



CareGroup Healthcare System

CUSTOMER SUCCESS

Delivering Optimal Services to Patients and Doctors

CareGroup Healthcare System needed to increase optimal efficiencies while improving service delivery to patients and doctors. CareGroup turned to Precise for an APM solution and was able to improve the performance of their business critical billing system by 100 percent.

Optimizing performance to provide better healthcare

When it comes to helping providers deliver quality healthcare, IT organizations face challenges from several directions at once. Increasingly, patients expect to use the Web to interact with providers, make appointments, and view health records. Meanwhile, medical personnel and other employees rely on internal systems for access to the right tools and information to care for patients and perform many other jobs. The performance of applications, databases, and other systems is truly a critical issue in these complex environments where people's lives are on the line.

At CareGroup Healthcare System, the push to enhance the performance of applications and databases began in 2003 when the Massachusetts-based organization first implemented its CareWeb intranet system and related PatientSite patient Web site. CareWeb provides Physicians with instant access to patient records. PatientSite is used by more than 3.5 million patients to book appointments and access lab results over the Web.

With CareWeb supporting hundreds of concurrent users at any given time, 24x7 availability is essential. In order to avoid outages and address performance issues, CareGroup began evaluating application performance management solutions. After reviewing the offerings of several technology vendors, CareGroup selected Precise to monitor, manage, and optimize application and database performance.

Drilling down into multiple systems and tiers

CareGroup places a high value on the way Precise allowed them to drill down into their multi-tiered environment and capture performance metrics from all system components, including their applications, their databases,

Organization Profile

Headquartered in Boston, Massachusetts, CareGroup Healthcare System (www.caregroup.org) and its member organizations offer a broad spectrum of health services at settings ranging from academic health centers and community hospital to physician offices and community health centers. CareGroup supports 16,000 medical professionals and employees and serves more than 3.5 million patients.

Industry
Healthcare

Solution
Precise

"Precise is a proven APM solution. With Precise we can perform analysis and identify problems in minutes that would have taken us hours or even days to diagnose in the past."

Ayad Shammout

Lead Technical
Database Administrator
**CareGroup
Healthcare System**

their BEA Web servers, and their attached storage. The software provides the IT staff with an end-to-end breakdown of the end-user response time for all their applications, and it generates alerts and reports that help them quickly pinpoint performance problems. It also stores the captured data in a performance warehouse, enabling CareGroup to analyze past events to head off future problems.

“Precise gives us the tools we need to do our job properly and be proactive rather than just react,” says Ayad Shammout, lead technical database administrator for CareGroup. “We can use the software to see what’s happening right now, or we can go back several days and see what happened then. Precise allows us to identify and fix performance problems before the users even notice them.”

In one instance, Precise for SQL Server helped Shammout diagnose a performance slowdown related to the company’s billing information database. The Precise software revealed that the problem was not caused by the database, as initially believed, but by physical disk layout issues on the back end.

CareGroup turned to Precise for another tool to help them manage applications proactively: Precise Insight Inquire. Insight Inquire monitors CareGroup’s application availability around the clock, recording business transactions with no scripting required. Using Insight Inquire, the CareGroup team can easily define service levels and generate reports on key performance metrics. The tool allows the IT staff can pinpoint potential application problems before users experience slowdowns.

Making open enrollment successful

CareGroup achieved more good results with Precise for Oracle and Precise for PeopleSoft. About a year after the initial deployment, CareGroup wanted to focus its drive for better service and efficiency on its internal finance and HR tools, deploying shrink-wrapped applications from Oracle/PeopleSoft and an Oracle database. This enterprise application deployment included the launch of a new online site for employee health benefits information and open enrollment. However, performance for the initial open enrollment in 2004 proved to be sluggish, with some employees choosing to enroll for benefits through the old paper-based system.

“The problem this time turned out to be a combination of a CPU bottleneck and an I/O bottleneck,” says Shammout. “Precise gave us the information we needed to redesign the disk, and add more storage and CPUs precisely where they were needed to improve performance. We were able to quickly address the problems and hold a successful open enrollment with no customer complaints.”

Business Drivers

- Avoid disruption in patient care
- Improve patient and staff access to medical records and other vital information
- Improve operational efficiencies

Business Challenges

- Optimize performance for applications running on Oracle and SQL Server database in heterogeneous environment (Windows/UNIX)
- Address performance issue proactively to head off problems
- Generate historical performance data for trend analysis and resource planning
- Help ensure 24 x 7 availability of business-critical CareWeb system

Business Benefits

- 100% performance improvement in billing information system
- Achieved 99.99% system availability
- Greater system availability via elimination of system reboots related to installation and upgrades
- Improved IT staff productivity

Technology Environment

- Application: Oracle’s PeopleSoft Enterprise (Human Resources and financials), CareWeb, PatientSite and Clinical Systems
- Databases: Oracle 10g, Microsoft SQL Server 2000, 2005 and 2008
- Server platform: HP RP8400 servers running HP-UX 11.11 (Oracle), HP ProLiant DL385/585 running Windows 2003
- Web tier: BEA Tuxedo Application Services, BEA Weblogic and Windows Internet Information Server
- Storage: EMC CLARiiON, EMC Symmetrix DMX storage systems

Surpassing service-level agreements

During the next open enrollment period in 2005, performance was 70 to 80 percent faster thanks to the tuning done with Precise. Employee participation also increased from approximately 50 to 100 percent as users rapidly clicked through the online questionnaire rather than waiting minutes at a time for pages to load and the system to respond. CareGroup thus held the first open enrollment in its history performed entirely online.

“Since installing Precise for Oracle and for PeopleSoft, we have surpassed all our service-level agreements for performance and availability of our critical applications,” says Shammout. “Precise has helped us surpass our requirement for three-nines [99.9%] business-critical application availability, achieve four-nines [99.99%], and now target five-nines [99.999%] as we monitor and address more issues.”

Building on a strong relationship

“Precise gives us an end-to-end solution for monitoring everything that goes on in our databases,” Shammout continues. “The Precise solution paid for itself in less than six months.”

“Precise require no deep technical expertise and is easy to learn and use,” he says. “With Precise we can perform analysis and identify problems in minutes that would have taken us hours or even days to diagnose in the past.”

Shammout concluded by saying CareGroup counts on Precise Platinum Support for responsive service and has benefited by taking classes from Precise Education Services.

More customer success stories can be found at: www.precise.com