

A SOLIX WHITEPAPER

# DATA ARCHIVING THE KEY TO SIEBEL PERFORMANCE

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## Data Archiving: The Key to Siebel Performance

### Executive Summary

CRM in general, and Siebel specifically, has taken its place along with corporate financials and ERP as a basic business management tool in many medium-to-large enterprises. But Siebel is a major investment. Particularly in these difficult economic times, enterprises need to realize maximum business value from their IT resources. That requires that Siebel performance be maximized and aligned with business needs in four important areas:

- Maximize Business Value across the Enterprise — Implement enterprise data management strategies to achieve business objectives. Align application performance to meet expected service levels. Improve business intelligence and content management.
- Leverage Best Practice Strategies for Information Governance — Protect data privacy. Establish effective compliance and retention policies. Maintain information security.
- Simplify the IT Infrastructure — Control and manage continued data growth. Establish cost certainty in managing and maintaining Siebel application data.
- Ensure Business Continuity — Minimize risk during Siebel upgrades. Speed backup and recovery. Increase application availability.

However, Siebel has a problem. Over time its performance degrades, and while the change in the time each operation takes may be small, they are cumulative and can accumulate quickly. And when the person waiting is a customer, that delay is not acceptable.

The problem is the buildup of historical data such as completed transactions. This growing database costs the enterprise in several ways, both directly and indirectly, but the big impact is the erosion of quality of service to enterprise customers every time they interact with the organization. It also lengthens the data backup and recovery window, in some cases to the point that backups cannot be completed in a single session. It complicates governance and forces purchase of extra disk drives, using up scarce capital and complicating the IT infrastructure.

This growing problem is unnecessary. Multiple studies have shown that 80%-90% of all data access is to the latest data in the database. In Siebel terms, this means open orders and the background customer records supporting them. Most of the older data, and specifically completed and canceled transactions, can be safely archived. They still need to be preserved for compliance, tax and business research uses. But they can be removed from the active Siebel database and stored on slower, less expensive media. This will return Siebel performance to its optimal level by decreasing the size of the production database the software must access and search to complete every operation.

It also frees expensive high-performance disk drives, thereby saving capital costs, and if the archived material is moved to nonpowered media such as MAID disks or tape, can cut power and cooling costs as well. It also can improve productivity by eliminating the constant slow response to every action a user takes. But most of all, it means better service to customers.

Fortunately, the tools for automating Siebel data archiving are now available in the form of data management tools specifically customized to work with Siebel. The leading such tool is Solix EDMSSupplied by Solix Technologies Inc.

## The Implications of a Bloated Database

In many medium-to-large companies, including some of the world's largest enterprises, Siebel CRM has become a basic business management tool, providing a 360° view of customers and coordinating virtual sales teams often from different parts of the organization and geographies. Unlike other basic business management systems such as ERP and corporate financials, it is primarily customer-facing in that its main use is to manage customer accounts. Whenever a customer calls with a question, whenever a sales person takes an order, whenever any enterprise employee has any contact with a customer, Siebel is consulted.

As a result, Siebel performance changes have a much larger and more direct impact on quality of customer service than many other computer systems. However, as the Siebel production database grows, it inevitably impacts performance. The problem is that Siebel saves all data on every transaction and has no internal mechanism for removing historical data on completed and canceled transactions from the operational database. This adds to the compute load of Siebel operations, as it constantly has to work through increasing amounts of largely irrelevant data. Every search, computation, etc., slows, and this has a direct impact on customer service. The result easily can be a loss of the customer loyalty the enterprise has worked hard to create.

This is particularly true in this era of online customer self-service via the Web. Customers may not actually see the Siebel user interface when they access the enterprise Web site, but the Web front-end must draw the data it uses to answer customer queries and support transactions from Siebel. This means that if Siebel runs slowly, if for instance it takes 15-30 seconds on average for it to respond, the customer must wait those seconds for each step in a process to complete. Fifteen seconds may not sound like much, but in an order process that may have 10-20 such steps, it can become frustrating, and frustrated customers are never good news.

More data also means longer maintenance time. Larger databases take longer to load, search, backup, recover, reorganize, index, and optimize. Backup and reorganization windows can expand to the point where application availability is seriously threatened. Application upgrades take longer because more data must be converted.

In a disaster, a Siebel database seriously bloated with historic data can seriously delay recovery and resumption of normal operations – possibly for hours or days. During that time the organization will not be able to service customers, take orders, or respond to queries. This can be a serious problem, as every minute of downtime costs the enterprise money.

## Data Archiving as a Superior Solution

The good news is that today there is no reason to subject customers to this kind of frustration. And fixing the problem will also increase productivity of the sales and customer support staff, who spend a significant part of their work days waiting for Siebel screens to clear. And it will help IT to reduce both capital and operating expenses and decrease backup and restore windows. As a result, ROI is easy to establish.

The common response has been to throw hardware at the problem. Upgrading to larger, faster servers and adding extra Tier 1 disks, however, has several disadvantages. First, they eat into the IT capital budget, which in the present economy has probably been slashed. Second, this does nothing to solve the backup/restore window problem, which is reaching critical proportions in some shops. Third, this approach can strain the power, cooling, and physical space capacities of the data center, and today few enterprises can afford to build new facilities.

Intensive database tuning has been another response. This can create performance improvements, but because it does nothing for the basic problem, these are always temporary.

In some organizations these issues have become so critical that they end up purging older data. This, however, is a dangerous approach because this data is often needed for compliance audits, to satisfy discovery requirements in civil suits, for tax audits, and for business research, for instance into long-term market patterns that can help the organization identify both business and savings opportunities.

While this historical data is important, however, it does not need to be kept in the production database. Several studies have shown that the 80/20 rule applies to computer data in general — roughly 80% to 90% of accesses are of the 20% of the most recent data, while data that is more than a year old is seldom looked at. And when that data is needed, a longer response time is almost always acceptable.

In the case of Siebel this means that all completed (including canceled) transactions more than 12-18 months usually can be archived, removing them from the production database. And all this requires is archiving software, which is a fraction of the cost of another bank of Tier 1 disks.

However, IT should not decide what data to archive or where to archive it to on its own. Those are basically business decisions. The SVP of sales, SVP of finance, LOB heads, corporate counsel, and other business stakeholders need to define their real data access needs. A tiered approach may be called for, with transaction data more than 18 months old archived to SATA disks to keep them available for research and other purposes, and data more than four years old, for instance, archived to tape. These constituents should also determine an age at which old transaction data should be purged completely. This usually is defined by legal requirements. It is important because as long as the data exists it can be subpoenaed in both civil and compliance cases, and giving an opposing counsel more than what is required never benefits the enterprise.

## The Right Tool

Once the business and legal constituents have defined their real access needs for completed records, IT must implement them. The key component of this is the archiving tool. A general archiving or data tiering automation tool is not sufficient, however, because these tools cannot preserve the vital business context and metadata of the transactions. This context combines the data defining the individual transaction with more permanent data such as the full identification and contact information of the customer, the delivery location, shipping method, customer credit rating and payment history at that time, and relevant discounts. Without this supporting information, much of the transactional data becomes meaningless. Thus, the archiving tool must preserve the relationships between each transaction and this other information as it existed at the time.

Format and display of the archived data is another issue. Some archiving tools change the data format and require that archived data be accessed through the archiving system's user interface. In some cases that may not be important, but with Siebel data, due to its complex nature, the best solution is to maintain it in its original format. This allows access through the Siebel interface, which is familiar to anyone working with the data. Data mining and decision support tools are also equipped with interfaces that accept Siebel data formats. Siebel, of course, may change its data format over time to accommodate new technology, but in such cases it will need to maintain backward data compatibility to support its customers, so the archived data will remain readable.

The archiving tool needs to create a complete record of what transactions are archived and where they are stored. This is vital when responding both to compliance auditing and legal discovery requests during court cases. These always have deadlines, and while the courts are usually tolerant of reasonable requests such as two or three weeks for producing requested records, judges can impose stiff penalties for what they see as insufficient response, as some financial firms learned in well-publicized case earlier this decade. Thus if a court requests copies of all transaction records involving a specific customer for a specific time period, knowing exactly where those records are is vital.

Knowing the media the records are on is also vital, particularly for records moved to tape and stored off-site in a vault. Organizations have run into problems when trying to restore data stored on obsolete tape formats simply because they may no longer have a working drive that can read the tape. Also, all media also degrades over time. Therefore it is important to track the age of all off-site storage media and move data to new media before the old tape or other media exceeds its life span. This, of course, also has an associated cost and is another reason that the required lifespan of all archived data should be clearly established and all overage data purged.

In some cases the media also needs to meet legal requirements. This is particularly true for compliance. The U.S. Sarbanes- Oxley Act, for instance, requires guarantees that the data be unchanged, and the easiest way to provide that is to archive this data on WORM (write once, read many) media. Thus the archiving tool must be media-independent.

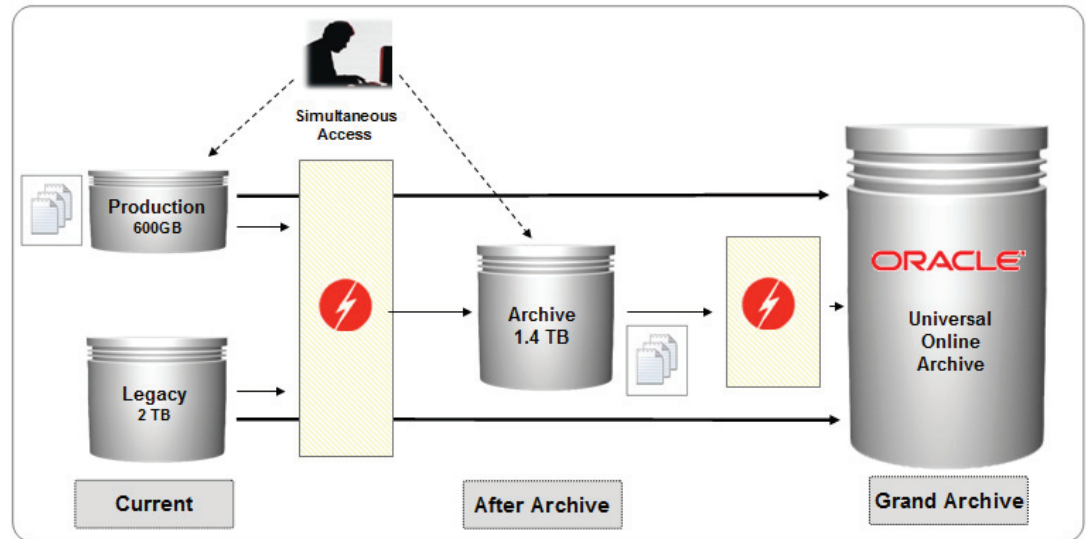
## Siebel and Solix

Few archiving tools meet the special needs of Siebel archiving. One leader in the field, which meets all Siebel archiving requirements is the Solix Enterprise Data Management Suite (EDMS) from Solix Technologies. Based on proven strategies for managing current customer activity and archiving historical transactions to enhance Siebel application performance, the Solix EDMS provides seamless integration (Figure 1) within the user's routine business process by accessing combined production and archived data. Solix provides this in different ways. A designated user can access the archived data from the production environment as a separate view. Solix also provides a separate instance of Siebel to access Production Data and Archived data together. Solix calls this "Merged Data". Oracle, which now owns Siebel Application, has validated the integration between Solix EDMS and Siebel applications.

Because Solix uses Siebel application logic and validation rules, it always maintains the integrity of the data and application. Archive processing preserves not only the data, but also the metadata, so that each archived business object represents a complete, audit-ready "snapshot in time." Archiving also captures any associated objects, such as file attachments from the Siebel File System, providing a complete set of data in its business context.

When completed activities or service requests with their associated file attachments are archived, users can access and display the archived data from within the Siebel application. User can access this on production environment by clicking on the Archived Service Request tab to see the all the Service Requested that have been archived (Figure 2) or login into a separate URL to access Archived Data where an user can access all the Service Request seamlessly. (Figure 3). This dynamic

**Figure 1. Solix EDMS Seamless Integration**



access bridges the gap between production data and archived historical data. However, in normal operations that do not require reference to the historical data, Siebel runs against only the current data in the production database, and in a disaster restore situation only that database needs to be restored to support customer service.

The Solix EDMS(Enterprise Data Management Suite), therefore, provides the ideal answer to the problem, supporting full data management that allows optimization of the Siebel environment for delivery of high service levels while supporting background business needs.



Figure 2. Archived data access from Production

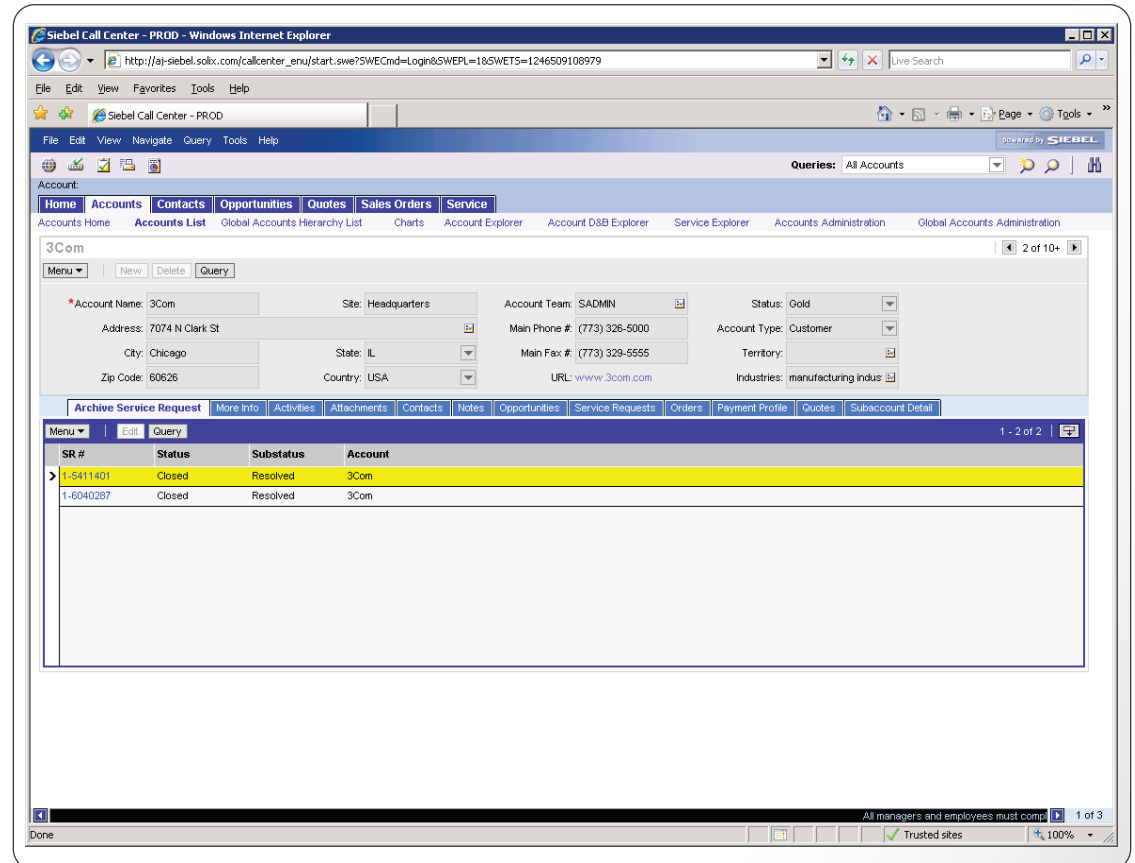
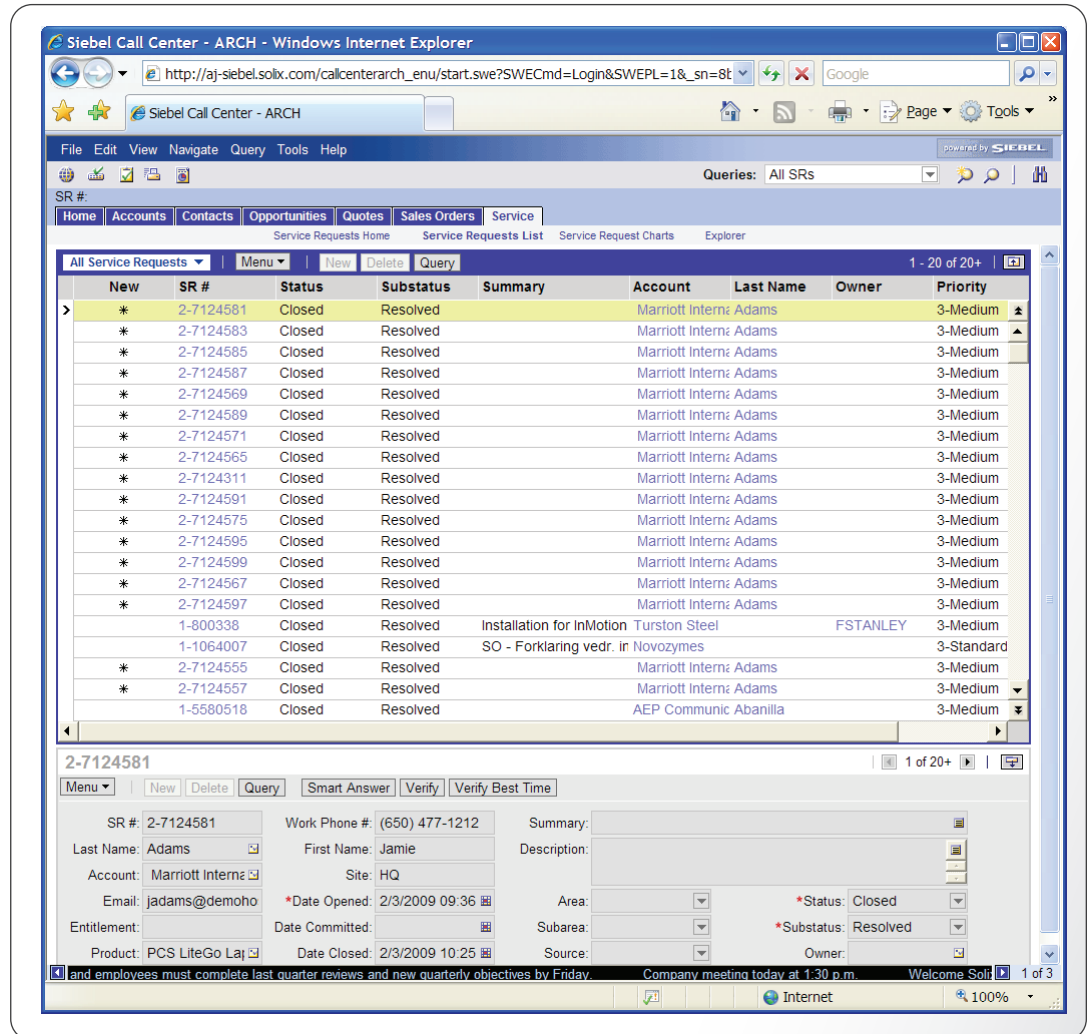


Figure 3. Archive Data Read Only Access through different URL



The screenshot shows the Siebel Call Center - ARCH interface in a Windows Internet Explorer browser. The browser address bar displays the URL: `http://aj-siebel.solix.com/calcenterarch_enu/start.swe?SWECmd=Login&SWEPL=1&_sn=8t`. The interface includes a navigation menu with options like Home, Accounts, Contacts, Opportunities, Quotes, Sales Orders, and Service. Below the menu is a table of Service Requests (SRs) with columns for SR #, Status, Substatus, Summary, Account, Last Name, Owner, and Priority. The table shows a list of SRs, all with a status of 'Closed' and 'Resolved'. Below the table, the detailed view for SR 2-7124581 is shown, including fields for SR #, Work Phone #, Last Name, First Name, Account, Site, Email, Date Opened, Date Committed, Date Closed, Area, Subarea, Source, Status, and Substatus.

SR #	Status	Substatus	Summary	Account	Last Name	Owner	Priority
* 2-7124581	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124583	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124585	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124587	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124569	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124589	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124571	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124565	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124311	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124591	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124575	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124595	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124599	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124567	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124597	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
1-800338	Closed	Resolved	Installation for InMotion	Turston Steel		FSTANLEY	3-Medium
1-1064007	Closed	Resolved	SO - Forklaring vedr. in	Novozymes			3-Standard
* 2-7124555	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 2-7124557	Closed	Resolved		Marriott Intern: Adams	Adams		3-Medium
* 1-5580518	Closed	Resolved		AEP Communic	Abanilla		3-Medium

**2-7124581** (1 of 20+)

Menu | New | Delete | Query | Smart Answer | Verify | Verify Best Time

SR #: 2-7124581 | Work Phone #: (650) 477-1212 | Summary: [Empty]

Last Name: Adams | First Name: Jamie | Description: [Empty]

Account: Marriott Intern: | Site: HQ

Email: jadams@demoho | \*Date Opened: 2/3/2009 09:36 | Area: [Empty]

Entitlement: [Empty] | Date Committed: [Empty] | Subarea: [Empty] | \*Status: Closed

Product: PCS LiteGo La | Date Closed: 2/3/2009 10:25 | Source: [Empty] | \*Substatus: Resolved

Owner: [Empty]

and employees must complete last quarter reviews and new quarterly objectives by Friday. Company meeting today at 1:30 p.m. Welcome Soli | 1 of 3



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