

Case Study: Navicent Health

Print-related support calls and onsite troubleshooting plummet to zero after a large healthcare provider implements PrinterLogic in a VMware/Cerner environment.



Challenges

- Multiple printing pools were set up to accommodate the VMware environment and Cerner EMR solution, leading to deployment issues and end-user frustration.
- Conventional print-management solutions relied on group policy and rights management, which only exacerbated existing problems.
- Resolving the steady stream of print-related support tickets required time-consuming, resource-intensive onsite visits.

Results

- Printers are automatically deployed at remote sites based on terminals' MAC addresses for consistent, seamless printing in virtual sessions.
- PrinterLogic has eliminated the need for group policy and rights management while providing more accurate deployments and management flexibility.
- With printer pools now combined, and printer changes updated instantly across the environment, print-related support requests have all but vanished.

[Navicent Health](#) is a nationally recognized healthcare system that was founded in 1994 as a nonprofit corporation designed to coordinate its own facilities and services along with those of its affiliates. Navicent Health oversees approximately 1,000 beds for a variety of purposes and provides more than 50 specialties in 30+ physical locations—including five acute-care hospitals, a state-of-the-art children's hospital, a rehabilitation hospital, and multiple urgent-care centers.

In Navicent's dynamic and highly distributed organization, it's essential for staff and doctors to be able to print reliably and effortlessly—and for admins to be able to deploy printing devices easily. This was challenging, however, because of the way the IT environment was set up: It had to accommodate a VMware (VDI) environment and PowerWorks, a Cerner electronic medical records (EMR) solution.

Navicent's IT team tried to address the problem with a different solution, but quickly discovered it led to other issues. "We were scratching our heads as the rep for that company tried to show us what to do to fix it. There were lots of squiggly lines on the board," says Joel Brooks, Information Services Technician Level III at Navicent.

Brooks had prior experience with [PrinterLogic](#). With support from Connection, an enterprise-scale IT services and solutions provider, he encouraged Navicent to adopt the PrinterLogic print-management solution: "I suggested we look into PrinterLogic,"

he says. "We got a test environment going, and it did exactly what we needed it to do. In thirty minutes, I was able to pull printers into my virtual session just by adding printers to the management suite. It was a piece of cake."

Challenge #1—Unifying a "Clustered" Remote VDI Environment

To deliver IT services to its many remote sites, Navicent uses a VMware environment with Dell Wyse 5040 thin-client terminals. For the most part, this worked well, but like many virtual environments, printing proved difficult in practice—especially when coupled with the Cerner EMR solution.

"In order to get printing to work, we had to locally embed printers into a virtual parent image and deploy that out to a pool so a specific group of virtual terminals would pick up that pool and assign a nearby printer," Brooks explains. This meant the IT team had to create several printing pools that correspond to different printers within the same building.

"We can all agree the primary benefit of a VDI is having the session follow the user wherever they go. But when we had *multiple virtual pools*, the roaming aspect didn't work well," he says, describing a common scenario where physicians would walk to another room and inexplicably lose the printers associated with their virtual session.

"At that point, what's the point of being virtual? You might as well put PCs everywhere."

Solution

Within two weeks of deploying PrinterLogic, Brooks and his team were able to combine the “clustered” printer assignments into one pool. Printers are now instantly deployed to end users according to the terminal’s MAC address—independent of the end user’s virtual session.

“Instead of having to log into three virtual pools just to get a printer, our staff log in first thing in the morning, get their virtual session, and that session stays with them the entire day,” Brooks says. This works for all of Navicent’s remote sites, including its family and children’s health centers as well as its smaller clinics.

“As soon as they tap out of a terminal and tap into another, the session comes back up, and all the information is right there. It’s instantaneous. There’s no thirty-minute wait for Windows to build their profile. They can badge in and out everywhere. That’s what we were looking for—and PrinterLogic was instrumental in making that happen.”

Challenge #2—Eliminating Group Policy and Rights Management

Despite its drawbacks, group policy is used a lot in big organizations, and many software applications depend on it for deployment as well. This was one of the reasons why Navicent found that conventional print-management solutions fall short.

“The other software we tried required pushing group policies to a certain virtual machine or PC to get it to work,” Brooks says. “I’m one of those guys who believes the fewer group policies you have to push, the better. I don’t like group policies. They’re a necessary evil as far as I’m concerned. Policies can change over time, and when that happens, it can throw a virtual environment out of whack really quickly.”

Group policy also restricts delegation flexibility because elevated rights are needed to edit or override policy when it fails to work properly—or when the group policy scheme hasn’t been updated to account for changes on the ground. Support staff are forced to defer to admins in these cases—which can prolong ticket resolution times.

Solution

PrinterLogic’s intuitive centralized management console allows admins to effortlessly configure deployment schemes according to a variety of criteria, such as hostname and IP or MAC address—without resorting to the complex contingencies that form the basis of group policy.

“With PrinterLogic, it’s as simple as, hey, I want terminal A to get this printer, and then that’s it. There’s no rocket science behind it. You put in the printer, and then you tell it what to connect to, and it works. That’s all I wanted. I didn’t want to have to do all kinds of black magic to get something as simple as printing to work.”

While this has made everyday printer deployments much more seamless and reliable for Navicent’s end users, PrinterLogic’s absence of all-or-nothing rights management has empowered localized technicians to resolve unforeseen printing issues with more speed and less effort.

“I’ve granted access to the PrinterLogic admin portal to the [remote] technicians, so if a virtual terminal happens to go down, they can actually put in a new terminal, get the hostname off of that terminal, and update PrinterLogic on the fly without having to call anybody,” says Brooks.

Challenge #3—Reducing Onsite Visits and Print-Related Support

Navicent’s multiple VDI printing pools and lack of powerful remote print management had a direct impact on the time Brooks and his colleagues were spending on print-related support.

“When I first started, we’d get multiple calls every day from remote locations, and I was having to travel to sites every single day to fix printers or virtual environments,” he says.

Those problems weren’t entirely VDI-related. Some were caused by shortcomings that are common in any environment that relies on print servers. Brooks cites instances where the managed service provider (MSP) would update a device’s firmware or change a printer IP address and forget to make the corresponding changes to the print server.

“Not only would it have to be changed on the print server, but I would have to go in to the virtual server, delete that printer, re-add the printer, recompose the pool, and hope everything worked,” he says.

Solution

Once PrinterLogic was implemented, the print-related support calls dropped precipitously, as did the number of onsite visits.

“I can’t even tell you the last time I got a call from one of the remote sites,” says Brooks. “It’s been months.”

He attributes the radical reduction in print management overhead to his ability to consolidate the virtual printer pools using PrinterLogic, along with the accompanying ease of managing printers in day-to-day situations.

“Before, if there was an update on the print server, I’d have to go in and update the parent images to the virtual environment. With PrinterLogic, I don’t have to do that. If there’s an update to the printer, I update it in PrinterLogic, and it carries over instantaneously. I don’t have to do anything in the virtual machines and I don’t have to tweak anything or change an .INI file.”

Conclusion and Savings Summary

Brooks estimates that it took “probably about six to eight months” for PrinterLogic to pay for itself based on the time saved on troubleshooting and problem-solving.

“Since we installed PrinterLogic, I’ve probably made visits to remote sites once a month as opposed to four or five hours every day,” he says. “I don’t have any hard figures, but we’ve seen ROI in terms of the time and resources that I would have spent going to these remote locations to figure out what the issue is.”

What’s more, these time savings have given Brooks and IT staff the freedom to focus on more vital initiatives that contribute to the quality of care Navicent provides to its patients.