UNISERV Enhanced value for data quality

The Whole Truth!

Not What's Left

ADDRESS MANAGEMENT IN ORACLE® ENVIRONMENT

• GLOBAL MARKETING • DATA WAREHOUSING
• DATABASE MARKETING • ONE to ONE MARKETING
• e-COMMERCE • CALL CENTER MANAGEMENT
• CUSTOMER RELATIONSHIP • DATA ENTRY

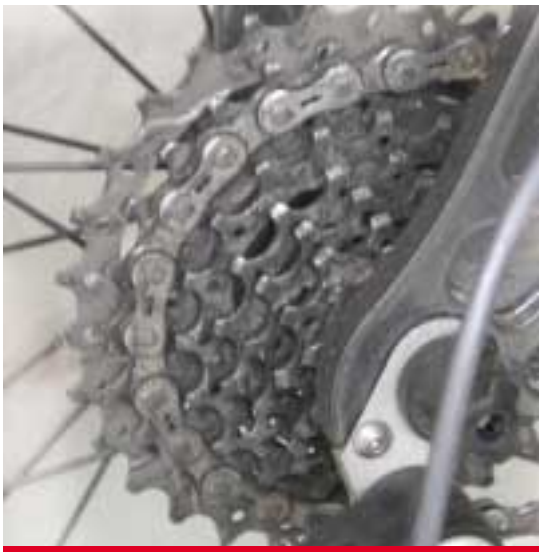
SOFTWARE & SOLUTIONS

Focus: Customer Orientation

Customer loyalty = company success

Given the transparency of markets and the exchangeability of products and services, competition for customer satisfaction has become the predominant issue of strategic business planning.

In order to achieve decisive competitive advantages uncompromising customer orientation and comprehensive information management are an absolute must. Strengthening business performance therefore increasingly depends on the availability and immediacy of data as well as on efficient information processing. This particularly applies to the central management and maintenance of address data, since these are at the heart of any customer or market relationship.



The power of customer relations: address management

Addresses – a potential for success

Experts all agree on one thing, correct addresses are the decisive key to success for a company wide implementation of individual communications and customer care on a common basis. Up-to-date addresses are an absolute prerequisite for a professional quality oriented customer management systems based on one-to-one relations at the point of sale.

Developing and implementing strategies for increasing customer loyalty and opening up new markets definitely requires adequate address material for success. The same applies to customer evaluations, credit investigations, or operations related to the customer's home, delivery, or invoice addresses. Correct and up-to-date addresses will in all cases be absolutely necessary.

Added Value for Your ORACLE® Applications

Address management in the ORACLE® environment

The solution developed by UNISERV for a company wide validation of addresses supporting direct and fault tolerant access to address files fully meet the current requirements as to the efficiency of interaction and dialogue with the customer.

Maximising benefits

By providing an essential functionality for your front end business operations, we improve the flexibility and performance of your ORACLE® applications.

Regardless of the operating system used and the application background, our sector independent software solutions will take over a key role in your IT strategies focused on customers and markets.

Up-to-date addresses – simply a must

Using address management software in the business-to-business arena will already prove advantageous when dealing with ten to fifty thousand addresses. However, adequate software solutions are absolutely indispensable in the business-to-consumer market, where the number of addresses to be managed can typically reach several hundreds of thousands or even millions.

Why a professional solution?

One thing is certain, when manually keying or editing addresses, errors such as the following can never be totally excluded:

- Phonetic errors when addresses are transmitted orally (same sound but different spelling).
- Confusion with letters and numbers that "look" very much the same when entering hand-written records – no matter if addresses are read by machines or "human" resources.
- Typing errors made during data entry.
- The use of different and non-standard abbreviations.
- Misunderstandings as to first name and surname, adding or omitting salutations and other supplements.

Without professional address management, all these potential errors automatically cause identical addresses with different spellings to be captured several times which gradually increases the number of unrecognised duplicates in the files.

Facts, Background & Benefits…

Your benefit: solutions made by UNISERV

We offer you a variety of expert systems which automatically ensure that your database will contain nothing but correct addresses complying with postal standards – especially if your clientele is an international one.

In addition, fault tolerant search algorithms ensure (without the need for explicit user actions) that address files are kept free from duplicates when entering new addresses or editing existing ones.

Additionally, you will find any existing address in your database, even if it was stored with one or more of the errors described above or if the inquiry is misspelt or misskeyed.

Integrated solution

Product Portfolio

We optimise your address management in the ORACLE® environment

Our solution for customer-oriented marketing in the ORACLE® environment is made up of three components designed to optimise your address management. These components may be used either together or individually.

post for ORACLE®

This online component ensures that only addresses with a valid postcode, town name, street name and, where required, a correct house number or P.O. Box number will be stored and managed in your ORACLE® database. *post* for ORACLE® uses various fault-tolerant analysis algorithms and includes extensive reference tables which facilitate the verification and rectification of addresses automatically. In the case of unresolved ambiguities, users are provided a list of the available alternatives to select from. In call center applications for instance, this allows to resolve the problem whilst in direct contact with the customer. *post* for ORACLE® is available in various national versions.

post for ORACLE® also offers address geo-coding functionality as an optional feature. Almost effortlessly this will allow you to assign geographical information such as coordinates or socio-demographic data to your addresses for micro-marketing applications.

mail for ORACLE®

mail for ORACLE® allows you to find the requisite address in your ORACLE® database, even if it was originally stored with errors in the address file or if your inquiry contains errors. This search with partial information can be used as "quick" and/or fault-tolerant alternative to the generic search that may already exist on your system. Naturally, searches can also be made using entire names and addresses. Typically, this is an automatic procedure before any new or modified addresses are stored in the database. Fault tolerant searches using telephone numbers or birth dates are also possible. When searching for specific address types, *mail* for ORACLE® of course supports "roles" assigned to addresses.

click it for ORACLE®

click it for ORACLE® is a batch front end tool which allows you to carry out typical address management tasks efficiently. The software is ideally suited for importing address files into your ORACLE® application as well as for periodic address updates. To achieve this, *click it* for ORACLE® restructures the addresses into a common layout and format, converts upper/lower case letters according to specific national address requirements, carries out the postal address validation, and identifies possible duplicate entries. *click it* for ORACLE® also offers address geo-coding functionality for micro-marketing purposes. And all of this works at lightning speed, even for databases containing millions of addresses.

ORACLE® Integration

Implementation focused on ORACLE®

When developing the components to be integrated, particular attention was paid to the ease of integration into the ORACLE® environment. The UNISERV address management solution is entirely based on client/server technology and integrates seamlessly into the ORACLE® environment. ORACLE® PL/SQL package calls allow direct access to the UNISERV address software components from any ORACLE® client platform (from Version 8i™ or higher) and ORACLE® development tools. All verification and rectification tasks are then carried out automatically in background.

Easy integration

Easy Connection

Online application

Function calls for online checks can easily be integrated into your application by your developers or your software partners. To do this, UNISERV provides a programmer's interface, the actual address verification and rectification being automatically run in background. In this context, particular attention was paid to effortless integration into "typical" ORACLE® development environments such as ORACLE® Forms. However UNISERV functions can also be integrated without any difficulty into other development environments such as Internet application developments in Java or even classical programming languages like Cobol or C.

Batch application

Communication of the *click it* batch application is carried out via file interfaces, enabling the integration to be generally carried out without any application development or modification of existing applications.

Background tasks

The UNISERV background processes for the search, verification and rectification functions "couple up" directly to your ORACLE® database and are run as autonomous server processes.

Special benefits of the UNISERV solution:

- Automatic synchronization of your ORACLE® database with the OE *mail* index pool.
- Full data integrity, even if database updates are partially carried out using programs and procedures which do not contain any address management functions.
- Automatic synchronization of transactions with the ORACLE® database.
- Highly scaleable solution, as the OE servers can be run either on a dedicated server or on the same computer as the ORACLE® database. The address database can be split up flexibly on one or more OE *mail* servers.

Easy system administration

- Customizing is carried out in the ORACLE® environment using a dialogue tool.
- System monitoring via a master screen allows the control and monitoring of the entire system. Special functions are available for diagnosis and troubleshooting.

All current platforms…

- The new product line is available for ORACLE® databases on all current UNIX derivates and for Windows™.
- All UNISERV address management components can be used with Oracle8i™ or higher databases.

Good to Know
Questions and Answers

What distinguishes postal address checks with post for ORACLE® from "ordinary" systems based on reference tables?

- Automatic verification and rectification of all postal address elements.
- Fault tolerant verification enabling many errors to be corrected automatically, i.e. without user intervention.
- Assignment of correct postcode based on street, house number or P.O. Box information.
- Selection list of most likely alternatives in case of ambiguous search results.
- International program versions.

International address validation

What is the difference between the address retrieval system mail for ORACLE® and standard ORACLE® database searches using "wildcards"?

- Results are returned much faster. Even for address files containing several million entries, typical response times will not exceed one second.
- Searches with *mail* for ORACLE® are fault-tolerant, even without wildcards. This is a rather important aspect, as using wildcards implies that the user knows or can accurately guess where spelling/typing errors could have occurred!
- Searches can be run automatically, i.e. without any user intervention, before storing any new or modified addresses. This largely precludes the creation of duplicates and avoids time consuming searches by the user.
- Results are returned sorted by similarity (best match first).

What is the difference between the UNISERV solution and other tools available on the market?

- UNISERV not only offers individual components but also a global solution for online and batch applications.
- Postal validation and duplicate checks are integrated interdependent functions, thus providing better result quality and higher database consistency.
- The solution can be used online and as batch application for bulk data processing.
- The UNISERV solutions have exclusively and uncompromisingly been designed to meet specific address management requirements.
- High scalability, even for large numbers of "power users", through flexible and distributed use of different logical and physical servers.
- The solutions are designed for international purposes while being totally independent of business sectors and existing applications.
- With over 3,200 server installations to date, UNISERV is one of the leading address software suppliers in Europe.

Extended Versions for the OPEN.edition Product Line

Our Top Priorities: High Data Availability, Protection Against System Downtime, Scalability

Optimizing management of enterprise-wide address and customer data

When making choices for IT investments, a crucial issue is which system best ensures the continuity of mission-critical business processes. Continuous application availability increasingly ranks at the top of many companies' lists when searching for software solutions.

Extended product portfolio

UNISERV's new extended versions for applications in the ORACLE® environment now provide ORACLE® users with maximum availability, scalability, and protection against system downtime for their OPEN.*edition* software components. Additional implementation or integration effort is not required. Optimal customer and address data is provided even in very large address databases involving many active users. Real-time access to a complete view of the customer is available during ongoing business processes.

New features and enhancements

The new extended versions have a number of new features and functional enhancements in comparison with the standard versions. The focus is on high availability and scalability. Furthermore, a number of additional functions were integrated to facilitate system control and administration.

Only restricted by existing hardware resources, the new versions allow nearly unlimited multiple provisioning of services of the OPEN.*edition* product line (*convert* – address analysis and formatting, *post* – postal address verification, *mailRetrieval* – address and customer identification). A service can be started on different computers or repeatedly from one computer. The automatic distribution of requests to different server resources ensures additional access security in this context since problems within the hardware affect only one instance of the service; furthermore, there are more possibilities for scaling.

The extended versions are especially suited for applications in which it is necessary to identify a customer or prospect without the respective customer number. This is also true for applications used throughout entire enterprises, in which precise identification is required despite varying numbering systems. In addition, the products can also be used in international applications.

Alongside the "extended" product versions *convert*, *post* and *mailRetrieval* for ORACLE®, UNISERV still offers the "standard" software products hitherto used in the ORACLE® environment.

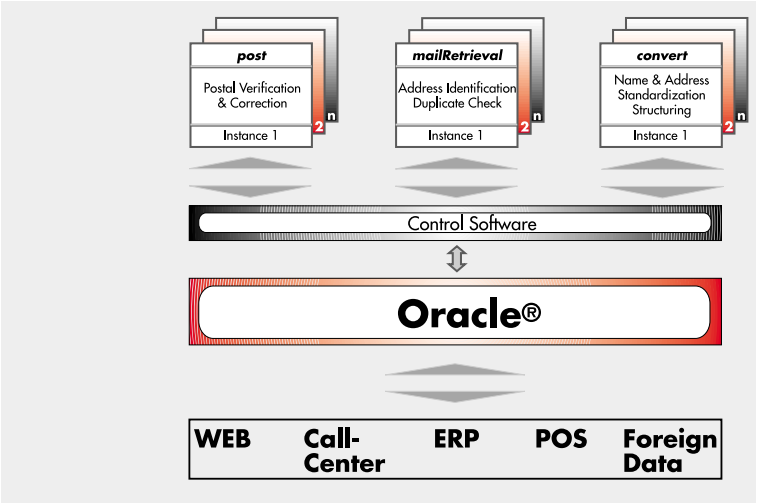
Conclusion

When under ORACLE® continuous 24/7/365 availability is required and response times of less than one second for very large databases with many active users are expected, UNISERV's "extended" product versions for ORACLE® comprise the basis for all enterprise-wide address management applications.

Extended Versions for the OPEN.edition Product Line

Important features and functions:

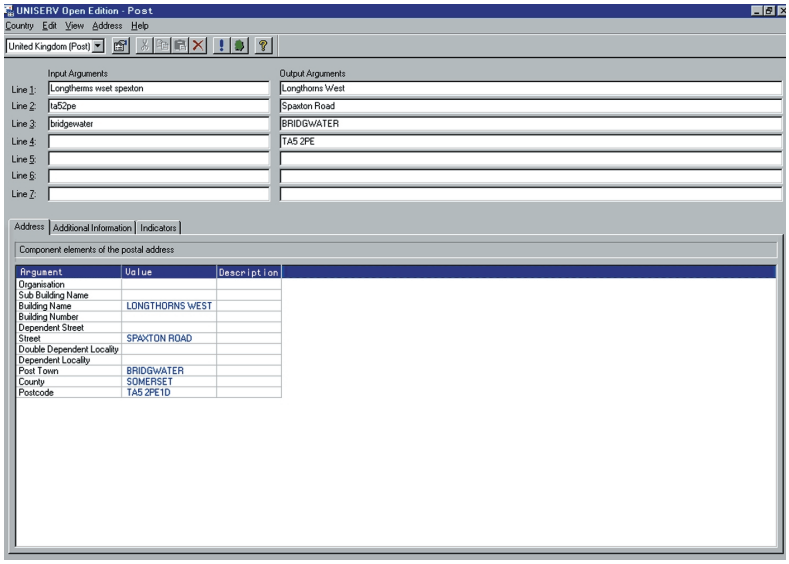
- In normal operation (all instances of a service are available), the integrated control software distributes the requests to the different instances (load distribution), thus assuring a higher throughput.
- If an instance of a service is shut down eg because of planned maintenance activities or fails because of hardware or software problems, the control software distributes all requests to the instances of a service that are still available and ensures that the client application does not notice the outage. Requests that were already started on the failed instance of the service are likewise unnoticed by the client application and are distributed to the remaining instances of the service.
- Not only is the control software able to distribute requests in order to access reference data but also to access a service in which the data is to be changed (e.g. recording new addresses or editing addresses). The control software automatically ensures that the update requests are executed on all instances. If an instance has failed, the control software automatically ensures that upon recovery of operation this instance has the same status value as the other instances. The control software synchronizes the corresponding data pools and ensures consistency.
- The automatic distribution of requests to the available instances of a service and the automatic allocation of changes in data to all of the instances allow the user to deactivate specific services for maintenance. Thus, reference data can be updated eg without impairing the client application. As another example, the index pool of *mailRetrieval* can be loaded anew during an update operation to meet changed requirements. During this time redundant instances take over "normal operation". Updates that take place in the meantime will be refreshed, when the instance of the newly loaded service is reactivated.
- Via a self-learning mechanism, future requests that could lead to an impairment of a service are dynamically blocked after their first occurrence. Such requests often have their cause in faulty client programs or in the "playfulness" of the users, who consciously or unconsciously send requests that impair the throughput of the system.
- The "extended" product versions can be used both with and without ORACLE®'s own functions for high availability (ORACLE® Parallel Server). If these are used together with the ORACLE® high-availability functions, Uniserv functions specific to address management will supplement the ORACLE® high-availability.



Examples *Online service processes directly with ORACLE®*

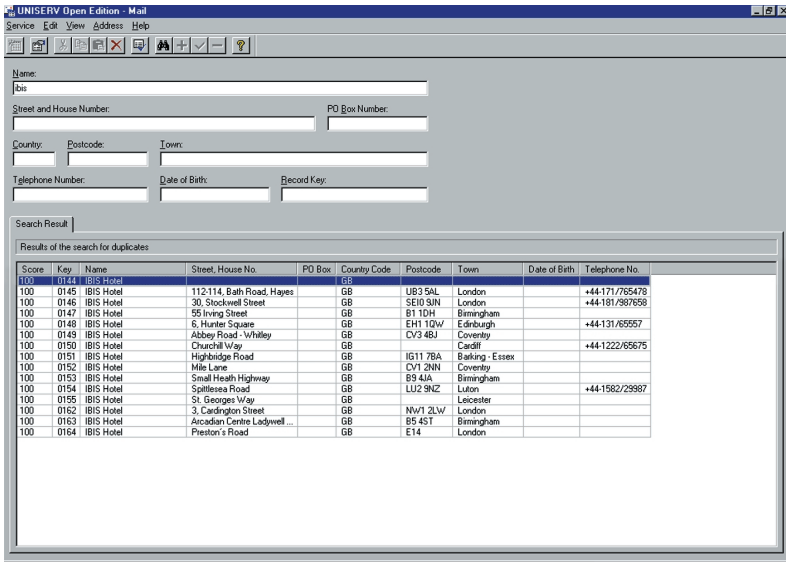
Incomplete postal entries

Search using town/street name and house number



Address retrieval

for interactive search of existing customers



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