Oracle CDH – the past (11i), the present (R12) and the future (Fusion)

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Learning Objectives

- As a result of this presentation, you will be able to learn:
  - What is Trading Community?
  - The Past (CDH in 11i)
  - The Present (New features in R12)
  - The Future (What will be coming in future)

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Speaker's Qualifications

Mani Kumar Manda is the President and Founder of
Rhapsody Technologies, Inc., a consulting firm with
specialization in implementing Customer Master/Customer
Hub solutions.

Mr. Manda had been working with Oracle Applications for
over a decade and has implemented Technology Solutions
for clients in many industries.

Mr. Manda is an active speaker of topics associated with
Customer Data Management and presented over 30 sessions
in several conferences.

Mr. Manda is also the founder and chair for Customer Data
Management SIG.

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About Rhapsody

- Founded in 1998
- A boutique firm in implementing Customer Data Management solutions both in Oracle eBusiness Suite and Oracle Customer Data Hub environments.
- Offers Customer Data Quality Assessment Services
- Offers CDM Evaluation Services
- Offers Onsite Seminars (one day to one week project kick-off seminars) that include Customer Data Management, Customer Data Hub, TCA, Implementation strategies, Customer Data Modeling, etc.
  - Provides half day and one day CDI awareness sessions for C level executives, functional/departmental heads.
  - Rhapsody is in the process of offering a series of web seminars on Customer Data Management covering Customer Data challenges with real life examples, Global challenges, Data Governance, Customer Data Modeling, Integration of Hub with heterogeneous applications, and other additional topics associated with Customer data.

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About Rhapsody

Partial list of our Customers

ADP	DoubleClick	Motorola
Haworth	Hologic	KCI
Office Depot	Overland Storage	Torrington

Some of Our Partners

Oracle	Dun & Bradstreet
Trillium	Deloitte Consulting
Hub Design	Transitions II
eAlliance	RAMP

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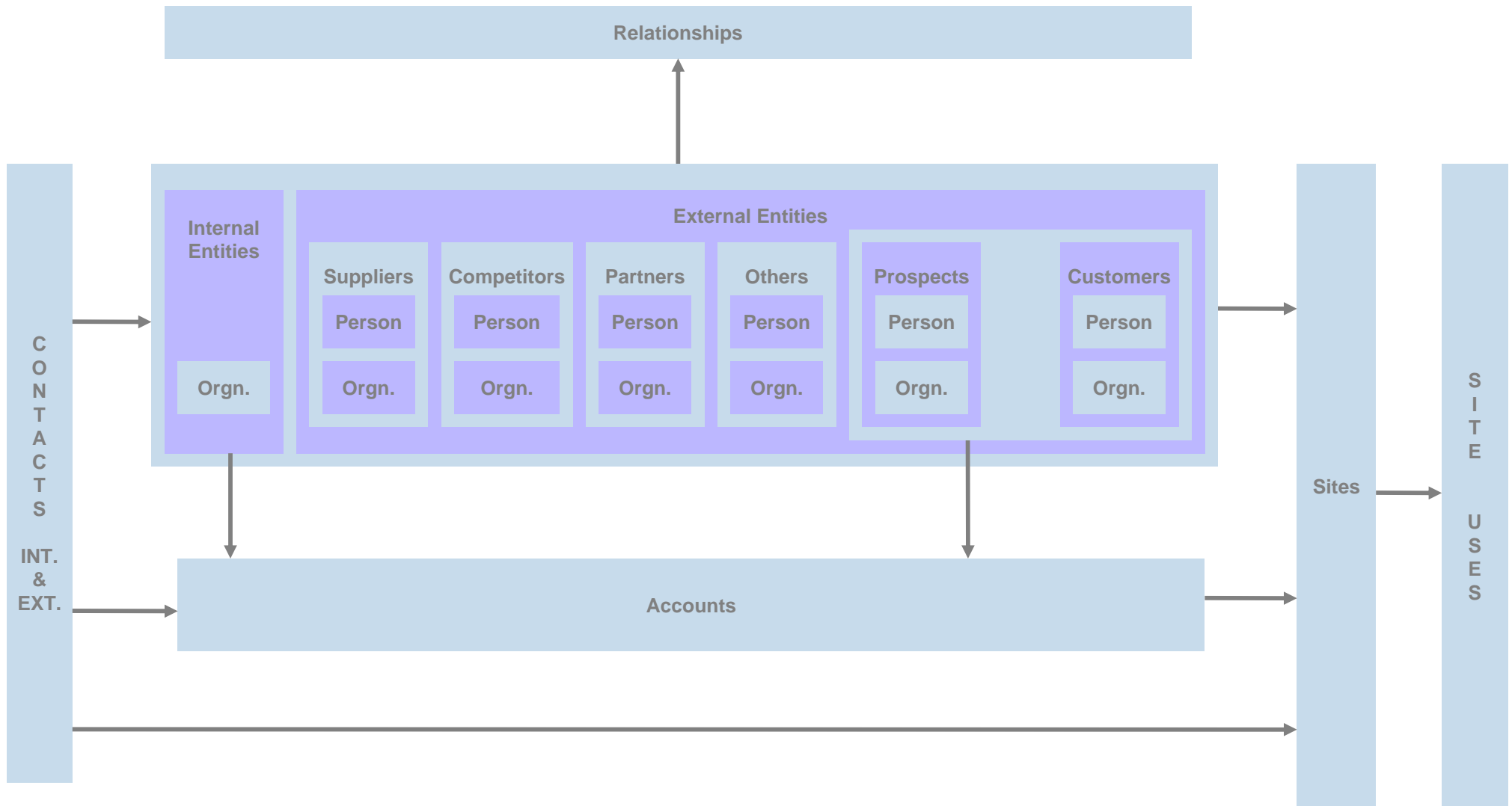
What is Trading Community?

Trading Community

- Trading Community is defined as a group of entities taking part in commerce.

- Trading Community includes both persons and organizations.

- Entities in Trading Community may play roles other than Seller and Buyer such as Partner, Contact, Dealer, Distributor, Agent, Influencer, etc.

Trading Community

What is Customer Data Integration (CDI)?

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Gartner defines CDI as

The combination of the technology, processes and services needed to create and maintain an accurate, timely and complete view of the customer across multiple channels, business lines, and potentially enterprises, where there are multiple sources of customer data in multiple application systems and databases.

The CDI Institute

- Comprised of solutions (processes & technologies)
- Recognizing a customer and its relationships at any touch-point
  - Aggregating, managing and harmonizing accurate, up-to date knowledge about that customer
  - Delivering it in an actionable form just-in-time to touch-points

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CDI according to Rhapsody is

- About establishing the Single Source of Truth, in other words a System of Record that is reliable, available when needed and always maintained.

- About cross-referencing the Customer Data across heterogeneous systems to establish a Single View of the Customer

- About providing 360^0 view of the Customer.

- About establishing a Data Governance structure for welfare of the Customer Master solution by establishing Roles and Responsibilities; Policies and Procedures to maintain data quality on an ongoing basis

- About defining and maintaining Analytics and Segmentation to drive top line growth (Revenue) and increase bottom-line (Profits) by increasing the effectivity of various business processes

- Increasing the operational excellence across the Enterprise
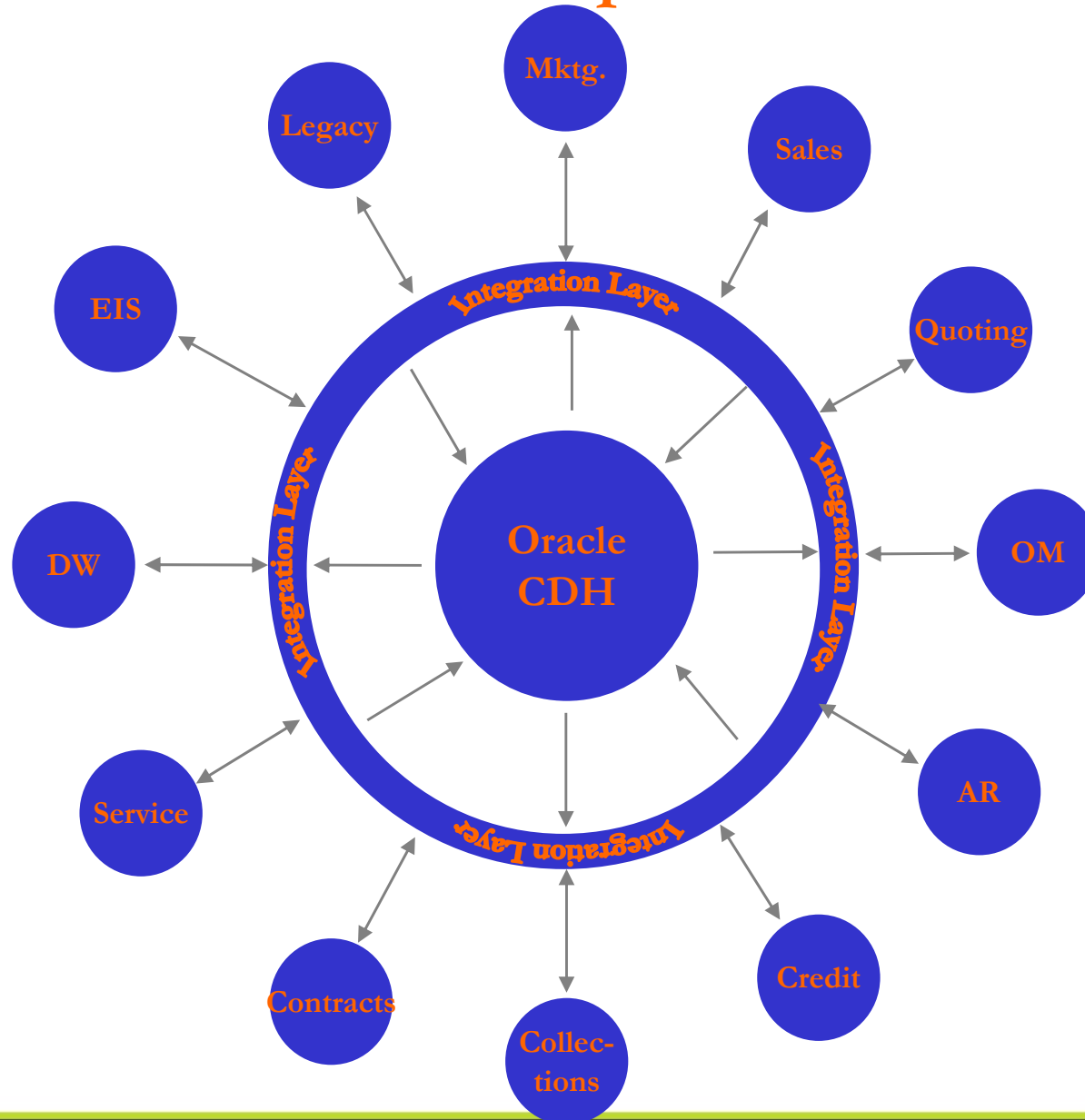
The Past

What is Oracle CDH?

Cusotmer Data Integration across Hetrogeneous Applications
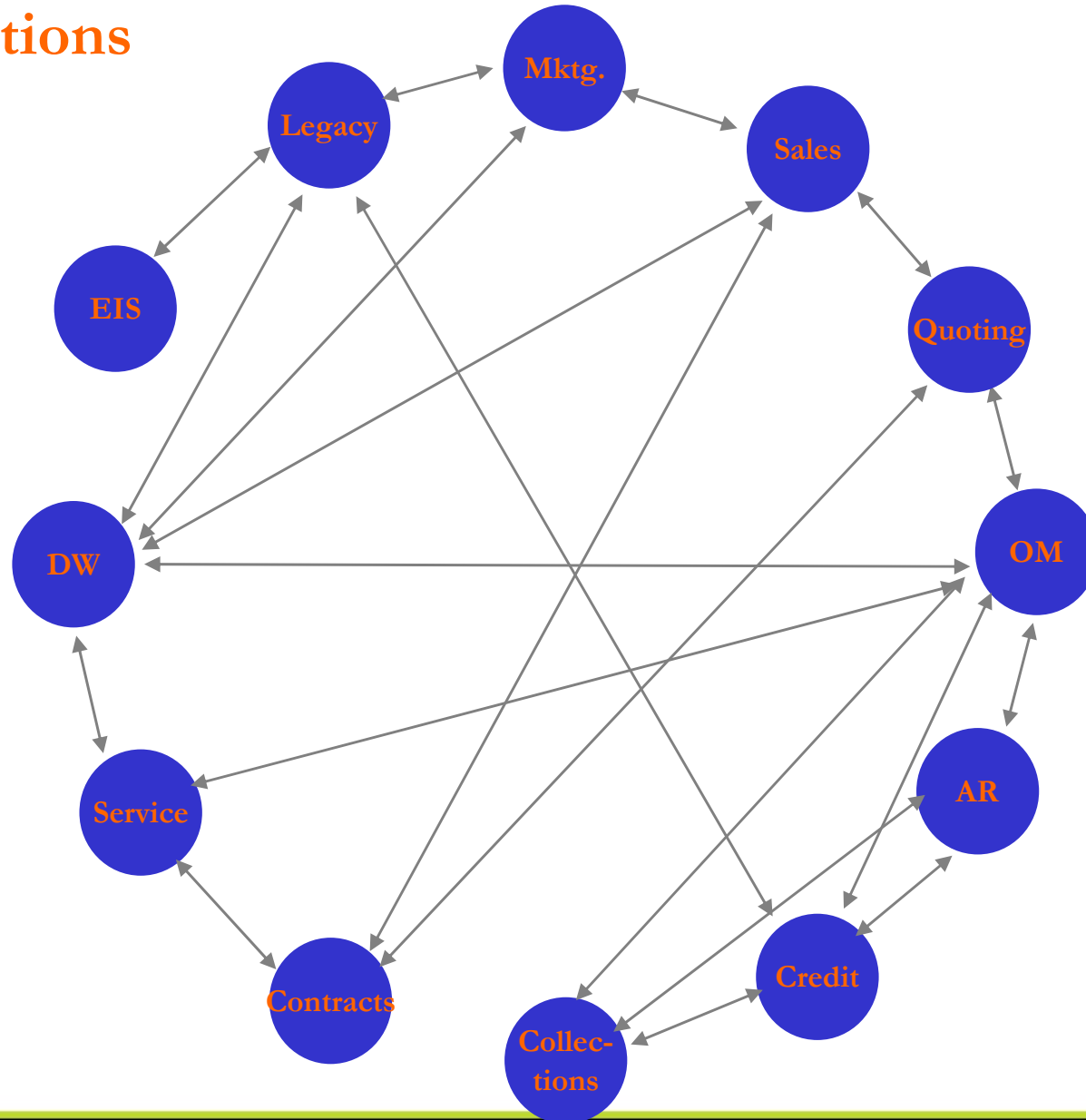
Oracle CDH

- Oracle CDH is a full featured application from Oracle addressing CDI space.
- Includes TCA, Interfaces (API's, Web Services, etc.), UI (Oracle Customers Online, Oracle Data Librarian), out of the box integration for Third party enrichment (D&B) and address validation (Trillium and First Logic).
- Facilitates the establishment of a central repository of customer data that can maintained continuously and synchronized with all other applications in the enterprise in a hub and spoke manner.
- The Hub becomes master for customer data
- Spoke systems are synchronized with Hub and with other spoke systems via Hub using standards based web services using Publish/Subscribe approach.

Oracle CDH - Hub and Spoke

A short video from Oracle

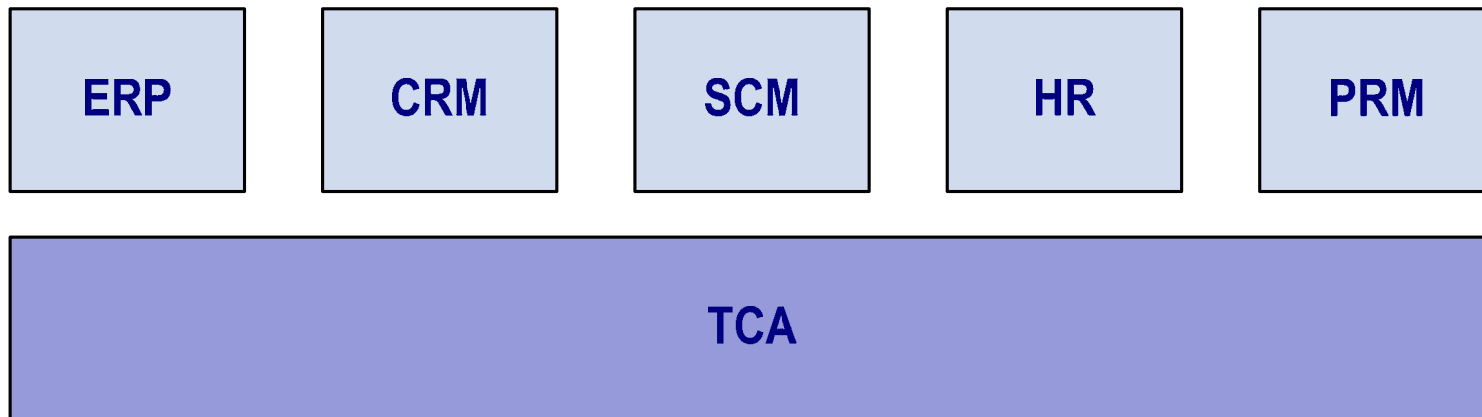http://www.oracle.com/pls/ebn/live_viewer.main?p_shows_id=3887463&p_referred=3080496
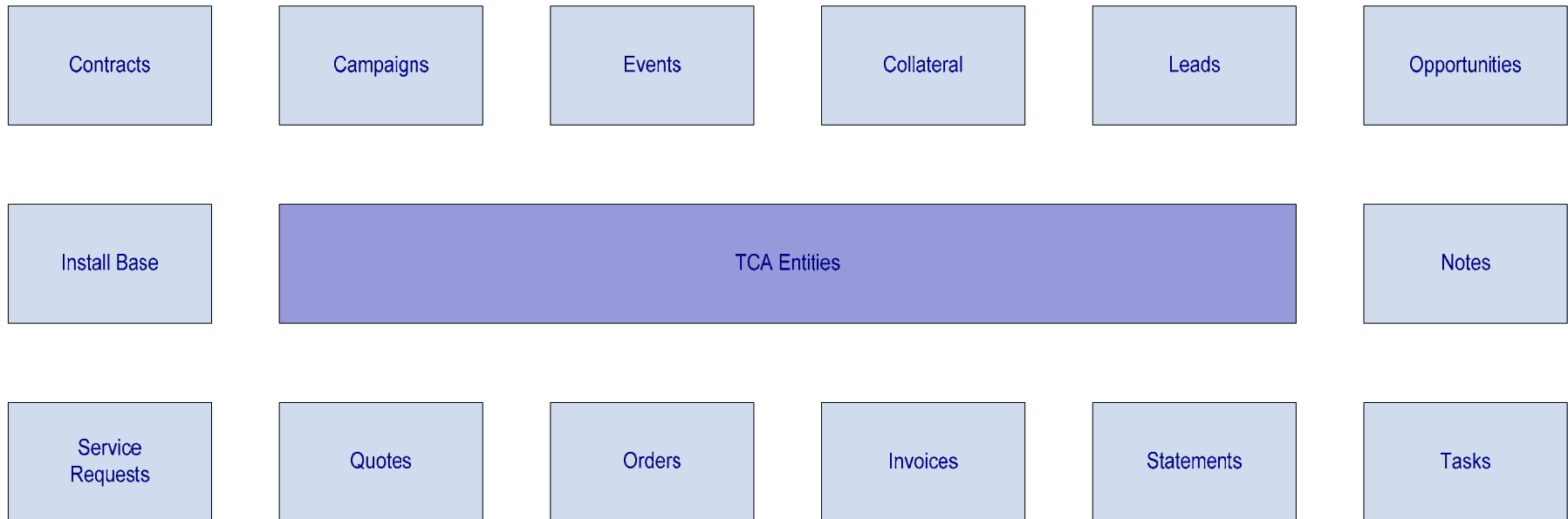
The Past
What is TCA?

What is TCA?

■ TCA stands for Trading Community Architecture that lets you capture and maintain the trading community of your business including the ability to capture

□ real world entities,

□ and their locations,

□ relationships between them,

□ contacts of these entities,

□ with their phone/fax/cell numbers, email, etc.

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What is TCA?

ERP	CRM	SCM	HR	PRM

TCA

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What is TCA?

Contracts	Campaigns	Events	Collateral	Leads	Opportunities

Install Base	TCA Entities				Notes

Service Requests	Quotes	Orders	Invoices	Statements	Tasks

What is TCA?

Validation of addresses with content providers such as Trillium, First Logic

Customer Data Enrichment from third parties such as D&B

Extensible Data Model

System of Record and Source System References

Tools such as DQM/Data Librarian to search, de-dupe and maintain clean data

Corporate Hierarchies, Third Party Relationships, etc., using Party Relationships

Public and Private Java and PL/SQL APIs, Web Services

Database Schema (HZ Tables)

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What are the key entities in TCA?

TCA - Key Entities

Parties

Party Relationships

Customer Accounts

Locations

Contacts

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TCA Entities

- There are over 200 entities with HZ prefix in Receivables schema.
- Customer identity data is stored in
  - HZ_PARTIES
  - HZ_ORGANIZATION_PROFILES
  - HZ_PERSON_PROFILES
- Contractual relationship (Account) data is stored in
  - HZ_CUST_ACCOUNTS
- Location information is stored in
  - HZ_LOCATIONS
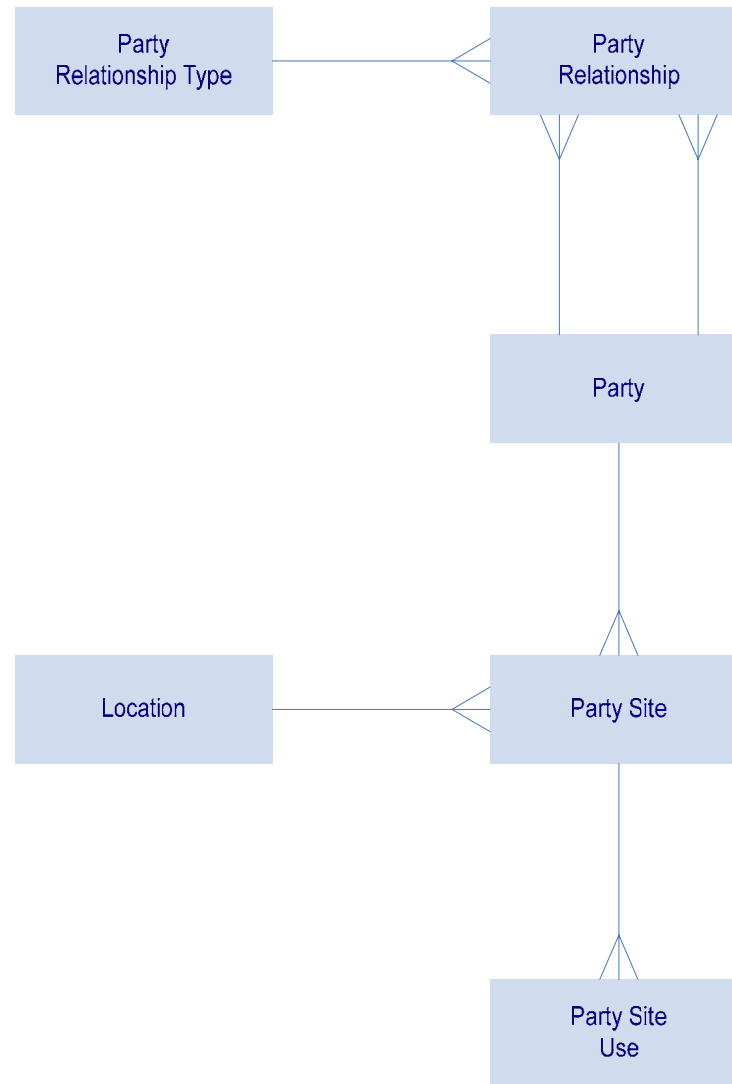 - HZ_PARTY_SITES
  - HZ_CUST_ACCT_SITES_ALL
- Etc.

How are Key entities related to each other?
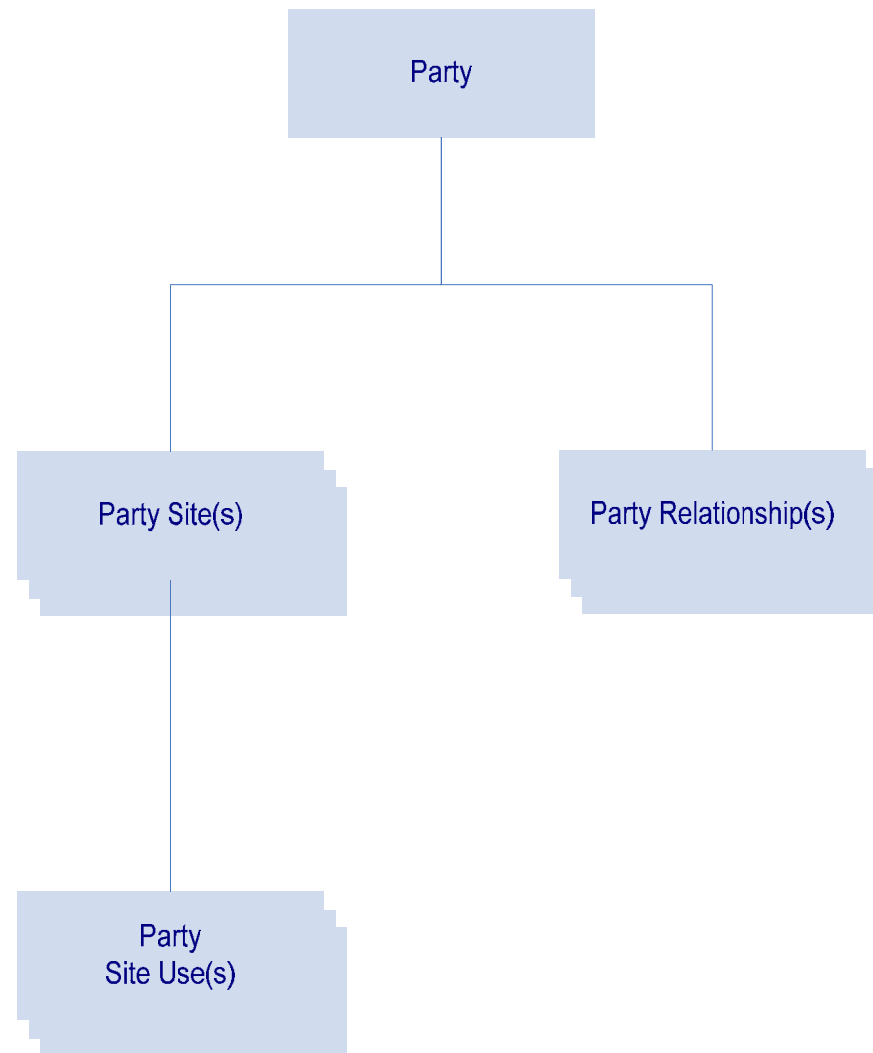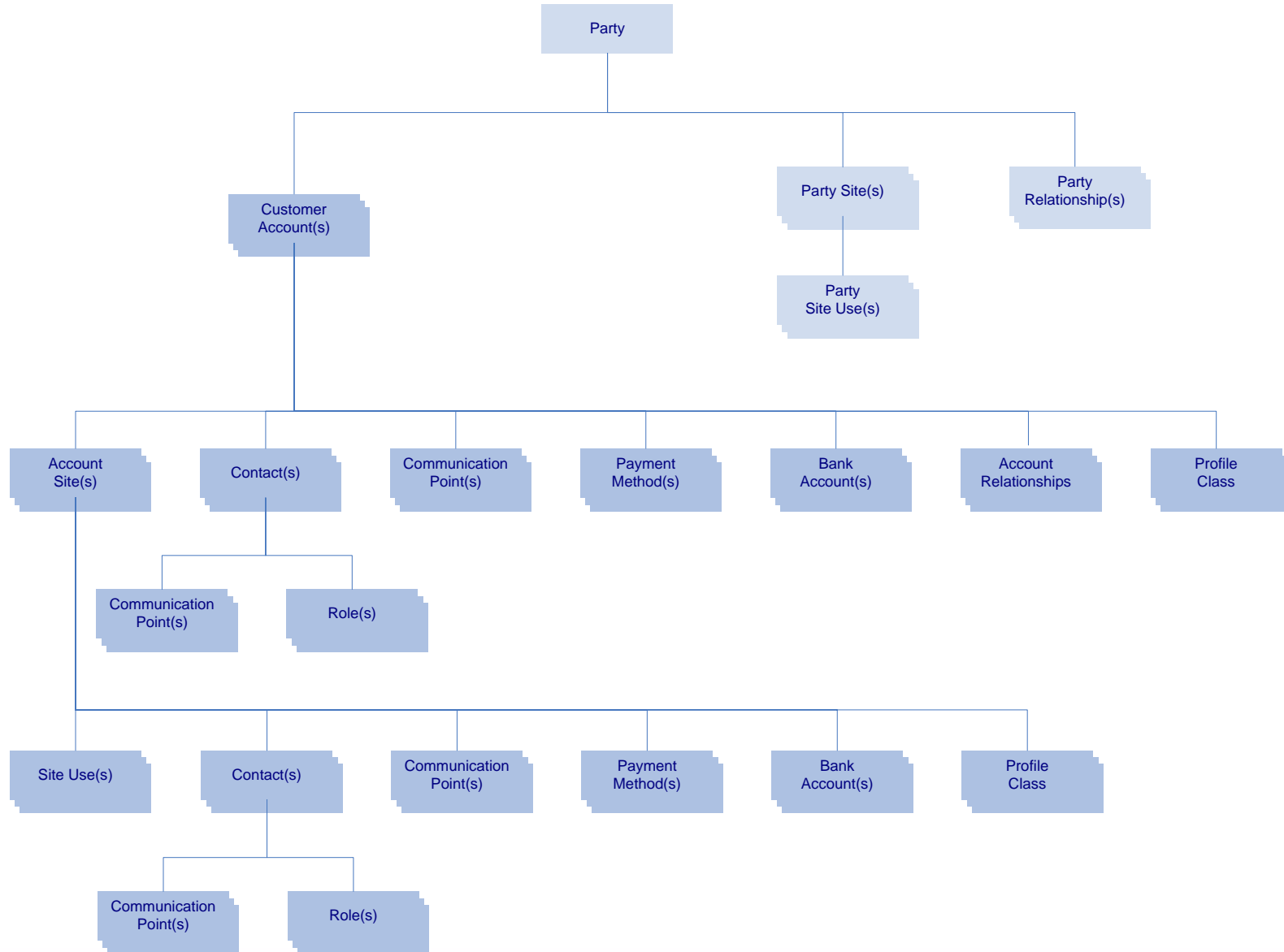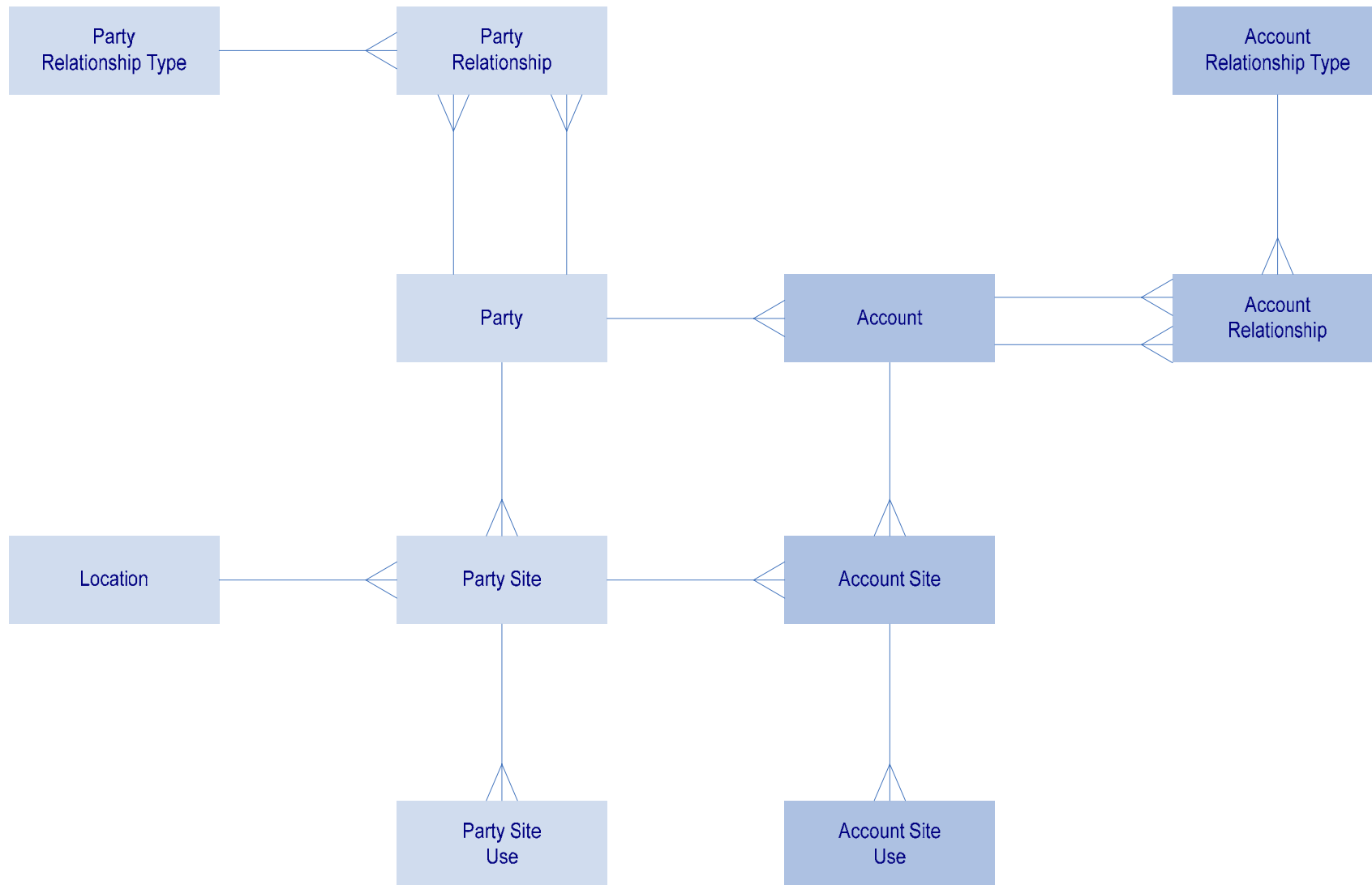
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TCA Structure prior to Selling Relationship

TCA Structure prior to Selling Relationship

TCA Structure with selling relationship(s)

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TCA Structure with selling relationships – Entity Modal

TCA Structure with selling relationships – Entity Modal
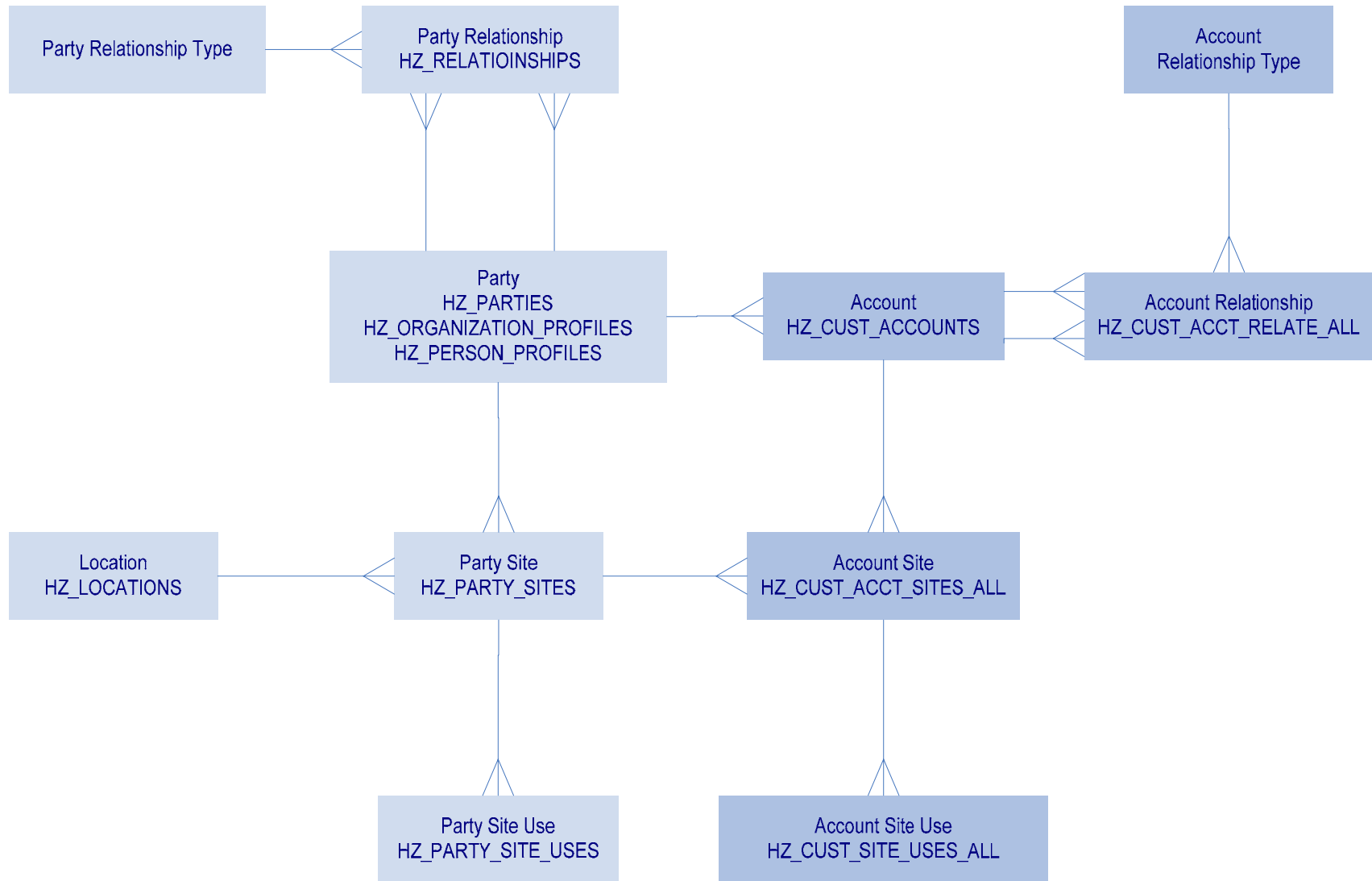
The Present

R12 Enhancements & Modifications

R12 Enhancements and Modifications

- **New**
  - ☐ Business Object API's
  - ☐ Business Object Events
  - ☐ Geographic Hierarchies
  - ☐ Customer UI in Receivables
  - ☐ Supplier Integration with TCA
- **Enhancements**
  - ☐ Bulk Import
  - ☐ Data Librarian
  - ☐ DQM
  - ☐ D&B Configuration

What are Business Object APIs?

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Business Object APIs

- A business object is an abstract grouping of Oracle Trading Community Architecture (TCA) entities to form an operable, logical business unit.
  - Easier Integration and faster development of custom code due to management of multiple TCA entities with one call.
  - Fewer calls to Database
  - Has embedded granular TCA API calls that map to TCA entities/tables.
- Total of 16 Business Objects
- Four procedures per Business Object
  - Create
  - Update
  - Save
  - Get
- Business Objects can embed other business objects
- Bank Accounts assignment entity that is part of Customer Account business object is owned by iPayments

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List of Business Objects

- Organization
- Organization Contact
- Organization Customer
- Person
- Person Customer
- Customer Account
- Customer Account Contact
- Customer Account Site

- Party Site
- E-Mail
- Phone
- SMS
- Telex
- Web
- EDI
- EFT

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What are Business Object Events?

Business Events

- Business Events facilitate to react to changes in TCA Party Data at the business object level in synching spoke systems with the hub..

- Business events are raised when customer data has been created or modified.

- Raised through concurrent program or API calls

- Each event generates an EVENT_ID which is sent to subscribing applications.

- Subscribing applications can obtain event details via Get calls of corresponding business objects.

- Some business events are at the Business Object level and rest are at the TCA entity levels.

- Configure using profile option
  - HZ: Raise API Events which can be set to
    - All events disabled
    - Only Granular (V2) events enabled
    - Only Business Object events enabled
    - All events enabled
  - HZ: Number of Days to Preserve Business Object Business Event Information.

Business Events

- Business Events can be subscribed either using Workflow or CDH Advanced Queue
  - Workflow is used to synchronize customer data with local spoke systems
    - Customer data is received in a database object format
  - Advanced Queue is used to synchronize customer data with external spoke systems.
    - Customer data is received in serialized XML objects.

- Events are raised through Workflow.

- Business object events can be raised in bulk (since last processing) using concurrent program 'TCA Business Object Events: Raise Events Program'

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What are Geographic Hierarchies?

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Geographic Hierarchies

- An ability to create and maintain hierarchies between multiple address elements or tax authorities for the purpose of real time address validation and/or tax calculation.

- Does not include street level data

- Hierarchies can be created from Tax Vendor provided Data using utility provided by eBusiness Suite Tax application

- Users can further extend the hierarchies that were created based on data provided by Tax Vendors.

- Configuration
  - Define Country specific structures for geographic hierarchies.
  - Manage Geography Details
  - Manage Data Validation Levels during Data Entry

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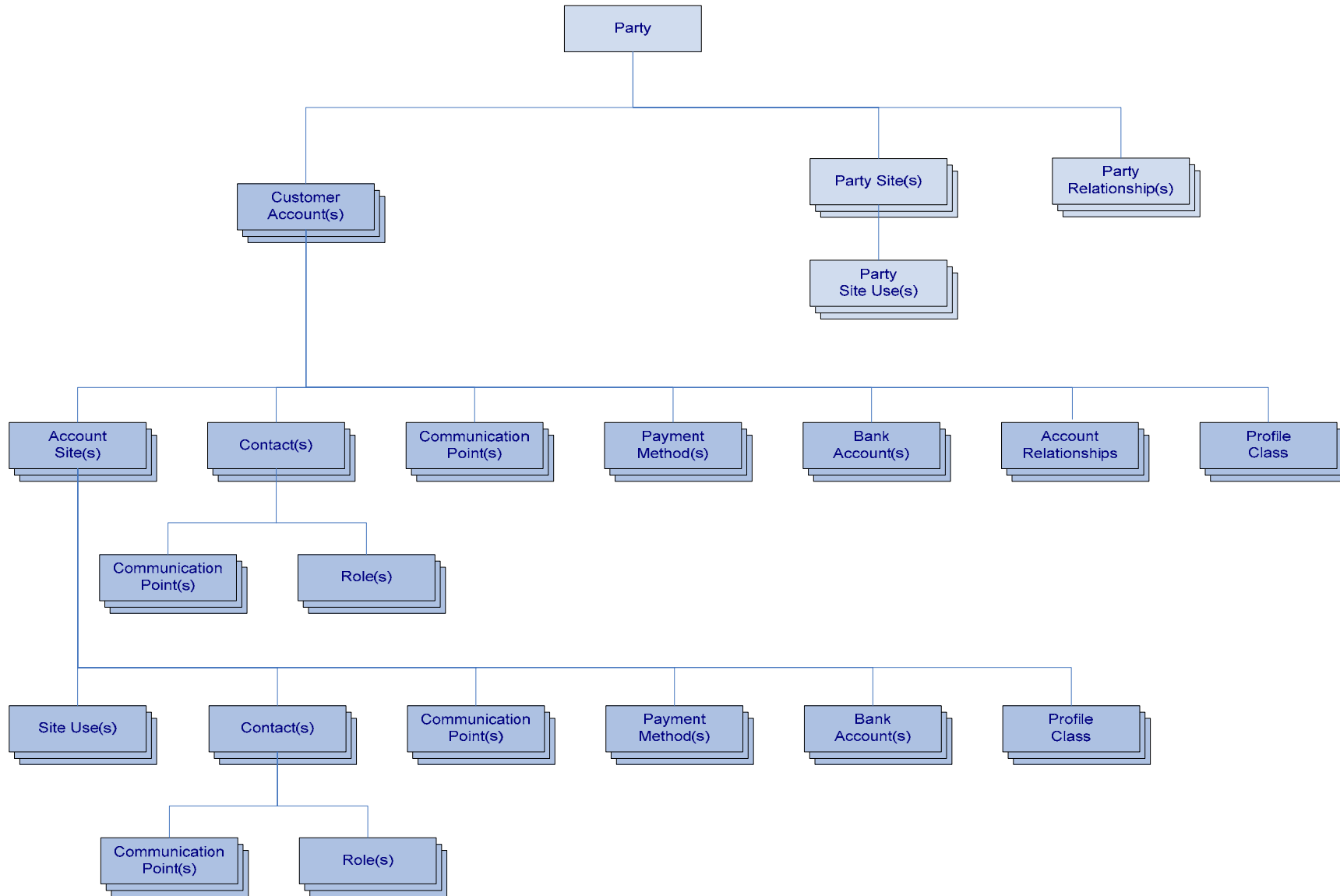# New Customer UI in Receivables!

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New Customer UI in Receivables

- Old Customer standard form that has been existing from ages is finally gone.
- Oracle introduced a brand new HTML user interface built using Oracle Applications framework leveraging TCA that can be used to manage Customers, Accounts, Account Sites, etc.
  - New UI is fully backward compatible with the form
  - Has more features than the form
  - UI's built using OA Framework can be personalized
- New UI displays both Party level as well as account level information which is separated into Customer Overview and Account Overview.

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New Customer UI in Receivables

- Find Customer screen now uses DQM (Simple and Advanced Search Match Rules) similar to what you see in Customers Online or Customer Data Librarian.

- After search, you can create new customer or see customer overview. From here you can add accounts or modify accounts and so on.

- You can update customer information from customer overview page.

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Release 11i and before - Customer Standard structure

Release 12 – Customer Tab Structure in New Receivables UI
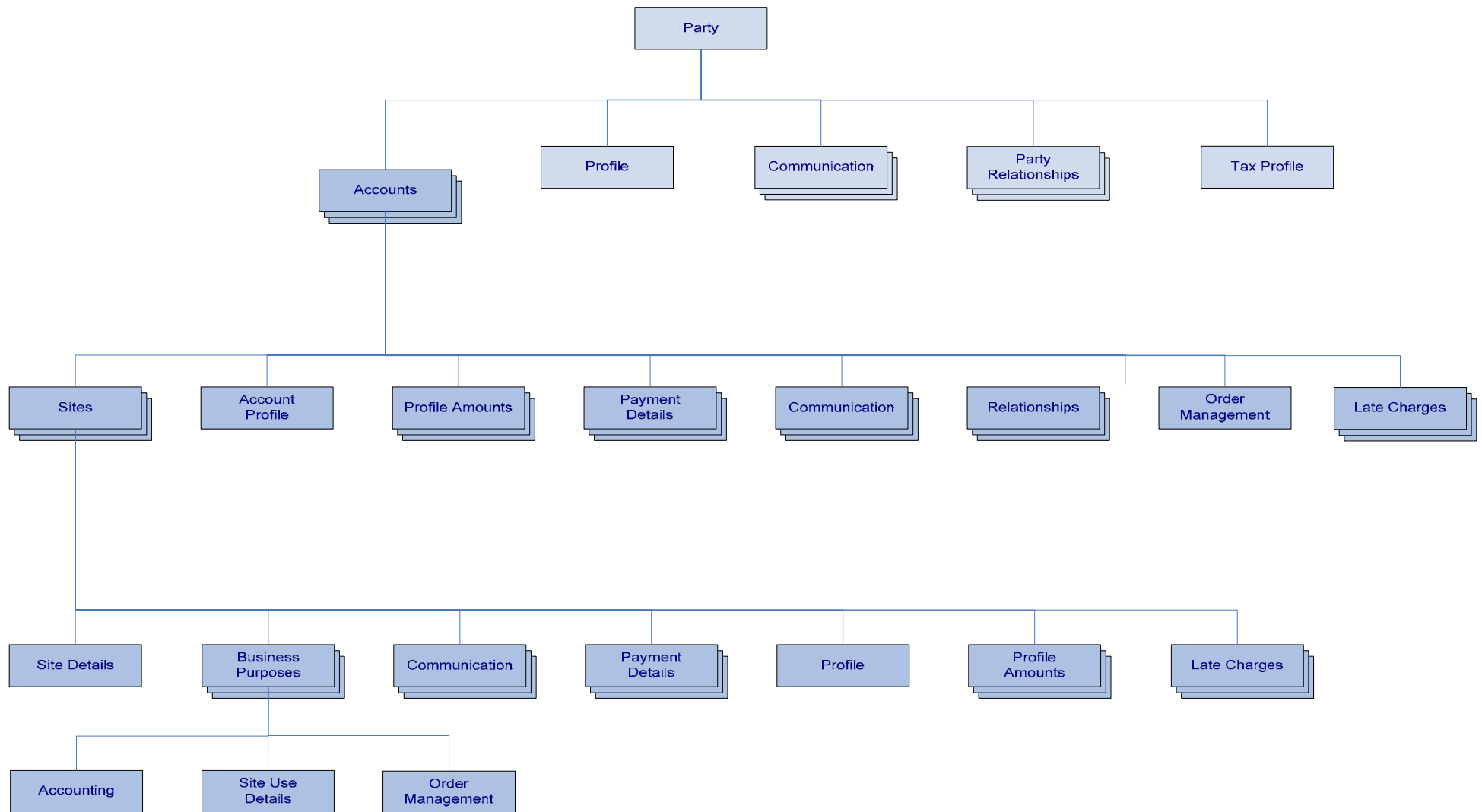
Create Customer Flow in Receivables

■ Facilitates the creation of customer in one single page with most common elements.

■ The UI has 5 Regions

  □ Customer Information

  □ Account Information

  □ Account Site Address

  □ Account Site Details

  □ Business Purposes

■ This UI embeds DQM functionality for duplicate prevention.

What is Supplier Integration with TCA?

Supplier Integration with TCA

- Suppliers are now integrated with TCA.

- Supplier entity level (party) level information can be viewed in Oracle Customers Online.

- Employees who were created as Suppliers for expense reimbursement now are associated with Person Parties.

What are Bulk Import Enhancements?

Bulk Import Changes

- Generate (Create) and Activate an Import Batch UI
  - Used to write code for batch creation before
  - Generate Batch process require you to enter following attributes:
    - Batch Name
    - Batch Description
    - Data Source
    - Estimated Record Volume
  - Activate button can be used to trigger the import of the batch.
- Import progress now can be monitored
- Fuzzy key generation can now be disabled optionally during import to speed up the performance.
- Overall performance enhancements during post processing
  - Bulk API for synchronizing large number of parties
  - Phone Number Transposing
  - Etc.
- Improved Error Management during import resulting in loading of maximum amount of data.

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What are DQM Enhancements?

DQM Enhancements

- **Administration and Seed data enhancements**
  - New Administration Landing Page to provide readily available details such as
    - Notification if DQM staging has not been run
    - Notifies the current DQM synchronization setting
    - Notifies if certain records failed to synchronize correctly
    - Notifications for any changes in DQM setups
      - New values added to replacement lists are marked as "Staging Required"
      - New validations on removal and inactivation of attributes and transformations.
    - Search Match Rules threshold now a percentage
    - New Adjusted score column
  - See Data Enhancements
    - Selected word replacements have been changed
    - Improved algorithms for attributes and transformations
    - Etc.

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DQM Enhancements

- Diagnostic Reports
  - Two diagnostic reports to validate DQM configuration.
    - DQM Setup – Basic
      - General DQM Staging information
      - DQM Staging Program Results
      - Index Statistics
      - Synchronization Status
    - DQM Setup – Advanced
      - All of the data from Basic Report plus
      - Details of Match Rules
      - Details of Active Attributes and their Transformations (even if transformations are inactive)
      - DQM Profile Options
  - Report outputs can be in PDF or HTML format.
  - You can give names to these reports and also export the outputs for archival.

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DQM Enhancements

- **Synchronization Improvements**
  - Real Time is now called Automatic
  - Automatic synchronization no longer uses workflow instead it uses concurrent request.
  - New UI to configure DQM Synchronization method instead of profile option 'HZ: DQM Synchronization Method'.
  - Synchronization options are
    - Automatic
    - Batch
    - Disabled

DQM Enhancements

■ **DQM Search object UI**

- ☐ A new search object API named 'FIND_PARTY_BOS' has been added this a wrapper around existing DQM APIs.

- ☐ Provides an ability to search within a source system

- ☐ Search criteria is passed as an object instead of PL/SQL record structure and the results are passed in out parameter of the API.

- ☐ Will facilitate the better synchronization of customer data between spoke systems and the hub.

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What are Data Librarian Enhancements?

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Data Librarian Enhancements

- Two new business events to facilitate the better synchronization of customer data between Hub and spoke systems.
    - Party Merge Event
    - Account Merge Event
    - This also includes two APIs to get the merge details:
        - GET_PARTY_MERGE_EVENT_DATA
            - using Merge Batch ID and Master Party ID which were published as part of Party Merge Event
            - Extracts details such as Batch name, merge type, automerge flag value, master party ID and the party numbers, names, types and source system management mappings for all parties involved in the merge
        - GET_ACCOUNT_MERGE_EVENT_DATA
            - Using Customer Merge Header ID which was published as part of Account Merge Event
            - Extracts details such as Customer merge ID, request ID and the associated party info, merge-to account ID, account number, account name, and source system management mappings for all accounts involved in the merge

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Data Librarian Enhancements …

- **Introduced a new API 'CREATE_DUP_MERGE_REQUEST' to initiate the merging of potential duplicates.**

- **SDIB Enhancements**
  - Match within Subset feature
  - View Match Details feature
  - Batch Scheduling feature

What are D&B Configuration Changes?

D&B Configuration

- In R11i
  - Used to be configured using profile options
    - HZ: D&B URL
    - HZ: D&B User Name
    - HZ: D&B Password
- In R12
  - Release 11i profile options are obsolete.
  - Oracle provides a seeded D&B Adapter using TCA Adapters table that is more secure and centralized.
  - As part of the Adapter definition you will provide/modify following attributes:
    - Host Address   D&B HTTPS URL
    - User Name   User Name provided by D&B
    - Password   Password provided by D&B
  - You can add multiple User Names and Passwords

The Future

What to Expect?

Future of CDH!

- **Architecture**
  - Minor architectural changes at entity level
  - Increased ability at B2C level
- **Data Governance Framework to facilitate not only CDI implementations but also facilitate other MDM domains such as PIM**
- **Meta Data Management capabilities**
- **Third Party Data Integration**
  - Integration with more content providers
  - Hooks to incorporate that were not supported out of the box
- **DQM**
  - Performance improvements
  - Increased capabilities for multi-languages
  - Hooks for third party data quality solutions
- **Data Monitoring**
  - Dash Board functionality
  - Increased Reports
- **Privacy**
  - Functionality to cope up with privacy laws

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Future of CDH!

- **UI**
  - Redesign of UI
  - Enhancements in OCO UI
  - Increased functionality and visibility for Accounts
- **Improvements in import performance**
  - Bulk Import
  - New import functionality for Accounts replacing current Customer Interface

CDM SIG – To Become a Member

Do one of

- Send a blank email to cdmsig-subscribe@yahoogroups.com
- Go to CDMSIG Yahoo group at http://groups.yahoo.com/group/cdmsig and click on 'Join this Group':
- Or send an email to mmanda@rhaptech.com expressing your interest in becoming CDMSIG member.

You will receive membership application in reply. Upon sending the completed form to mmanda@rhaptech.com, your membership will be enabled.

- Members can post their questions, comments, etc., by sending an email to cdmsig@yahoogroups.com. You will have to become member in order to post to this forum.

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Q U E S T I O N S
A N S W E R S

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Q&A
QUESTIONS
ANSWERS

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