ptc

Reducing mean time to repair by 50 percent with smartconnect™

Varian Medical Systems

Varian Medical Systems, Inc. is the world's leading manufacturer of integrated cancer therapy systems.

Additionally, the company is a supplier of x-ray tubes and flat panel digital subsystems for imaging in medical, scientific, and industrial applications. Headquartered in Palo Alto, California, Varian is a $3 billion company that employs 6,500 people in 70 sales and support offices worldwide.

The challenge

Varian has a variety of medical instruments and cancer treatment systems that support today's leading-edge treatment modalities with Intensity Modulated Radiation Therapy (IMRT) and Image Guided Radiation Therapy (IGRT). These treatment systems are deployed at more than 1,000 hospitals and clinics worldwide.

Traditionally, system and equipment problems have required one or more service technicians to diagnose and resolve issues at the hospital site, resulting in higher costs and lost patient treatment time. For a typical treatment device, the loss of one day's treatment time can result in 35 patients missing their treatments, which is something hospitals and patients cannot afford.

Problem resolution can be complicated if incorrect or incomplete information has been provided by the operator, and also in cases where the problem cannot be recreated once the technician is on site.

Operators of the Varian Acuity™ imaging system, an integrated simulator and verification tool for testing patient treatment plans, occasionally require expert assistance. Image quality optimization, solving operational problems, and tuning system performance can cost time and money for Varian and their customers.

The solution

To better manage ongoing issues, Varian implemented PTC®Axeda® software to service the company's information system and treatment planning software products.

"PTC Axeda software was chosen for their focus and dedication to developing their product specifically for the service industry," says Todd Lauer, Director of Product Support Engineering at Varian Medical Systems. Available since 2001, this software-enabled solution is marketed by Varian as SmartConnect™ and provides superior customer support while maximizing uptime. Eliminating a single customer site visit can save that customer 8 to 12 hours of treatment time.
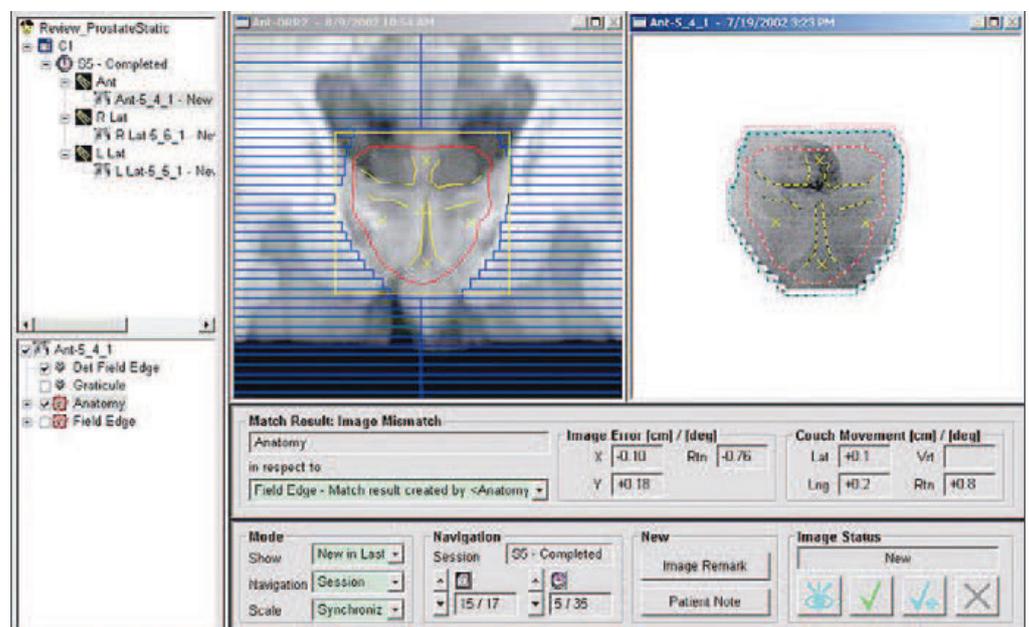
With PTC Axeda software, Varian directly and securely connects to their customers' systems when support is required, providing quick and accurate problem resolution. Timely remote support can prevent an unnecessary, yet common, event such as a database transaction log filling up. PTC Axeda software also provides remote desktop sharing and file-transfer capabilities that allows support engineers to pinpoint the exact cause of failure and remotely repair and upgrade the system.

"With PTC Axeda software we can have several servers placed around the world, allowing us to shorten the distance between connection points, significantly decreasing latency," says Markus Bissig, IT project manager at Varian Medical Systems. "By installing this software in Europe, our remote session connection times are less than one second. As a global company, we now have a remote access system that delivers optimum performance across widely dispersed geographies."

"

Our use of SmartConnect to assist customers has grown exponentially. The number of customers using SmartConnect to obtain service and increase their uptime has quadrupled in the last year. This expanded use of remote servicing tools also reflects the degree to which radiation therapy technology has become increasingly software driven."

Dan DuBeau,
Remote Access Project Manager, Varian Medical Systems

Through alert messaging, PTC Axeda software can provide automatic notification to field service professionals when a monitored system or instrument falls outside of the pre-set operating parameters. In an effort to bring equipment back online, an operator may choose to restart a workstation or application which can be monitored by Varian for quick response.

The results

Varian SmartConnect-enabled systems are now deployed in more than 1,500 treatment centers, where they are used an average of 4,000 hours per month. The solution, enabled by PTC Axeda software, is helping Varian to increase customer productivity, shorten response time to repair, and allow for remote problem diagnosis and resolution.

In the U.S. today, Varian resolves 200 calls per month remotely through their help desk, resulting in four hours of travel time saved per call. Since an average customer service call is approximately two hours, the company is realizing a 50 percent reduction in MTTR.

Moreover, an average response time of four hours can also be reduced to two hours on Smart Connect-enabled systems. The estimated savings for a hospital can be more than $2,000 per event.

Because real-time and historic device information is stored in the system as well, Varian can create performance reports at any time and ensure that their products are always operating at peak performance.

With SmartConnect, Varian completely installs and maintains updates for their software product lines without requiring any field service support. They also report that the product's remote service capabilities have helped grow software service contracts, which are currently captured at a rate that is 17 percent higher than hardware service contracts.

"

It's a great first line of defense. Whenever I run into problems, Varian can take a look at the system online, and I can watch what they're doing. The engineer doesn't have to make a trip out here just to diagnose the problem."

Tamara Focht,
M.S., Chief of Medical Physics, Cape Cod Hospital

PTC Axeda software supports multiple Varian product lines with these capabilities:

- Constant monitoring of radiation dosage and the size of the radiation beam, both of which change frequently

- Remote access to troubleshoot database problems, upload logs files, and perform critical product updates

- Secure access to customer equipment for retrieval of system status, empowering field service technicians with accurate information before traveling to the customer site