

Bank of America is one of the leading financial services companies for individuals, small businesses and commercial, corporate and institutional clients across the United States and around the world. It operates the nation's largest financial services network, including approximately 4,400 domestic offices and 14,000 ATMs, as well as 38 international offices serving clients in 190 countries, and an Internet web site that provides online access for more than three million customers — more than any other bank.



### The Challenge: Upgrading an ATM Infrastructure

As one of the world's leading financial services companies, Bank of America maintains a network of 14,000 ATMs that processes approximately three billion transactions a year, and on peak days upwards of 300 transactions per second. Powering this network are a HP NonStop Himalaya platform and BASE24 software system from ACI. Disaster recovery is an essential element of any ATM system, but because the bank was undergoing an intensive period of mergers and acquisitions it had been using an outside source for disaster recovery. It was now prepared to bring disaster recovery in house.

The Bank of America's primary criteria for its disaster recovery system was to have a standardized solution that would eliminate the need for dedicated, internal support personnel. In addition, the bank was ready to migrate from the HP NonStop Himalaya K-Series to the new S-Series. With transactions running at such high levels, however, the initial migration from K-Series to S-Series had to be accomplished without system degradation or downtime.

### The Solution: GoldenGate for Smooth Systems Migration

With its objectives clearly defined, Bank of America found its solution in GoldenGate's Data Synchronization platform, the enterprise-class solution for application integration, disaster recovery and continuous availability during systems migrations. GoldenGate guarantees instant, accurate, bi-directional, high performance, scalable data sharing between major databases, on all major platforms.

"We did evaluate other products, however, GoldenGate offered us benefits that would also enable us to meet longer term goals," said Michele Schwappach, vice president and senior systems manager for ATM/debit applications at Bank of America. Among GoldenGate's most important attributes cited by Schwappach was its ability to:

- Replicate across multiple platforms to accommodate an increasingly heterogeneous computing environment
- Provide a replication capability that could handle increasing volume on the bank's ATM/POS network
- Mimic production conditions to test new applications prior to go-live
- Provide input for future product enhancements.

## The Results: First Things First — Migration

Upgrading databases as large as the ones used by the Bank of America to support its ATM system can require days or even weeks of work, during which time critical applications must often be taken off line. But with GoldenGate's ability to capture and store database changes as they occur, the bank's system administrators were able keep their ATM network up and running during the upgrade.

"We chose a phased approach to the migration and also decided to install GoldenGate ourselves," said Schwappach. "Although one of our people received training directly from GoldenGate, periodic telephone support provided the additional

assistance we needed." In fact, initial migration from the K-Series to the S-Series has led to a progression of successful migrations for Bank of America. As of February 2002, their ATM/POS system includes three S-Series and two K-Series NonStop Himalaya platforms.

**Building the Foundation for Internal Disaster Recovery**  
In addition to system migration, GoldenGate also enabled Schwappach and her team to bring disaster recovery in house — without dedicating valuable technical resources to operating a new product. "We purchased GoldenGate for convenience and time-saving benefits," Schwappach said. "We can just

bind in GoldenGate's platform where we need it, to replicate to another site and know it's going to do what we need it to."

While currently used for bi-directional replication from NonStop Himalaya to NonStop Himalaya, GoldenGate's any-to-any replication capabilities extend its usefulness. So as Schwappach and her team explore other platforms and adopt new tech-

nologies, GoldenGate remains a standardized part of the internal disaster recovery solution.

### Focused on the Future

According to Schwappach, Bank of America's ongoing growth challenges will continue to lead her and her team to seek new

ways of ensuring the viability, performance and availability of the systems they support. This will happen not only through new hardware and applications, but also by strengthening vendor relationships. Schwappach maintains that the reasons for working with GoldenGate— were not just confined to the robust functionality of the platform, but also to the relationship they have enjoyed with both GoldenGate and ACI, a key partner who provides the leading transaction processing solution - BASE24. "The support and prompt response to technical issues is excellent," she said. "GoldenGate has helped the Bank of America accommodate growth."

**“GoldenGate has helped the Bank of America accommodate growth.”**

**Michele Schwappach,**  
Vice President and Senior Systems  
Manager, Bank of America

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## About GoldenGate

GoldenGate is a leader in Global Data Synchronization. The GoldenGate platform enables companies to capture, transform, move and migrate data in real time inside and outside the enterprise to support key business initiatives such as business continuity, data migration, application integration and business activity monitoring. A private company that has posted consecutive quarterly profits for nearly seven years, GoldenGate has thousands of installations in 20 countries. Customers include Bank of America, AOL Time Warner, Bank One, Dell, VISA, Merrill Lynch and the Federal Aviation Administration. For more information, please visit the company's web site at [www.goldengate.com](http://www.goldengate.com) or call 1-877-447-7153.

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