



## Case Study: UW Health

PrinterLogic helps healthcare provider achieve a 70% decrease in print-related support costs and improve print performance in its distributed Citrix environment.

### Challenges

- A centralized VDI environment led to slow printing speeds and WAN bottlenecks at remote sites.
- A large (3,400+) printer fleet with legacy devices complicated driver management and led to printing errors and support tickets.
- Optimizations were needed to make printer installation and print auditing smoother for the MSP.

### Results

- PrinterLogic's direct-IP printing model kept print jobs local and efficient, while retaining centralized management.
- The consolidated driver repository is now managed from a single pane of glass—allowing multiple drivers and versions to coexist without conflict.
- The MSP was able to streamline printer installation and right-size the printer fleet.

[UW Health](#) is the nationally recognized, integrated health system of the University of Wisconsin-Madison. It is responsible for a far-reaching network of medical facilities that includes the 505-bed University Hospital in Madison (home to five acclaimed specialist centers), the 448-bed UnityPoint Health-Meriter community hospital, the UW Health Rehabilitation Hospital, six regional cancer centers and around 65 regional outreach clinics.

All told, UW Health serves well over half a million patients annually and employs 1,500 physicians and 16,500 staff across the better part of 100 geographically distributed facilities.

"Our core business is healthcare," says Justin Reneau, Supervisor of End-User Desktop Support at UW Health. "We have roughly 80 facilities throughout the Wisconsin area, going as far north as Eau Claire and as far south as Rockford, Illinois. We provide services to about 18,000 users. We manage roughly 20,000 working endpoints for those users."

The organization runs a mixed Citrix Virtual Apps/Virtual Desktops platform and uses a local managed services provider (MSP) to equip and oversee its print environment. Prior to September 2016, UW Health operated around 17 print servers as its enterprise printing backbone—supporting a fleet of 3,400 printing devices.

However, this combination of print servers, a Citrix environment, and an MSP-managed printer fleet quickly became unsustainable. Reneau and his team began hunting for enterprise print-management solutions that could address slow printing speeds, poor driver management, cumbersome and unreliable printer installation processes, and a lack of visibility into the print environment.

But the make-or-break criterion was finding a solution that could integrate seamlessly with UW Health's Citrix virtualization platform. "Our setup for Virtual Apps/Virtual Desktops is basically a pooled virtual machine system, so anytime an end user logs on or off, he or she is hitting a different VM each and every time. It's not a static 1:1, so it was vital that we could deliver a printer to either an endpoint name or an Active Directory end-user ID."

Excited by the prospect of eliminating print servers—while enhancing native printing in Citrix—Reneau ultimately chose [PrinterLogic's](#) next-generation enterprise print-management solution. The roll-out went "pretty darn well," he says. It was done in "one big bang over one night" across the entire organization, and back-end changes were practically invisible to end users.

### Challenge #1—Accelerating Network Print Speeds

In operating a distributed network, UW Health encountered several persistent problems common to this kind of environment. One was that remote locations had to contend with WAN chokepoints limiting the speed of all network traffic routed through offsite servers.

"A big thing for us was the time it took for an end user to send a print job to the print server and then wait for it to kick back out at their local printer," says Reneau.

"We had some outlying clinics that struggled with very slow network speeds, and we couldn't get a higher ISP rating for those sites because of where they were located. So, we were looking for a solution where we didn't have to print to a data center and then swing it back out to those endpoints."

## Solution

PrinterLogic leverages direct-IP printing in a way that maintains centralized management. Print jobs go directly from remote clients to the local printer, even in a VDI environment. This means print-related WAN traffic is greatly reduced, and typical bottlenecks that slow down printing—and network traffic in general—are avoided.

"With PrinterLogic, a print job stays on the local network so we don't have to worry about the connection speeds between our clinic and our data center where the servers were located. That's one of the biggest contributors to improved network speeds."

## Challenge #2—Taming Driver Management for a Large Fleet

With a diverse fleet of around 3,400 printers, some of them quite old, UW Health struggled with the sheer scale and complexity of driver management—especially for its legacy hardware.

"We're talking about some real work-horses that printed millions of pages," says Reneau. "We would go to HP's website, grab a fully compatible universal print driver, throw it out there, and then end users do a simple print and they'd get errors.

We try to standardize our platform, but sometimes have to work with what you have."

Driver management was further complicated by the inherent fragmentation of a print-server infrastructure.

"We had driver versions that were all over the board depending on which print server they lived on. One print server might have one driver, and another server had a different version. We'd run into random issues—which meant we'd have to troubleshoot one driver versus another. It became a big management headache."

## Solution

PrinterLogic's centralized management consolidated all of the organization's drivers into one repository that is now administered from a single location.

"With PrinterLogic, there's a single pane of glass for deploying drivers. We can shrink down how many drivers we're using for deployments. We try to stick to a universal print driver, but we know exactly which versions are used, and they're all in one place. Before we had to look at each print server to see which driver version is being used by those printers. This was a significant win."

Now that driver management is under tighter control, the incompatibility issues and routine printing errors that once plagued the print environment have all but vanished.

## Challenge #3—Streamlining Printer Installation and Print Auditing

Working with an MSP has many advantages, but even so UW Health identified two issues that needed streamlining. One was the process for deploying printers, which was controlled on the back end by the MSP but required front-end interaction with end users.

"We didn't force printers down via Active Directory to end users, so when we were doing a printer replacement or installing a new printer,

the third-party support team had to tell our end users what to do: 'Okay, you need to delete this printer from your workstations and add this one.' That was frustrating for our end users—and for support," Reneau says.

The other issue involved reconciling UW Health's actual print utilization with data gathered by the MSP.

"It wasn't so much finding discrepancies, it was more about right-sizing the hardware to the location," he explains. "The third-party likes us to keep a certain number of printers. They don't want to oversize or undersize the locations, so we wanted to use [PrinterLogic's audit data] as a double-check."

## Solution

UW Health's MSP now uses PrinterLogic's intuitive deployment features to deliver printers to end users based on Active Directory criteria. If end users need to get involved, they can use PrinterLogic's self-installation feature and floorplan maps to identify and quickly install nearby printers.

"The mapping feature was a big win for our end users because we often reference room numbers or locations" when naming printers, Reneau says.

"Our end users might not know what a room number is, but they know where they sit in a clinic, and they can do it visually by clicking on a printer icon that appears on a map."

PrinterLogic's extensive print-auditing capabilities have helped UW Health and its MSP optimize the printer fleet and pinpoint end users who are printing disproportionately high volumes of documents relative to their colleagues or their department.

"A lot of times we're trying to find out where the bulk of the prints are coming from. We leverage PrinterLogic, and we can tell that user XYZ is printing 300 pages a month, and that facilitates a conversation. We also use it to identify our print costs for the overall organization, or for a department, and maybe move a printer into an area where print utilization is higher."

## Conclusion and Savings Summary

UW Health eliminated all but one of its print servers, which is to support legacy applications. It has also been able to optimize the size of its printer fleet. That reduction in infrastructure has saved the time and costs associated with management, maintenance, upgrades, and replacement.

Furthermore, using PrinterLogic has resulted in about a 70% overall decrease in print-related support costs. The number of support tickets dropped by 60% year-on-year after UW Health deployed PrinterLogic, and they saw a 20% drop in average problem-resolution time.

"PrinterLogic helped us wrangle an unmanageable situation," Reneau says. "It saved us hours and hours of painstaking work down the road. We achieved hard ROI benefits in terms of printer reduction, printer relocation, and help-desk costs. But the more important piece is the soft costs that were tied up managing things before. Some of that is invaluable to the team, but difficult to calculate."

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