



Pikes Peak Hospice & Palliative Care Wireless Access Improves Quality of Patient Care

Based in Colorado Springs, Colorado, Pikes Peak Hospice & Palliative Care (PPHPC) is a non-profit organization that provides end-of-life care to patients living with life-limiting illnesses and their families. An interdisciplinary team of doctors, nurses, counselors, chaplains, and trained volunteers provide services in patients' homes or at various medical and resident care facilities, including the hospice's own 37 room inpatient unit. PPHPC ranks in the top nine percent of hospices nationally based on caseload, treating more than 200 patients per day.

THE CHALLENGE: IMPROVING THE QUALITY OF CARE WHILE PROTECTING PATIENT PRIVACY

PPHPC wanted to improve the continuity of hospice patient care through better communication among caregivers. To do so, the hospice needed to modernize the traditional — and cumbersome — paper notes and voicemail system used by caregiver teams to update each other on patients' conditions. The goal was finding a cost-effective way to provide real-time information access in the field, while safeguarding medical data under Health Insurance Portability and Accountability Act (HIPAA) regulations.

PPHPC chose a patient information management application and sought the best way to make it available on demand. "We originally planned to load the software onto laptops that our interdisciplinary team of doctors, nurses, and field staff would take with them when visiting patients," explained Glenn Fagaley, Director of Information Technology. "But we were concerned about the extensive time and effort required for each of our 60 field staff members to synchronize data, plus the potential problems synchronization posed, such as timing and data corruption. We were also worried about the possibility of compromising confidential patient data if a laptop were lost or stolen."

IMPLEMENTING A CITRIX SOLUTION FOR WORKFORCE MOBILITY

As a longstanding Citrix® customer, PPHPC turned to its proven Citrix MetaFrame® Presentation Server environment for the solution to these challenges. The organization

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GLENN FAGALEY

Director of Information Technology,
Pikes Peak Hospice & Palliative Care

Key Benefits

- Higher quality of care through on-demand information access
- Over \$320,000 per year in administrative cost-savings
- Compliance with HIPAA regulations
- Streamlined IT administration

Applications Deployed

- Proprietary patient information management system
- Microsoft® Outlook
- Internet Explorer version 6



worked closely with **Network Communications Group**, a Citrix Solution Advisor located in Colorado Springs, Colorado, to extend its Citrix implementation to encompass mobile, wireless deployment of Web-based applications to caregivers. To prepare for the move to wireless access, PPHPC upgraded to Citrix MetaFrame XP™ Presentation Server running on Microsoft® Windows® 2000 Servers.

The Citrix solution provides enhanced capabilities that ensure a high-performance wireless experience, as well as instant Web-enablement of applications without recoding, SSL encryption for data security over the Internet, and support for Microsoft Windows Server™ 2003, to which PPHPC plans to migrate. Currently, the hospice deploys Microsoft Outlook and its patient information management system via MetaFrame Presentation Server over a Sprint Wireless WAN to field employees, who access them on laptops using a Web browser interface. In addition, in-house employees access their desktop over the LAN.

ON-DEMAND INFORMATION ACCESS ENHANCES DECISION-MAKING

Providing caregivers with wireless access to applications from field locations has dramatically improved the vital process of documenting patient care. By enabling staff to input their clinical notes directly into the patient information management application during or directly following patient visits, Citrix keeps the entire hospice team up-to-date with the latest details of each patient's condition, medications and treatments. "In the hospice field, where patients' health changes frequently — hour to hour — the latest information makes a tremendous difference in

quality of care," said Debbie Randall, Patient Information Management Systems (PIMS) Team Leader.

PPHPC offers services around the clock, which exacerbated the difficulty of communicating via paper and voicemail. "We get a lot of after-hours calls, and with Citrix, our on-call nurses can go into the system and read notes from all staff who saw the patient that day," observed Fagaley. "Previously, those notes would still have been written down in staff binders, and not available until the next day — or whenever the clinician returned to the office. Immediate access has a huge impact on quality of care and the safety of our patients because it enables informed decision-making."

SAVINGS OF \$320,000 PER YEAR

For this non-profit organization, cost-savings is another important benefit of online documentation. "In the past, each on-call nurse or doctor would leave a patient status on voicemail for the day staff," said Fagaley. "We were paying for field staff to listen to over an hour of voicemails every morning, at a total cost of about \$400,000 per year. That amount has been reduced by \$320,000, or 80 percent, now that the information is entered directly into the system."

In addition, PPHPC has virtually eliminated overtime pay for on-call staff, who as a group, incurred up to 30-40 hours a week, or 1,560 hours per year, checking voicemail. And the organization is saving money on mileage previously logged by field staff, who had to drive into the office to drop off clinical notes and pick up messages.

Networking Environment

- Citrix® MetaFrame XP™ Presentation Server running on four Dell Poweredge 1500/1600 servers
- Microsoft Windows® 2000 Servers
- Sprint Wireless WAN
- Gateway wireless laptops, Wyse® Winterm™ Windows-based terminals

As a healthcare provider, PPHPC must comply with the provisions of HIPAA, including safeguarding confidential patient information. Noted Fagaley, "If patient information were compromised, by law, we'd be required to contact every active patient and past patient's estates, to advise them." With Citrix, data is stored on central servers instead of the wireless laptops, so if a machine is lost or stolen, information is not compromised. In addition, the SSL encryption provided by the secure gateway feature of Citrix MetaFrame Presentation Server software secures data being sent over the Internet between the server and user device.

Fagaley concluded, "By providing secure, real-time information access at any time of the day or night, Citrix has further assured our hospice staff is providing the highest level of patient care."

About Citrix MetaFrame Access Suite: Extending the world's most widely deployed presentation server, the Citrix MetaFrame Access Suite is access infrastructure for the on-demand enterprise. The suite centralizes access to applications and information and enables IT staffs to deliver, manage, monitor and measure enterprise resources on demand.