

Centene Corporation

Case Study

Centene scales up for success and keeps costs low with Wyse thin clients

Challenge: Scale IT infrastructure to support corporate growth

Centene Corporation, a Fortune 1000 business, is a leading healthcare enterprise that provides programs and related services to individuals receiving benefits under Medicaid and other government-funded healthcare plans. The company offers insurance, operates health plans and contracts with healthcare and commercial organizations to provide specialty services including behavioral health, life and health management, and nurse triage.

Centene's government clients depend on the company's call center to provide beneficiaries with access to quality healthcare in a cost-effective manner. Clients regularly measure the speed and accuracy of call center response to ensure Centene is meeting their service standards. Centene's excellent performance has won it new business, increasing annual revenues by 20 to 24 percent yearly.

This rapid growth was beginning to strain the company's IT group, which is located at headquarters in St Louis but supports Centene offices throughout the country. Call center staff use several applications to handle case management, provider contracting, claims processing, and other back-office functions.

"Five years ago, we could see a management nightmare looming," says Rich Garrison, senior director of architecture at Centene. While Centene was doing well against its objectives, Garrison could see that with more growth, PC maintenance issues would start taking too much of its IT staff time and that system down time would increase, interfering with staff's ability to meet goals for prompt and accurate service.

"We needed to build a different framework for future growth, or risk an impact on our business," says Garrison. To rise to the challenge, Centene decided that it would take a virtual approach to all aspects of its system, from servers to PCs, implementing an abstraction layer so that IT could manage remote devices from headquarters.



Viewpoint

“With Wyse Viance thin clients, customers get the responsiveness they demand, employees get the computing capabilities they need, and IT gets out of the business of managing PCs. We can forget about end-user devices, and focus instead on building a state-of-the-art virtual infrastructure that will enable Centene to deploy innovative new technologies that put us in a class of our own.”

KEITH BERNIER
SENIOR DIRECTOR OF
INFRASTRUCTURE SERVICES,
CENTENE





Solution: Thin-client computing eliminates PC maintenance issues

One of the company's first steps in virtualizing its infrastructure was to implement the Citrix XenApp™ Windows® application delivery system to manage applications in the datacenter and deliver them as an on-demand service to its users across the U.S. Centene moved to XenApp all the applications that staff use to serve customers, including Amisys, a claims management application, McKesson CCMS and CECC applications for clinical management and call management respectively, and Maccess document management and workflow applications. In addition, it moved other applications that support call center staff, including Microsoft Outlook for e-mail, Microsoft Office productivity suite, and a host of UNIX mainframe and web-based applications.

Centralizing management of applications eliminated time-consuming application upgrade and management issues, but with PCs in the call centers, IT still had to handle PC operating systems, hardware problems, hardware refreshes, and software problems.

Thin-client devices were the logical next step. Not only would they eliminate the time and travel involved with IT managing remote PCs, but as these devices relay data back to the data center instead of storing it on the device itself, they would also dramatically reduce the potential for exposure of confidential PHI (protected health information) data.

Centene decided to purchase Wyse Viance thin-client devices, the only desktop appliance that can deliver rich multimedia – such as smooth video and audio playback – in a XenDesktop session. Wyse Viance desktop appliances feature built-in Wyse TCX™ virtualization software, a high performance Via C7 Eden 1.2 Ghz processor, a compact form factor, and a wide array of USB, Ethernet and display connectivity as well as support for wireless access.

Of Centene's end-user devices, more than 400 machines are now Viance systems. Centene plans to install an additional 900 devices within the next few months.

Wyse: The right choice, for now and for later

Centene chose Wyse thin clients as part of its infrastructure strategy to help the company scale its services while maintaining quality and profitability. This approach is enabling Centene to meet the needs of its clients without having to significantly increase its IT expenses.

Centene chose Viance with a view to meeting its current and future needs. "The call center is just the beginning," explains Jamie Lin, system services supervisor at Centene. "We liked that we could buy one device for both application delivery and VDI. Viance delivers the virtualized applications we need now, and can handle the virtual desktops we're going to need going forward. It's much simpler for us to keep just one type of device in inventory. We know we're not going to outgrow our Viance clients any time soon, and with so few moving parts, they're not going to break, either. We can just plug them in and forget about them."

As Centene rolls out its virtual infrastructure and Viance devices to executives, programmers, consultants, analysts, and high-performance users, each group of users will experience advantages particular to its own set of needs. For example, for Centene's developers, VDI will simplify the process of creating test environments. It will also enable Centene to work more confidently with consultants. Giving consultants thin clients will enable them to use Centene's own applications, and store all data on Centene's own systems, helping ensure security for sensitive business information and PHI.

Solution

“We swapped PCs for Wyse Viance thin clients during people's 15-minute breaks... We were able to migrate more than 150 users to thin clients within three days – and provide all the user training they needed. We just couldn't have done that with PCs.”

JAMIE LIN
SYSTEM SERVICES SUPERVISOR,
CENTENE





Innovative

“We used to be heavily in the business of managing PCs and desktops, but now we’re free of that. With Wyse thin-client devices, once we’ve plugged in a device, we can forget about it. We have only one environment to support, and because we keep that here in the data center, nobody has to travel, which saves us time and money.”

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Lin was delighted with the ease of the migration. “We swapped PCs for Viance thin clients during people’s 15-minute breaks,” explains Lin. “There was no loss of productivity. This is huge, because we can’t afford to have call center staff sitting idle while we download files from one PC to another and get their systems hooked up. We were able to migrate more than 150 users to thin clients within three days – and provide all the user training they needed. We just couldn’t have done that with PCs.”

Today Centene uses Citrix XenApp 4.5, PCs, and Wyse Viance thin-client devices to provide its employees the computing resources they need. On the back-end, Centene runs physical HP Blade Server Chassis to deploy servers, using VMware to virtualize those physical servers for XenApp.

Benefits

Keith Bernier, senior director of infrastructure services at Centene, is very clear on the company’s reasons for adopting thin-client devices. “It’s not about the excitement of cool technology,” he says. “It’s about tangible business benefits. We innovate when we see that a new approach or new technology can provide significant business differentiation going forward.”

Centene’s state-of-the-art virtualization program and Wyse thin clients fulfill the needs of the business. “Our new infrastructure is helping us to serve our clients and our members, taking calls promptly, answering questions and processing paperwork accurately, protecting confidential data, and ensuring staff can stay productive no matter what technical issues arise,” says Bernier. “It’s an infrastructure that can help us grow while maintaining our profitability.”

ROI factor	ROI calculation	Cost avoidance
Reduced technical support costs	New user setup down from one hour to 10 minutes, application upgrade down from three weeks to a few minutes, for estimated saving of 2,600 maintenance hours per year	\$150,000 in support savings per year
Longer lifecycle of equipment	Thin client hardware needs replacement every 6-8 years, while PCs need replacement every 3 years	Annual cost savings of \$1.5 million over six years.
Cost of outfitting employee	Cost of provisioning an employee with a thin client is half the cost of buying and loading up a PC, saving \$600 per device	\$780,000 in equipment and installation savings
Reduced power needs	Thin-client devices use about one-eighth of the power that a PC needs, saving \$35,000. Plus, the ability to upgrade and patch applications and operating systems through Citrix in the datacenter rather than pushing updates across the WAN after hours eliminates need to keep desktop systems running 24 hours a day, saving \$90,000	Annual power savings from running thin client devices and reducing hours that systems are switched on projected to be \$125,000





Total control

‘With Wyse, once we’ve plugged in a device, we can forget about it. We have only one environment to support, and because we keep that here in the data center, we manage it here. Nobody has to travel, which saves us time and money.’

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Scalability

Swapping out PCs for Wyse thin clients virtually eliminated the administrative burden of provisioning systems for employees, clearing the way for rapid growth in call center staff.

Loading a PC with applications to set up a new user used to take an hour of an IT administrator time, but setting up new users on a thin client takes 10 minutes or less. “Taking it out of the box is the most complicated part,” says Lin. “Then we just plug it in.”

Upgrading applications used to be another time-consuming maintenance chore. The process of rolling upgraded applications out to desktops across the company took up to three weeks, and ensuring that all PCs were using the same version was time consuming. “It used to take weeks of my staff’s time to upgrade a single application, and now, we do it in minutes – across many more machines,” says Lin.

“We used to be heavily in the business of managing PCs, but now we’re free of that,” comments Lin. “With Wyse, once we’ve plugged in a device, we can forget about it. We have only one environment to support, and because we keep that here in the data center, we manage it here. Nobody has to travel, which saves us time and money.”

Security

Much of Centene’s data is personal health information (PHI), and the company has to demonstrate that it rigorously protects the privacy of that data. Thin clients help: With no local storage, Centene can be sure those devices don’t retain any sensitive data.

Continuity of service

Disaster recovery and business continuity are critical issues for Centene, because it must support access to healthcare services around the clock – especially if a disaster impacts an entire region, and not just the data center. Centene’s Annual Disaster Recovery tests used to take hours of systems engineers’ time building and restoring the operating platforms for dozens of Windows and Linux servers. Plus, concerns about hardware compatibility during the restoration exercise resulted in longer than anticipated recovery windows.

With its VMWare infrastructure, Centene can now recover both Windows and Linux servers in minutes rather than hours, with no concerns about hardware compatibility. In Centene’s most recent exercise, the IT team successfully restored all their virtual servers in just a couple of hours, which reduced their overall Recovery Time Objective (RTO) from over 48 hours to under 30 hours – and the virtual infrastructure recovery took less than four hours.

“Now that we have the Wyse thin-client and associated Published Desktop environment in place, we’ll even improve on that record,” says Lin. “We will entirely eliminate the need for end-user device recovery, further strengthening our corporate RTO.”

Disasters are rare, but PC malfunctions happen frequently, and can sideline a representative for hours while waiting for a repair. With no moving parts or resident software, Viance devices are less prone to malfunction. If one does break, however, a representative can simply plug in a new one and be back to work within minutes with no loss of data. None of the information he or she was gathering from the provider or patient will be lost – after all, it was never stored on the device, but on the server.





Cost savings

Buying and plugging in a thin-client device costs about half as much as buying and loading up a PC, for a savings of approximately \$600 per device. In addition, each device is likely to last much longer than a PC – a projected six to eight years instead of three.

“Wyse Viance devices provide a once-and-done scenario,” explains Bernier. “As we get more sophisticated applications, we’ll need faster processing and more memory. But we’ll manage that in the data center, not on the end user-device.”

Thin-client devices don’t use fans or spinning drives, so they draw just 13.2 watts of power, about one-eighth of the amount that a PC needs. Assuming power prices remain steady at 2008 levels, annual power savings during office hours should be \$35,000. But, explains Bernier, that’s only part of the energy savings Centene will achieve through its switch to thin client devices.

“With the ability to upgrade and patch applications and operating systems through Citrix in the data center rather than pushing updates across the WAN after hours, we don’t need to keep desktop systems running 24 hours a day, saving an additional \$90,000,” says Bernier. “We project annual energy savings totaling \$125,000 by switching to thin desktops and running those systems only during office hours.”

Green savings

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Conclusion: Scaling up to success

For Centene, growth and profitability depend on its ability to scale up to maintain service quality and support innovation while keeping expenses low. The company's virtualization strategy is key to its success – and Wyse Viance thin clients play a critical role within that strategy. Compared to PCs, they help boost staff productivity by eliminating PC downtime, cost less to implement, and require virtually no maintenance.

“Provisioning PCs for our growing number of employees would not just have been costly up-front, but would also have put an intolerable maintenance burden on IT,” says Bernier. “With Wyse Viance thin-client devices, customers get the responsiveness they demand, employees get the computing capabilities they need, and IT gets out of the business of managing PCs.”

Centene has established a reputation in the industry not only for service excellence, but also innovation. In 2008, for example, Centene launched a program that coordinates care for children in foster care through an electronic health record known as a “Health Passport” – the first program of its kind in the country.

“Wyse frees our IT staff to focus on the bigger picture,” comments Bernier. “Whether it's building a state-of-the-art virtual infrastructure or implementing entirely new types of service, the IT team can spend their time deploying innovative technologies that put Centene in a class of its own – bringing in new business, differentiating our services, and ensuring we are able to provide better health outcomes at lower costs.”

Summary

Customer

- Centene Corporation
- Headquarters in St Louis, MO
- 3,600 employees
- 70 office locations

Challenge

- Scale call center to support 20% annual business growth
- Reduce IT administrative costs per employee
- Ensure seamless call center operations

Solution

- Implemented Wyse Viance thin computing devices as clients for Citrix XenApp, first in call centers and then across the company

Results

- Scaled to support business growth without increasing IT headcount
- Slashed cost to provision each employee from \$1,200 to \$600
- Reduced call center time lost to PC failure
- Increased security of sensitive data

Everyone wants thin clients

With Centene's call centers now using thin clients, other parts of the company are hearing about the no-maintenance, no-problems benefits of thin clients.

“Groups started coming to us before we could approach them,” says Lin.

For example, power users such as health economics analysts currently work with so much data that they sometimes have two sessions and multiple systems on their desks. With Wyse Viance thin clients, they need just one device. And they don't need to take it with them when they travel around the company; they can just log on to any thin client and get their own desktop.

Employees who sometimes need to come in for just a few hours are eager, too, because with Viance and published desktop sessions, many of them can just log on from home. “On a cold day in Montana, not having to drive for an hour in a snowstorm to get to the office for a three-hour shift is worth quite a bit,” comments Lin.

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