EBS R12 TCA架构理解

----TCA核心术语&表的理解

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Creation Date: January 10, 2009

Last Updated: January 16, 2009

Document Ref: <Document Reference Number>

Version: DRAFT 1A

Document Control

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Date	Author	Version	Change Reference
Jan. 16, 09		Draft 1a	No Previous Document

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1. TCA 入门和核心术语

1.1. 概述

1.1.1. 本文目的

本文的目的是帮助新接触的R12 TCA的朋友在最短的时间掌握后台表结构，从而有更多的时间去掌握TCA架构的业务。由于项目原因，在系统中和TCA关系最紧的客户，供应商和银行在后面有时间后会整理出。

1.2. TCA介绍

1.2.1. TCA定义

首先明确一点，**TCA既不是OA的一个独立模块也不是OA某个模块的功能，它仅仅是一种架构**。TCA(Trading Community Architecture)是R12中通过增加供应商和银行来扩展R11客户模型以支持复杂的贸易关系，满足额外需求的一种架构。因此，TCA是一种用来管理与公司商业有关的成员的复杂信息的数据模型，该成员是可以是客户、供应商和银行，同时也可以是组织，地点，或成员之间的网络层次关系，同时也是一种很灵活和健壮的支持录入和管理与我们交易相关的实体的数据模型。

1.2.2. TCA的特点

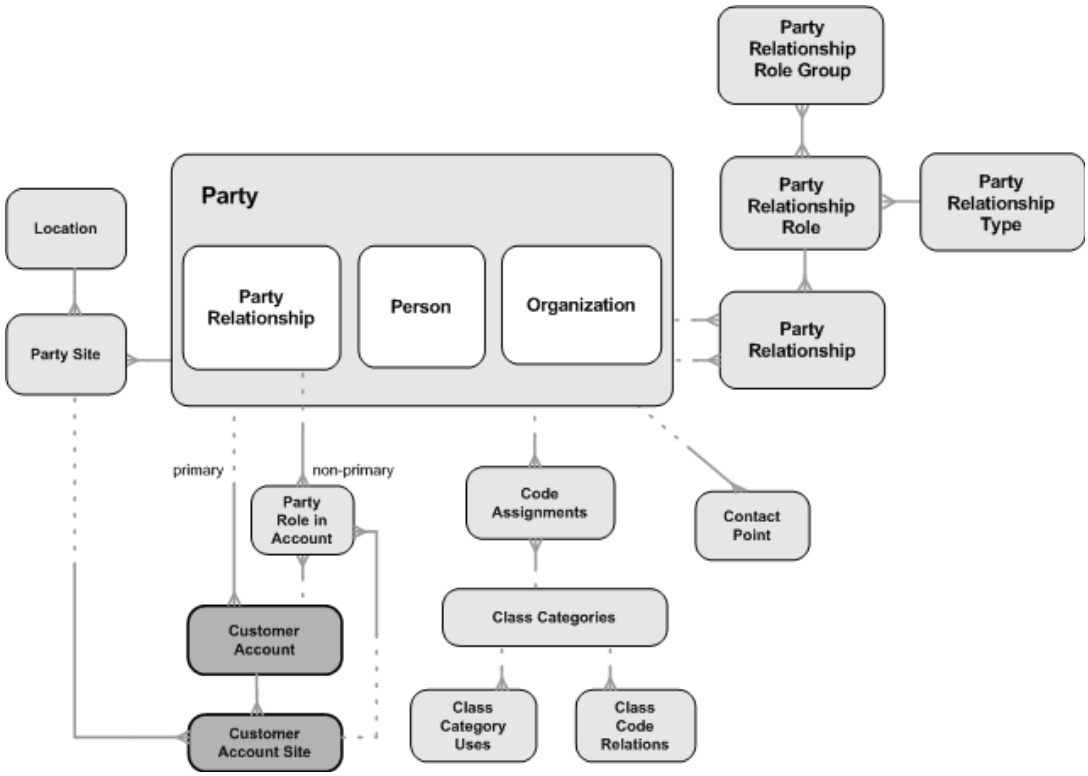
1. 实现了用户创建和管理实体关系,该关系是联系各个成员的核心，同时也是后台取数逻辑的重点。
2. TCA模型集成了跨越整个Oracle EBS Applications 的客户，潜在客户，供应商，批发商，零售商，投资方，银行的数据。
3. TCA不仅考虑到本公司和其商业伙伴关系的维护，同时考虑到了自己的商业伙伴之间，以及商业伙伴和其自身的商业伙伴之间的关系的维护，也即是类似于系统中考虑到了实施公司的供应商和该供应商的其它客户的关系的维护。
4. TCA中实现了高级的关系模型，任何一个成员可以包括到多个数量的合理成员关系，甚至是矩阵层次结构的关系网络。
5. TCA可以自定义成员分类，用于进行不同类成员之间的报告和分配目的。
6. 可以扩展数据模型以满足各种业务数据的需求。
7. 在TCA中三个实体驱动了整个模型：关系(Relationships)，成员(Party)，账户(Account)

1.2.3. TCA的优点

1. 为客户信息提供了一个唯一来源。
2. 模拟了各种业务关系。
3. TCA将所有的商业实体作为一个成员（组织，个人，团体，关系），并以同样的方式处理它们。这种方式为同一模型中适应B2B， B2C和混合模式提供了灵活的处理机制。
4. 成员集成实现了多种业务关系。

5. 成员和地址之间的多对多关系，减少了地址的重复，并且使数据的更新更加简便。
6. 支持实际世界中复杂的，多层次，多组织 的交易关系。

1.2.4. TCA逻辑结构图



1. 3. TCA核心术语及其基表

1.3.1. 成员(Party)

成员是指在TCA中能形成交易关系的商业实体。一个成员可以是，个人，组织，银行，子公司，法人实体，控股公司，等等。一个成员的属性是最基础的（例如名称，TCA中涉及到的所有实体名称中成员表(HZ_PARTIES)中的名称最准确）。成员概念的出现使客户模型能够容纳所有的商业实体，不论该商业实体是何种类型，从而更加容易地实现B2B、B2C模式。

TCA中有四种类型的成员：

1. **人员**(Person)---和该ERP实施公司有利益关系的唯一个人。
2. **组织**(Organization)---被政府机构承认的法人实体。
3. **团体**(Group)---便于实施公司使用，由两个或两个以上的个人、组织或团体组成。

4. **关系**(Relationship)---指独立的人员或组织之间的联系，通常是一个组织或一个团体的联系点。

相关后台表和语句:

HZ_PARTIES：HZ_PARTIES存放成员的基本信息，该信息可以用于建立两个成员之间的联系，不同的成员可以使用相同的成员名称。该表记录的生成是在建立相应成员的时候,如果两个成员之间有关联关系时，该表还会产生一条成员类型为PARTY_RELATIONSHIP的记录来标示两者的关系，eg.当建立银行时会在该表中生成一条记录，名称为银行名称，当建立银行分行的时候会生成一条分行记录，同时该表中还会产生一条成员类型为PARTY_RELATIONSHIP的记录。结构如下图:

113043	3281	汉森测试分行	ORGANIZATION
113045	3282	汉森测试银行-汉森测试分行-3282	PARTY_RELATIONSHIP
113041	3280	汉森测试银行	ORGANIZATION

在该表中有一个初始id为-1000，名字为All Users的记录，供系统内部特殊业务需求。HZ_PARTIES包含和HZ_LOCATIONS, HZ_PERSON_PROFILES, HZ_CONTACT_POINTS, HZ_ORGANIZATION_PROFILES, 和HZ_PERSON_LANGUAGE表中关联的字段信息。该表常用字段如下:

PARTY_ID	Party identifier
PARTY_NUMBER	Unique identification number for this party
PARTY_NAME	Name of this party
PARTY_TYPE	The party type can only be Person, Organization, Group or Relationship.
VALIDATED_FLAG	Indicates if the party was validated. Y for a validated party, N for a party that is not validated.
SIC_CODE	Standard Industry Classification (SIC) code
HQ_BRANCH_IND	Status of this site. Identifies if the location is the headquarters, a branch, or a single location.
CUSTOMER_KEY	Derived key used to facilitate fuzzy searches
TAX_REFERENCE	Taxpayer registration number, also known as the VAT number.
JGZZ_FISCAL_CODE	Taxpayer identification number, often unique identifier of person or organization. Can be SSN or income taxpayer ID in US, fiscal code or NIF in Europe
DUNS_NUMBER	The DUNS number, a unique, nine-digit identification number assigned to business entities by Dun & Bradstreet
TAX_NAME	No longer used
PERSON_PRE_NAME_ADJUNCT	Salutary introduction, such as Mr. or Herr
PERSON_FIRST_NAME	First name of the person
PERSON_MIDDLE_NAME	Middle name of the person
PERSON_LAST_NAME	Last or surname of the person
PERSON_NAME_SUFFIX	Indicates the place in a family structure. For example, in Tom Jones III, the "III" is the suffix.
PERSON_TITLE	A professional or family title. For example, Don or The Right Honorable.
PERSON_ACADEMIC_TITLE	Academic title that is part of a person's name, such as Dr. John Smith.
PERSON_PREVIOUS_LAST_NAME	Previous last or surname of the person

PERSON_IDEN_TYPE	Personal identifier type, such as driver's license or passport. Lookup type for PERSON_IDENTIFIER column
PERSON_IDENTIFIER	Personal identifier, such as driver's license or passport number, or country-specific identifier for person located or doing business in multiple countries
GROUP_TYPE	Lookup for group type
COUNTRY	The country listed in the TERRITORY_CODE column of the FND_TERRITORY table. for the Identifying address.
ADDRESS1	First line of the Identifying address
ADDRESS2	Second line of the Identifying address
ADDRESS3	Third line of the Identifying address
ADDRESS4	Fourth line of the Identifying address
CITY	City of the Identifying address
POSTAL_CODE	Postal Code of the Identifying address
STATE	State of the Identifying address
PROVINCE	Province of the Identifying address
STATUS	Party status flag.
COUNTY	County of the Identifying address

成员类型lookup_code查询:

```
SELECT ptypelu.lookup_type
      ,ptypelu.lookup_code
      ,ptypelu.meaning
      ,ptypelu.description
  FROM fnd_lookup_values ptypelu
 WHERE ptypelu.view_application_id(+) = 222
   AND ptypelu.lookup_type(+) = 'PARTY_TYPE'
   AND ptypelu.LANGUAGE(+) = userenv('LANG');
```

LOOKUP_TYPE	LOOKUP_CODE	MEANING	DESCRIPTION
PARTY_TYPE	GROUP	组	组
PARTY_TYPE	ORGANIZATION	组织	组织
PARTY_TYPE	PARTY_RELATIONSHIP	交易方关系	交易方关系
PARTY_TYPE	PERSON	人员	人员

HZ_ORGANIZATION_PROFILES：该表主要存储HZ_PARTIES表中PARTY_TYPE为ORGANIZATION的成员的附加详细信息，Eg.如该组织的员工数，CEO姓名等，并且根据不同分类的组织该表还会存储该组织的特殊信息，eg.当成员的分类为银行时，该表的bank_or_branch_number字段会存储其银行编号，其和HZ_PARTIES关联的键是party_id字段。该表的记录是在建立ORGANIZATION类型成员的时候产生的，同时该表还会保存该成员的历史信息，如果更新成员后会在该表中为该成员产生一条新的记录，实现该功能的字段是effective_start_date 和effective_end_date。

和HZ_PARTIES表关联获取组织为银行的数据:

```
SELECT hop.party_id
      ,hop.bank_or_branch_number
      ,hop.organization_name
      ,hop.home_country
  FROM hz_organization_profiles hop
      ,hz_parties               hp
      ,hz_relationships         hr
 WHERE hop.party_id = hp.party_id
   AND SYSDATE BETWEEN trunc(hop.effective_start_date) AND
       nvl(hop.effective_end_date,SYSDATE + 1)
```

```
    AND hp.status = 'A';
```

HZ_PERSON_PROFILES：该表主要功能和HZ_ORGANIZATION_PROFILES类似不过该表存储的是HZ_PARTIES表中PARTY_TYPE为PERSON的成员的附加详细信息，eg.全名，性别，生日等。该表的记录是在建立PERSON类型成员的时候生成的，该表也实现了历史信息跟踪功能。

和HZ_PARTIES关联获取人员的详细信息:

```
SELECT p.party_id                  person_id
      ,p.party_number              person_number
      ,p.party_name                person_name
      ,p.party_type                party_type
      ,p.person_last_name          surname
      ,p.person_first_name         given_names
      ,p.person_middle_name        middle_name
      ,p.person_name_suffix        suffix
      ,p.person_pre_name_adjunct pre_name_adjunct
      ,p.person_title              title
      ,p.email_address             email_addr
      ,p.salutation                salutation
      ,pp.person_name              full_name
      ,pp.gender                   sex
      ,pp.date_of_death            deceased_date
      ,pp.date_of_birth            birth_dt
  FROM hz_parties         p
      ,hz_person_profiles pp
 WHERE p.party_id = pp.party_id(+)
   AND hp.status = 'A'
   AND pp.content_source_type(+) = 'USER_ENTERED'
   AND SYSDATE BETWEEN pp.effective_start_date AND
nvl(pp.effective_end_date,SYSDATE)
```

1.3.2. 成员关系(Party Relationship)

两个成员之间的二元关系。成员关系的功能是构建业务的组织层次和结构，是整个TCA架构组织的重要组成连接，通过成员关系将独立的成员整合为一个实际系统，从而实现现实系统的模拟。成员关系类型可以使用系统预定义的，也可以自定义。成员关系是成员自身的选择，这意味着不同的成员关系能进行EBS中各种类型的交易。一个成员可以和其他成员建立多个关系，成员关系有有效期控制，这样可以实现该成员的关系能适时改变。**每个关系包括两个成员实体，主实体(subject)和从实体(object)。**

相关后台表和语句:

HZ_RELATIONSHIPS: HZ_RELATIONSHIPS表存放两个成员之间关系的详细信息，该表使用SUBJECT_ID 和OBJECT_ID列来指定两个成员之间的关系，所以该成员关系中的数据都是成对出现的，即如果HZ_RELATIONSHIPS中有一条记录的SUBJECT_ID为A的party_id, OBJECT_ID为B的Party_id，那么同时肯定也会有一条记录的SUBJECT_ID为B的party_id, 而OBJECT_ID为A的Party_id，这两条纪录的RELATIONSHIPS_ID是相同的，RELATIONSHIPS_TYPE也是相同的，但RELATIONSHIPS_CODE不同，如果A是一个客户，B是联系人，那么SUBJECT_ID为A的party_id对应记录的RELATIONSHIPS_CODE为‘有联系人’,SUBJECT_ID为B的party_id对应记录的RELATIONSHIPS_CODE为‘联系人’，该表的常用字段如下：

RELATIONSHIP_ID	The unique identifier of a relationship

SUBJECT_ID	The identifier of the subject in this relationship
SUBJECT_TYPE	Subject type of the relationship
SUBJECT_TABLE_NAME	Source table name for the subject
OBJECT_ID	The identifier of the object in this relationship
OBJECT_TYPE	Object type of the relationship
OBJECT_TABLE_NAME	Source table name for the object
PARTY_ID	Internal identifier of party with PARTY_RELATIONSHIP party type
RELATIONSHIP_CODE	Either a forward or a backward relationship code
DIRECTIONAL_FLAG	Indicates if this is a directional relationship, such as parent-to-child or headquarters-to-branch. F for a forward relationship and B for a backward relationship.
COMMENTS	User comments
START_DATE	Date relationship begins
END_DATE	Date relationship ends
STATUS	Indicates if this is an active or inactive relationship. A for active, I for inactive.

成员关系类型lookup_code查询:

```
SELECT arl.lookup_type
      ,arl.lookup_code
      ,arl.meaning
  FROM ar_lookups arl
 WHERE arl.lookup_type = 'PARTY_RELATIONS_TYPE'
```

展示成员关系:

```
SELECT hr.relationship_id   编号
      ,hrsubject.party_name 主对象
      ,hr.relationship_code 关系
      ,hr.directional_flag  方向
      ,hrobject.party_name  客对象
  FROM hz_relationships hr
      ,hz_parties       hrsubject
      ,hz_parties       hrobject
 WHERE hr.relationship_id = 61080
   AND hrsubject.party_id = hr.subject_id
   AND hrobject.party_id = hr.object_id
   AND SYSDATE BETWEEN hr.start_date AND nvl(hr.end_date,
                                             SYSDATE + 1)
   AND hrsubject.status = 'A'
   AND hrobject.status = 'A'
```

	编号	主对象	关系	方向	客对象
1	61080	汉森测试分行	BRANCH_OF	B	汉森测试银行
2	61080	汉森测试银行	HAS_BRANCH	F	汉森测试分行

将上面这条语句稍加变动就可以查看与某个组织有关系的成员，以及关系类型

```
SELECT hrsubject.party_name 主对象
      ,hr.relationship_code 关系
      ,hr.directional_flag  方向
      ,hrobject.party_name  客对象
  FROM hz_relationships hr
```

```
      ,hz_parties       hrsubject
      ,hz_parties       hrobject
 where hrsubject.party_id = hr.subject_id
   AND hrobject.party_id = hr.object_id
   and hr.subject_id = 4041
   AND SYSDATE BETWEEN hr.start_date AND nvl(hr.end_date,
                                             SYSDATE + 1)
   AND hrsubject.status = 'A'
   AND hrobject.status = 'A';
```

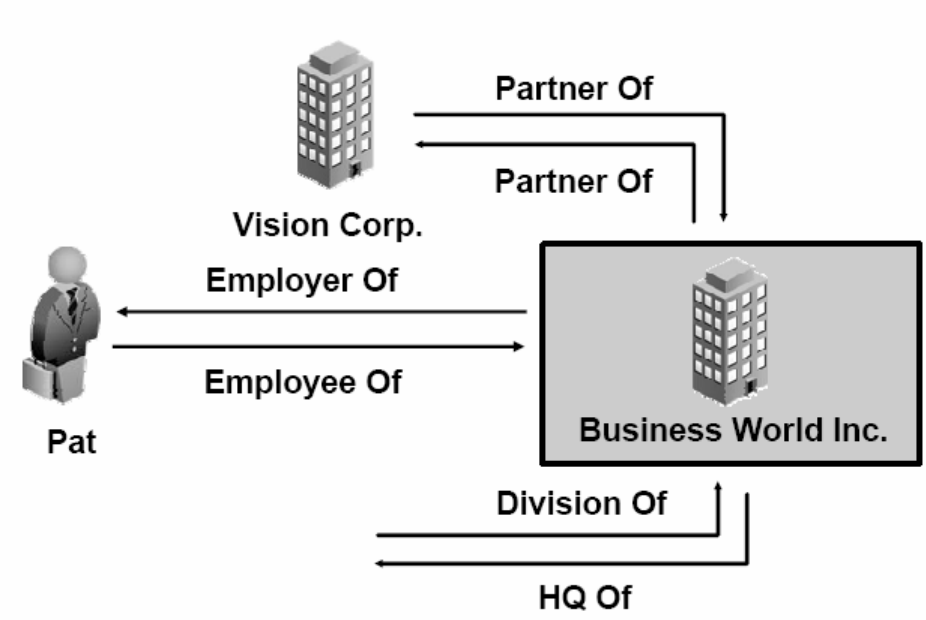
主对象	关系	方向	客对象
中国农业银行	HAS_BRANCH	F	农行液压机客户分行
中国农业银行	HAS_BRANCH	F	农行液压机供应商分行
中国农业银行	CONTACT	B	王汉森 王
中国农业银行	HAS_BRANCH	F	中国农行上海分行
中国农业银行	CONTACT	B	李汉森 李
中国农业银行	CONTACT	B	李美丽 李

查询银行信息:

```
 SELECT hop.party_id
      ,hop.bank_or_branch_number bank_number
      ,hop.organization_name bank_name
      ,hop.home_country
      ,hzp.party_name   branch_name
  FROM hz_organization_profiles hop
      ,hz_parties               hp
      ,hz_relationships         hr
      ,hz_parties hzp
 WHERE hr.relationship_type = 'BANK_AND_BRANCH'
   AND hr.relationship_code = 'HAS_BRANCH'
   AND hzp.party_id = hr.object_id
   AND hr.object_type = 'ORGANIZATION'
   AND hr.object_table_name = 'HZ_PARTIES'
   AND hr.subject_type = 'ORGANIZATION'
   AND hr.subject_table_name = 'HZ_PARTIES'
   AND SYSDATE BETWEEN hr.start_date AND nvl(hr.end_date,
                                             SYSDATE + 1)
   AND hr.status = 'A'
   AND hop.party_id = hr.subject_id
   AND SYSDATE BETWEEN trunc(hop.effective_start_date) AND
       nvl(hop.effective_end_date,
           SYSDATE + 1)
   AND hp.party_id = hop.party_id
                         AND hp.status = 'A';
```

在系统中自定义成员关系类型时会存入一张表**HZ_RELATIONSHIP_TYPES.**

成员关系的主客关系介绍:



摘录一个关于成员关系的例子:

Joe is an individual consumer of Business World, purchasing B2C goods directly forhis personal use. Business World stores information on Joe such as his homeaddress (for billing and shipping) as well as his personal email address andphone number. XYZ is a B2B customer of Business World, and purchases goods on behalf of their entire organization. Business World storesinformation on XYZ such as their global purchasing agreement, their bill-toand ship-to information, and additional organizational information (e.g.website, phone number, etc.) Joe works for XYZ, and is linked via a PartyRelationship. The information Business World stores on Joe at XYZ isseparate from the information stored on Joe as a Person or the informationstored on XYZ as an Organization. As a Party Relationship type "EmployeeOf", Business World stores information such as Joe's position at XYZ, hiscontact information (e.g. phone number, email, etc.) at XYZ, as well as his address at XYZ. Joe, as an Employee of XYZ can enter into transactions with Business World separately from Joe as an individual. For example, if Joe calls into to place a B2C order for his own personal use, Business World would record this transaction at the "Joe" level, whereby if Joe called in on behalf of XYZ to place a B2B order, Business World would track this information at the "Joe at XYZ" level.

1.3.3. 地址(Location)

由街道地址所描述的地理上的一个点。

相关后台表和语句:

HZ_LOCATIONS: HZ_LOCATIONS表存放存放地址的详细信息，例如大楼号，街道地址，邮政编码，城市，省份。 该表的信息是成员变量(成员类型为组织或人员)和客户账户的地理信息。同时该表还可以存放时区，经度和纬度信息。常用列信息如下:

LOCATION_ID	Unique identifier for this location
COUNTRY	Country code from the TERRITORY_CODE column in the FND_TERRITORY table

ADDRESS1	First line for address
ADDRESS2	Second line for address
ADDRESS3	Third line for address
ADDRESS4	Fourth line for address
CITY	City
POSTAL_CODE	Postal code
STATE	State
PROVINCE	Province
COUNTY	County
LOCATION_DIRECTIONS	Directions to the location
TIMEZONE_ID	Time zone identifier. Foreign key to HZ_TIMEZONES

由于地址的分配是通过地点来控制的,因此该表和HZ_PARTY表的关联主要是通过HZ_PAETY_SITES来实现的。

HZ_LOCATION_PROFILES： 该表主要存储地址的历史信息的更改记录,附加详细信息。

1.3.4. 地点(Party Site)

成员和地址之间的联系，其目的是为了控制地址对成员对应关系的有效性。从技术方面考虑，通过成员地点来实现成员和多个地点的联系。

相关后台表和语句：

HZ_PARTY_SITES:该表存储的是成员的地点信息，主要功能是连接成员表(HZ_PARTIES)和地址表(HZ_LOCATIONS)，一个地点可以被多个成员使用，一个地址也可以为多个地点所使用。Eg.地点*张江科苑路151号*可以为成员类型为**组织**的 “汉得公司”使用，同时也可以为成员类型为**人员**的 多个“汉得员工” 使用。该表的常用字段如下:

PARTY_SITE_ID	Party site identifier
PARTY_ID	Identifier for the party. Foreign key to the HZ_PARTIES table.
LOCATION_ID	Identifier for the party site. Foreign key to the HZ_LOCATIONS table.
MAILSTOP	A user-defined code to indicate a mail drop point within their organization
IDENTIFYING_ADDRESS_FLAG	Indicates if this is the identifying address for the party. Y for the indentifying, N for sites that are not the indentifying site
STATUS	Party site status flag.
PARTY_SITE_NAME	User-defined name for the site
ADDRESSEE	Addressee information

HZ_PARTY_SITE_USES:该表存放地点的用处，如客户收单或收货地点，一个地点可以有多个用途，eg.既可以做收单方也可以做收货方,该表的常用列如下：

PARTY_SITE_USE_ID	Party site use identifier
COMMENTS	A textual description of the possible use of a site by a party

PARTY_SITE_ID	Identifier for the party site. Foreign key to the HZ_PARTY_SITES table
SITE_USE_TYPE	Site use type
PRIMARY_PER_TYPE	Indicates if this is the primary use for this site. Y for the primary site, N for all other sites.
STATUS	Indicates if this is an Active or Inactive site. A for active, I for inactive.

常用的地址查询,该查询只是逻辑介绍，在客户地址的查询中中地点通常是有OU屏蔽的，后面会介绍：

```
SELECT hp.party_name
      ,hps.party_site_name 站点名称
      ,hpsu.site_use_type
      ,hl.address1 地址1
      ,hl.city 市
      ,hl.postal_code 邮编
      ,hl.province 省
      ,hl.county 县
      ,ter.territory_short_name 国家
  FROM hz_parties         hp
      ,hz_party_sites     hps
      ,HZ_PARTY_SITE_USES hpsu
      ,hz_locations       hl
      ,fnd_territories_vl ter
 WHERE hp.party_name = '汉森测试'
   and hpsu.party_site_id = hps.party_site_id
   AND hp.status = 'A'
   and hpsu.status = 'A'
   AND hp.party_id = hps.party_id
   AND hps.location_id = hl.location_id
   AND ter.territory_code = hl.country
```

1.3.5. 联系要素(Contact Point)

在TCA架构中，为了实现灵活的扩展成员信息，同时又避免数据的冗余，将成员的联系要素分别存入到一张联系要素表中，该表中的多条记录整合后就会形成该成员完整的联系信息。成员的一种联系方式，eg.邮箱地址，电话号码，网站主页，传真。一个成员可以拥有多个联系要点。联系要点可以用于

1. 成员(party)
2. 地点或地址
3. 地点或地址层上的联系人

相关后台表和语句:

HZ_CONTACT_POINTS:该表主要存储成员或地点使用电子媒体的沟通方式的详细信息，eg.邮件, 电话, 传真, 和网络，所有的媒体方式在该表中都是存为一条独立的纪录，即使他们属于同一个成员。该表常用字段：

CONTACT_POINT_ID	Unique identifier of this contact point
CONTACT_POINT_TYPE	Contact point type, such as phone or e-mail. Valid value from COMMUNICATION_TYPE lookup type.
STATUS	Lookup: contact_point_status. Typically, active, inactive, delete.
OWNER_TABLE_NAME	Table that stores the owner of the contact point

OWNER_TABLE_ID	Foreign key to OWNER_TABLE_NAME identifies the owner of the contact point
PRIMARY_FLAG	Indicates if this is the primary contact point of this contact point type for referenced party, site, or location. Y for primary contact, N for all others.
EDI_TRANSACTION_HANDLING	ANSI standard code for EDI transaction type
EDI_ID_NUMBER	EDI trading partner number for the supplier site
EDI_PAYMENT_METHOD	Indicates how a payment is to be made through EDI. Valid methods are ACH and BOP.
EDI_PAYMENT_FORMAT	Indicates type of information being transmitted with the funds if using EDI_PAYMENT_METHOD ACH. Valid values are CCD, CCP, CHZ, CTX, PPD, and PPP.
EDI_REMITTANCE_METHOD	Indicates how remittance advice are sent to the supplier.
EDI_REMITTANCE_INSTRUCTION	Indicates who will send the remittance advice. Valid values are Banks or Payables systems.
EDI_TP_HEADER_ID	EDI transaction header unique identifier
EDI_ECE_TP_LOCATION_CODE	Trading partner location code for EDI Gateway
EMAIL_FORMAT	Indicates the preferred format for e-mail addressed to this address. For example, HTML or ASCII.
EMAIL_ADDRESS	E-mail address of the contact point
LAST_CONTACT_DT_TIME	Date and time of last contact placed to this contact point.
TIME_ZONE	Time zone expressed as the deviation or difference in hours from Greenwich Mean Time(GMT).
PHONE_AREA_CODE	The area code within a country code.
PHONE_COUNTRY_CODE	International country code for a telephone number. For example, 33 for France.
PHONE_NUMBER	A telephone number formatted in the local format. The number should not include area code, country code, or extension.
TELEX_NUMBER	Reference number (usually a telephone number) that TELEX messages are sent to.
WEB_TYPE	The prefix class to a web address. Typically this is either FTP or HTTP.
URL	Uniform resource locator
CONTENT_SOURCE_TYPE	Source of data content
RAW_PHONE_NUMBER	Unformatted telephone number
TIMEZONE_ID	Time zone identifier. Foreign key to HZ_TIMEZONES
CONTACT_POINT_PURPOSE	Contact point type, such as business or personal. Uses the CONTACT_POINT_PURPOSE lookup.
PRIMARY_BY_PURPOSE	Y indicates that this is the primary contact point of the contact point purpose for the party or site. A party or site can have only one contact point with a value of Y.

EFT_TRANSMISSION_PROGRAM_ID	Transmission program identifier
EFT_PRINTING_PROGRAM_ID	Printing program identifier
EFT_USER_NUMBER	The number that identifier you as a user of electronic funds transfer service to your bank or clearing organization.
EFT_SWIFT_CODE	EFT Swift Code

查询联系要素

```
SELECT al.lookup_code
      ,al.meaning
  FROM ar_lookups al
 WHERE al.lookup_type LIKE 'CONTACT_TYPE'
   AND al.enabled_flag = 'Y'
```

LOOKUP_CODE	MEANING
EDI	EDI
SMS	SMS
WEB	WEB
FAX	传真
PRIV_PREF	保密首选项
CALL	催缴
ALL	全部
TLX	电传
EMAIL	电子邮件
VISIT	访问
MAIL	邮件

查询联系要素

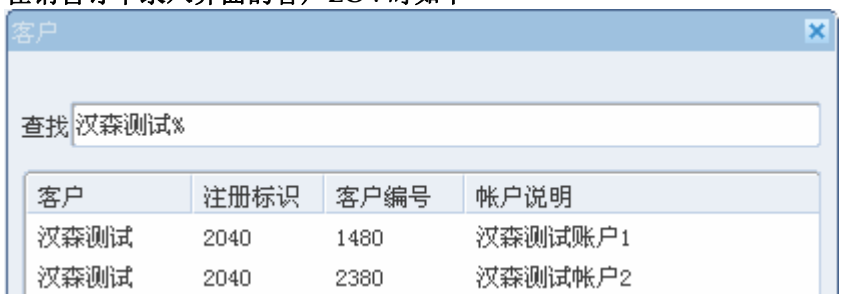
```
SELECT hcp.email_address
  FROM hz_parties        hp
      ,hz_contact_points hcp
 WHERE (hcp.contact_point_type(+) = 'EMAIL') ---类型,上面CODE
   AND (nvl(hcp.status(+),
            'A') = 'A') ---状态
   AND (hcp.owner_table_name(+) = 'HZ_PARTIES') ---主要表
```

AND (hcp.owner_table_id(+) = hp.party_id) ---/*HZ_PARTIES表中对应的party_id,如果是银行可以是银行的账户或者银行，或者客户，根据不同类型，对应不同的party类型party_id，也可以是与HZ_PARTIES.party_id 相对应的party_id 例如银行账户ID，银行ID*/

1.3.6. 客户账户(Customer Account)

账户在TCA中是指客户账户，**成员和实施公司之间的销售关系的属性**，账户属性不是对成员的补充。账户用于存放实施公司和成员之间的财务关系的细节。关于客户和账户之间重要的一点是: **客户交易必须基于账户展开，不能基于客户，**eg.当一个客户有两个客户帐户的时候，为该客户建立销售订单的时候，客户的最小单位是客户账户，但客户的名称都是一样的。如下图客户**汉森测试**有两个账户，**汉森测试帐户1**和**汉森测试帐户2**

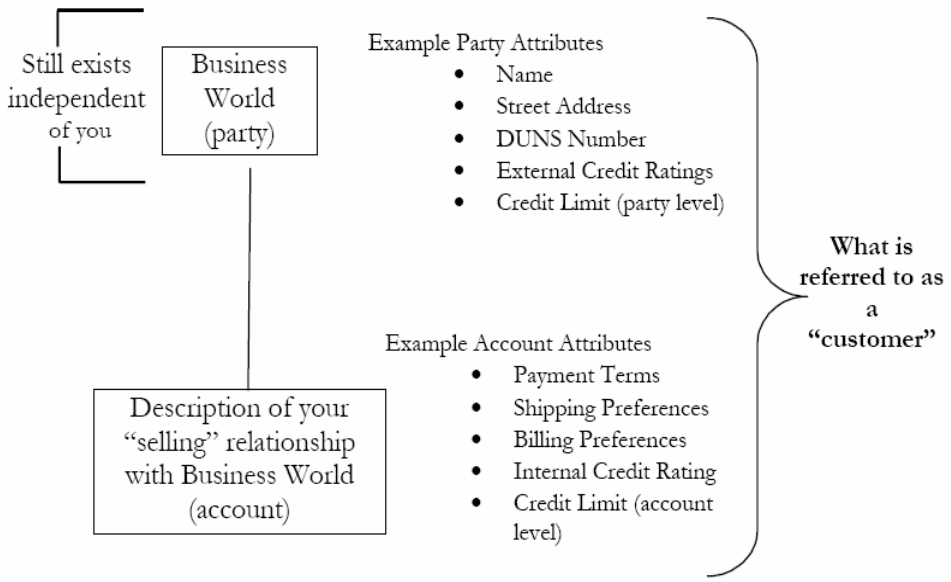
在销售订单录入界面的客户LOV时如下



关于帐户(hz_cust_accounts)和成员(hz_parties)的关系:

1. 账户用于描述买-卖关系，如收单方，收货方。
2. 一个实际事物，如个人和组织不能建为一个账户而是一个成员，更进一步该实际事物组成的成员和实施公司之间的销售关系可以使用帐户来表示。
3. 一个客户账户的名称不是客户名称，客户名称应该是与该帐户关联的成员的名称。
4. 客户账户必须是建立在成员上，不能独立存在。
5. 一个成员可以拥有多个客户账户。

两者的关系以及属性可以由下图展示：



HZ_CUST_ACCOUNTS:该表主要存储客户账户(在系统客户也即是客户账户)以及与实施公司有业务来往的组织或人员的信息（银行，分行，联系人），为这些组织或人员创建客户账户后，也可以成为客户。该表存储信息的焦点是在账户的商业关系以及关系上的商业活动（客户银行与分行的业务关系，以及联系人与客户之间的关系）。由于一个成员对应多个账户，该表可能会存在多条记录对应同一个成员表记录，eg

```
SELECT hzp.party_name
      ,hca.account_number
      ,hca.account_name
  FROM hz_parties       hzp
      ,hz_cust_accounts hca
 WHERE hzp.party_id = hca.party_id
 AND hzp.party_name = '汉森测试'
```

	PARTY_NAME	ACCOUNT_NUMBER	ACCOUNT_NAME
1	汉森测试	1480	汉森测试账户1
2	汉森测试	2380	汉森测试帐户2

该表的主要字段如下:

CUST_ACCOUNT_ID	Customer account identifier
PARTY_ID	A foreign key to the HZ_PARTY table.
STATUS	Customer status flag. Lookup code for CODE_STATUS
CUSTOMER_TYPE	Receivables lookup code for the CUSTOMER_TYPE attribute. I for internal customers, R for revenue generating external customers.
CUSTOMER_CLASS_CODE	Customer class indentifier
SALES_CHANNEL_CODE	Order Management lookup code for the SALES_CHANNEL attribute.
PRICE_LIST_ID	Price list identifier
TAX_CODE	Tax Code for the Customer
FREIGHT_TERM	Order Management lookup code for the FREIGHT_TERMS attribute.
SHIP_VIA	The name of the preferred ship method.
WAREHOUSE_ID	Warehouse identifier
TAX_HEADER_LEVEL_FLAG	Indicate if item is tax header or a line item. Y for records that are headers for tax purposes, N for records that are lines.
TAX_ROUNDING_RULE	Tax amount rounding rule
COTERMINATE_DAY_MONTH	Identifies the date when services ordered by the customer will end. Values for this column will take the form DD-MON.
PRIMARY_SPECIALIST_ID	This column is for the service personnel dispatching feature in Incident Tracking and is a foreign key to the PER_PEOPLE table
SECONDARY_SPECIALIST_ID	This column is for the service personnel dispatching feature in Incident Tracking and is a foreign key to the PER_PEOPLE table
ACCOUNT_ESTABLISHED_DATE	Date when the customer account was originally established through either an Oracle Application or a legacy system
HELD_BILL_EXPIRATIO	Held bill expiration date

N_DATE	
HOLD_BILL_FLAG	Indicates if the bill receivable should be held or not. Y for holding the bill, N for bills receivable should not be held.
ACCOUNT_NAME	Description chosen by external party (but can be entered internally on behalf on the customer)
DEPOSIT_REFUND_METHOD	Refund Method
NPA_NUMBER	Identifies an account with a Number Plan Area (NPA) used in telecommunications.
SOURCE_CODE	Promotion that was used to make the party a customer
COMMENTS	Free format information about the customer
DATES_NEGATIVE_TOLERANCE	Maximum number of days prior to a date
DATES_POSITIVE_TOLERANCE	Maximum number of days after a date
DATE_TYPE_PREFERENCE	Preference for ship or arrival dates
OVER_SHIPMENT_TOLERANCE	Percentage tolerance for over shipment
UNDER_SHIPMENT_TOLERANCE	Percentage tolerance for under shipment
OVER_RETURN_TOLERANCE	Percentage tolerance for over return
UNDER_RETURN_TOLERANCE	Percentage tolerance for under return
ITEM_CROSS_REF_PREF	Lookup for item cross reference preference for placing orders
SHIP_SETS_INCLUDE_LINES_FLAG	Indicates if lines should automatically be included in ship sets. Y for lines included in ship sets, N for lines not included in ship sets.
ARRIVALSETS_INCLUDE_LINES_FLAG	Indicates if lines include arrival sets. Y for lines included on arrival sets, N for lines not automatically included in arrival sets
SCHED_DATE_PUSH_FLAG	Indicates if the group schedule date should automatically be pushed. Y for pushing the schedule dates, N for not pushing the schedule date.
INVOICE_QUANTITY_RULE	Rule to indicate whether to invoice for ordered quantity or fulfilled quantity

该表的查询都和账户地点表(**hz_cust_acct_sites**)和账户地点使用表(**hz_cust_site_uses**)关联从而达到OU屏蔽的目的，账户本身不会有OU屏蔽，是在地点层进行屏蔽，将在后面给出实例。

HZ_CUSTOMER_PROFILES：和成员表类似，该表的主要存储账户的辅助信息。

1.3.7. 账户地点(Account Site)

在采购和销售中的收单方、收货方等都是帐户地点最直接的使用，**简单点说账户地点就是能够和实施公司进行业务往来的客户账户所使用的地点**，eg，收单方地点，收货方地点，前面已经介绍过在TCA中对账户不进行OU屏蔽，而对账户地点进行OU

屏蔽。同一个客户账户，在OU1中和OU2中可以使用同样的帐户信息，但如果需要和该账户进行交易，则必须有该OU对应交易地点(收货方，收单方)。

相关后台表和语句：

HZ_CUST_ACCT_SITES：该对象是AR模块HZ_CUST_ACCT_SITES的同义词，在R12中凡是涉及到重要表的同义词首先的推断就是OU屏蔽，然后在去验证，

```
SELECT dp.object_name
      ,dp.policy_name
      ,dp.package
      ,dp.FUNCTION
  FROM dba_policies dp
 WHERE dp.object_name = 'HZ_CUST_ACCT_SITES'
   AND dp.object_owner = 'APPS'
```

	OBJECT_NAME	POLICY_NAME	PACKAGE	FUNCTION
1	HZ_CUST_ACCT_SITES	ORG_SEC	MO_GLOBAL	ORG_SECURITY

验证结果也支持了推断。该表主要存放所有OU的客户账户地点，也即是通过该表来对限制当前OU能与哪些客户地点进行业务操作，**一个客户账户可以有多个客户账户地点，一个客户的账户地点可以被多个OU使用**。该表的常用字段如下：

CUST_ACCT_SITE_ID	Customer site identifier
CUST_ACCOUNT_ID	Identifier for a customer account. Foreign key to the HZ_CUST_ACCOUNTS table
PARTY_SITE_ID	Identifier for a party site. Foreign key to the HZ_PARTY_SITES table
STATUS	Customer Status flag. Receivables lookup code for CODE_STATUS
ORG_ID	Organization identifier
BILL_TO_FLAG	Indicates if this is a Bill-To site. Y for a Bill-To site, P for the primary Bill-To site, and N for a site that is not a Bill-To site.
MARKET_FLAG	Indicates if this is a Marketing site. Y for a Marketing site, P for the primary Marketing site, and N for a site that is not a Marketing site.
SHIP_TO_FLAG	Indicates if this is a Ship-To site. Y for a Ship-To site, P for the primary Ship-To site, and N for a site that is not a Ship-To site.
CUSTOMER_CATEGORY_CODE	User-definable category. The lookup type is ADDRESS_CATEGORY.
KEY_ACCOUNT_FLAG	Key account for sales representatives
ECE_TP_LOCATION_CODE	Stores the EDI location code. It should be unique for a customer. The column accepts free-form text.
PRIMARY_SPECIALIST_ID	Used for the service personnel dispatching feature in Incident Tracking. Foreign key to the PER_PEOPLE table
SECONDARY_SPECIALIST_ID	Used for the service personnel dispatching feature in Incident Tracking. Foreign key to the PER_PEOPLE table.
TERRITORY_ID	Identifier for the territory

HZ_CUST_SITE_USES：该对象是AR模块HZ_CUST_SITE_USES_ALL的同义词，该表存储的是账户地点的使用目的(收单方，收货方)。每个客户账户地点可以有一个或多个使用目的，该表也是OU屏蔽的，通常使用CUST_ACCT_SITE_ID字段和ORG_ID和HZ_CUST_ACCT_SITES表进行关联，该表的常用字段有:

SITE_USE_ID	Site use identifier
CUST_ACCT_SITE_ID	Identifier for the customer account site. Foreign key to the

	HZ_CUST_ACCT_SITES_ALL table
SITE_USE_CODE	Business purpose assigned to customer site account, such as Bill-To, Market, and Statements.
PRIMARY_FLAG	Indicates if this site is the primary site for this customer account. Y for the primary customer account site. N for other customer account sites.
STATUS	Site use status flag, Lookup code for the CODE_STATUS column.
LOCATION	Site use identifier
LAST_UPDATE_LOGIN	Standard who column - operating system login of user who last updated this row (foreign key to FND_LOGINS.LOGIN_ID).
BILL_TO_SITE_USE_ID	Bill-To site use identifier
ORIG_SYSTEM_REFERENCE	Site use identifier from foreign or legacy system
SIC_CODE	Standard Industry Classification (SIC) code
PAYMENT_TERM_ID	Payment term identifier
GSA_INDICATOR	Indicates if this is a US federal agency supported by the General Services Administration (GSA). Y for organizations served by the GSA, N for organizations that are not served by the GSA.
SHIP_PARTIAL	No longer used
SHIP_VIA	The name of the preferred ship method.
FOB_POINT	Free on board point. The FOB point indicates the point at which title of goods is transfered to the buyer.
ORDER_TYPE_ID	Order type identifier
PRICE_LIST_ID	Price list identifier
FREIGHT_TERM	Order Management lookup code for FREIGHT_TERMS
WAREHOUSE_ID	Warehouse identifier
TERRITORY_ID	Territory identifier
ORG_ID	Organization identifier

查找客户地点的SQL查询:

```
SELECT hzp.party_name          --客户名称
      ,hca.account_number      --客户账户编号
      ,hca.account_name        --客户账户名
      ,hcsu.site_use_code      --地点使用目的
      ,hcsu.location           --地点
      ,hl.address1             --地点地址
  FROM hz_cust_accounts   hca
      ,hz_cust_site_uses  hcsu
      ,hz_cust_acct_sites hcas
      ,hz_party_sites     hps
      ,hz_locations       hl
      ,hz_parties         hzp
 WHERE hl.location_id = hps.location_id
   AND hps.party_site_id(+) = hcas.party_site_id
   AND hcas.cust_account_id = hca.cust_account_id
   AND hcsu.org_id = hcas.org_id
   AND hcas.cust_acct_site_id = hcsu.cust_acct_site_id
   --AND hcsu.site_use_code = 'BILL_TO'
```

```
AND hzp.party_id = hca.party_id
AND hcas.status = 'A'
AND hcsu.status = 'A'
AND hcsu.org_id = 122
AND hzp.party_name LIKE '汉森测试%'
```

PARTY_NAME	ACCOU	ACCOUNT_NAME	SITE_USE	LOCATION	ADDRESS1
汉森测试	1480	汉森测试账户1	BILL_TO	汉森测试收单方2	四川巴中
汉森测试	1480	汉森测试账户1	BILL_TO	汉森测试收单方	汉森测试地址收获方
汉森测试	1480	汉森测试账户1	SHIP_TO	汉森测试收货方	汉森测试地址收获方
汉森测试银行	2320	汉森测试银行账户	BILL_TO	汉森银行	四川巴中通江
汉森测试	2380	汉森测试帐户2	BILL_TO	汉森2收单方	四川巴中

Open and Closed Issues for this Deliverable

Add open issues that you identify while writing or reviewing this document to the open issues section. As you resolve issues, move them to the closed issues section and keep the issue ID the same. Include an explanation of the resolution.

When this deliverable is complete, any open issues should be transferred to the project- or process-level Risk and Issue Log (PJM.CR.040) and managed using a project level Risk and Issue Form (PJM.CR.040). In addition, the open items should remain in the open issues section of this deliverable, but flagged in the resolution column as being transferred.

Open Issues

ID	Issue	Resolution	Responsibility	Target Date	Impact Date

Closed Issues

ID	Issue	Resolution	Responsibility	Target Date	Impact Date