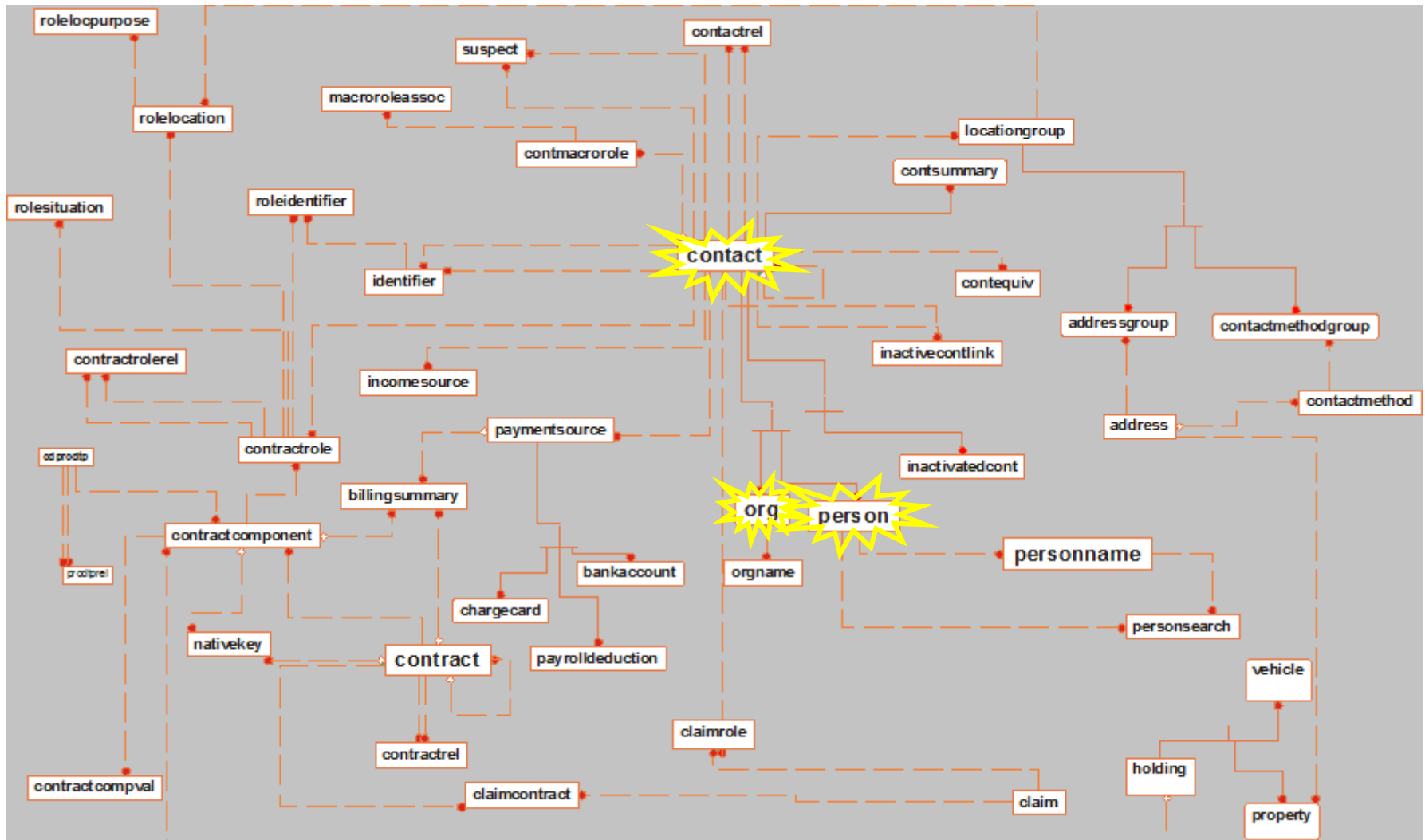
Party



Party Domain

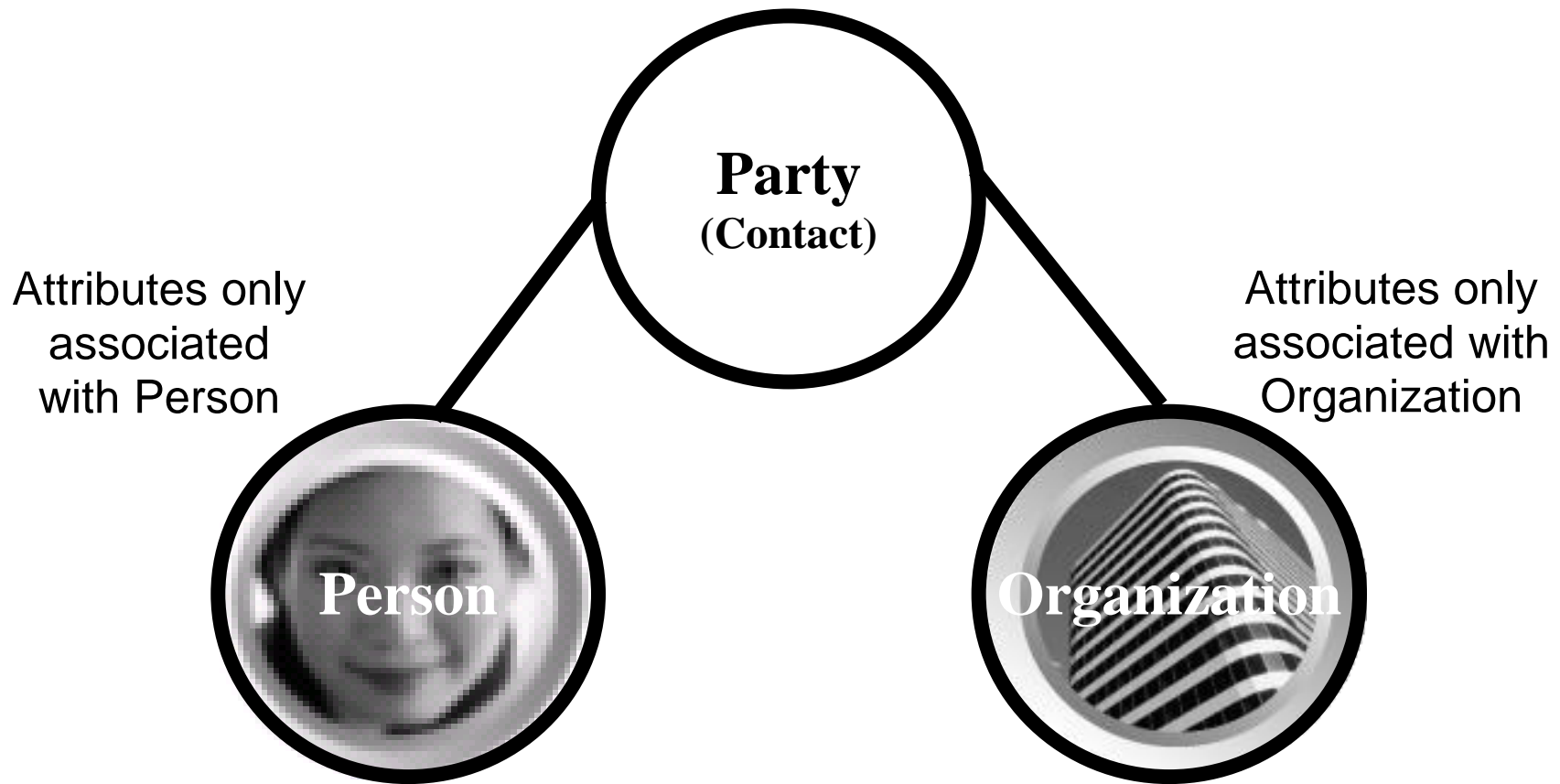


Party Domain



Party – Person or Organization

Common attributes between Organization and Person



Party Data Model

CONTACT

CONT_ID	PREF_LANG_TP_CD	CREATED_DT	PERSON_ORG_CODE	SOLICIT_IND	CONFIDENTIAL_IND	...
123456789	100	Jan 9, 2003	O	Y	N	...
111111111	100	Jul 9, 2009	P	N	N	...
222222222	100	Mar 3, 1993	P	Y	Y	...
...

ORG

CONT_ID	ORG_TP_CD	INDUSTRY_TP_CD	ESTABLISHED_DT	BUY_SELL_ARG_TP_CD	PROFIT_IND	...
123456789	1	4	Oct 15, 2002	2	Y	...
...

PERSON

CONT_ID	MARITAL_STATUS_TP_CD	CITIZENSHIP_TP_CD	GENDER_TP_CD	BIRTH_DT	CHILDREN_CT	...
111111111	1	185	F	Feb 4, 1988	0	...
222222222	2	31	M	Sept 15, 1973	3	...
...

Wait! Let's get familiar with Table Abbreviations

TP for Type
CD for Code

DT for Date

IND for Indicator

ORG

CONT_ID	ORG_TP_CD	INDUSTRY_TP_CD	ESTABLISHED_DT	BUY_SELL_ARG_TP_CD	PROFIT_IND	...
123456789	1	4	Oct 15, 2002	2	Y	...
333333333	2	4	Sept 4, 1993	1	N	...
...

CT for Count
ST for Status

These values are from Code Tables:

✓ORG_TP_CD is from *CDORGTP*

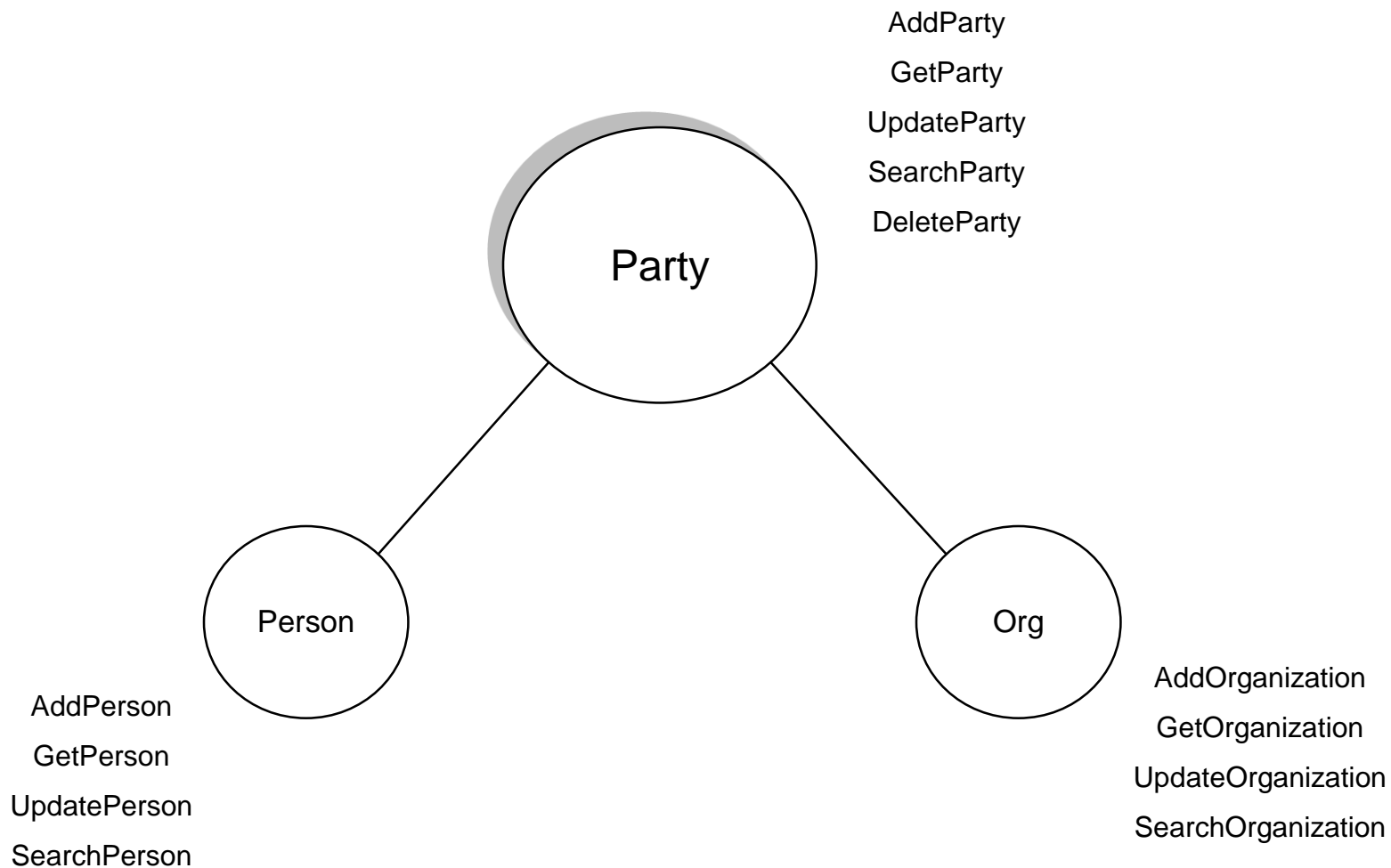
✓INDUSTRY_TP_CD is from *CDINDUSTRYTP*

Here is what Code Table looks like ...

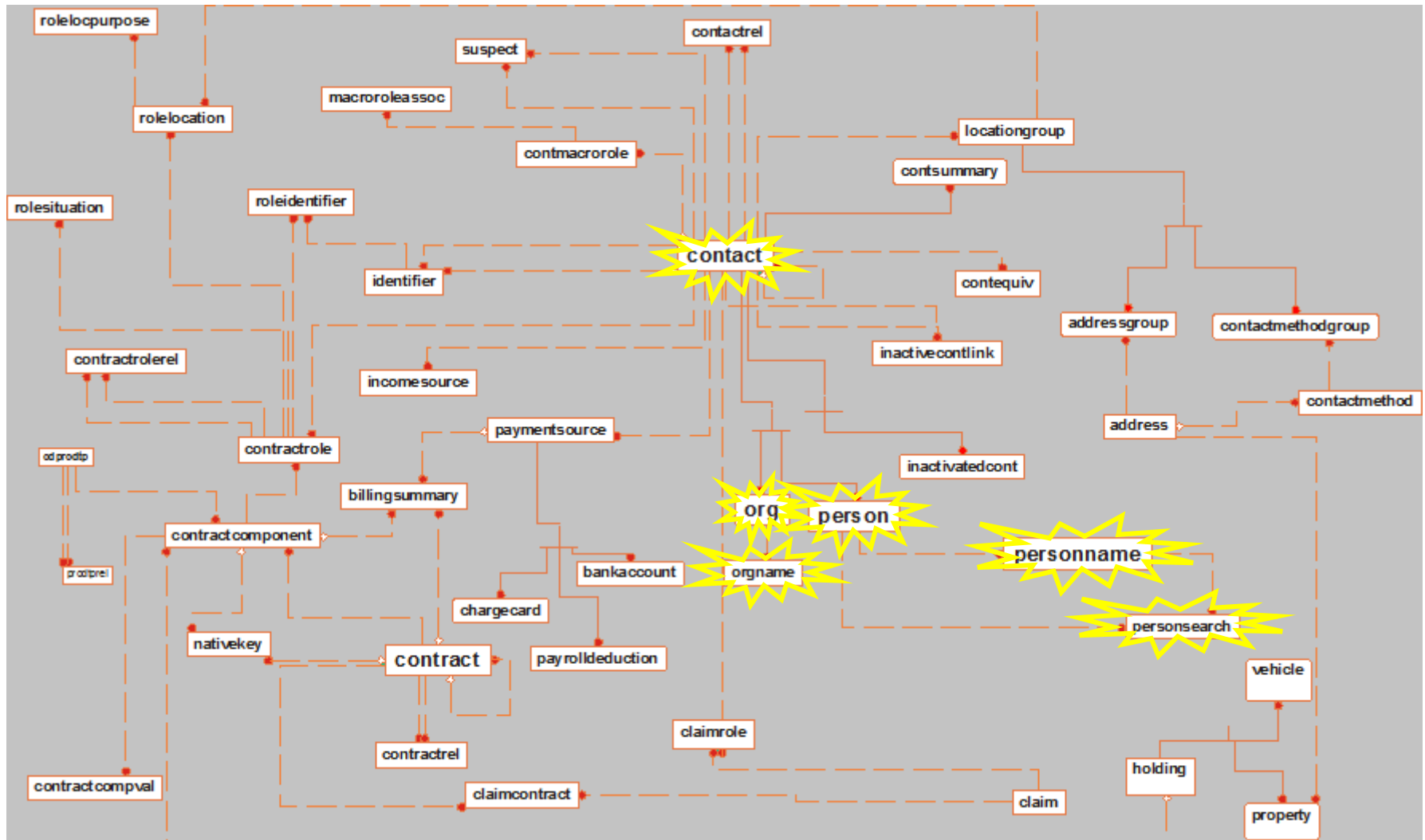
CDINDUSTRYTP table:

LANG_TP_CD	INDUSTRY_TP_CD	NAME	...
100	1	Forestry	...
100	2	Mining	...
100	3	Construction	...
200	1	Foresterie	...
200	2	Exploitation minière	...
...			

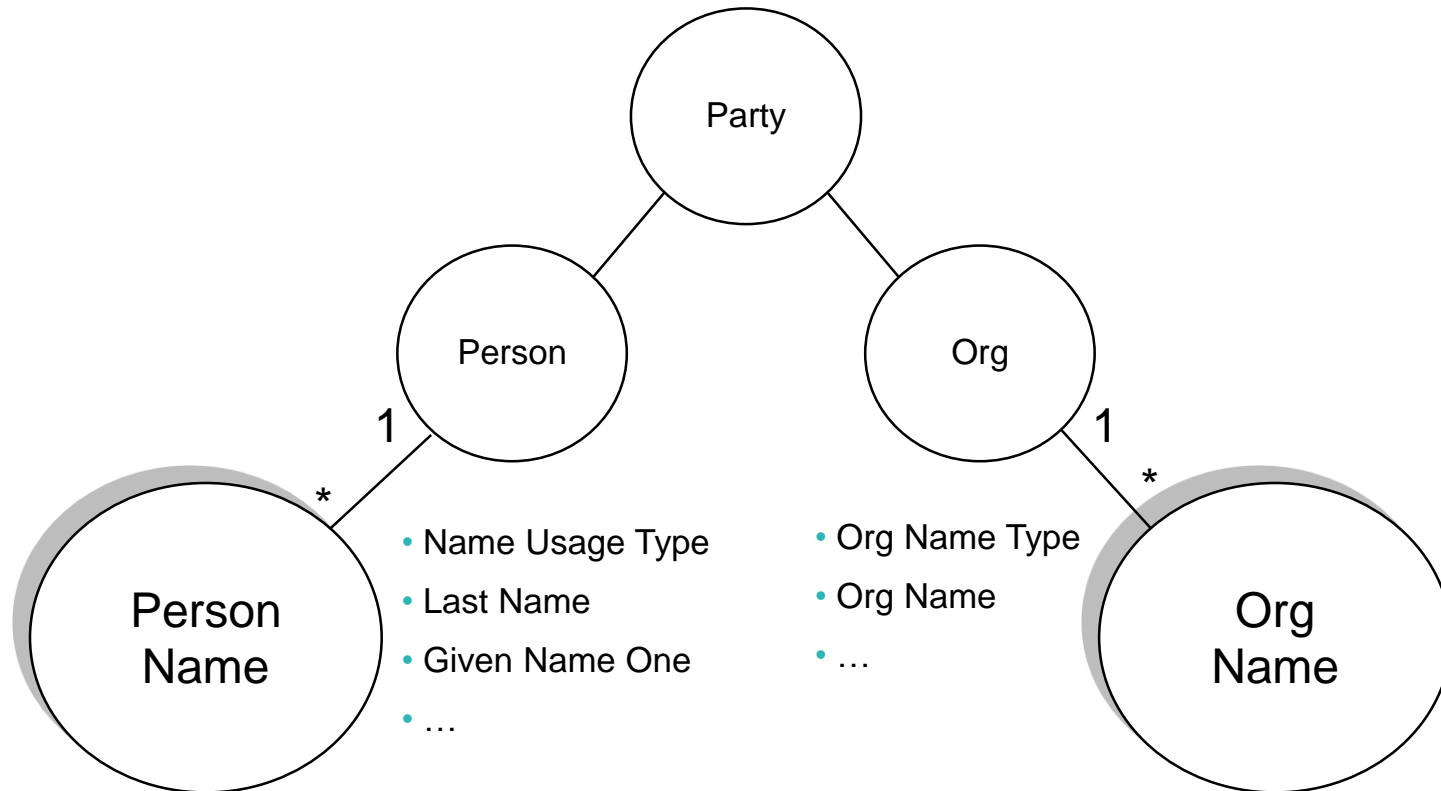
Meet the Services



Party Domain



Party Names – Person Names/Org Names



PersonName Data Model

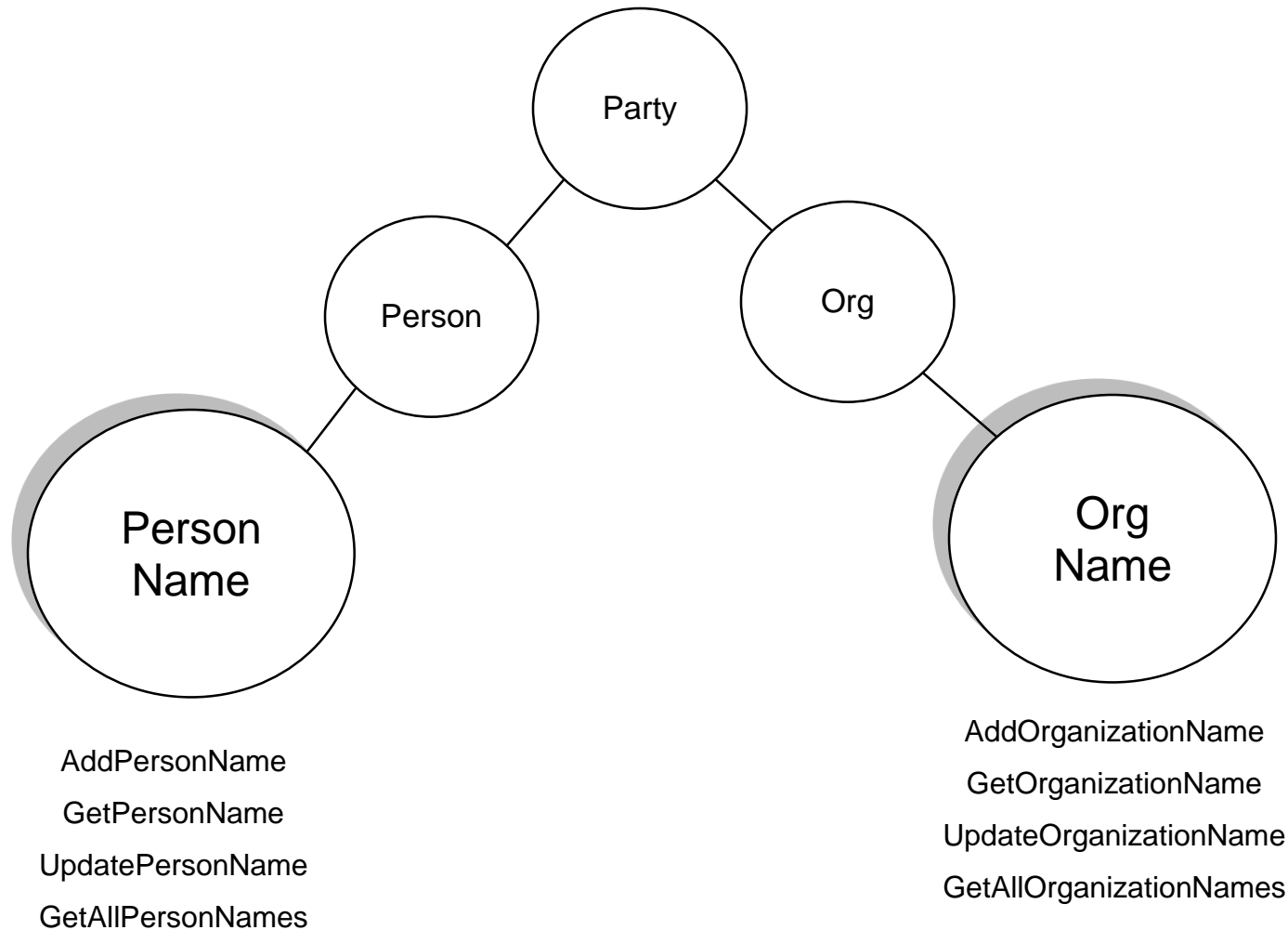
PERSON

CONT_ID	MARITAL_ST_ TP_CD	CITIZENSH IP_TP_CD	GENDER_ TP_CD	BIRTH_DT	CHILDREN_CT	...
11111111	1 (Married)	185 (USA)	F	Feb 4, 1988	0	...
22222222	2 (Single)	31 (Canada)	M	Sept 15, 1973	3	...
...

PERSONNAME

CONT_ID	PERSON_NAME _ID	LAST_NAME	GIVEN_NAME_ONE	NAME_USAGE _TP_CD	...
11111111	56789877765653	Doe	Jane	2 (Business)	...
22222222	26547566558585	Smith	Bob	1 (Legal)	...
...

Meet the Services



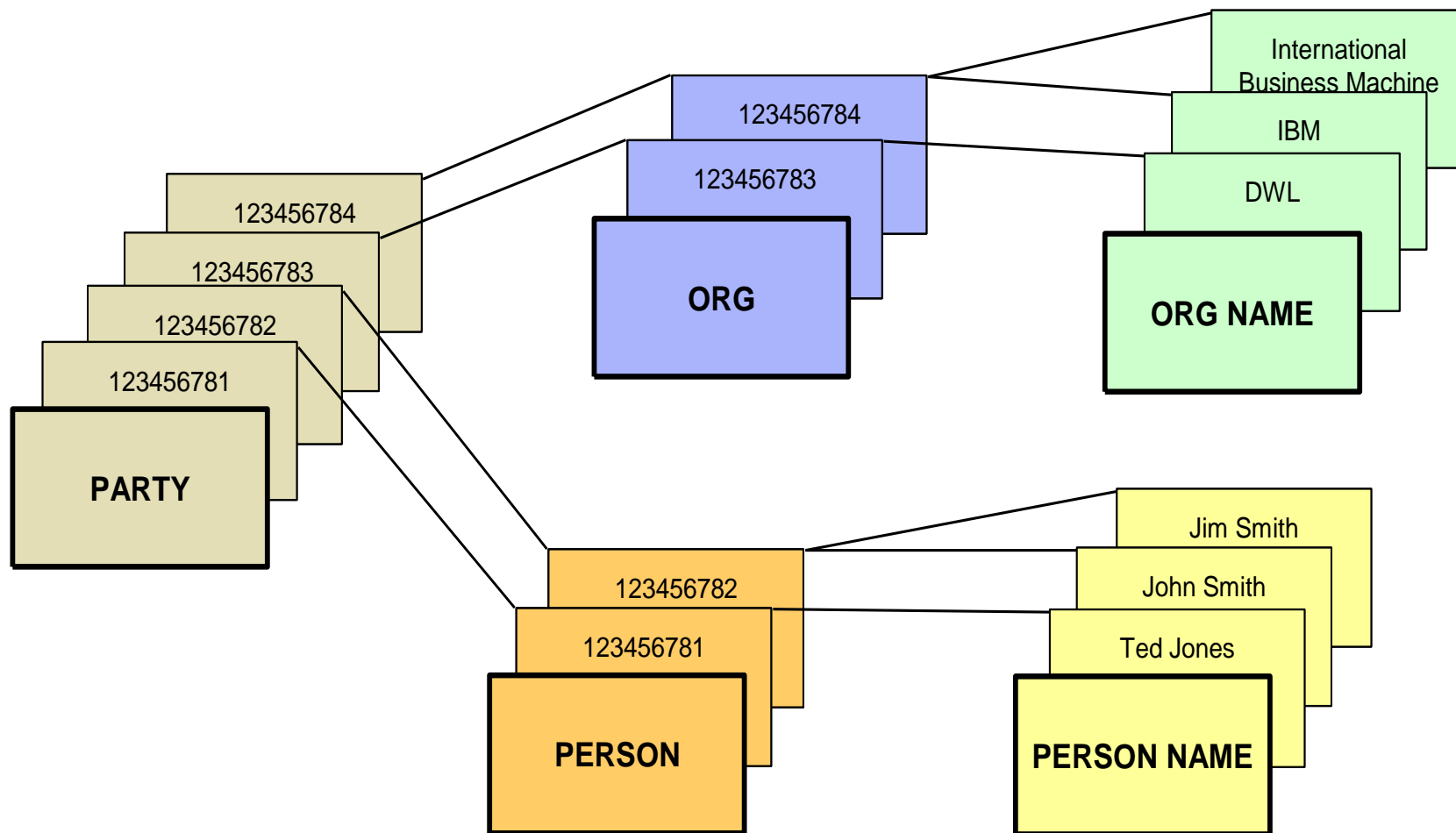
Name Standardization

- Out of the box – Capitalize the first letter
- Can be standardized by third party standardizers:
 - QualityStage Integration
 - Trillium Integration
 - Custom Integration
 - Implements IPartyStandardizer

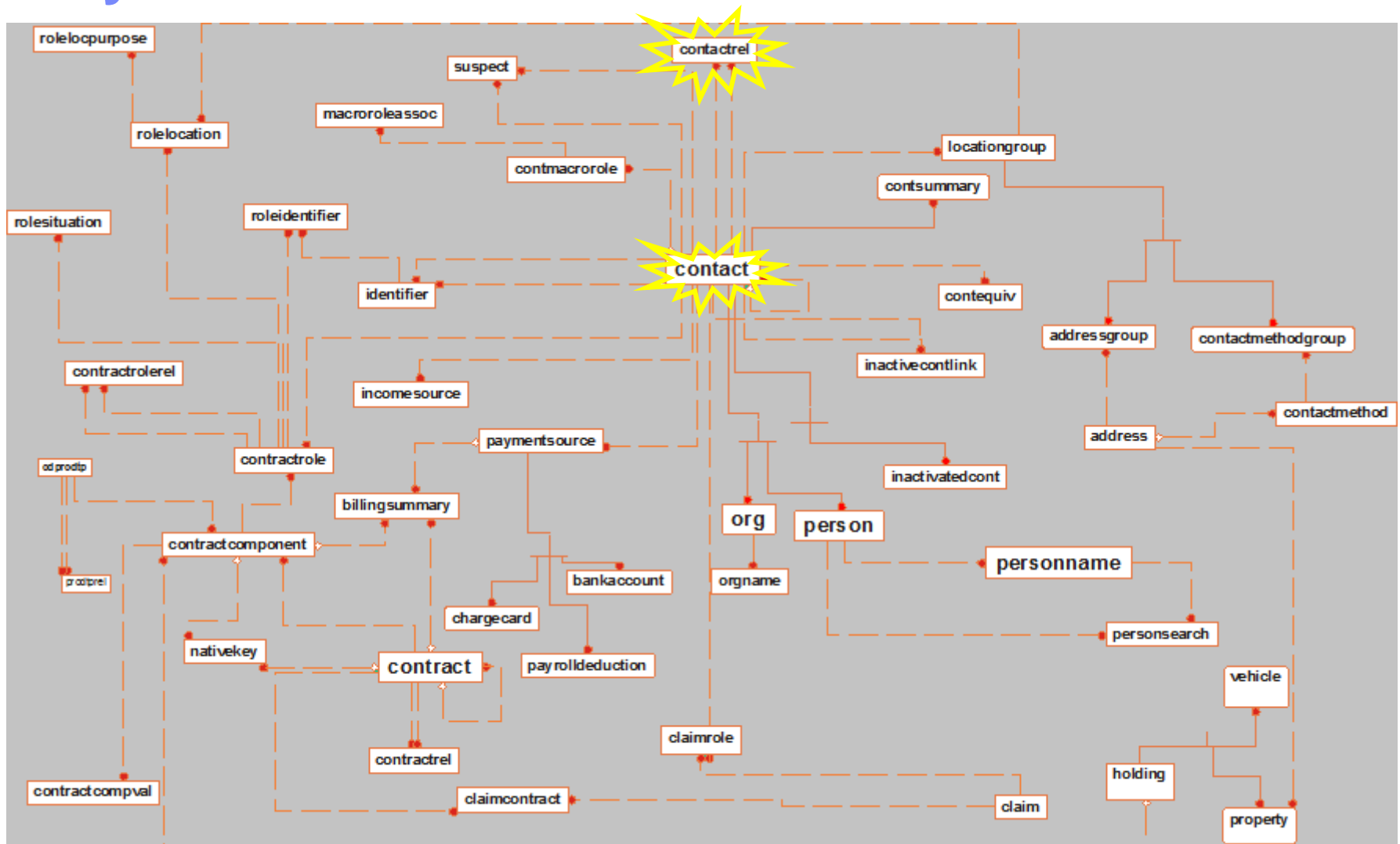
PERSONSEARCH

PERSON_SEAR CH_ID	CONT_ID	PERSON_NAME_I D	LAST_ NAME	GIVEN_NAME_ ONE	STANDA RD_IND	...
...	111111111	56789877765653	Doe	Jane	N	...
...	222222222	26547566558585	Smith	Robert	Y	...

Party Example

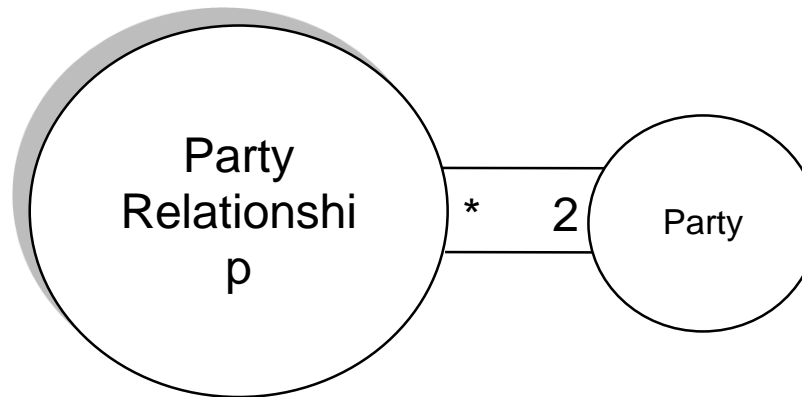


Party Domain



Party Relationships

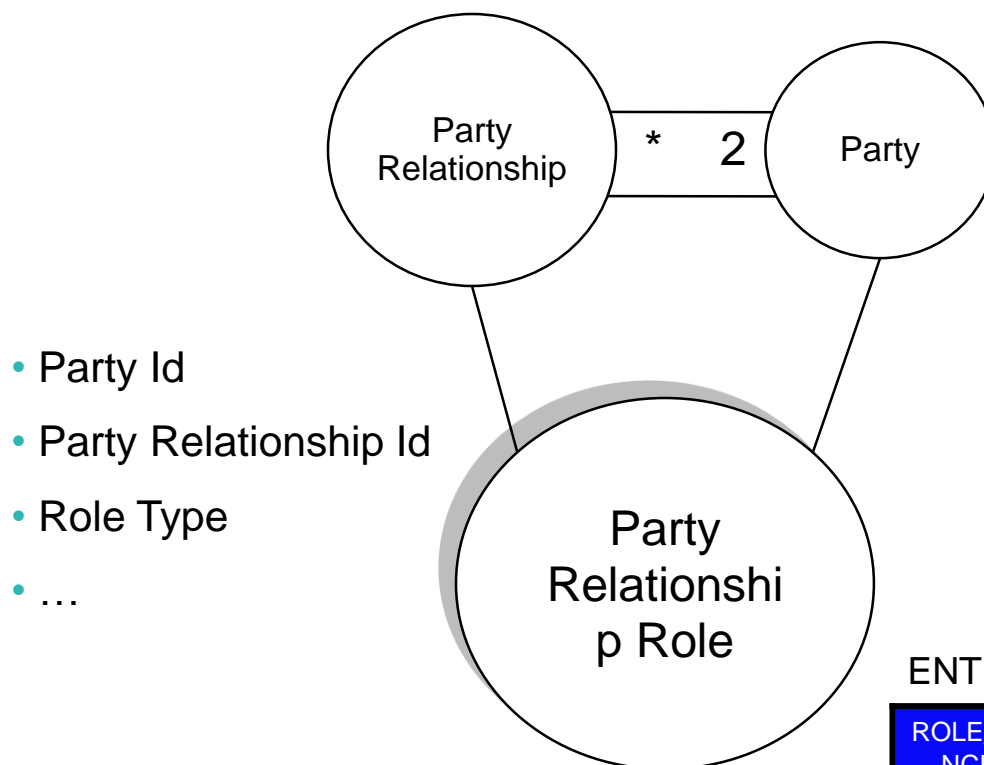
- To Party Id
- From Party Id
- Relationship Type
- ...



CONTACTREL

TO_CONT_ID	FROM_CONT_ID	REL_TP_CD	...
123456781	123456782	18 (Party 1 is the partner of party 2)	...
123456783	123456784	16 (Party 1 is the financial advisor for party 2)	...
...

Party Relationship Role



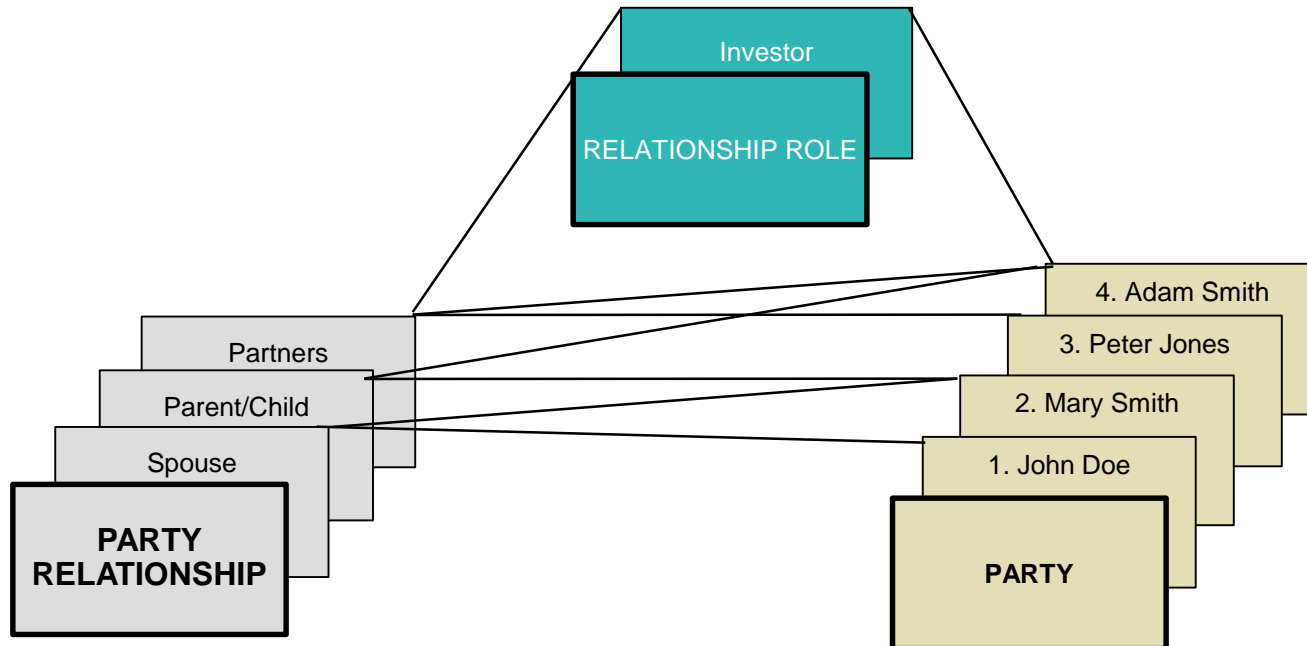
- Party Id
- Party Relationship Id
- Role Type
- ...

NOTE: In the EntityRole table, the Role_Instance_PK is the Relationship Id and the Contxt_Instance_PK is the Party Id

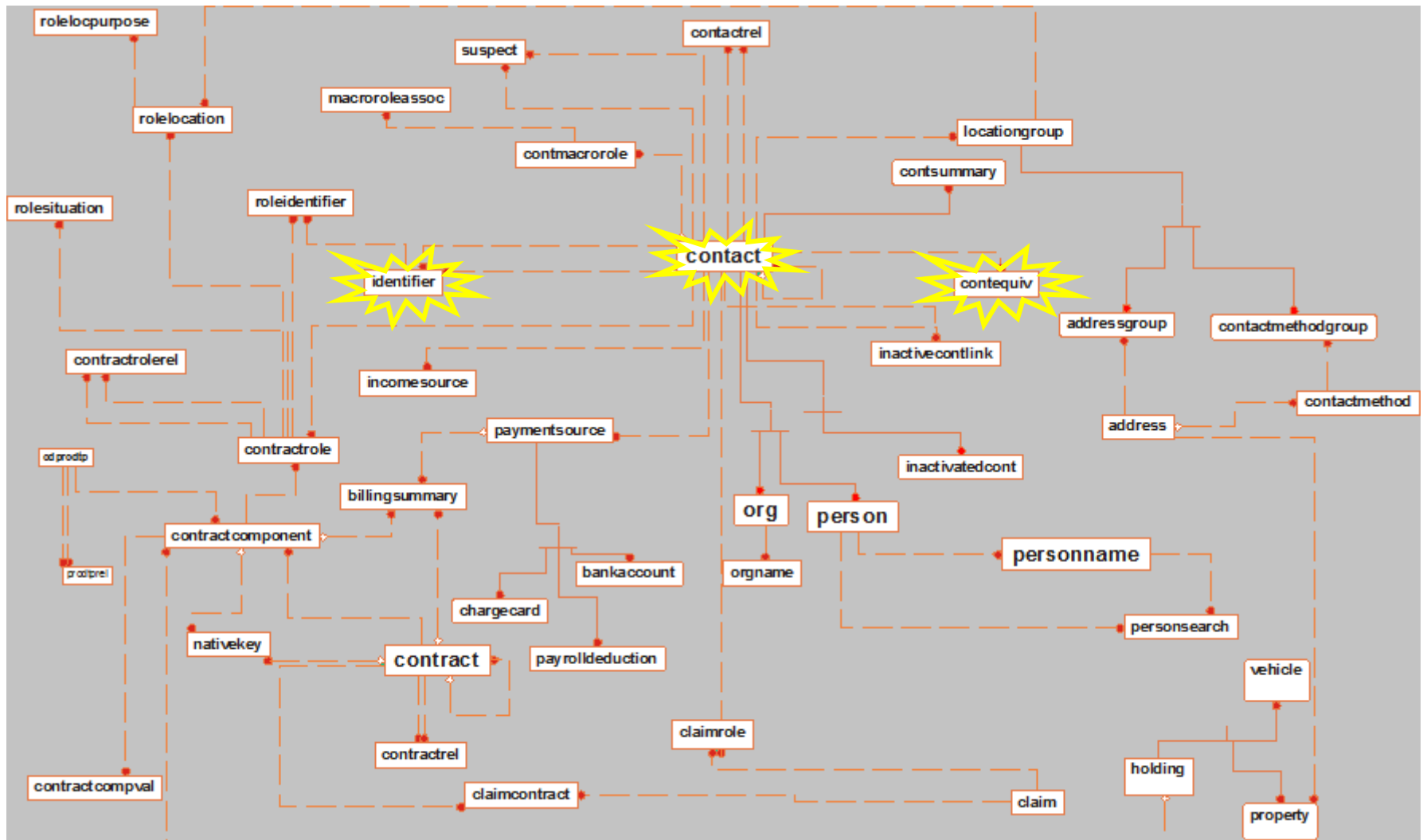
ENTITYROLE

ROLE_INSTANCE_PK	CONXT_INSTANCE_PK	ROLE_TP_CD	...
2	123456782	1 (Customer)	...
2	123456784	2 (Prospect)	...
...

Party Relationship Example

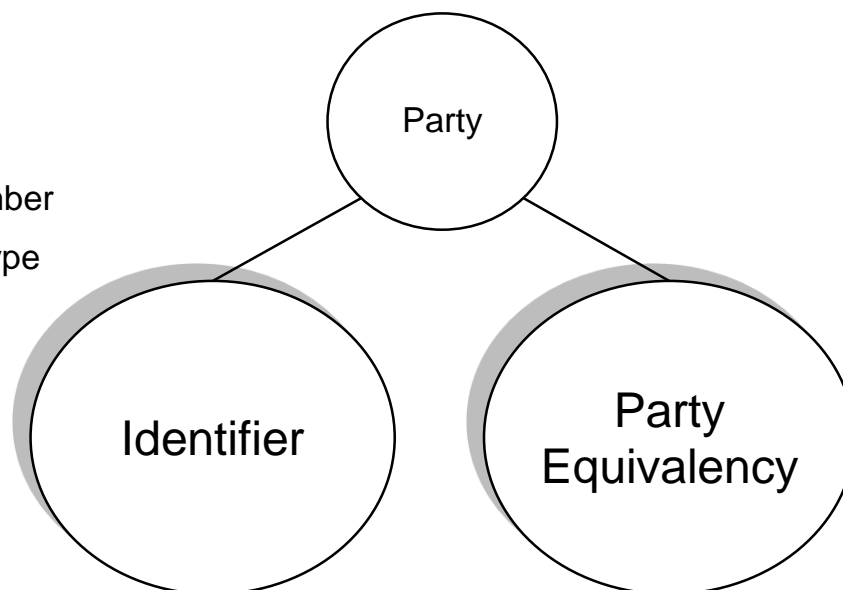


Party Domain



Party Equivalencies & Party Identifiers

- Contact Id
- Reference Number
- Identification Type
- ...



- Admin System Type
- Admin Client Id
- Description
- ...

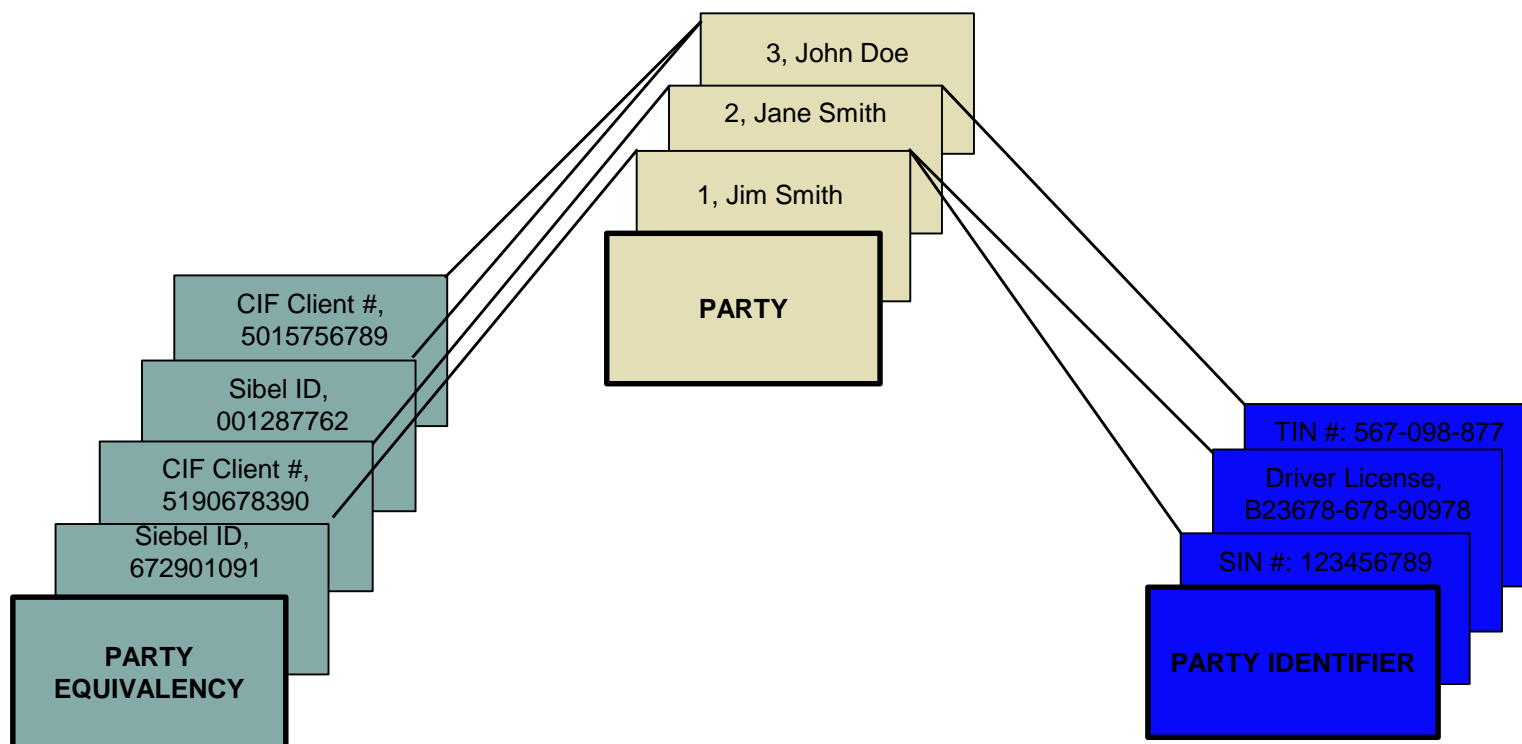
IDENTIFIER

CONT_ID	REFERENCE_NUM	ID_TP_CD	...
123456781	2345235	3 (Driver's License Number)	...
123456783	2MDSE32	4 (Birth Certificate)	...
...

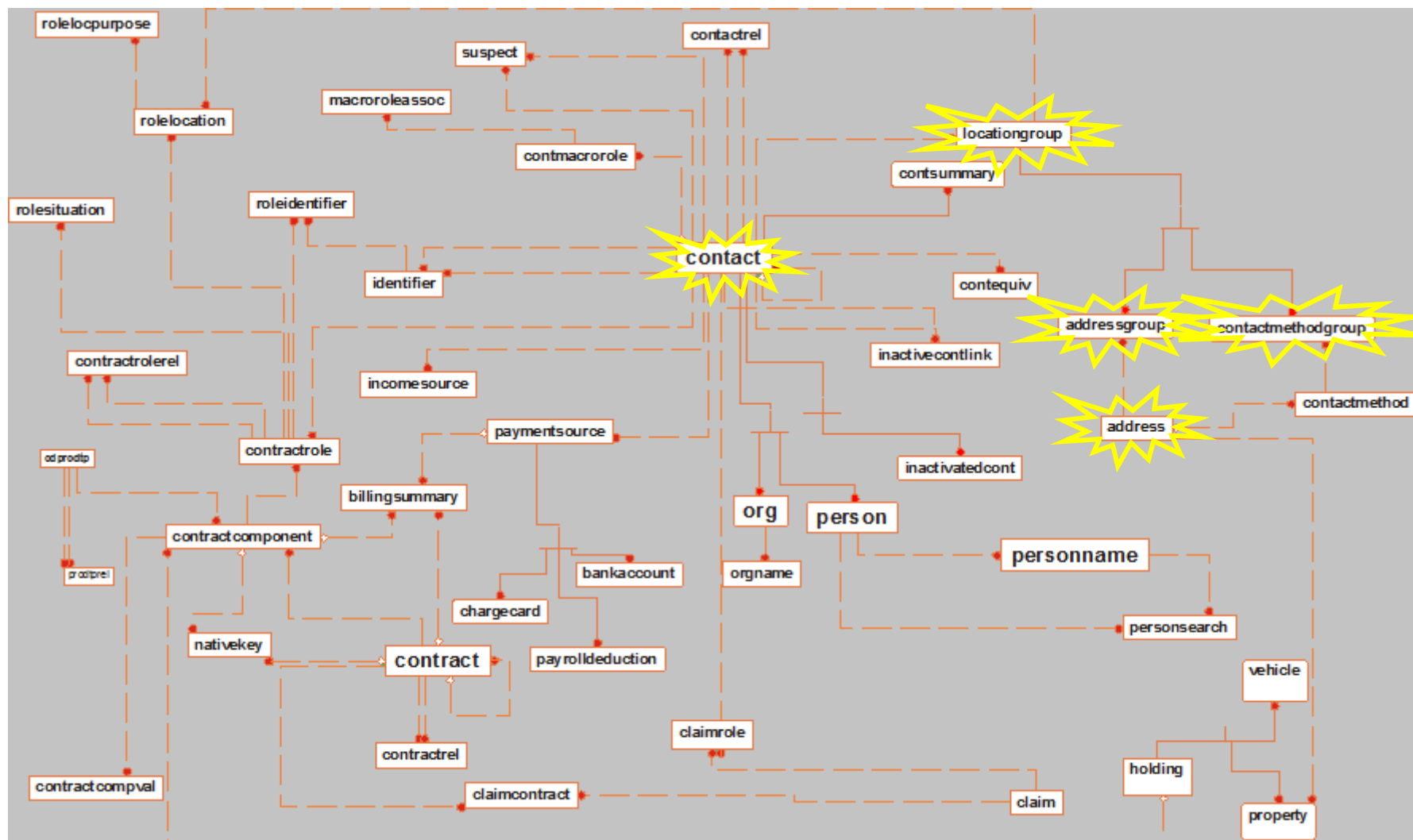
CONTEQUIV

CONT_EQ_UIV_ID	ADMIN_CLIENT_ID	DESC	...
123456781	4345234	Accou	...
123456783	235324	Billing	...
...

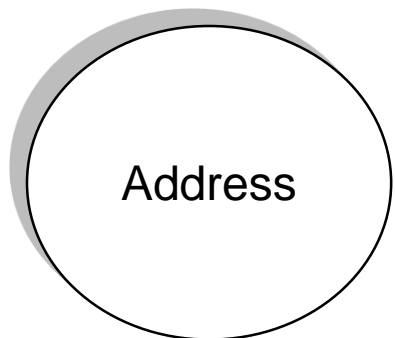
Party Equivalencies & Party Identifiers Example



Party Domain



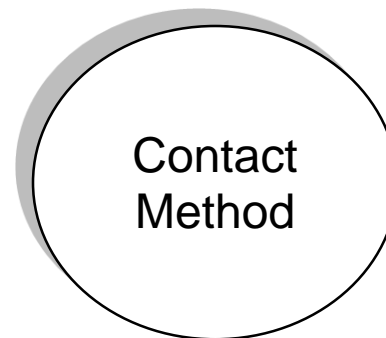
Party Location – Address & Contact Method



- Address ID
- AddressLineOne
- City
- Country
- ...

Address

ADDRESS_ID	ADDRESS_LINE_ONE	COUNTRY	...
123456781	123 Main St	31	...
123456783	555 DWL Lane	31	...
...



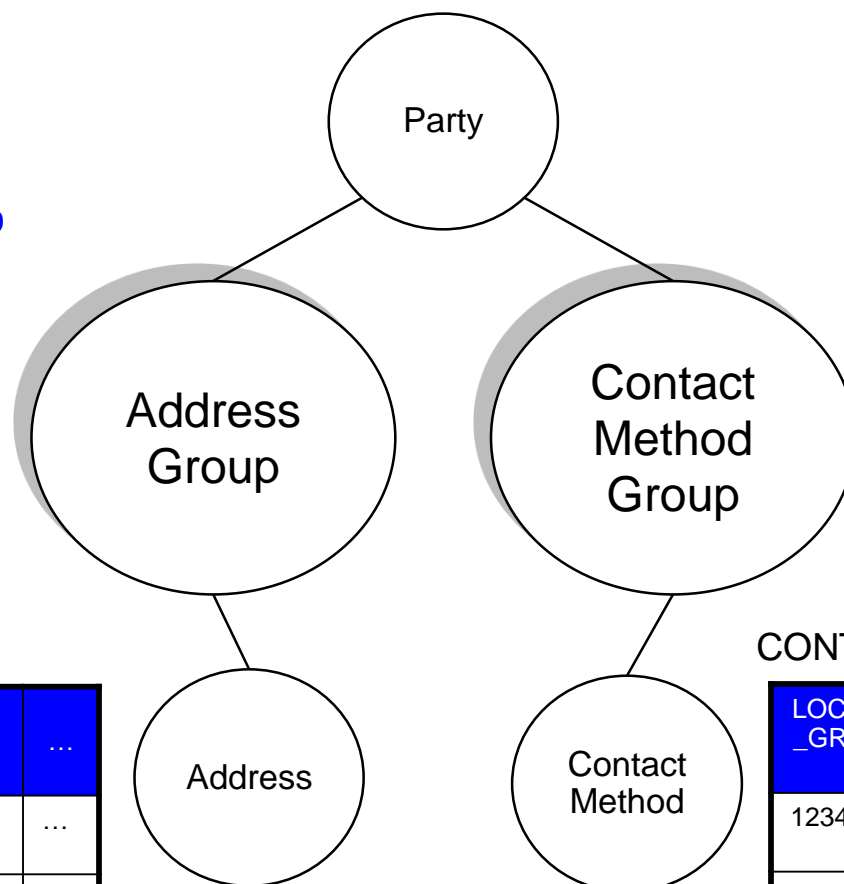
- Contact Method Category
- Reference Number
- Standardization Indicator
- ...

Contact Method

CONTACT_METHOD_ID	CONTACT_METHOD_CATEGORY	REFERENCE_NUMBER	...
123456781	1 (Telephone Number)	555-5555	...
123456783	2 (Email Address)	dwl@	...
...

Party Location – PartyAddress & PartyContactMethod

- Contact Id
- Effective Start MMDD
- Effective End MMDD
- Effective Start Time
- Address Usage
- ...



- Contact Id
- Effective Start MMDD
- Effective End MMDD
- Effective Start Time
- Contact Method Type
- ...

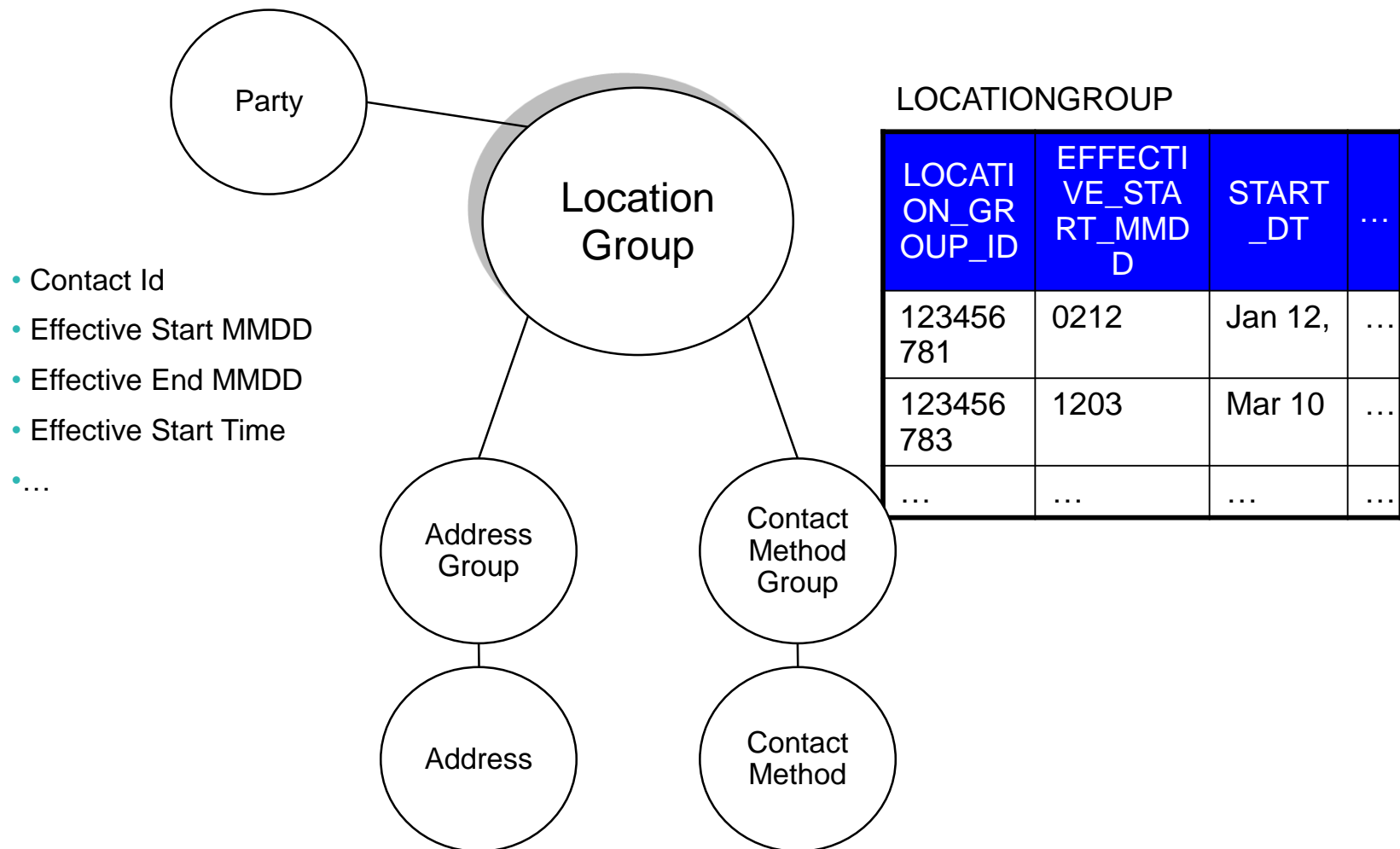
ADDRESSGROUP

LOCATION_GROUP_ID	ADDRESS_USAGE	LAST
123456781	1 (Primary Residence)	Jan 12,	...
123456783	3 (Business)	Jan 34,	...
...

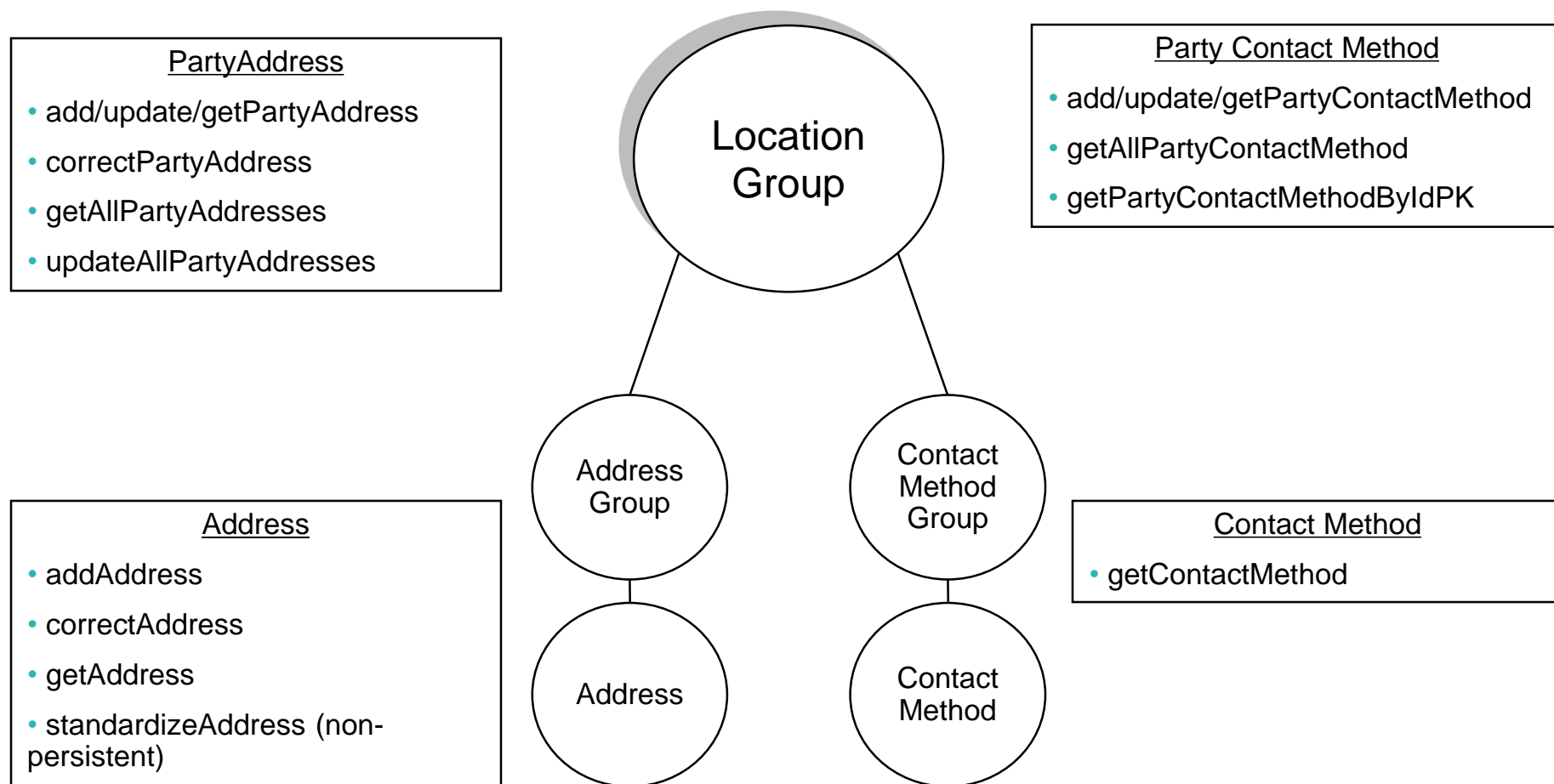
CONTACTMETHODGROUP

LOCATION_GROUP_ID	CONTACT_METHOD_TP	LAST
123456781	2 (Business Telephone)	Jan 23,	...
123456783	5 (Cellular)	Feb 23	...
...

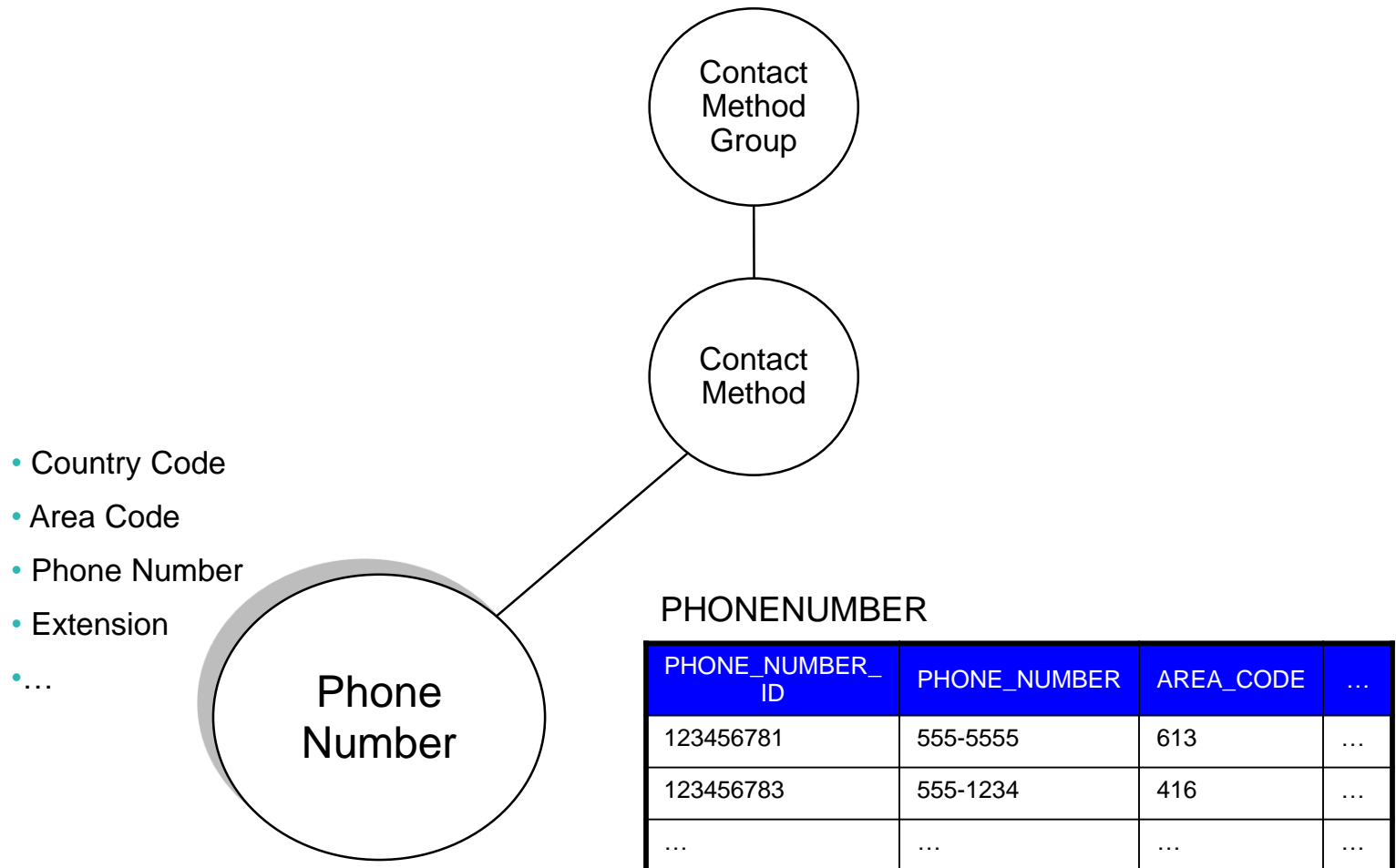
Party Location – Location Group



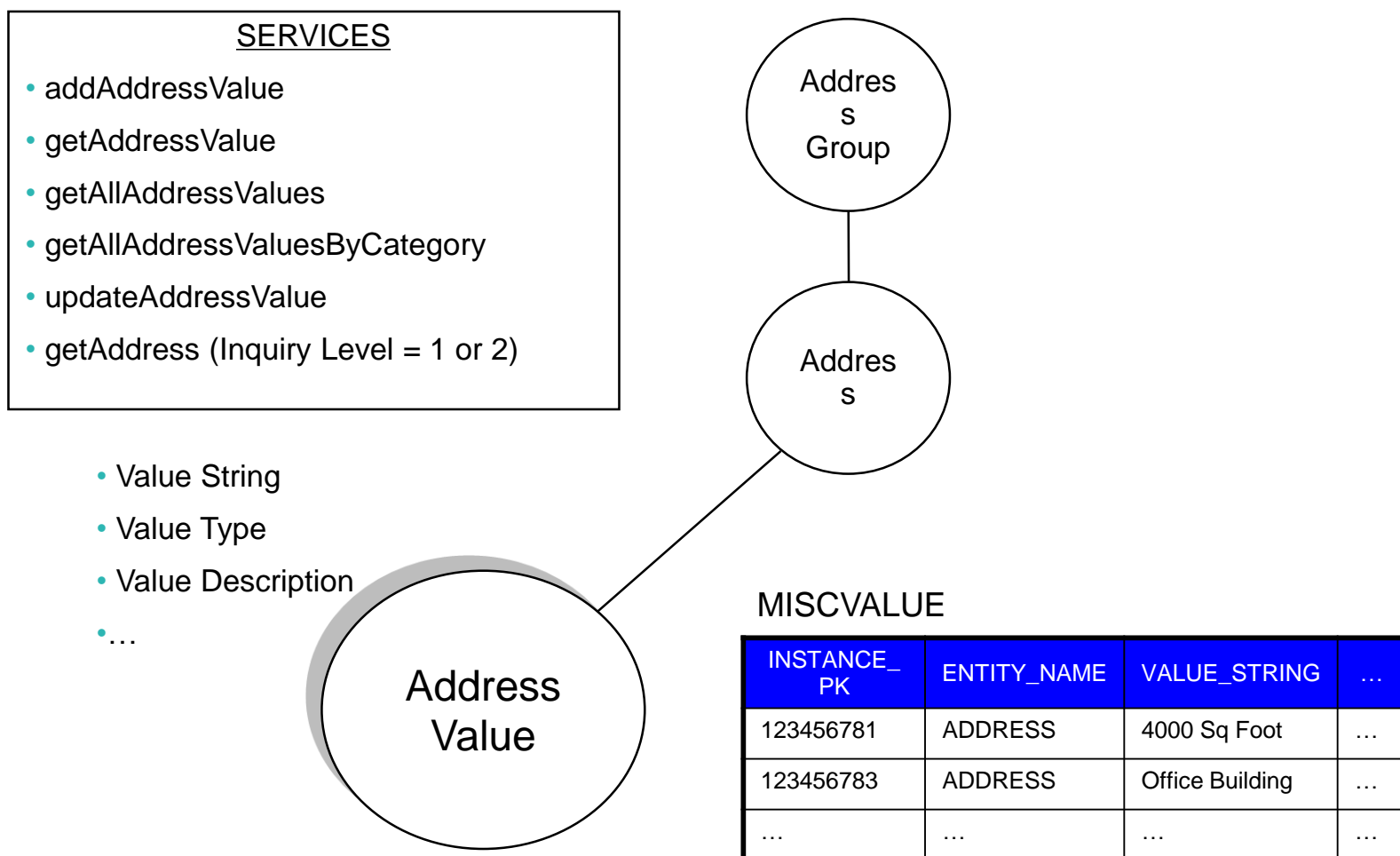
Meet the Services



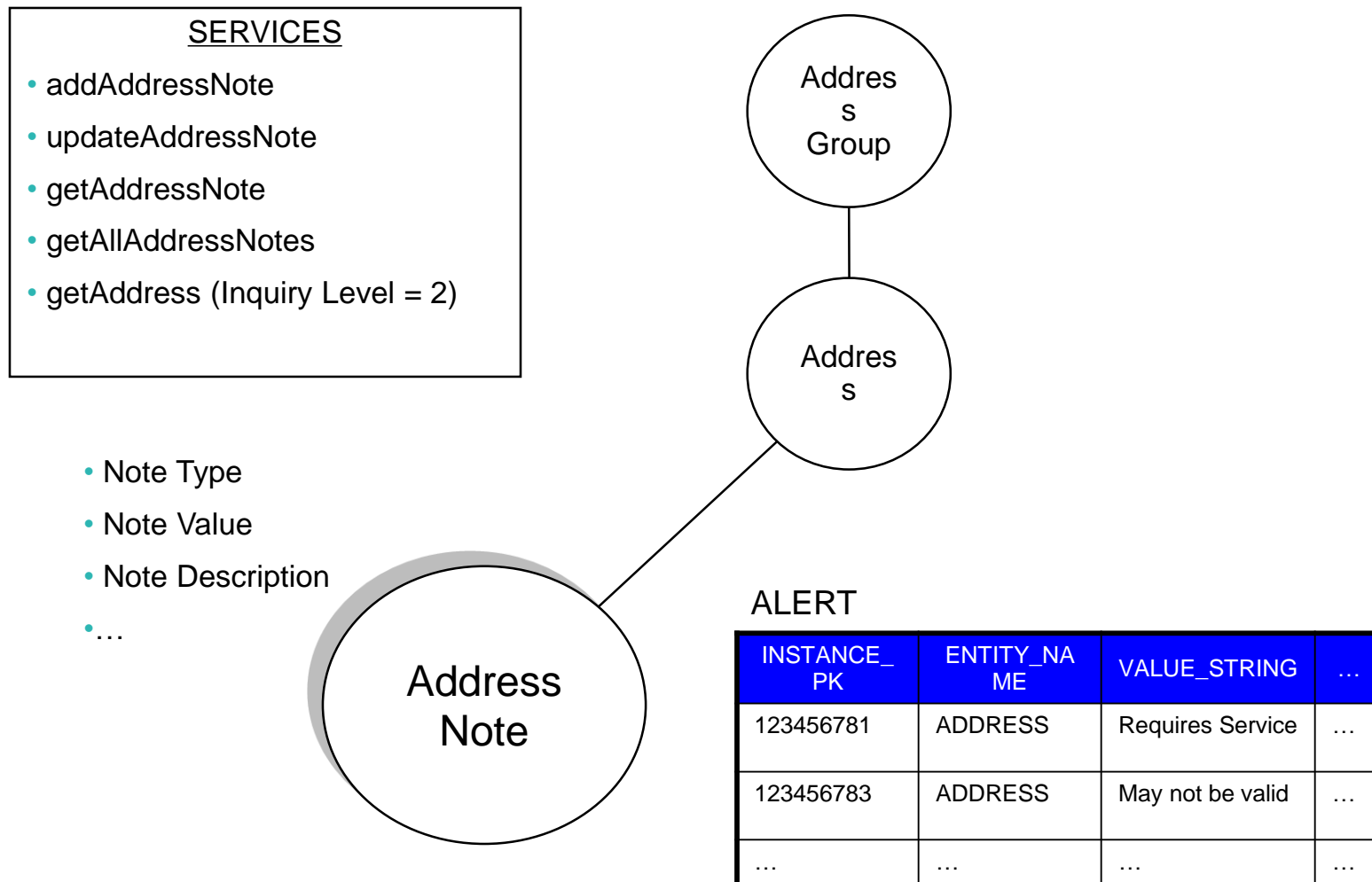
Other Entities – Phone Number



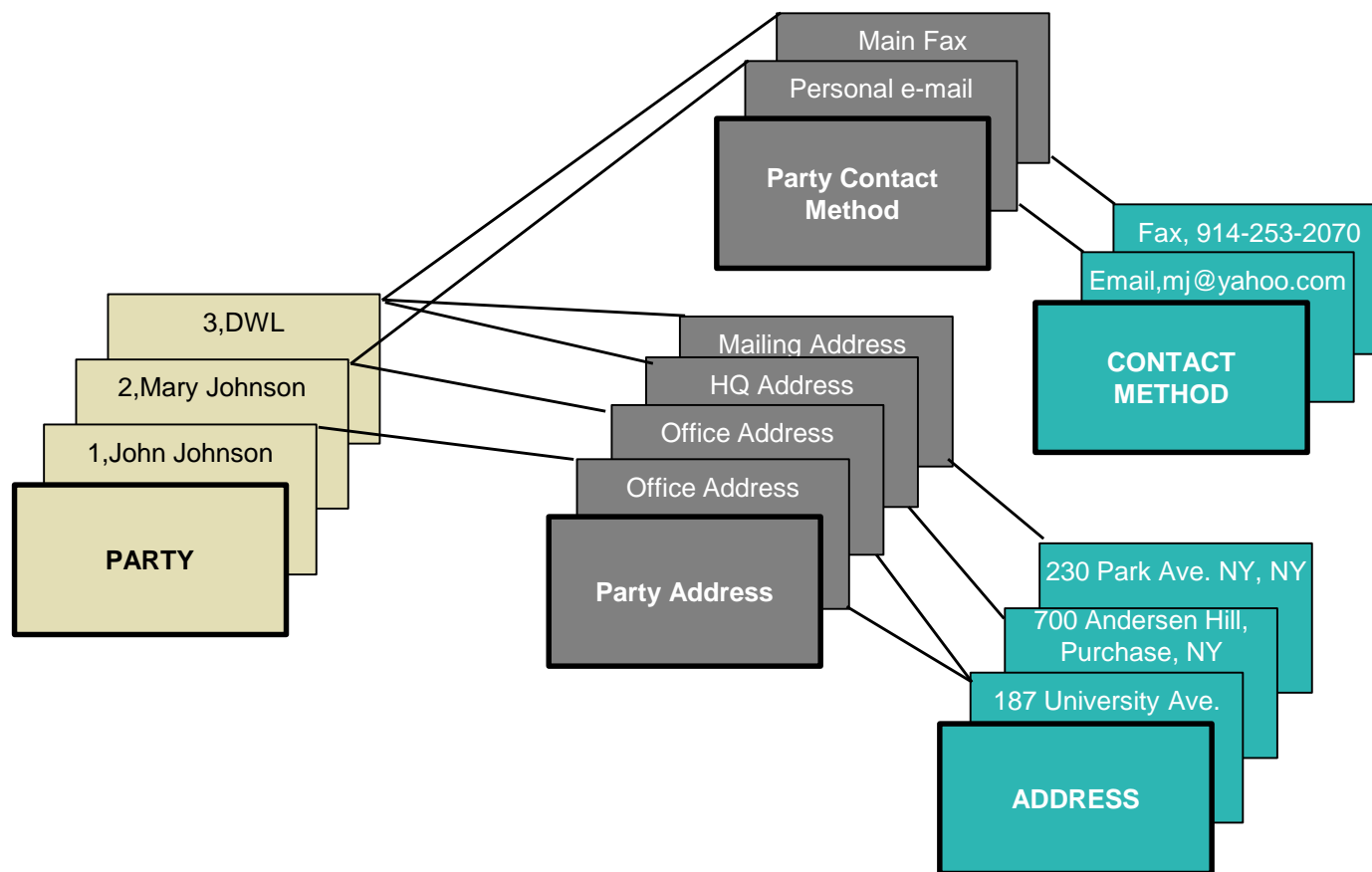
Other Entities – Address Value



Other Entities – Address Note



Party Location Example



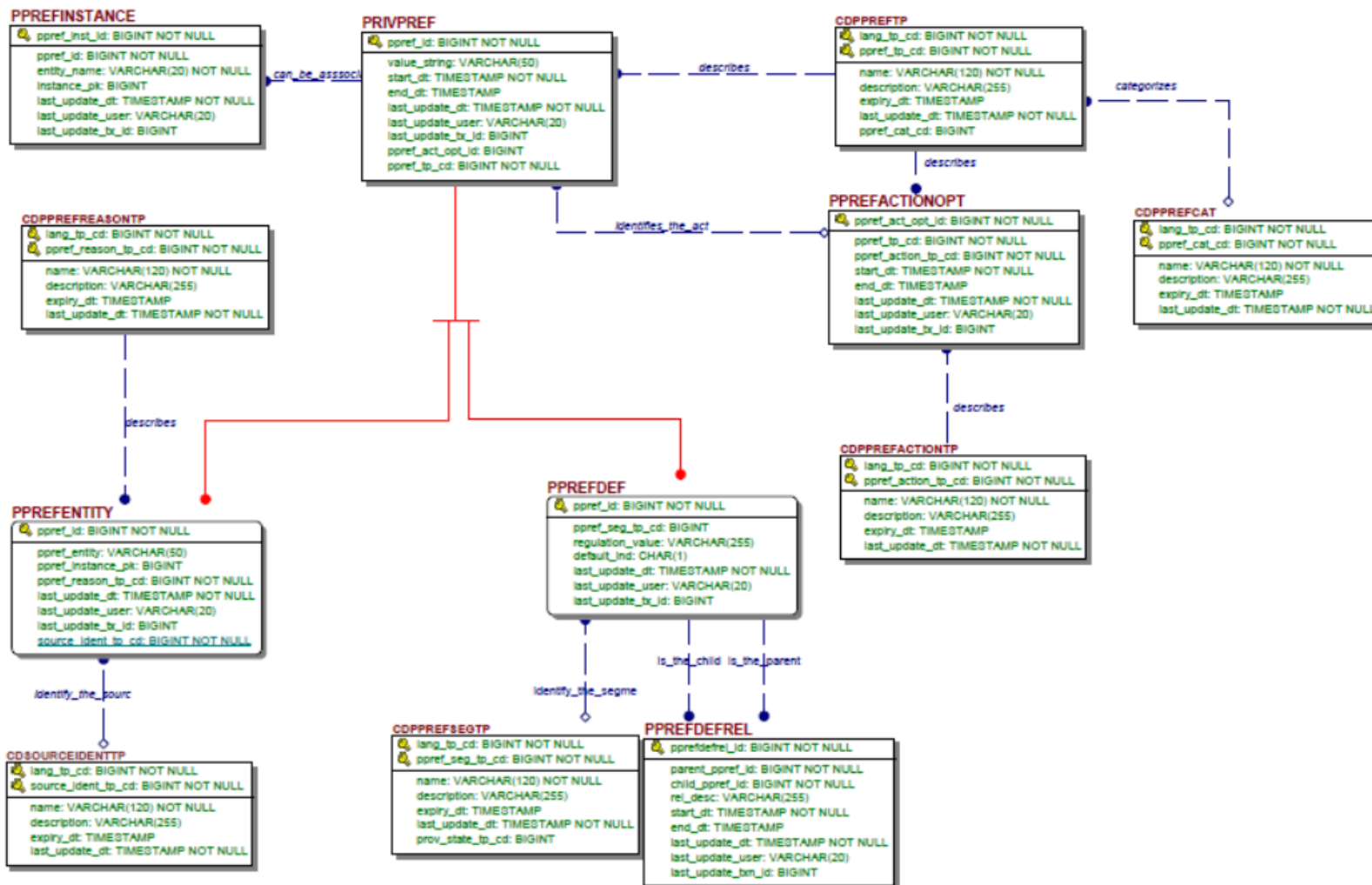
Common Entities within Party Domain

- Party Privacy Preferences
- Party Compliance

Party Privacy Preferences

- Privacy Preferences is an entity can be associated with any entity in Physical MDM
- We will talk cover Party Privacy Preferences specially here
- Identifies a collection of items with a common thread
- Comply with ...
 - The different privacy regulations from all levels of governments
 - The individual's wishes for privacy regarding their personal information
- Can apply to a party, a party address, or a party contact method
- Required information: the privacy preference type, action, value, and reason
- Example:
 - The party is only contacted when permission has been given
 - The party's info is only shared in an agreed-upon manner
 - The party may prefer to have all marketing info regarding mortgages sent to their home address

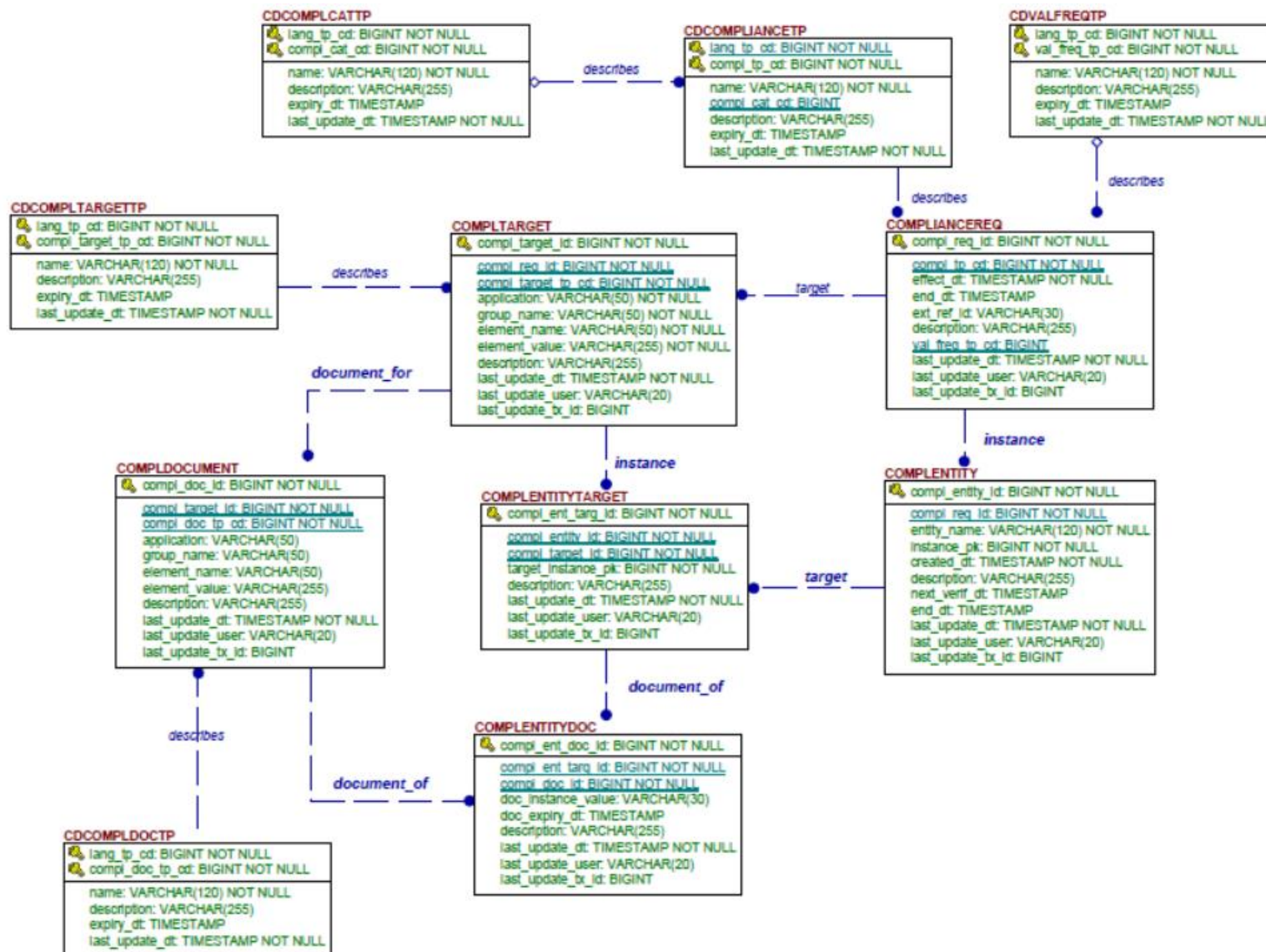
Party Privacy Preferences Data Model



Party Compliance

- Addresses regulatory requirements the party meets
- The compliance requirements are ...
 - One or more targeted documents to be validated
 - Documents that are used to validate the targets
- Example
 - The compliance requirement for a “Registered Retirement Savings Plan Account” is to have a Social Security Number (SSN) validated against an income tax return statement. Add a party compliance record for John Smith to validate his SSN against his most recent income tax return. The SSN must be stored in the system.

Party Compliance Data Model



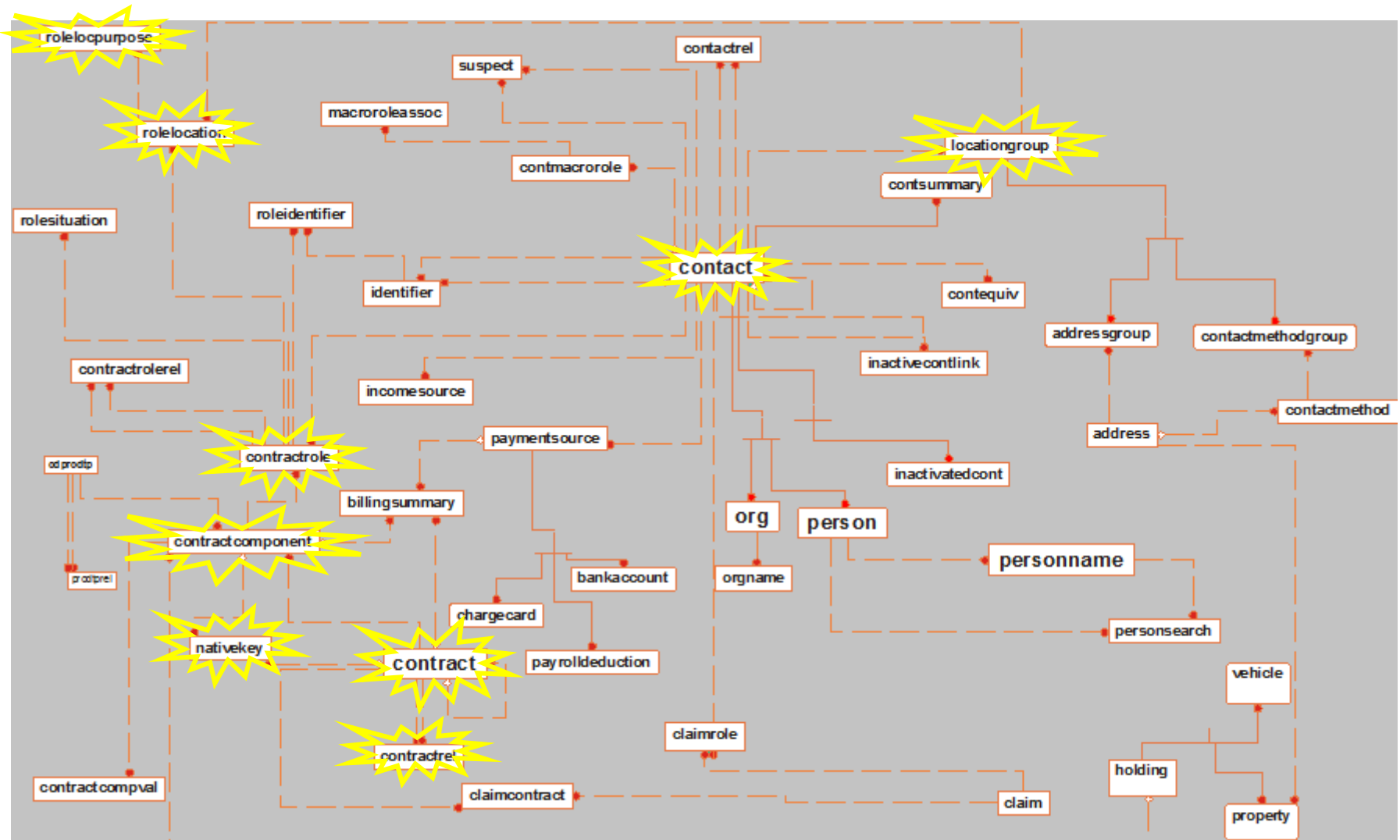
MDM Physical Data Mdoles

- MDM Physical Data Model
 - Party Domain
 - Account Domain
 - Contract
 - Contract Component
 - Contract Relationship
 - Contract Native Key
 - Contract Party Role
 - Contract Role Location & Location Purpose

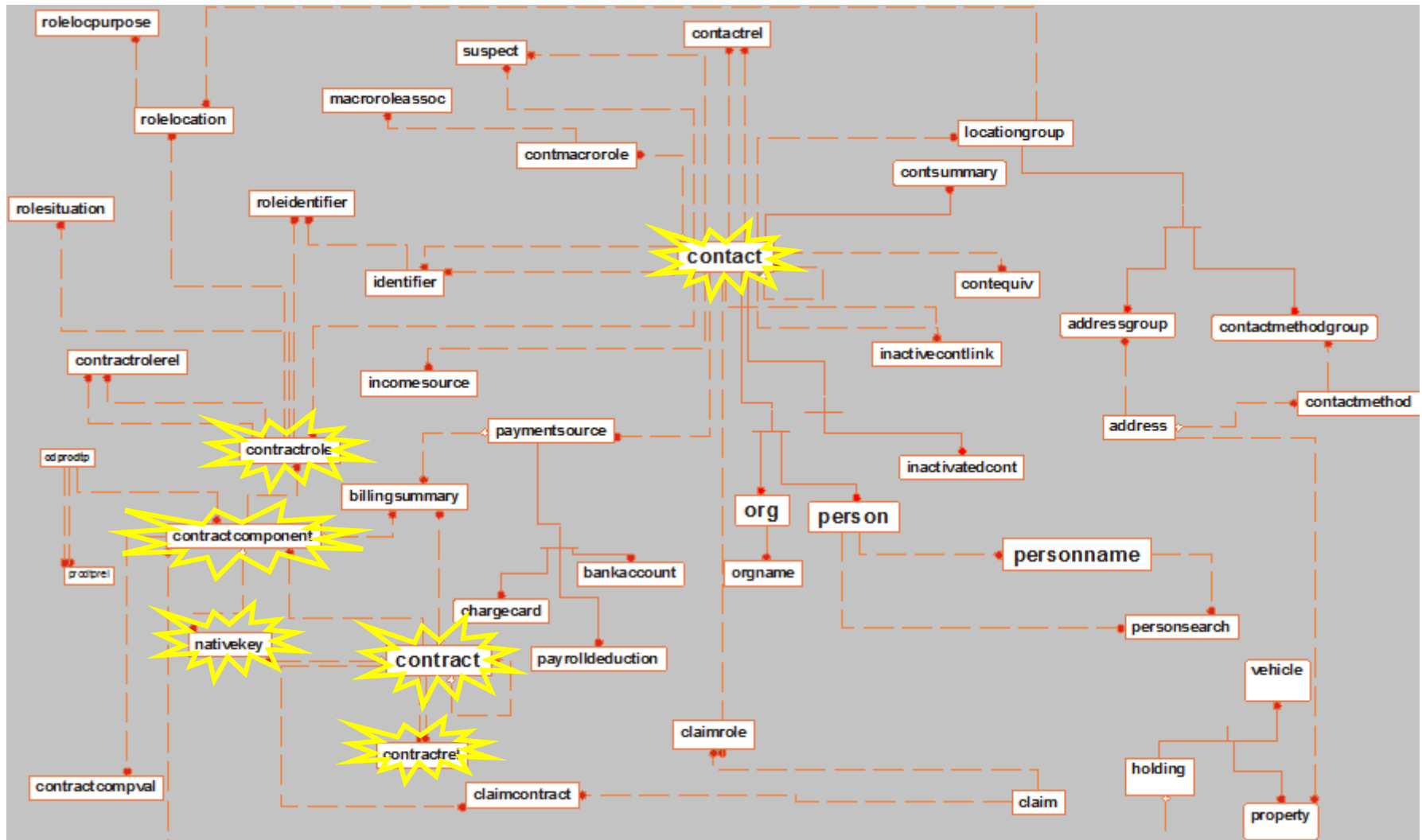
Account

- Represents the products or services that the customer uses
- Also known as Contract or Agreement
- Manages legally binding terms for a relationship between an institution and any party
- Contains legal terms that required for financial transactions
- Can be either a managed account or referenced account
 - *A Managed Account*
 - Managed fully by the Account domain within MDM
 - A system of record
 - *A Referenced Account*
 - Managed in a different, usually external, system

Account Domain

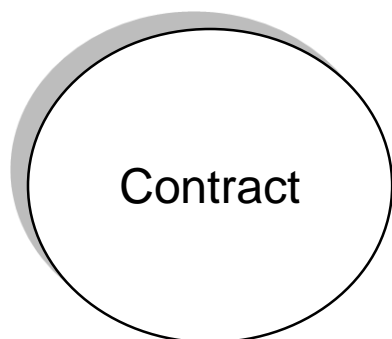


Account Domain



Contract

- Represents a legal agreement
- Example
 - A purchase, signing up of any product or service of company by a customer
 - A product or service might include credit cards, insurance plans, saving accounts, etc



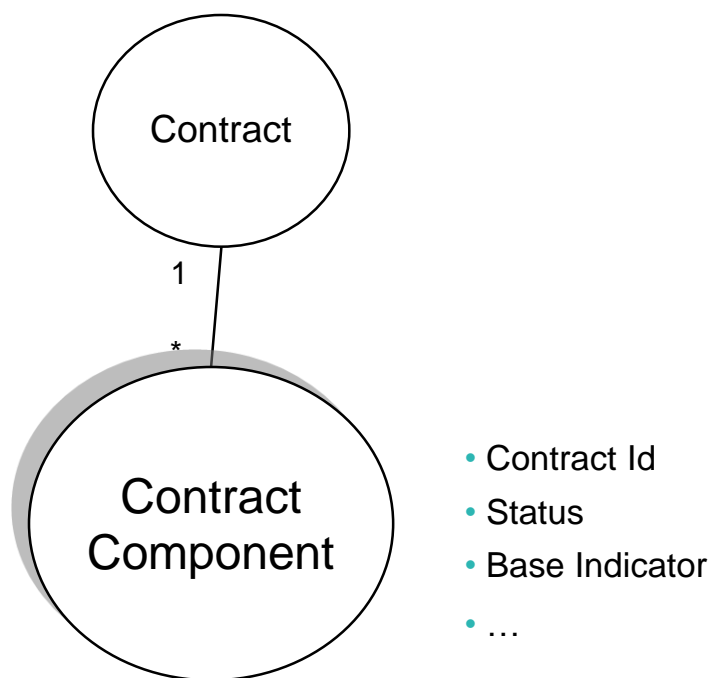
- Contract Id
- Agreement Type
- Is Managed Account?
- ...

CONTRACT

CONTRACT_I D	AGREEMENT_ST_TP_ CD	BILL_TP_CD	MANAGED_ACCOUNT_I ND	...
14623705732 7	2 (Normal)	2 (Regular Billing)	N	...
26353705732 7	1 (Draft)	5 (Payroll Deduction)	Y	...
...

Contract Component

- Represents various parts of a contract
- Stores information pertaining to its own portion of Contract
- Contract links to at least one Contract Component

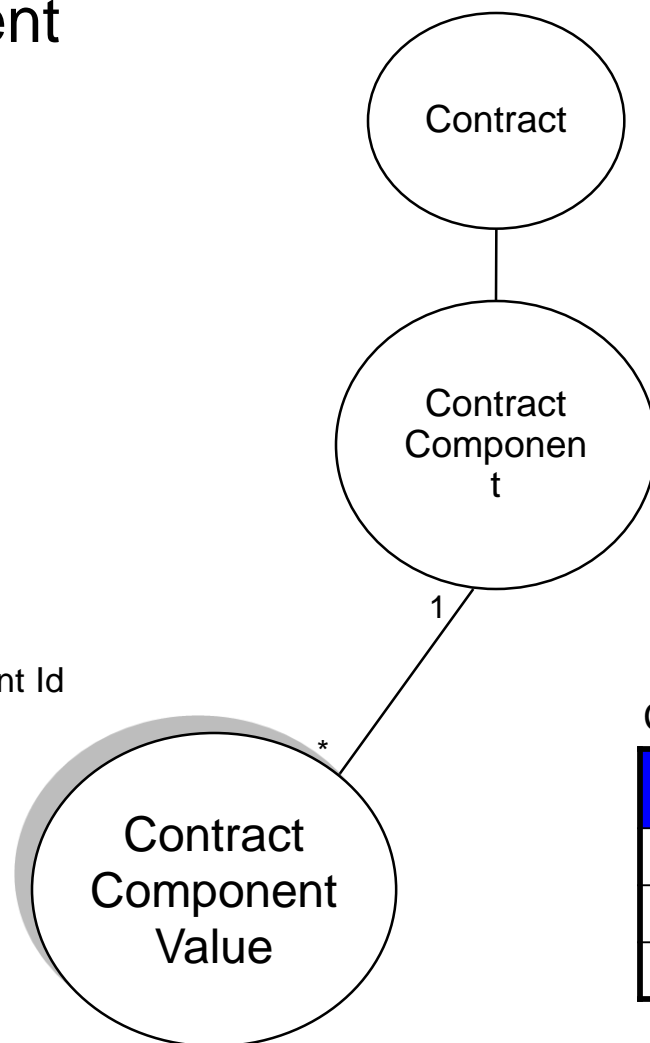


CONTRACTCOMPONENT

CONTR_COMPONE NT_ID	CONTRACT_ST_T P_CD	CONTRACT _ID	...
146237057327	6 (Terminated)	1462370573 27	...
263537057327	2 (In Force)	2635370573 27	...
...

Contract Component Value

- Stores a value (typically numerical) related to the Contract Component



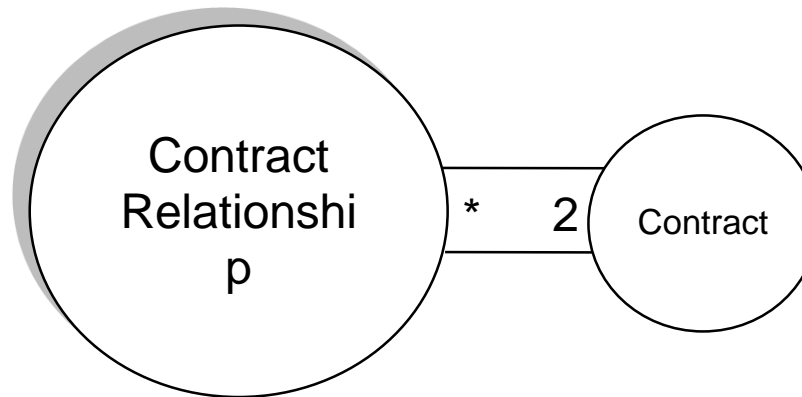
- Contract Component Id
- Value Type
- Value String
- ...

CONTRACTCOMPVAL

CONTR_COMPONE NT_ID	DOMAIN_VALUE_T P_CD	VALUE_STRI NG	...
146237057327	3 (Decimal Value)	1,000,000	...
263537057327	4 (Date Value)	2014-12-08	...
...

Contract Relationship

- To Contract Id
- From Contract Id
- Relationship Type
- ...

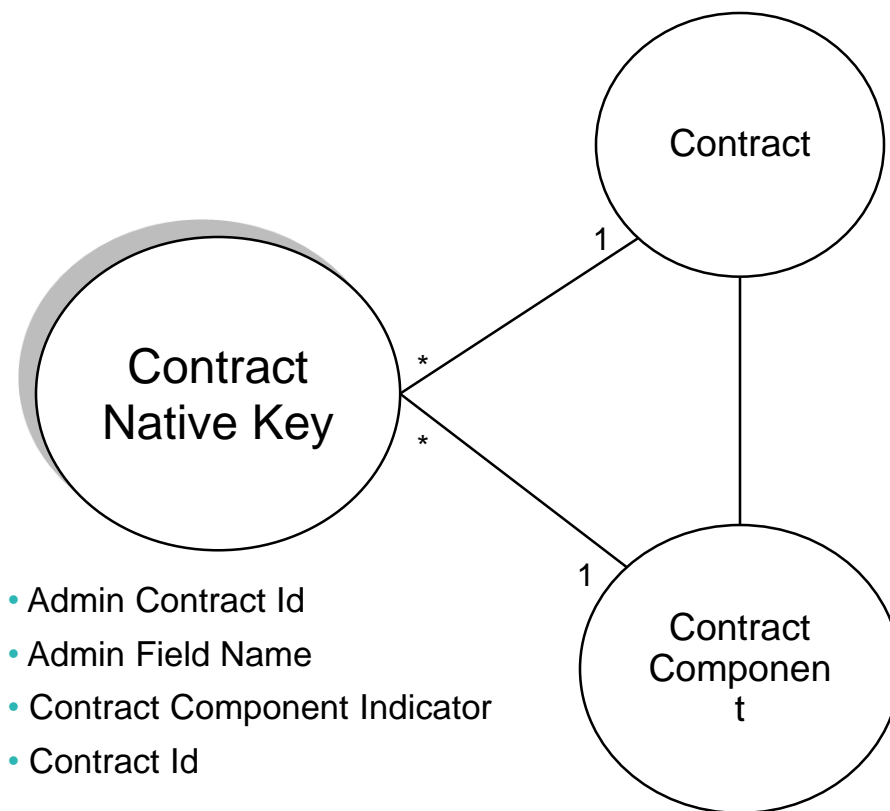


CONTRACTREL

TO_CONTRACT_ID	FROM_CONTRACT_ID	CONTR_REL_TP_CD	...
146237057327	357937057327978893	5 (Contract 1 is part of contract 2)	...
263537057327	963837057328052112	4 (Master Agreement)	...
...

Contract Native Key

- Stores unique keys of the records in the current database to gain access to other agreement-related information from another system
- Stored in an entity, **ContractNativeKey**
- Can refer to either a **Contract** or a contract component



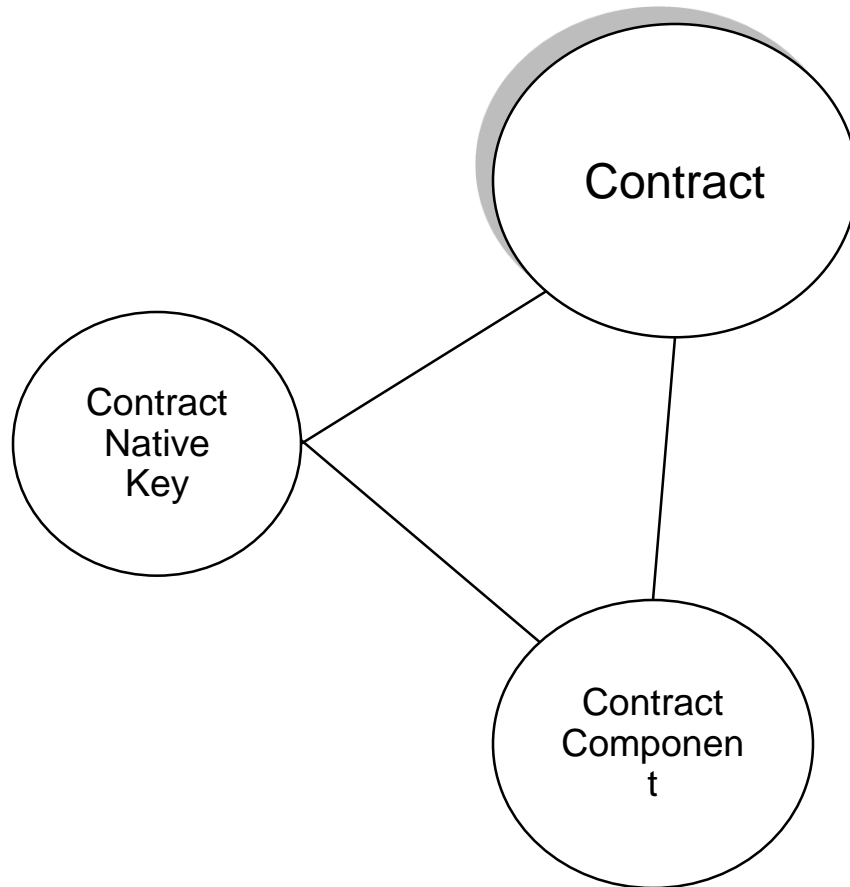
- Admin Contract Id
- Admin Field Name
- Contract Component Indicator
- Contract Id
- ...

NATIVEKEY

ADMIN_CONTRACT_ID	CONTRACT_ID	CONTRACT_COMP_IND	ADMIN_FLD_NM_TP_CD	...
754723	146237057327	N	1 (Policy Number)	...
17592	263537057327	N	4 (Account Number)	...
...

Contract Native Key in CONTRACT table!

- CONTRACT table can be used instead if only one native key to be stored
- Use for a reference account

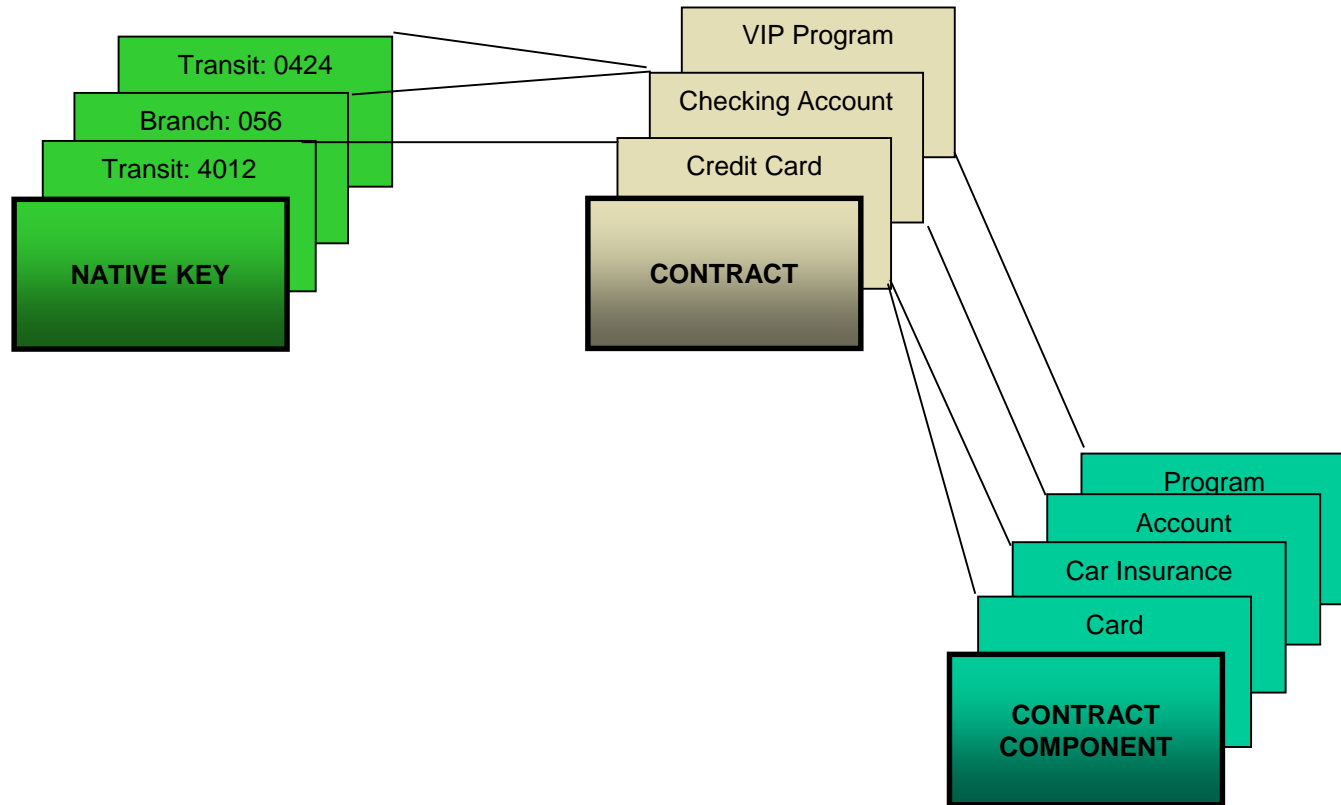


- Contract Id
- **Admin Contract Id**
- **Admin System**
- ...

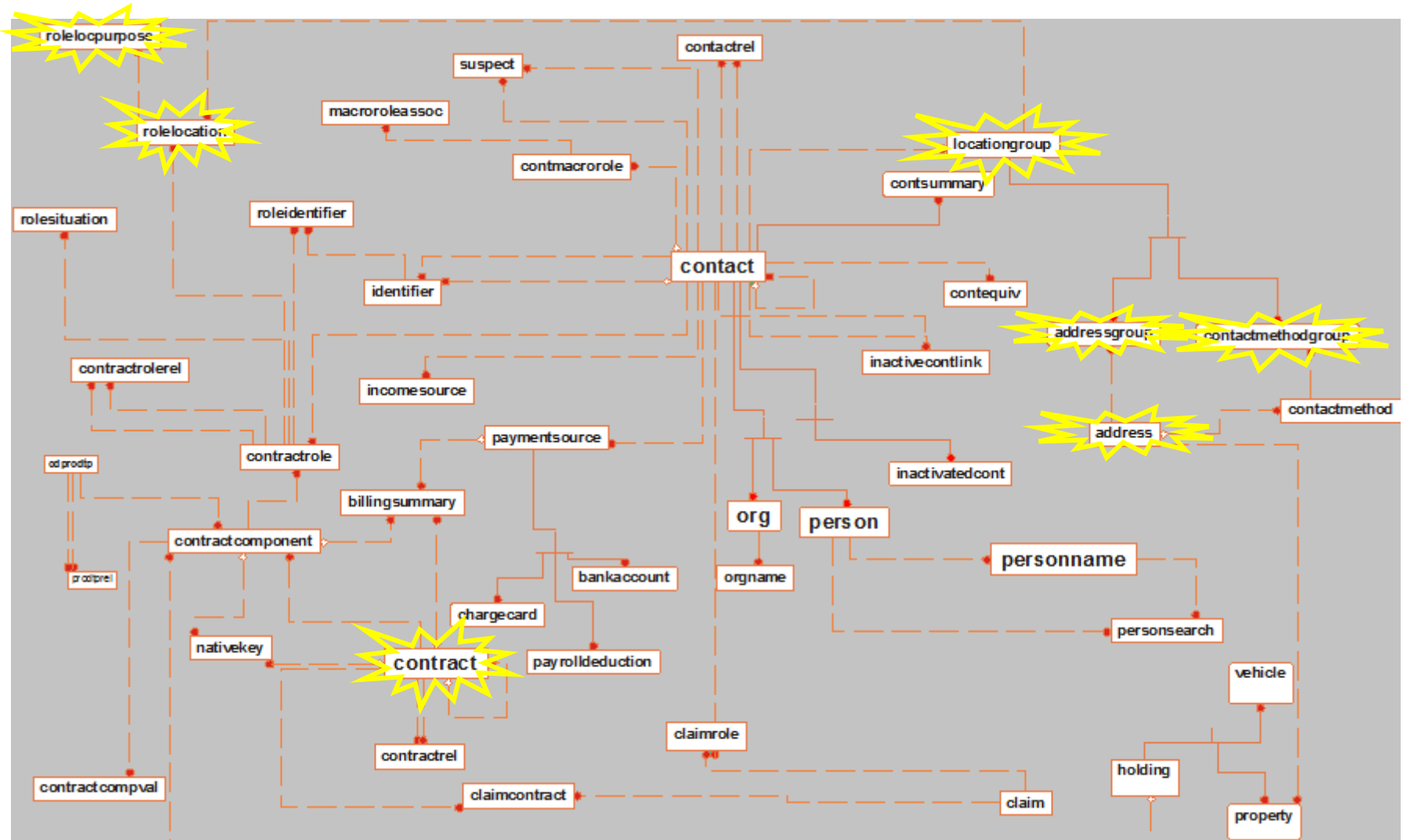
CONTRACT

CONTRACT_I D	ADMIN_SYS_TP_C D	ADMIN_CONT RACT_ID	...
146237057327	1 (Account System)	12345	...
263537057327	1 (Account System)	34567	...
...

Contract Native Key Example

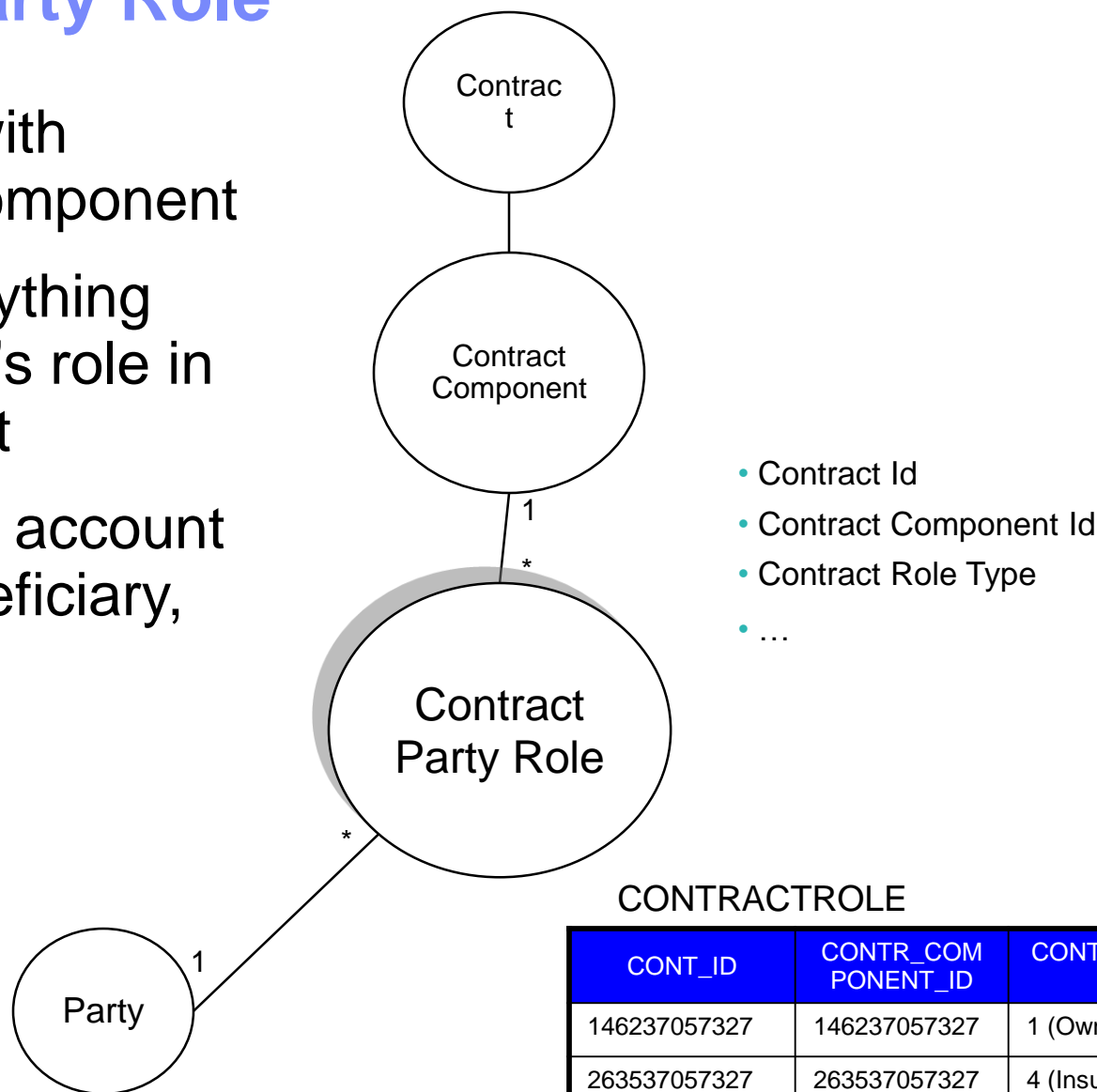


Account Domain



Contract Party Role

- Link party with Contract Component
- Stores everything about Party's role in the Contract
- Eg. Primary account holder, beneficiary, trustee, etc

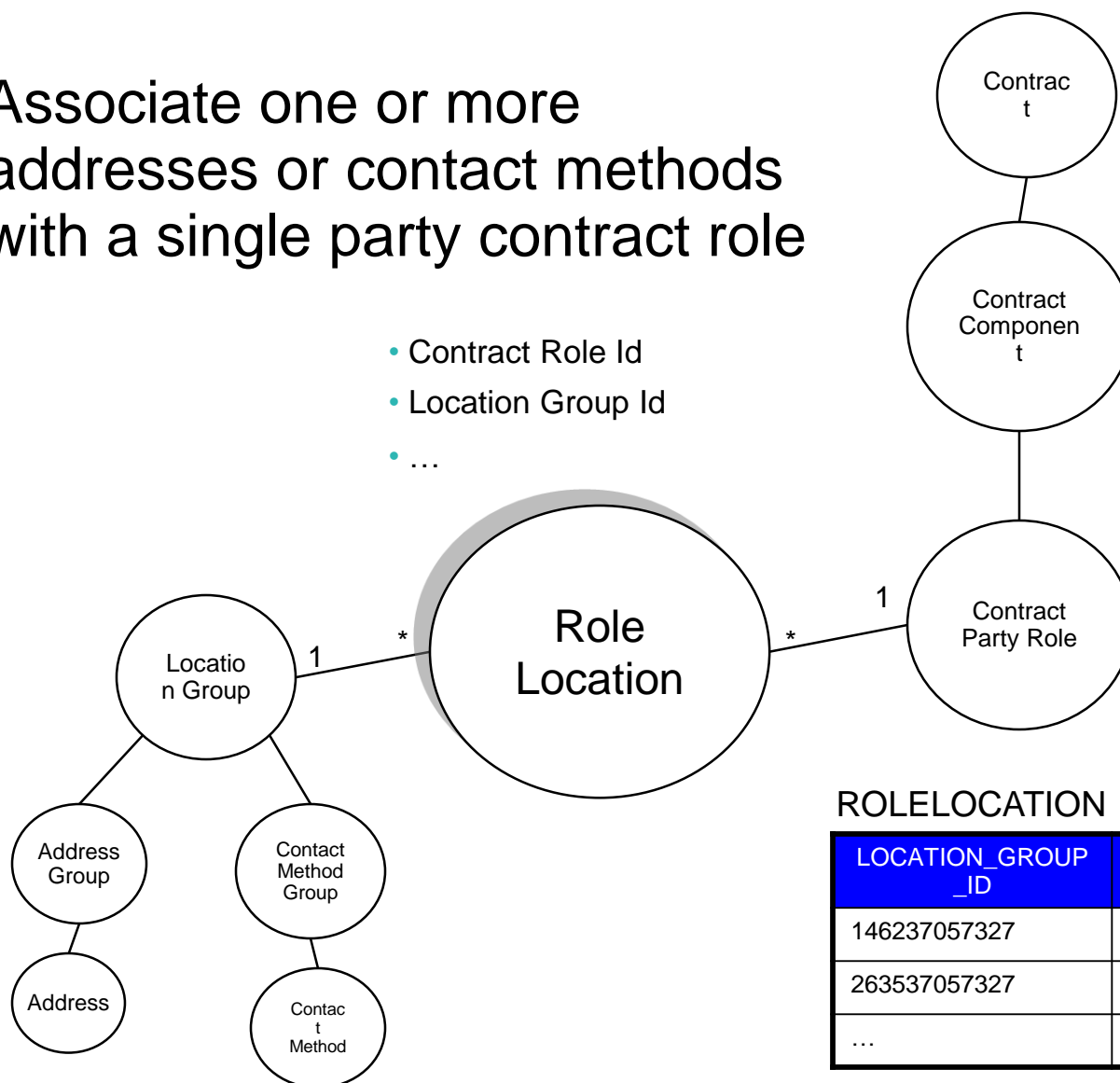


CONTRACTROLE

CONT_ID	CONTR_COMPONENT_ID	CONTR_ROLE_TP_CD	...
146237057327	146237057327	1 (Owner Primary)	...
263537057327	263537057327	4 (Insured Primary)	...
...

Role Location

- Associate one or more addresses or contact methods with a single party contract role

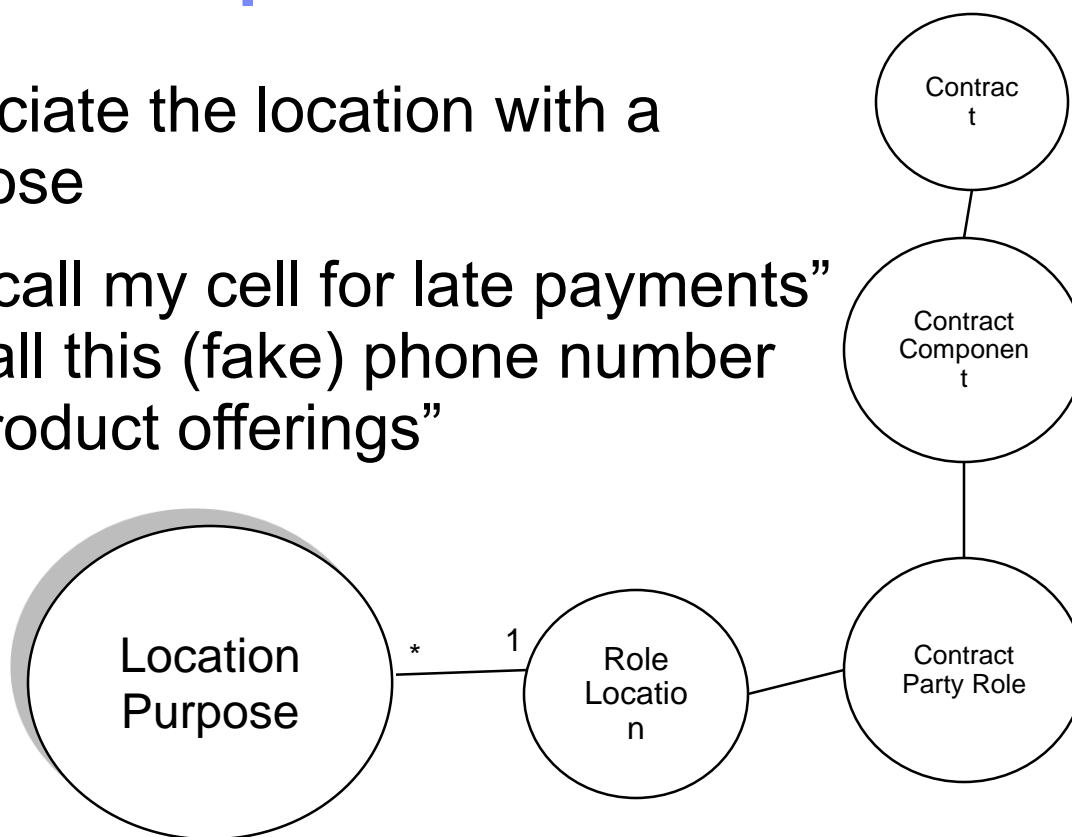


ROLELOCATION

LOCATION_GROUP_ID	CONTRACT_ROLE_ID	...
146237057327	385620949348	...
263537057327	348562048563	...
...

Location Purpose

- Associate the location with a purpose
- Eg. “call my cell for late payments” or “call this (fake) phone number for product offerings”

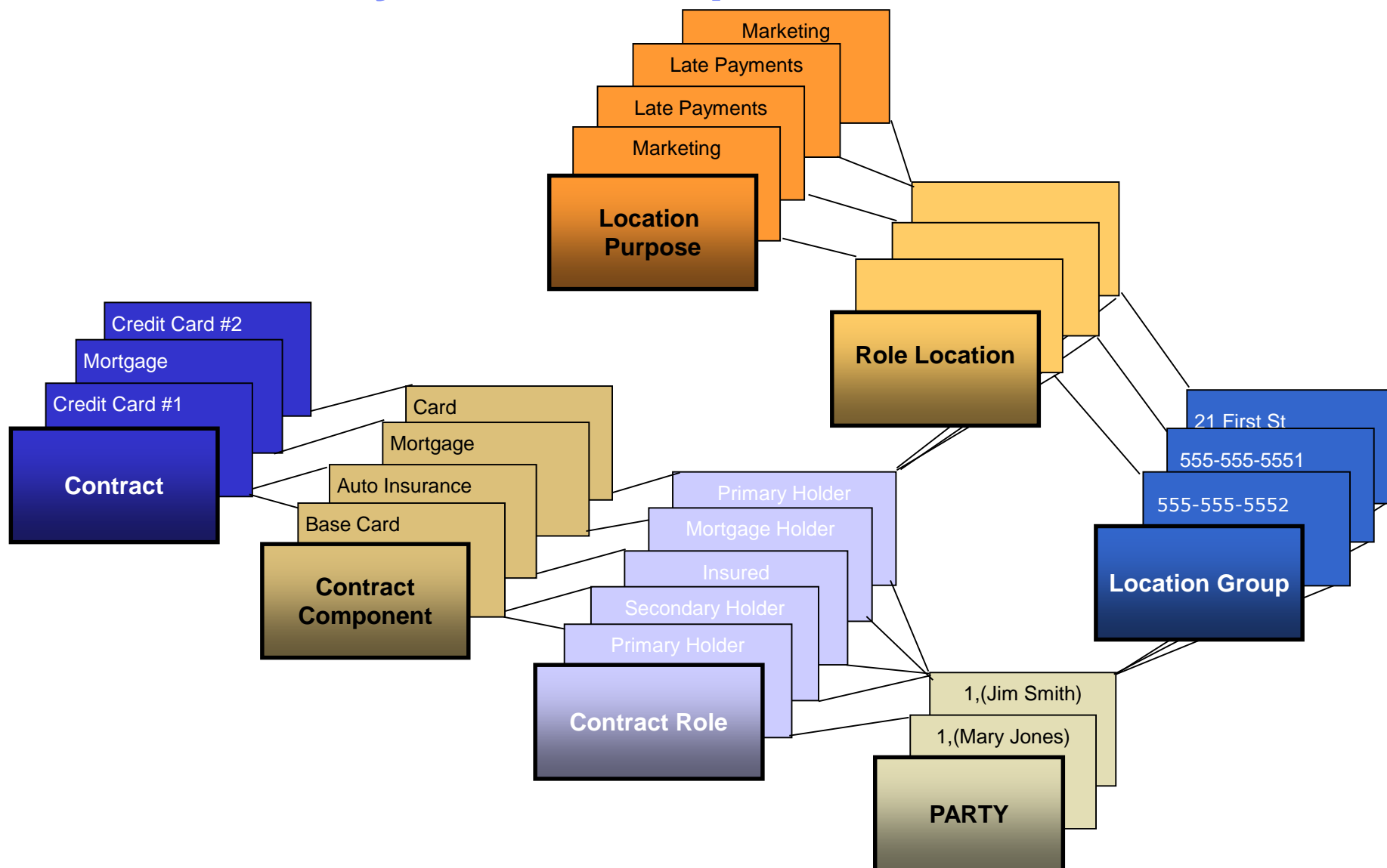


- Role Location ID
- Purpose Type
- ...

ROLELOCPURPOSE

ROLE_LOC_PURP_ID	PURPOSE_TP_CD	...
4725498573592	1 (Billing)	...
3746204854839	2 (Marketing)	...
...

Contract Party Role Example



Meet the Services

- **get/update/addContract** –manage contract and contract related entities
- **get/update/addContractPartyRole** – manage the link between a Party and a specific contract component
- **addContractRelationship** – add a relationship between two contracts (e.g. make a transfer payment from checking account to savings account)
- **add/updateMultipleContracts** – manage multiple contracts at the same time
- **getAllContractsByParty** – retrieves all the contracts that a given party has a role in, there are separate inquiry levels for the party and account
- **getFSParty** – retrieves party and related financial services information, there is only one party inquiry level to configure the amount of information returned
- **getPartyWithContracts** - returns party and its associated contracts, there are separate inquiry levels for the party and account

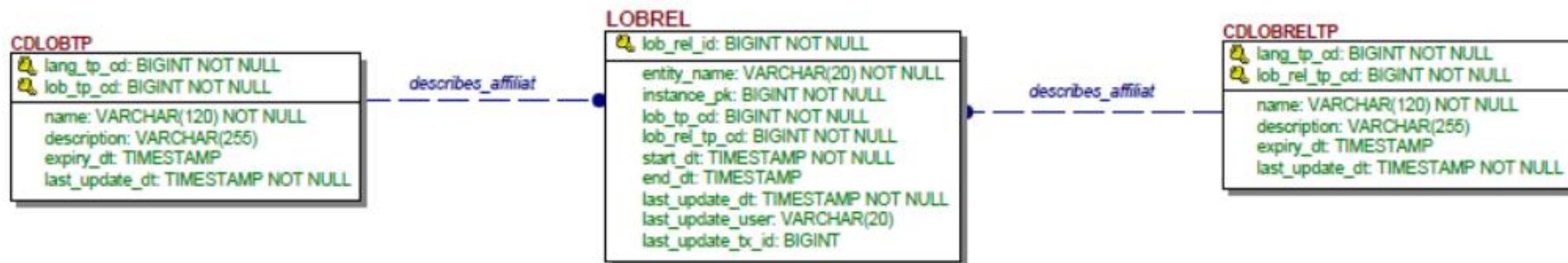
Instructor Led Online Course (ILO) Optional Materials

Common Entities within Party Domain

- Party Line of Business (LOB)
- Party Interactions
- Party Grouping
- Party Hierarchy
- Party campaigns

Party Line of Business

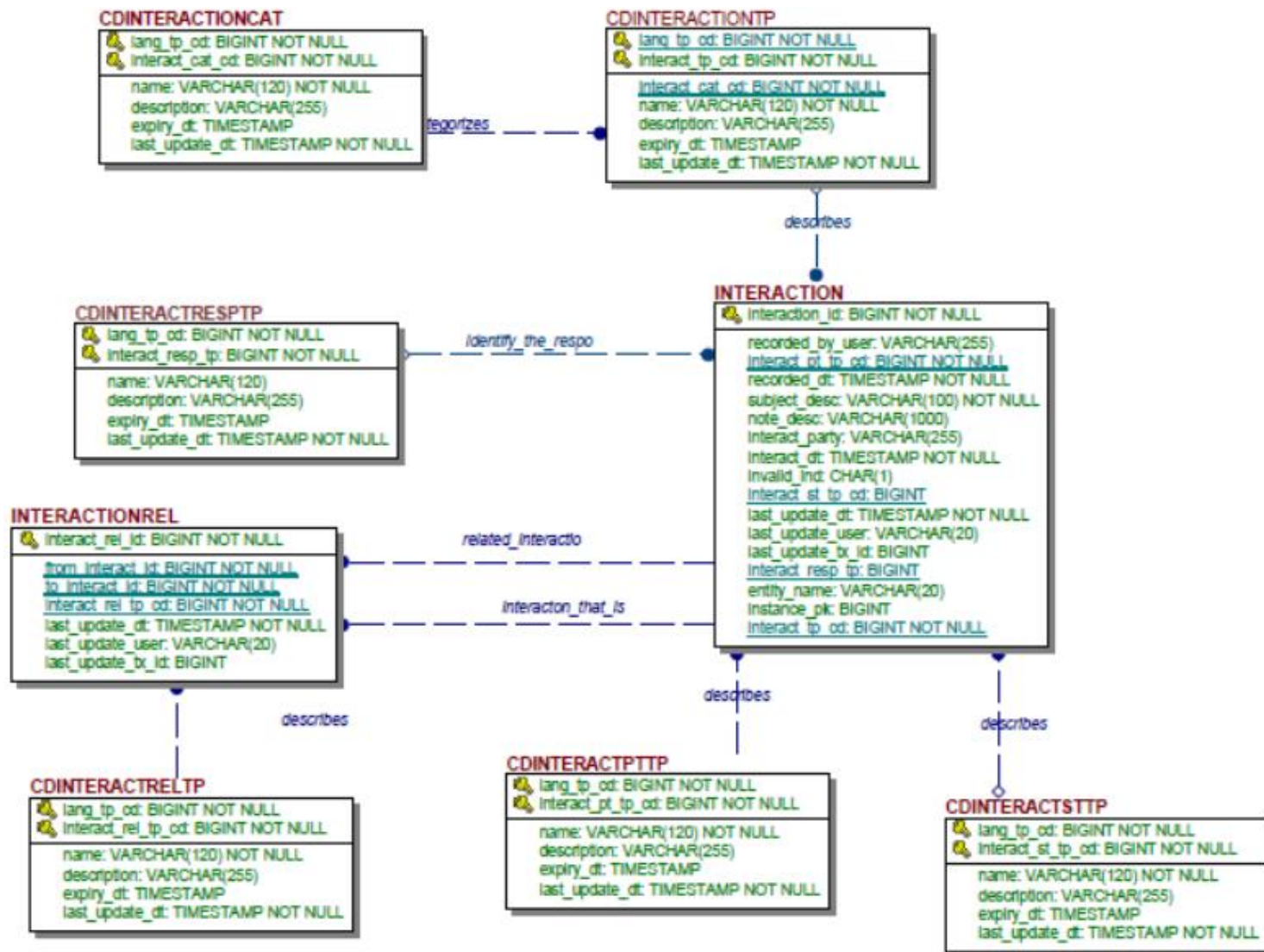
- Associates parties to specific lines of business (LOB) such as mortgage, credit cards, insurance and others
- Example
 - The Line of Business feature shows the relationship that the party John Smith has to Home Insurance



Party Interactions

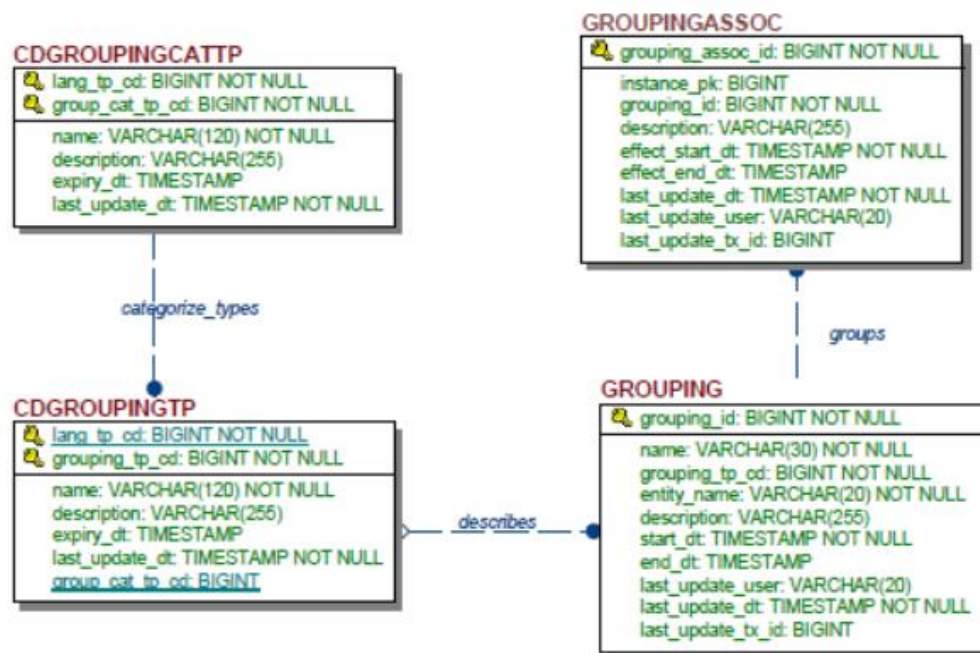
- Captures details related to interactions a party has had with the enterprise
- Information being captured:
 - The type of interaction
 - The subject of interaction
 - The notes about interaction
 - The relationship of the interaction to other interactions
- Example
 - Louise Jones phoned a call center and requests marketing information. The customer service representative (CSR) records the interaction and adds the requests to the database

Party Interactions Data Model



Party Grouping

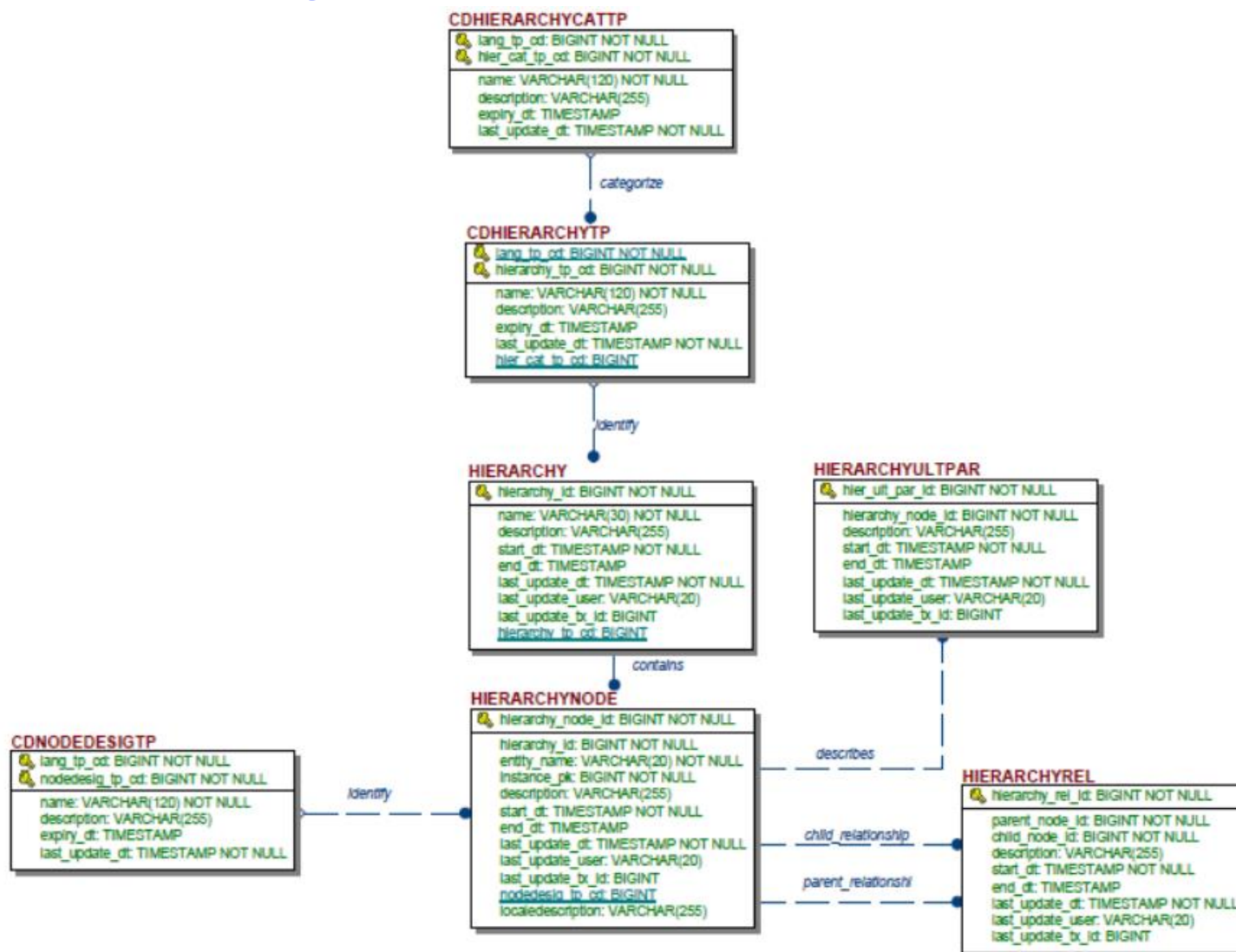
- Identifies a collection of items with a common thread
- Example
 - A grouping of campaigns targeting the over 65 age group
 - A household group that is comprised of parties who live at the same address
 - A High Health Risk group of males over the age of 40 who smoke 2 packs of cigarettes a day



Party Hierarchy

- Provides services to manage generic hierarchies in the system
- Services to retrieve hierarchy information with the party info, and to search for a party within a party hierarchy
- Hierarchy can be used to show ...
 - The organizational structure of legal entities
 - The responsibility and level of people within an organization

Party Hierarchy Data Model



Party Campaigns

- Stores and retrieves information regarding marketing campaigns
- Promotes awareness of something such products, information (eg. Fee changes), parties (eg, individuals or organizations or groups)

CAMPAIGNASSOCIAT

campaignassoc_id: BIGINT NOT NULL
entity_name: VARCHAR(20) NOT NULL
instance_pk: BIGINT NOT NULL
campaign_id: BIGINT NOT NULL
associate_ind: CHAR(1)
start_dt: TIMESTAMP NOT NULL
end_dt: TIMESTAMP
last_update_user: VARCHAR(20)
last_update_dt: TIMESTAMP NOT NULL
last_update_tx_id: BIGINT

is_regarding_or_ta

CAMPAIGN

campaign_id: BIGINT NOT NULL
campaign_tp_cd: BIGINT
campaign_source: VARCHAR(100)
name: VARCHAR(30) NOT NULL
description: VARCHAR(255)
start_dt: TIMESTAMP
end_dt: TIMESTAMP
created_dt: TIMESTAMP NOT NULL
last_update_user: VARCHAR(20)
last_update_dt: TIMESTAMP NOT NULL
last_update_tx_id: BIGINT
priority_tp_cd: BIGINT

describes

CDCCAMPAIGNTP

lang_tp_cd: BIGINT NOT NULL
campaign_tp_cd: BIGINT NOT NULL
name: VARCHAR(120) NOT NULL
description: VARCHAR(255)
expiry_dt: TIMESTAMP
last_update_dt: TIMESTAMP NOT NULL

Example

An insurance company can associate information about a special interest rate to group of alumni who qualify for that rate.

Once associated with Party Campaigns feature, a customer service representative can then present the offer of the special interest rate to the qualified groupings.