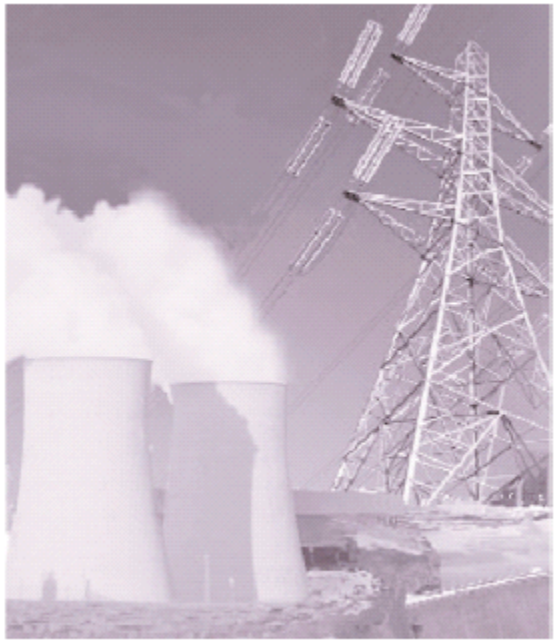
Oracle Customer Hub for the Utilities Industry



ORACLE

Oracle Customer Hub for the Utilities Industry

INTRODUCTION

Accurate and complete customer information is both critically important and hard to get. According to a recent study by the Data Warehouse Institute[1], poor data quality costs businesses billions of dollars every year in misdirected resources and billions more recovering lost or dissatisfied customers. Everyone knows how important good customer information is. But over the years, so many point applications have been deployed, each with its own definition of a customer, that reconciliation became impossible – until now.

To succeed in today's market, a utility must consolidate its operational customer data, clean it, enhance it, and connect it to the enterprise. To do this, utilities need a solution that employs a customer data model that truly models your business, customer data management tools, and seamless connectivity through the enterprise.

To excel, a utility must consolidate its operational customer data, clean it, enhance it, and connect it to the enterprise. Oracle has created a Customer Hub solution to allow utilities to do just that. The Customer Hub is part of the foundation for the entire Oracle E-Business Suite. It employs an open, standards-based architecture that consolidates data from Oracle and non-Oracle applications and allows for a consistent definition of customers, suppliers, partners, and employees across the entire enterprise. The key elements of the Customer Hub are:

- A customer data model that actually models your business
- Customer data management utilities to clean, enhance and leverage the customer data in the data model
- Seamless connectivity to the enterprise through hub and spoke integration technology

WHAT ABOUT CIS? FRAGMENTED VS. CONSOLIDATED

Historically, utilities have relied on their Customer Information System (CIS) for customer data. In today's environment, that future of a CIS is questionable. Why?

- The cost of a CIS replacement more than outweighs the benefit.
- A typical CIS supports only partial functionality for many of the required business processes, adding to the cost of implementation.
- The vast majority of today's commercially available CIS packages are not mature products, and they are not likely to mature given the size of the market.

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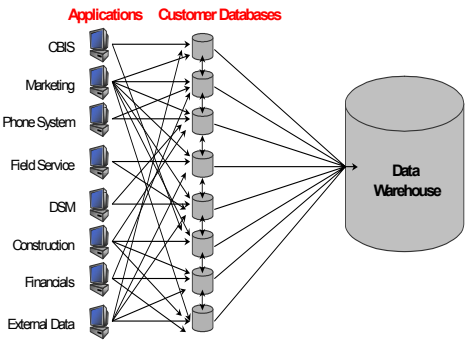
[1] TDWI's Data Quality Report, The Data Warehouse Institute, April 29, 2002.

- The representation of a customer is billing-based, not customer information-based. Few tools, if any, are provided for the import of additional data and for maintaining the accuracy of the data.

Unfortunately, a typical CIS does not contain all of the customer information that the Utility has. Often there are marketing systems, demand-side management program systems, metering systems and field service systems that contain customer data. Additionally in a CIS, the customer data is billing centric, not customer centric. A more appropriate name for these systems is Customer Billing Information System (CBIS). Although today's CIS vendors have extended their systems to allow for the storage of additional customer information, with some having gone as far as adding simple marketing data, CBISs seldom have any type of data quality management tools. Having a place for the information is only part of the issue. Maintaining the information and enhancing it is just as critical. What is needed is a holistic view of customer information.

Historically, business information has come from two types of sources: operational data and data warehouses. Operational data represents the actual business activity of a corporation, but analyzing the data directly slows down operations and it is spread across several systems. Data warehouse (DW) data is an abstraction of the operational data organized to allow deep analysis of the corporation's activities. This information is usually dated and often the extraction, translation, and loading (ETL) of operational data from dozens of operational systems results in lost or miss-interpreted data. This in turn creates less than reliable information out of the data warehouse. Combined with the inability to derive accurate information out of the operational systems, many companies are literally running blind and misdirecting precious corporate resources.

The following picture illustrates this situation:



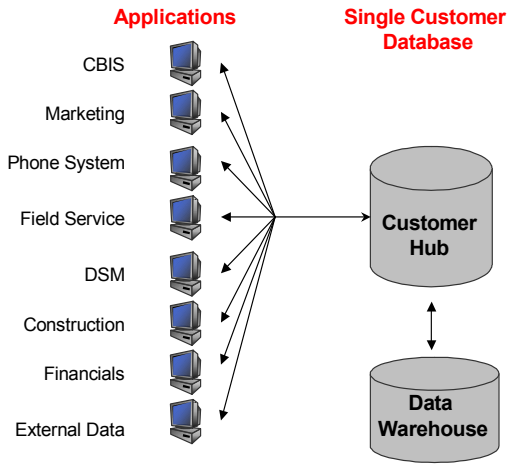
FRAGMENTED DATA = LOST TIME, HIGH COST, POOR QUALITY

Customer information is collected at the point of contact with the customer through the applications implemented to facilitate this contact (CBIS, marketing, service, call center, financials, demand side management system, etc.). Unfortunately, this creates multiple customer databases. These customer databases have different definitions, business rules, data structures, and data element relationships. In fact, the data is filled missing, duplicative, and contradictory.

To alleviate this situation, most companies have turned to data warehousing. While extremely valuable for analysis of historic data, the data flows into the warehouse are complex, error prone, time consuming, and costly. What's more, the amalgamated data is stale and the data flow is a one-way street. The one-way nature of the data flow poses a critical problem. By the time the data is cleansed, scrubbed, merged, and generally modified, it is literally unusable by any of the applications that generated the source information. But these are the very applications that a company uses to manage all their customer interactions. This very serious gap in all IT operations has been accepted as unavoidable – until now.

The Customer Hub for Utilities, using the Oracle Customer Model (OCM) with Oracle's Trading Community Architecture (TCA) at its core, consolidates all the operational customer data in one place, creating one consistent data definition across all applications.

Oracle delivers an entirely different model. The Customer Hub for Utilities, using the Oracle Customer Model (OCM) with Oracle's Trading Community Architecture (TCA) at its core, consolidates all the operational customer data in one place. This creates one consistent data definition across all applications. This consolidation enables an accurate 360-degree view of customer interactions across applications and across channels on the operational side of the business. Daily business intelligence is available, and the cost of operations is reduced.



CONSOLIDATED DATA = REAL TIME, LOW COST, HIGH QUALITY

The warehouse is still useful and necessary for deep analysis requiring intensive aggregation, computation, full-file scans and multiple joins. But the critical distinction now is that the data flow is a two-way street with business intelligence data moving seamlessly back into the operational systems where it is available at the customer contact points.

A CUSTOMER DATA MODEL THAT ACTUALLY MODELS YOUR BUSINESS

Oracle's Trading Community Architecture (TCA) is the logical heart of the Customer Hub. It models parties, people, corporations, groups, customer, contacts, employees, and suppliers. It models their accounts, locations, classifications, and preferences. Historical as well as current status is maintained. And most importantly, TCA models all the complex hierarchical and matrixed relationships that exist between all the entities in a company's trading community.

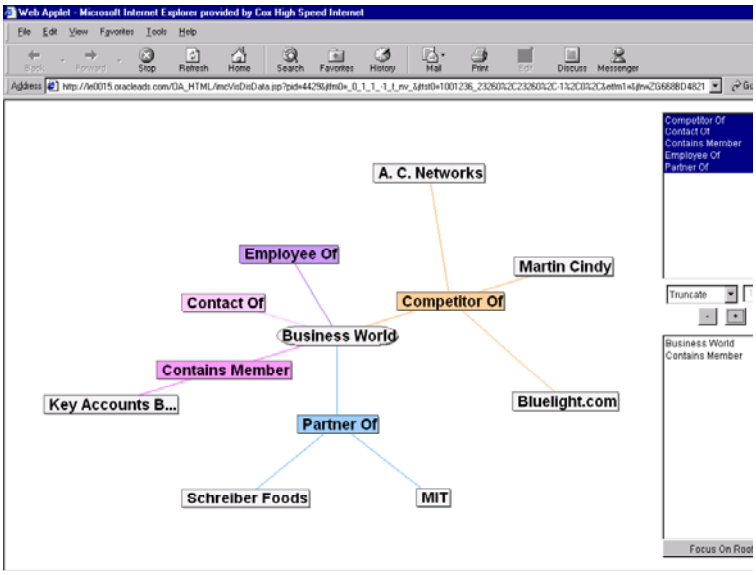
In the Oracle architecture, when the user of any application performs an action that implies a database update, the update is made to the relevant table or tables in the central database. The updated information is then available at once to any other application that may need it. The TCA operational data provides a complete, accurate, real-time view of the company's activities, finances, customers, services, suppliers and partners. In short, TCA enables a single version of the truth throughout the operational applications.

TCA is a proven technology, currently supporting over 2000 implementations of the Oracle e-Business Suite. This includes support for applications ranging from Customer Relationship Management (CRM) to Enterprise Resource Planning (ERP), and from Supply Chain Management (SCM) to Strategic Enterprise Management (SEM). TCA is the customer model under all of these applications.

CUSTOMER DATA MANAGEMENT FOR UTILITIES

Oracle Customers Online (OCO) is the program used to view, manage, cleanse, and enhance the consolidated customer data. The following figure illustrates the viewing capabilities of OCO.

ORACLE CUSTOMERS ONLINE RELATIONSHIP VIEWER



A true 360-degree view of the customer is possible with data provided on all customer interactions including notes, interaction history, classifications, contacts, tasks, accounts, campaigns, events, leads, opportunities, orders, invoices, contracts, installed base, and service requests.

In addition, OCO includes a set of Data Quality Management (DQM) features with processes specifically designed to keep the TCA registry and customer accounts clean. DQM includes the following components: Oracle Smart Search, System Duplicate Identification, Party Merge and Customer Account Merge.

Oracle Smart Search is the foundation for searching for an entity to use within the context of a business flow, preventing duplicates at the time of user entry or systematic import, or identifying matching or duplicate entities for resolution.

DQM's Merge routines (Party Merge and Customer Account Merge) are designed to enable companies to cleanse their data by resolving duplicate parties, party sites, relationships, contacts, contact points, and customer accounts.

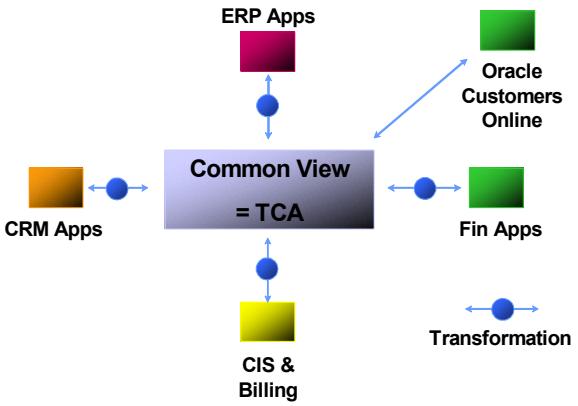
OCO also provides an infrastructure for loading in externally supplied data. In particular, Dunn and Bradstreet (D&B) is completely integrated with D&B business data loadable directly into TCA. D&B data loaded into the TCA tables can be viewed and shared across the customers' enterprise.

According to the Data Warehouse Institute study, poor data quality costs business billions of dollars each year. The large figure includes more than just the costs due to unnecessary printing, postage, and staffing. It is due to the cost of business process breakdowns and the costs required to fix them. It is due to the costs associated with the erosion of an organization's credibility with customers and suppliers. It is also due to the costs around to the inability to make sound business decisions based on accurate information. Oracle's Customer Hub, based on TCA and Oracle Customers Online solves this serious IT problem, allowing IT organizations to redirect their resources to realizing their goals instead of constantly allocating these resources to undo the damage caused by data quality problems.

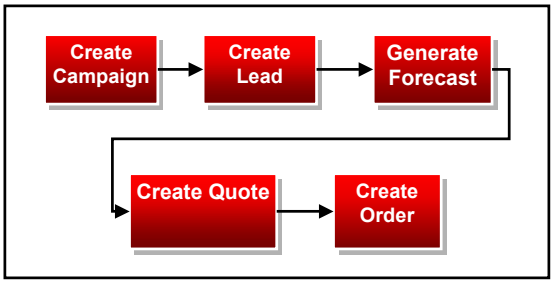
SEAMLESS CONNECTIVITY TO THE ENTERPRISE

Using Oracle Application Interconnect in the 9*i* Application Server, the Oracle Customer Hub can be implemented as a corporate Enterprise Data Model (EDM). 9*i*AS Integration utilizes a hub-and-spoke architecture, implementing a 'Common View' of the data shared among the integrating applications. Using TCA as the 'Common View' of record and separating customer data ownership from any particular application, customer data consolidation is possible in the most heterogeneous of IT environments. The following figure illustrates this model.

9*i*AS -- SEAMLESS CONNECTIVITY TO THE ENTERPRISE



Customer data problems in a heterogeneous environment create serious problems for IT organizations implementing business flows. This is due to the fact that business flows cross application boundaries. Most relevant business processes will transition many times between the front office and back office. For example, the following figure illustrates a 'Campaign to Order' business flow.



In this business flow, the process moves from the marketing application to the sales application. It then moves on from the sales application to the ERP order management application. In the larger picture, the business process will then flow from the order management application to various fulfillment applications and then to the financial systems to recognize revenue.

By centralizing all of its customer data, managing it, providing effective governance, and connecting it to the enterprise, a utility company will realize tremendous operational efficiencies and at the same time dramatically improve customer satisfaction.

Without consolidated data supporting these applications, customer data must be retrieved from one database schema, used to move the business flow to the next step where another database schema and access is needed. At this point, all data quality problems introduced by the different definitions for the customer must be resolved. The first database is updated and the second application takes the process to the next step. This process is repeated with each application transition. This creates the potential for data conflict resolution in downstream application transitions that may not be compatible with resolutions achieved upstream in the business flow. In fact, access to an earlier conflict resolution outcome may not be available. Updated information at each step is only available to the application's database in control at the point of modification. Modifications relevant to the flow in progress will be propagated as part of the flow, but they won't be available to other applications in simultaneous flows. Errors downstream become impossible to correct in earlier steps, and missing or contradictory data definitions make errors downstream likely.

Using 9*i*AS Integration to connect Oracle's Customer Hub and consolidate the data supporting all the applications in the business flow, these problems disappear. All flows use the same physical data store. All updates are immediately available to all other flows. All data is consistent at every point along the path. No data conflicts exist, eliminating the need for multiple error prone conflict resolution processes. Errors are far less likely, and if they should occur, correcting them is easily done.

With the Oracle Customer Hub, business process automation is itself automated, with faster implementation times, lower implementation costs, and fewer operational errors.

CONCLUSION

By centralizing all of its customer data, managing it, providing effective governance, and connecting it to the enterprise, a utility company will realize tremendous operational efficiencies and at the same time dramatically improve customer satisfaction. Implementing an enterprise data model across all applications represents a rising tide strategy. The effectiveness of all business processes and all customer interactions will improve. Oracle, with its Customer Hub, has a unique and proven set of technologies and tools that enable this strategy.

NEXT STEPS

For more information on Oracle's Customer Hub for the utility industry, please visit www.oracle.com/industries/utilities or call your Oracle representative at 1-800-ORACLE1.

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