CUSTOMER MASTER DATA MANAGEMENT PROCESS INTEGRATION PACK

KEY BUSINESS BENEFITS

**Faster MDM Implementation**
- Pre-built MDM integration processes
- Pre-built “MDM Aware” participating applications
- Pre-built MDM composite web services
- Pre-built composite application user interface

**Reduced Total Cost of Ownership**
- Reduced maintenance cost with AIA Framework
- Easier extensibility with AIA foundation pack

**Accelerated SOA Enablement**
- AIA framework provides integration framework and best practices to accelerate SOA adoption in the enterprise
- Increased cross-application business process efficiency with clean data across the enterprise

Customer Master Data Management Process Integration Pack (Customer MDM PIP) is a collection of core processes to support out of the box Customer Master Data Management (MDM) integration processes across Oracle Customer Hub (OCH), Siebel CRM, Oracle E-Business Suite, Oracle BRM, SAP ERP and third-party content enrichment providers. It also provides a framework to enable MDM integrations with other Oracle and non-Oracle applications. This is made possible by the delivery of four key complementary components including –

1. A set of composite web services in Oracle Customer Hub.
2. Pre-cabled Application Integration Architecture (AIA) Process Integration Packs (PIPs) connecting OCH to Siebel CRM, Oracle E-Business Suite, Oracle Billing and Revenue Mgmt (BRM), SAP and third-party content enrichment providers.
3. Enhancements to Siebel CRM and Oracle E-Business Suite that makes them “MDM Aware”.
4. A composite application user interface enabling non-Oracle applications such as legacy and web applications to also become “MDM Aware”.

The major benefits of this Customer MDM PIP are enriched customer information, faster MDM implementation, lowered Total Cost of Ownership (TCO) and accelerated Service Oriented Architecture (SOA) enablement.

**End-to-End Customer Master Data Management Solution**

The Customer MDM PIP integrates the Oracle Customer Hub application (Siebel Universal Customer Master, or UCM) with Siebel Customer Relationship Management (CRM), Oracle E-Business Suite (EBS), Oracle Billing and Revenue Management (BRM), SAP ERP and third-party content enrichment providers. Oracle Customer Hub serves as the master data repository which provides a single consolidated system of record for customer data and child entities such as addresses, privacy preferences and related individuals/organizations. This PIP handles two major types of customer entities: Organizations and Persons.
Composite Business Processes

The following processes have been engineered to provide open standards based integration for a set of common process flows between Oracle Customer Hub and several consuming applications and services. By delivering these processes as packaged software the risk, time and costs associated with implementing integration flows between an MDM Hub and its consuming applications can be significantly reduced.
**Match Customer**

This process begins when a user enters a complete or partial customer record into a source application. The information that has been entered is then sent to Oracle Customer Hub for matching against the master source for customer information held in the Oracle Customer Hub. OCH then executes its match routines and returns a list of potential match candidates (with selected attributes) that can be presented in the source application prior to a customer record being committed into the source systems database. The match customer flow leverages and invokes the fuzzy-matching capabilities of Oracle Customer Hub so that an all-inclusive list of candidates can be returned. This flow can either supplement or replace a “normal” search query executed against the database of the source application to locate a particular customer record (an organization or person).

**Fetch Customer**

This process follows the Match process and enables a user of a source application to select a specific record from the list of candidates returned by Oracle Customer Hub in the match flow. A fetch request is then sent to OCH to retrieve and return the full customer profile of the selected organization or person. If that customer already exists in the source applications database then that existing record is updated otherwise a new record is created in the source application.

The Match and Fetch processes are synchronous and enable a real-time interaction between Siebel CRM, Oracle E-Business Suite and OCH. Through these processes the consuming applications avoid data duplication and achieve on-demand access to master customer data.

**Synchronize Customer**

This process synchronizes new or updated records from a source application to one or many target systems. The source application can be Oracle Customer Hub itself, which then invokes the synchronization flow to create or update records in the participating target applications, or the source can be one of the participating edge applications that invoke the synchronization flow to create or update records in Oracle Customer Hub.

This process flow is asynchronous and the mode of operation is non-intrusive on the source and target applications i.e. requiring no change in functionality or processing logic within the participating applications. An edge application does not assume that the hub is the data master, thereby ensuring that the authoring can be decentralized. Because of the non-intrusive character of this process implementations can lead to faster MDM project delivery.

**Merge Customer**

This process initiates and publishes the results of a merge process that has occurred in Oracle Customer Hub to the edge applications. The merge functionality is a core function in Oracle Customer Hub that enables a Data Steward to effectively determine a survivor record among several duplicate records, or create a new record to consolidate several duplicate or similar records. For this process, Oracle Customer Hub publishes the results of the merge by providing the survivor record and one or many victim records to the edge applications. It is then up to the edge applications to determine whether they can or should consume and implement this merge event in their own database. This process flow is asynchronous.
**Enrich Customer**

This process makes a request from the Oracle Customer Hub for clean or enriched information from third-party data service providers. This third-party provider cleanses, recognizes, enriches, and protects Oracle Customer Hub person records. The services provided by the 3rd party enrichment provider include:

- **Cleanse** – standardizes information such as name and address to provide a foundation of accurate customer information.
- **Recognize** – enables consumers to consistently be recognized and removes duplications, even when name changes, unreported moves, or incorrectly keyed information have occurred.
- **Enrich** – enhances the data by adding additional contact, demographic, socioeconomic, or lifestyle information.
- **Protect** – provides information necessary to enforce compliance and regulatory processes via the provision of suppression, risk, and compliance information.

Data enrichment enables the Oracle Customer Hub to improve the quality and the completeness of the information it holds on consumers. Note that an adapter which plugs into this enrichment process is required from the third-party enrichment service provider; one example of such a provider is Acxiom Corporation.

![Figure 3: Third-Party Enrichment Integration Spoke](image)

**“MDM Aware” participating applications**

In order to enable the overall end-to-end MDM pre-cabled solution, Siebel CRM, Oracle E-Business Suite and Oracle BRM have been enhanced to make these applications “MDM Aware”. An “MDM aware” application is an application that supports its original functions yet is able to interoperate with an external MDM Hub that is the master of customer information. By delivering enhancements to consuming applications that make them “MDM aware” Oracle are facilitating a significant reduction the complexity of interactions between Siebel CRM, Oracle E-Business suite, Oracle BRM and Oracle Customer Hub for customer data.
Composite SOA based web services in OCH

Another key component of the overall solution is the new set of composite web services developed to support the flows described above. They include Party Create, Read, Update and Delete (CRUD) services, Outbound Publish Party service, Original System Reference (cross-reference) services and the Match service amongst others. These services enable Oracle Customer Hub to support better end-to-end flows. Unlike traditional hubs of the MDM market, these services eliminate the work required to build custom composite interfaces orchestrating multiple fine-grained web services.

Composite Application User Interface

Finally in order to enable non-Oracle and legacy applications to become “MDM Aware”, Oracle is providing a composite application user interface that is easily embeddable within these systems. This user interface layer, which is easily customizable, allows an out of the box integration with OCH to support the match and fetch processes detailed above. The only remaining work to be completed during the implementation is the transformation between the AIA Enterprise Business Object (EBO) and the legacy application for synchronizing the fetched record back into the application.
KEY BUSINESS BENEFITS
By implementing the Customer MDM PIP, a customer realizes significant benefits:

Faster MDM projects implementation
- Productized integration provides a proven integration accelerator addressing key integration challenges.
- Extensible architecture allows customer to extend and customize functionalities while leveraging the out-of-the-box foundation provided and supported by Oracle.
- Common Services and Objects can be exploited by 3rd party applications through SOA-enabled integration.

Reduced Total Cost of Ownership (TCO)
- Pre-integration of best of class customer focused applications reduces Software implementation costs.
- Productized solution reduces Software maintenance costs.
- Consistent and Accurate customer information across operation systems reduces error conditions.

AIA as an SOA Foundation
- The AIA framework enabling MDM flows provide a Service Oriented Architecture framework that accelerates SOA adoption and project deployment in the enterprise.
- MDM services within the SOA architecture make available accurate, cleansed, consolidated, and enriched master customer data to enterprise business processes.
- The introduction of SOA through the AIA framework provides open standards and flexibility in the enterprise that facilitate a modular approach for the introduction of software packages.

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