Case Study: QTC (A Leidos Company)

A large, highly distributed national healthcare provider sees an estimated 93% decrease in time spent on print-related maintenance and support after implementing PrinterLogic.

Challenges

- Aging print servers in regional offices were prone to hardware and software failures, resulting in sudden print outages and time-consuming redundancy protocols.

- The print servers also suffered from poor printing performance and severe latency that impacted end-user productivity.

- Printers in more than 70 remote clinics were managed using TCP/IP, making routine deployments and profile changes a tedious process.

Results

- The organization's three print servers have been eliminated along with their vulnerabilities and required maintenance.

- Printing is now "instantaneous" in regional offices and easy self-service printer installations are available to all end users.

- The clinics retained the benefits of direct-IP printing while admins gained effortless centralized manageability over the print environment.

With a client roster that includes the U.S. Department of Veterans Affairs, U.S. Department of Labor, U.S. Department of Health and Human Services and the U.S. Department of Justice, QTC is the largest provider of government-outsourced disability and occupational health-examination services in the United States. It has conducted more than seven million medical exams over the past four decades.

QTC stands for—quite literally—quality, timeliness and customer service. To deliver on these values, the organization prides itself on using innovative, technology-driven solutions across its more than 70 locations throughout the country. Among these solutions are its case management, medical record and exam protocol software, all of which were developed in-house and are proprietary to QTC.

In 2016, QTC adopted another innovative solution: PrinterLogic. Prior to this, the organization struggled with a print-management approach that relied on a combination of direct-IP printing at its small, localized clinics and print servers at its three regional administrative offices in California, Texas and Pennsylvania.

> " "[PrinterLogic has] probably saved us between seventy-five to one hundred tickets per month on printer support at an average of five to ten minutes per ticket. We gained a lot of time back not having to chase that stuff around."

"Printing is a heavy core business activity in every location...extremely heavy," says Darin Parker, a senior information technology manager at QTC. "It's probably the largest per-person print volume I've seen in my 20-year IT career."

The sheer volume and importance of printing at QTC meant a lot was riding on printer uptime and swift, accurate deployments. But aging server hardware put half of the firm's employees at risk for print downtime and lost productivity. The lack of manageability over the organization's 250-device printer fleet led to more print-related support tickets and longer resolution times. All of that ran counter to QTC's core values. Parker figured there was a better way to manage printing at QTC: "It was feeling like we spent way too much time doing print administration and support for things that should have been an afterthought," he says.

That's when he came across PrinterLogic's next-generation print-management solution.

"I didn't even know this type of product existed. I looked at the white papers and went, 'Wow, this seems almost too good to be true.' With my

experience in printing administration, I knew going into the demo that we could see big benefits. After the demo was over, I couldn't get to my director fast enough."

Challenge #1—Replacing Aging Print Servers with a Robust, Scalable Solution

QTC had print servers deployed at its three regional offices in Diamond Bar, CA, San Antonio, TX, and Philadelphia, PA. These ran on inexpensive, older hardware that had been handed down from the sysadmin team. "A power supply would go out, or a motherboard would fail, and we were without print services. The outages started getting more frequent. It was drop what you're doing and scramble to help people print—and then put them back the way they were before," says Parker.

Even in good times, the server software could be unreliable. Issues like driver corruption and print spooler crashes were happening "every few months," which resulted in downtime. Parker was concerned that a "catastrophic failure" could affect the entire location. Each month he set time aside to back up detailed information about the print environment, such as hostname and driver versions, to an Excel spreadsheet.

93% **REDUCTION** IN **PRINT MANAGEMENT**

Solution

"With PrinterLogic, our dependency on print servers went away completely," he says. That's because PrinterLogic's centrally managed direct IP paradigm eliminates the need for print servers entirely—and likewise eliminates related problems like print-spooler crashes, error-prone shared print queues, corrupted drivers, and printing downtime.

"The difference between a physical print server and PrinterLogic is that if the PrinterLogic admin server has issues, it does not disrupt printing. In fact, when we've had any issues with the PrinterLogic server, the users were completely oblivious to it."

It's also saved Parker and his team from losing sleep—and time—as a result of the instability of their previous system.

"We were having to administer, back up, secure and patch three physical servers in our data center that are now retired. We no longer have to maintain the hardware, licenses, and maintenance of three enterprise print servers plus the monthly backup I would do," he says.

Challenge #2—Accelerating Printing Performance and Reducing Latency

The print servers in QTC's regional offices weren't just finicky and unreliable. They were also subject to frustrating latency.

"We had very poor performance between the end user and print spooling. We tried various combinations of settings on the printers, but we could never seem to get reasonable performance. There were times when it would take two or three minutes to print a twenty-five-page Excel document," says Parker.

Some of that was the unavoidable result of hosting a print server in an offsite data center. Print jobs between local machines and local printers were routed through a print server 60 miles away, leaving

them vulnerable to WAN bottlenecks and network congestion. Even the clinic-based users experienced poor performance when they sent print jobs to the regional offices. "They would map a printer to the print server and it would work, but then the network would slow down and their workstation would slow down because it was constantly trying to communicate with the print server."

Solution

Replacing print servers with PrinterLogic's print-management solution resulted in an immediate speed boost.

"Printing performance is instantaneous now because of the direct-IP printing approach used by PrinterLogic—but it still allows us to manage the printers using the back-end queue configuration, which is very intuitive as well," he says. Local print jobs now go from the workstation directly to the printer with no network hops in between.

PrinterLogic also sped up printer installation, thanks to its self-service portal. In the regional offices, where users once had to map printers, they can now pull up visual floorplan maps and identify nearby printers using an intuitive tag scheme. To install a printer and associated drivers, all they have to do is click on the desired printer icon.

The self-service portal has proven especially valuable in remote clinics, where users could sometimes wait "a day or two" for technicians to remote in and install TCP/IP printers.

In addition, clinics can now send print jobs to printers in regional offices without a loss in workstation or network performance.

Challenge #3—Managing a Remote Direct-IP Printing Environment with Ease

Conventional direct-IP printing setups are notoriously difficult to manage in distributed, enterprise-scale environments. This was no different for QTC, which used TCP/IP printer connections in its 65 clinics scattered across the entire country. "Each clinic location had different combinations of printer models, older, midrange, high-end, Canon copiers, HP printers, and MFDs. Whether it was 2, 5, 12 or 16 workstations per clinic, when we deployed a new printer, we had to go and manually configure the printer on the network," Parker explains.

"Then we would have to map of all of the direct-IP printing ports, and it required us to use static IPs. Sometimes we'd open a new clinic and a guy would spend three hours mapping all the printers on the workstations."

But laborious management time wasn't just limited to installs. Every time a change was made to the printer settings—such as the default paper tray or a duplex setting—the profile would have to be adjusted for every workstation using the same process. This was very time-consuming for IT, and "very disruptive to the business side" of clinical operations.

Solution

"PrinterLogic solved all of the above," says Parker. Along with the newfound speed of printer installs came an incredible boost in IT resource efficiency. PrinterLogic's centralized management console

lets administrators and IT support staff deploy and configure new printers remotely with just a few clicks.

"If we make a change to a printer, whether it's a new model or a tray change, we change it on the PrinterLogic back-end. The clients get the updates automatically the first time they connect to that printer. We even created a one-page FAQ for when we do moves: 'If your printer changes, follow these quick instructions.'"

"That's probably saved us 75 to 100 support tickets per month at an average of five to ten minutes per ticket," he says, while contrasting that to the current situation in which resolution times now are less than a minute. "We gained a lot of time back not having to chase that stuff."

Conclusion and Savings Summary

"The most quantifiable ROI for us is the hours saved on multiple fronts," Parker says. He conservatively estimates that 12 hours per month were once dedicated to server maintenance and addressing print-related support tickets, whereas the same type of support under PrinterLogic clocks in at a maximum of 45 minutes—a decrease of 93 percent.

"The number of tickets and the time we spent [on print-related support] have dropped dramatically, particularly on the clinic front, which was extremely time-consuming. And then there's the business side of not having to wait for IT or having IT dependencies on print connectivity. For each of those tickets on the IT side we can factor in lost user productivity," he adds.

The "huge benefit" that Parker anticipated during the PrinterLogic demo has materialized several times over.

"Printing support should not be a core business activity for IT. It should be something you just set and forget. This product solves that issue. It makes printer administration pain-free for IT as well as the end user. In efficiency and time savings, PrinterLogic has paid for itself exponentially. It's paid big dividends and then some."