



Benefits of using DATABridge for Unisys CAP customers

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Benefits of using DATABridge for Unisys CAP customers

The mobile phone now dominates our lives. Everybody has one, and its use is taken for granted. For the cellular suppliers, this represents a saturated market—and to continue to grow revenue, a change of tactics is required. No longer is it sufficient to win new business from those who do not have a mobile phone. But improving customer loyalty and providing new services to existing customers is a way of increasing the revenue per user. Increasing voice mail usage is an effective way of increasing revenue, and in many cases its potential has not been fully realized, due to the lack of business intelligence about current usage. Attachmate can address this by using the DATABridge® solution, thus giving business managers the tools by which to increase voice mail use and associated revenue.

The intention of this article is to outline a solution from Attachmate that can help deliver improved competitiveness to the telecommunications providers using the Unisys Communications Application Platform. A description of the solution is followed by a list of potential benefits. Since each implementation is customized, not every benefit will apply; in some cases additional benefits may be realized. The benefits can be used to justify the solution and provide a basis for a return on investment calculation. In many cases an ROI calculation cannot be done, because the data is either not available, or is available, but in a difficult format. This solution will deliver much improved decision support processes from these platforms, and will enable informed and well-substantiated decision-making capabilities.

Unisys has been very successful with the Communications Application Platform, formally known as NAP, in the mobile communications market. The Communications Application Platform consists of hardware and system software that allows for voice and data processing. The platform delivers services such as voice storage, speech recognition, text to speech, auto attendant and custom applications. For example, an application could be developed with voice and phone interfaces to allow customer interaction with existing billing systems and customer accounts. This document will refer to the Communications Application Platform as CAP for brevity.

A large proportion of the installed CAP systems are used to store voice mail for the mobile and land line users. Over 25% of mobile voice messages in Europe are stored on large Unisys CAP systems which, typically, are solely dedicated to this function. The mobile market is becoming increasingly competitive and mobile providers are experimenting with new services to grow market share—some of these are targeted at winning new business, others at adding value to existing services. 3G has added yet more financial pressures with licensing and infrastructure costs to the mobile providers. These dynamics have led some existing CAP customers to explore the possibilities of using the Attachmate DATABridge product to deliver improved decision support functions.

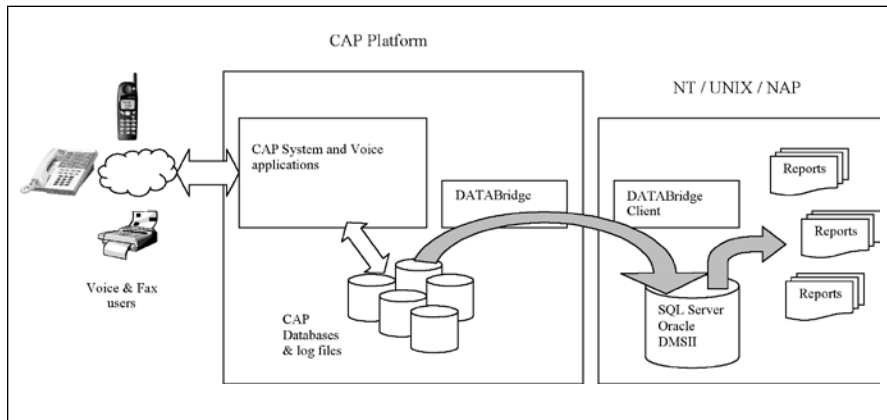
DATABridge overview

The CAP systems are based on the Unisys® ClearPath® NX architecture, and run the operating system known as MCP. DATABridge is widely used in this environment to replicate data from DMSII databases and flat files on ClearPath

systems to secondary systems such as SQL Server or Oracle® on Windows NT® or UNIX® platforms. The primary benefit of replicating data to a secondary system is to provide decision support capabilities without impacting the primary system. This is particularly important where the primary system is committed to a high transaction load or is resource sensitive.

The DATABridge replication process uses a mechanism whereby only changed data is replicated to the secondary system. This makes for a very efficient operation and has significant benefits over alternative approaches such as file transfer, or custom written solutions that attempt to extract and analyze only part of the data available on the CAP system. In addition, filtering mechanisms are available that allow for selected data to be replicated, thus avoiding the overhead of taking unwanted data to the secondary system.

DATABridge and CAP architecture



The above diagram shows how DATABridge interacts with the CAP system. DATABridge has a host component that resides on the CAP platform and is responsible for accessing the data in the various CAP data sources. The DATABridge client inserts the extracted data into the target database of choice. This could be a relational database management system (RDBMS) such as Oracle or SQL Server, or another DMSII database running on another CAP system. Different DATABridge clients are available depending on the platform of choice. The secondary system can be updated as frequently as required. Replication processing can be invoked at any time the administrators choose—for example, at quiet times when call rates are low, or overnight when systems are not in use. If near real-time replication is required, then the processing can be done continuously, resulting in the data on the secondary system being just a few seconds behind that of the primary. A blackout feature on the host component can be used to enforce periods of times when replication should not occur.

DATABridge replicates just changed data so the overhead on the CAP platform is low. The initial replication done by DATABridge after installation may be time-consuming, depending on the amount of data stored on the CAP system. However, this is typically a once-only operation, and may not even be required, since CAP systems hold relatively modest amounts of historical data that is of interest on a secondary system.

Data from multiple systems can be centralized to one secondary system. This allows a single unified view of many CAP systems. Conversely, DATABridge can also

populate multiple secondary systems with data from either a single, or multiple sources. For example, a data warehouse running on NT could hold demographic and usage data applicable for market and product analysis, and a separate UNIX system could hold data that support would want to use to determine if service level agreements were being compromised. In effect, DATABridge supports a many-to-many replication model.

The data in the secondary system can be used for decision support and data analysis. Many standard tools exist for this purpose, such as Visual Basic, Excel, Crystal reports and Microsoft® Access. This gives users the freedom to generate reports at will, using familiar desktop tools, with no impact to the primary system and little or no intervention from system administrators.

Benefits of using DATABridge

CAP systems are used in many different ways, so not all benefits will be applicable to all sites, but the following will provide a good idea of what can be done.

Offload data analysis and reporting

Because voice processing is time critical, CAP systems generally avoid running mainframe-based decision support applications, such as ERGO that consume system resources. Dropped calls are symptomatic of CAP systems that are throttling. Using DATABridge to offload data to a secondary system allows decision support to occur with no impact to the primary system. Additionally, by removing the need to run reports on the CAP system, more processing capacity is available for voice applications.

Deliver data not previously available for reporting

The CAP system holds a lot of very useful data, in both DMSII databases structures and in log files, but the ability to run decision support applications against this data has been limited. DATABridge makes this data available in an easy-to-use format on the

secondary system, and is a single tool that can deliver data from all the CAP data sources to a secondary system in a unified manner.

Historical data analysis

The secondary system can be used to store selective historical data. This allows trend analysis to occur, which is useful for forecasting system utilization as well as analyzing market trends, product performance, and life cycle.

Reduced programming effort to generate reports

Generating reports directly from the various CAP data sources not only generates undesirable system overheads, but also requires the use of skilled system staff to generate and run the reports. In many cases, these reports need to be run at quiet times and the results are delivered some time after the report has been requested. DATABridge not only delivers the data to a secondary system, but also converts the disparate CAP data sources to a single relational format. This allows end users, with little or no training, to use a standard desktop application to build their own decision support queries. In addition, more exotic reporting functions can be quickly delivered with staff skilled in data analysis.

More reports with instant results

Users can generate their own reports immediately, and can generate as many as they wish. This will only be limited to the processing power available on the secondary system, which could be a powerful corporate data warehouse running on a ES7000, a departmental server, or even a desktop system running Microsoft Access. This allows more flexibility, and leads to faster and more informed decision-making capabilities.

Single view of all CAP data sources

DATABridge can consolidate data from multiple CAP systems to one centralized system. This gives a unified view of activity across all platforms.

Delivery of filtered data

The filter mechanisms in DATABridge allow for data to be delivered to the secondary system that matches certain criteria. For example, if mailbox utilization in certain metropolitan areas were required for analysis, then DATABridge could deliver only that data to a secondary system dedicated to analysis of that data.

Cost efficient secondary system

All reporting occurs on the secondary system, such as an Intel® or UNIX platform, where the cost per MIP is significantly lower than the CAP system. The CAP systems are very efficient at high volume transaction processing and ideal for voice applications, whereas the secondary systems are more suited to analytical processing. DATABridge provides a cost effective and efficient solution to both types of processing requirements.

Provide improved redundancy capabilities

The DATABridge DMSII client has the ability to populate a secondary DMSII database with data from a primary DMSII database. Using filters, the secondary database could have just a subset of the data from the primary. This allows a selective backup capability, resulting in improved up-time, non-interruption of provisioning, and no loss of revenue.

Build customer loyalty programs

Many organizations have developed successful customer loyalty programs that have been instrumental in retaining and growing customer business. DATABridge can deliver the required data to the corporate data warehouse, which is the underlying technology behind these programs.

Report content

The reports themselves could be used to generate information such as:

- Produce statistics regarding mailbox usage, e.g. number of mailboxes not initialized, number of times personal greeting is changed, or number of times a message is retrieved, etc. These are all opportunities to streamline products to increase revenue from existing customers.
- Determine usage patterns, relationships to demographic data, identify high volume users, low volume users, and successful services versus unsuccessful
- Provide billing information to allow premium mailbox services to be developed and charged for, e.g. unified messaging, long term message storage, conference call recording, playback on demand services. This could also be used for cross-charging between organizations when CAP services are outsourced or provided as a service to a third party.
- Provide security-related reports to identify fraudulent use, hacking, and nuisance calls.

In some cases, this is required to conform to local legislation.

- Build targeted marketing campaigns to improve customer usage of services, and measure the success of campaigns with ongoing reporting. Roaming users make up a large group, so increasing mailbox usage with this targeted group of high value users would grow revenue.
- Provide reports to corporate customers on mailbox usage, delays to pick up messages, number of messages stored, origin of calls, SLA commitments, and other areas.
- Provide mailbox data to provisioning systems for pre-validation.
- Operational analysis to allow for fault isolation, trend analysis, and utilization reports.
- Provide data migration capabilities to allow redistribution of mailboxes from one system to another. DATABridge can replicate data to other CAP systems and this would provide a mechanism to help provision new CAP systems.
- Determine if service level agreements have been met.

This data is available on the CAP system, but is difficult to obtain in an efficient manner.

DATABridge: Proven, Time-tested and Effective

DATABridge was developed in the early 1990s to provide improved decision support capabilities to Unisys 'A' Series and NX customers. It is widely used in the Unisys market place, and plays a central role in many critical systems delivering large amounts of data to secondary platforms. The product has been continuously developed during this time, and

continues to be driven by customer requirements. It is a mature and well-proven product. DATABridge is co-developed by Attachmate and Joe Joseph & Associates, both well known companies with extensive experience of the Unisys market place. Attachmate can also provide skilled and experienced services to augment product offerings, which are invaluable to assisting customers with implementation of complex projects. DATABridge for CAP is available either from Unisys or directly from Attachmate.

Summary

As the mobile wireless market matures, new technologies, increasing competition, 3G investment, and consolidation continue to drive major changes in the telecommunications industry. Making informed and timely decisions can play a crucial role in a company's ability to deliver new product offerings—and stay ahead of the competition. The Attachmate solution outlined in this paper can deliver improved decision support capabilities to decision-makers, because it is cost-effective it is on the resource side, easy to install, and replicates data quickly. DATABridge is a powerful and flexible tool that can bring many benefits to an organization—streamlining of existing systems, helping identify new product areas, providing improved services to existing customers, and reducing the time and effort to deliver new solutions in a competitive global market place.

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