

# TriActive Supports SaaS Business Model Using DBMoto for Data Synchronization

Pioneer of SaaS Information Systems Management Solutions  
Coordinates Customer Data Availability Among Oracle Servers

### Background

TriActive, Inc., founded in 1997, is a pioneer in SaaS (software-as-a-service) for Systems Management solutions for IT and Managed Service Providers. With offices in Austin (Texas), Asia and Europe, TriActive services a wide range of customers and IT asset configurations.

TriActive offers a fully integrated suite including comprehensive asset management to track client systems and software; report and auditing for user change history; software delivery; automated patch management; a 500,000+ title software catalog; Web remote control and diagnostic tools; a comprehensive knowledge-base; end-user self-service center, and more - through a Web-based global help desk. TriActive provides everything IT departments need to identify and manage IT assets, and delivers first-rate service to reduce the complexity and total cost of ownership.

While the TriActive SaaS solution helps customers securely manage their distributed and increasingly mobile IT assets from anywhere, it also gives companies the opportunity to leverage best practices from a growing TriActive community of IT specialist and solution partners.

### Business Problem

TriActive depends heavily on the capabilities and scalability of its own internal IT infrastructure to support its SaaS environment. Originally, its IT infrastructure was built entirely on an Oracle 10G database. However, with web deployment to its clients – whose users ranged from 200 to 20K PCs – it quickly became clear that data performance, growth and reliability were critical. TriActive's solutions are designed to provide services such as asset identification and matching - i.e., when a new user logs into his/her PC, associated hardware and software are matched to the asset list governed by their organization. With assets stored in dozens of tables per client, the task to identify and match them quickly becomes a data performance nightmare.

TriActive moved to an Oracle RAC (clustering) database environment (Oracle RAC configurations provide distributed processing but look just like an Oracle database on a single server to database applications), however performance was still not acceptable for the query response times required by the clients.

In order to improve data scalability and reliability, TriActive decided it would be better to move away from the Oracle RAC solution and divide up the database into a group of smaller databases, coordinating customer information in a way that made data organization and quick access more realistic. However, once the decision was made to proliferate into 4 to 5 databases, a new requirement surfaced – how to synchronize the data between these databases so that its web applications are always served and clients are always getting updated and consolidated information?

### Platforms

- Oracle-to-Oracle mirroring
- Linux, Java and Open Source
- 4 production servers, 4 test servers

### Selection Criteria

TriActive went on a search for a cross-database replication tool that could handle replication between various relational databases including Oracle, PostgreSQL and potentially MySQL – considering a future growth plan to open source databases. TriActive did some research and discovered both open source and commercial software products for data replication.

“We evaluated a couple of open source tools for this, but experienced a great deal of configuration trouble,” said Steve. “We downloaded a trial version of DBMoto, configured it as proof of concept for our replication needs, and verified that it worked properly in our test environment. Although not originally identified as a requirement, it was apparent that the GUI for DBMoto was much easier to use than the text-based configuration used by other tools.”

## HiT Software Case Study : DBMoto™

TriActive implemented DBMoto in a few days, deploying DBMoto for Oracle-to-Oracle replication in order to make data transparently available across its customer databases and web applications. "Although the setup was not as easy as we would have hoped, the DBMoto support team did a good job of pointing us in the right direction," added Steve. TriActive is planning on using the DBMoto software for Oracle-MySQL replications next.

### Problem Solved

TriActive depends heavily on the capabilities and "Data replication to numerous global datacenters is core to making both the software and customer data available on-demand. This replication must happen quickly and accurately. DBMoto does this for us," according to Steve.

One of the services TriActive provides is matching software packages that reside on customer-remote PCs to tables of application identification and authentication on the TriActive system. TriActive has aggregated a large amount of application description information from its many customers and is able to use that definition knowledge-base to identify packages and versions on new customer systems. This requires static and mildly variable data replications for functions such as software signature matching, where data must be updated among two or more databases in order to accurately compare signatures.

Serving organizations with large numbers of users is no easy task when they are constantly upgrading PCs, adding new software, and moving positions in the company. Each change requires a connection to the database to identify and authenticate the changed applications and hardware. DBMoto's advanced technology reduces the stress on systems when updating these large databases – through change data capture technology, DBMoto updates only the changes (inserts, updates, deletes) - eliminating the need for intensive full-system copies that other products would require even when there are only small changes. As TriActive's customers grow in size, they expect to be able to service increased PC and application activity, and TriActive is very pleased with DBMoto's scalability. "DBMoto runs on a separate system than our Oracle servers, so there isn't any issue in the application's scalability," he adds.

"We have encountered various challenges, such as how to manage foreign key constraints and replication groupings, and DBMoto just powers through it!"

"As a non-DBA expert, I am thrilled to have a software package that was easy to understand and deploy, and that manages my data synchronization for me. It's low maintenance and seems to be logically set-up. All of my mirroring replications and groupings are easy, and the software just works!"

TriActive's average database size is 100G and growing. "One of our databases contains 800 customers with more than 161,000 desktops. The nice part about DBMoto is that once you've learned the concept, it's really easy to set it up and then forget about it. We haven't touched our replications in a couple of weeks now. DBMoto works extremely well and very fast, in my opinion. I would recommend this product to anyone who wants a cross-database replication product but doesn't have data replication expertise."

### Major Benefits

TriActive links its asset management data with help ticket data in order to quickly resolve and fix missing applications, out-of-date packages and user authorizations. This ability to manage assets remotely is a huge help for the customer, freeing up valuable IT time, and is enabled through the use of DBMoto's replication technology to match and associate data between database tables.

TriActive also supports a growing set of management consultants who depend on TriActive's systems management applications for their clients. The ability for DBMoto to constantly update and synchronize data across multiple databases gives TriActive the ability to confidently support any number of consultants and end-customers. "DBMoto has reduced the numbers of man-hours in a process that we've used for over 10 years," said Barry Meyer, CTO.

Steve Sinnott reports that he has been very impressed with DBMoto's error management system. "Its graphical interface allowed me to quickly spot errors in logs, and made it easy to troubleshoot after I had entered the wrong credentials." He added, "DBMoto has cut the time of our software roll-outs by 20%. Since our system updates occur in scheduled maintenance windows, or during downtime for our customers, this means that we can reduce the impact on our customers' business and be more predictable as we scale out the business."