

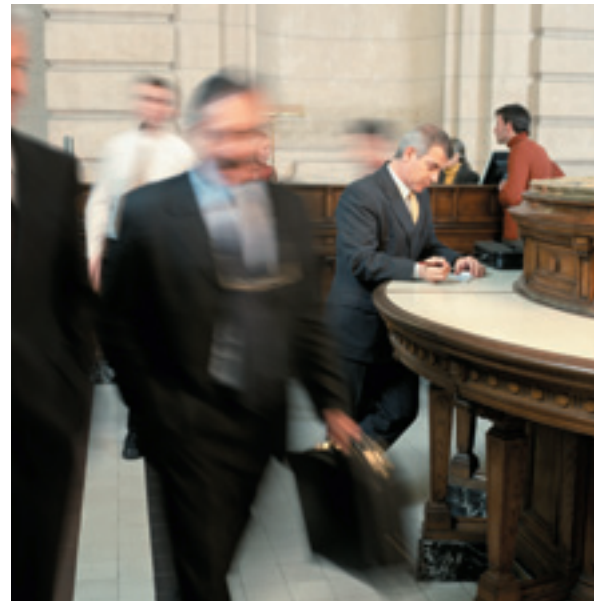
PREMIER Bankcard pinpoints most profitable accounts, spurring soaring business growth

Company relies on enterprise-class business intelligence solution composed of Microsoft® SQL Server, SAS, and HP Integrity servers based on Intel® Itanium® 2 processors



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Dave Geiver
Vice President of Technology
PREMIER Bankcard



The success of credit card providers depends largely upon their ability to analyze data about new and existing customers. Enterprise-class business intelligence capabilities are therefore a highly prized strategic asset for credit card providers looking to maintain high levels of growth and profitability.

When PREMIER Bankcard looked at how to sustain continued explosive growth in its customer base and maintain high profitability, it chose Itanium® 2-based HP Integrity servers running Microsoft® Windows® Server 2003, SQL Server 2000 (64-bit), and SAS Enterprise Miner to fuel its mission-critical business intelligence activities. The company's solution is enabling sophisticated analytical research on the credit card market, the company's cardholder base, and future individual transactions to stay one step ahead of the market and the competition.

"HP Integrity servers based on the Intel Itanium 2 processor are key to meeting our business intelligence needs, including support for Microsoft SQL Server (64-bit) and SAS," says Dave Geiver, vice president of technology, PREMIER Bankcard. "We are now reaping the benefits of a 30 to over 100 percent performance improvement over our previous 32-bit solution, enabling us to make better business decisions, faster, and also giving us the headroom to sustain our 8 percent annual growth rate."

Serving an underserved market

PREMIER Bankcard serves the underserved yet creditworthy market. Since its founding in 1989, it has offered credit cards to customers who in the past have had a poor-performing credit history, and has helped millions of individuals and families establish or re-establish their credit. The company is now among the top 14 credit providers in both Visa and MasterCard, with approximately 2.7 million active credit card accounts.

PREMIER Bankcard is experiencing dramatic growth, adding roughly 160,000 new accounts each month. In order to serve existing customers and gain new ones, information about each existing customer, former customer, and potential customer must be readily available. This level of data access aids in customer service, acquiring new customers, and making decisions about whether to offer credit to new customers.

The key to success for PREMIER Bankcard lies in using analytics to determine the most profitable accounts. But with millions of accounts, honing in on the most profitable ones was not previously possible.

Keeping up with dramatic business growth

Initially, PREMIER Bankcard used an in-house application developed utilizing FoxPro to analyze customer information, but data warehousing was not part of the application's solution. The FoxPro solution did not support analytics such as data mining that would enable decision makers to pinpoint the most profitable accounts. With the combination of 32-bit hardware and a new Microsoft SQL-based application, queries could take up to 22 hours.

To solve the problem and address other key business needs, the company switched to a Microsoft SQL Server 2000 database running on the same 32-bit server hardware. This change in applications eased the bottleneck temporarily, but exponential data growth followed. When the SQL database re-indexed, for example, it could grow by 30 gigabytes overnight. These re-indexing issues, however, were not as problematic when the transition to SQL 2000 occurred, after the SQL 7.0 environment had stabilized. Data has been growing so quickly, in fact, that PREMIER Bankcard has gone from 11 servers in 1999 to roughly 200 servers in 2004.

“For PREMIER Bankcard, HP virtualization technologies are crucial to our ability to balance system resources, putting them right where they are required.”

Scott Erkonen

Managing Officer of Networking
PREMIER Bankcard

“Our data warehouse is just under 4 terabytes and is growing by roughly 16 gigabytes per day, on average,” says Scott Erkonen, managing officer of networking, PREMIER Bankcard. “Our challenge from an IT standpoint is to provide a foundation that is stable and transparently scalable so that decision makers have constant access to business information and advanced tools to analyze it.”

Outgrowing its previous solution

The move to SQL Server running on 32-bit hardware eased many of the business intelligence bottlenecks, but, again, the company’s growth overwhelmed its existing infrastructure. PREMIER Bankcard was having difficulty obtaining customer credit information from third-party providers, converting it, and loading it into the existing data warehouse in time for business users to begin analyzing it when they arrived at their desks in the morning.

Once the data was in the warehouse, performance was slow, with queries taking dozens of hours. Memory utilization was high, contributing to significant slow-downs in processing. Business users often loaded queries and launched scripts when they left work in the evening, resulting in significant strain on the system

during nighttime hours. At the end of the month, when generation of reporting packages was at its peak, the load on the server could literally dim the lights. To add to the challenge, business users still lacked powerful, flexible tools for activities such as data mining.

“Every day, we load 16 gigabytes of customer, account, and transaction information into our data warehouse,” says Erkonen. “We receive files for loading up until 4:30 a.m. and must have everything ready for business users at 8:00 a.m. We have three dedicated analytical groups spending the majority of their day querying, analyzing, and reporting, so our data warehouse is hit hard constantly.”

Moving to an enterprise-class solution

PREMIER Bankcard decided it was time to overhaul its business intelligence processes and infrastructure, and began investigating a variety of options for a comprehensive solution. After an in-depth review of options from IBM, Teradata, and Oracle®, the company decided on an Itanium 2–based solution from HP, Microsoft, and SAS.



PREMIER Bankcard had previously standardized on HP storage, PCs, laptops, and servers and had found the hardware to be reliable and easy to maintain. The company also has had positive relationships with Microsoft, SAS, and Intel. Based on its high “comfort level,” positive experience, and trust with these companies, PREMIER Bankcard chose to continue with its mainstay vendors.

“We looked hard at a variety of solutions,” says Geiver. “Our business case clearly pointed to Itanium 2–based Integrity systems from HP and software from Microsoft and SAS as having the best return on investment.”

The HP solution was also attractive because of the potential of HP’s virtualization technologies. “For PREMIER Bankcard, HP virtualization technologies are crucial to our ability to balance system resources, putting them right where they are required,” says Erkonen.

To decrease the risk and time of the implementation, HP loaned PREMIER Bankcard an HP Integrity server to get the deployment started, allowing for performance and ROI validation, which are both key to approval of the initiative. PREMIER Bankcard engaged consultants from HP Services to assist with project planning and technology migration.

Working together, PREMIER Bankcard and HP installed and tested an HP Integrity rx8620-32 Server (12-way) running Microsoft SQL Server 2000 (64-bit) for mission-critical business intelligence. The HP Integrity rx5670 Server (4-way) runs the company’s SAS knowledge base, while another HP Integrity 4640-8 Server (4-way) is used to run Microsoft Analysis Services (online analytical processing [OLAP] cubes), again expanding upon the company’s business intelligence functions. HP also validated the solution and provided knowledge-transfer services. HP continues to provide proactive, 24-hour support to help PREMIER Bankcard ensure business continuity and high availability.

Improving the bottom line

An HP Enterprise Virtual Array (EVA) is a key part of PREMIER Bankcard’s business intelligence and data warehousing solution. PREMIER Bankcard uses an HP storage area network (SAN) solution because it provides centralized data access, security, and rapid deployment of new storage, and offers reduced network, maintenance, and staff costs.

Due to the HP SAN storage implementation alone, a cumulative five-year net savings of \$3.5 million has been projected. These savings are due to the improved availability of customer data, faster application installation and updates, faster backups, improved disaster recovery, a decrease in total IT costs per user, and staff savings because fewer technicians need to be hired to install and maintain storage.

“Not only did HP offer an exceptional hardware, storage, and services solution with support for the business intelligence applications we needed, but also HP’s responsive, knowledgeable staff helped get us up and running quickly,” says Geiver. “It is clear that HP really cares about our success.”

Gaining insight into customers

Thanks to the HP, Microsoft, and SAS solution, accurate data is always available when needed. The time required to load data into the warehouse on a daily basis has decreased by 30 percent, removing the burden from IT staff who used to scramble to load the data warehouse each morning.

There is now a single data warehouse with a unified set of data. Employees can more easily find relevant data and analyze it in a fraction of the time. The HP Integrity servers have improved performance by at least 30 percent and up to more than 100 percent. Queries that took 22 hours using the previous 32-bit solution now take roughly 45 minutes. One profitability query that previously took 13 minutes now takes 36 seconds.

“Itanium 2–based HP Integrity systems can effectively address far larger amounts of memory to analyze information in our data warehouse,” says Erkonen. “We get cleaner results, far faster. HP Integrity servers have proven time and again that they are capable of handling the most demanding workloads. By using the latest technological advancements, the [Intel] Itanium microarchitecture is taking our performance to new levels.”

Determining profitability at a granular level

Decision makers now have powerful tools and information at their fingertips because Integrity servers, SQL Server, and SAS enable data mining and advanced analytical queries. For example, analysts can build OLAP cubes against the data warehouse to generate daily reports on any number of parameters—reports that are updated with all the previous day’s data. Sophisticated data mining using algorithms helps analysts identify patterns within the company’s credit card portfolio that might not come to light using standard queries.

With performance headroom to spare and sophisticated tools in Microsoft SQL and SAS, PREMIER Bankcard can model and analyze data in ways that help drive healthy business growth and profitability. Because of the extreme performance boost it provides, the new solution has enabled the company to shift resources from maintenance to fuel key areas of business growth.

“One of our goals has always been to determine the profitability of individual credit card accounts in our portfolio, but that meant digging through millions of accounts and transactions,” explains Geiver. “We now have the data modeling, mining, and analytical tools we need to determine profitability. We’re achieving remarkable, actionable insights with our new business intelligence solution based on HP Integrity servers.”

The HP, Intel, Microsoft, and SAS solution has been exceptionally solid and reliable, supporting a business-critical process without downtime or interruptions due to technology. PREMIER Bankcard is also secure in the fact that the HP Integrity servers will scale easily and reliably to accommodate rapid, ongoing business growth.

“We’ve had incredible positive feedback from our users because the new system is enabling advanced analytics,” says Geiver. “We now realize that we were conservative in our initial business case to move to HP Integrity [servers], and our results have been even better than anticipated. Thanks to HP, Microsoft, SAS, and Intel, we now have an enterprise-class business intelligence solution to support continued business expansion.”

At a glance

Industry sector: Financial Services
Name: PREMIER Bankcard
Headquarters: Sioux Falls, South Dakota
Founded: 1989
Number of employees: 2,400

Technology highlights

- HP Integrity rx8620-32 Server (32-way capable, populated @ 12)
- HP Integrity rx4640-8 Server (8-way capable, populated @ 4)
- HP Integrity rx5670 Server (4-way)
- HP Enterprise Virtual Array
- SAS knowledge base

- SAS Enterprise Miner
- Microsoft Windows Server 2003 for Itanium 2-based systems
- Microsoft SQL Server (64-bit)
- Microsoft Reporting Services
- Microsoft Analysis Services

Why HP, Microsoft, SAS, and Intel?

- Trusted relationship with HP
- Complete ecosystem for business intelligence
- HP Integrity server scalability
- System performance and reliability for mission-critical applications
- Intel Itanium 2 processor optimized and scalable applications from Microsoft and SAS
- HP virtualized storage solutions performance and reliability

Challenge

- Build and sustain profitable portfolio of credit card accounts
- Help people reestablish credit and offer them attractive products and services
- Increase performance, availability, and scalability of data warehouse
- Give decision makers better performance, more sophisticated tools
- Support 8% annual business growth rate

Solution

- 1 Intel Itanium 2-based HP Integrity 8620-32 Server (12-way)
- 1 HP Integrity 4640-8 Server (4-way)
- 1 HP Integrity rx5670 Server (4-way)
- HP Enterprise Virtual Array
- Microsoft Windows 2003, Datacenter Edition (64-bit)
- Microsoft Windows Server 2003, Enterprise Edition (64-bit) for Itanium 2-based systems
- Microsoft SQL Server (64-bit)
- SAS knowledge base
- SAS Enterprise Miner
- Project planning and technology migration by consultants from HP Services
- Proactive 24-hour support

Results

- Ability to identify the most profitable accounts and transactions drives profitable business growth
- 30 percent to more than 100 percent performance improvements reported by PREMIER's DBA and analysts
- Queries that took 22 hours now take 45 minutes
- Data mining enables company to pinpoint most profitable accounts
- Begin based on current needs; scale easily to meet rapid business growth
- Solid reliability, availability

To learn more, visit www.hp.com

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