Case Study

# Monument Health Scales Telehealth on NetApp for VDI

## Provider goes from zero telehealth appointments to 4,500 – in 2 Weeks

**Problem Solved**

Monument Health saw an opportunity to solve the rural healthcare crisis in western South Dakota and parts of Wyoming and Nebraska by using telemedicine. The COVID-19 pandemic put their plan to the test.

With virtual desktop infrastructure (VDI) as a foundation, Monument Health recently reinvented its infrastructure environment by using NetApp® products and services to store, secure, and manage clinical applications. When demand for telehealth skyrocketed, everything that Monument Health needed to scale was already in place.

**Business Benefits**

- Secure, VDI-enabled access to critical patient data, any time, from any device
- Single-platform management for clinical and enterprise applications
- Built-in security features for work-from-home data protection
- Simplified deployment for faster stand up
- Elasticity with scale on demand

**Crisis as a catalyst:**

**Overcoming the challenges of telehealth**

Headquartered in Rapid City, South Dakota, Monument Health is a not-for-profit healthcare system that serves a huge area encompassing western South Dakota and parts of Wyoming and Nebraska. The national shortage of doctors, nurses, and other medical staff hits hardest in caring for rural populations, and Monument Health saw an opportunity to solve that problem through telehealth and telemedicine. But before programs could be put in place, Monument Health needed to address strict regulatory requirements, including restrictions that limited types of encounters, care sites, and reimbursement.

"Healthcare organizations have been interested in pursuing expanded programs in telehealth, ours included," says Stephanie Lahr, CIO and CMIO of Monument Health. "Literally one week before the regulatory relaxations (associated with the COVID-19 pandemic) were announced, we had convened a large group to identify our telemedicine strategy for the next 24 months, focused on what we were then allowed to do. With COVID-19, our plan transformed completely."

Monument Health quickly identified its immediate priorities, which included protecting patients, care providers, and now remotely deployed hospital staff. The goal was to seamlessly maintain a high quality of care and connection, even at a distance.

> "We wanted to be agile. We wanted to be flexible. And that ability to be flexible and to scale was something that was going to be foundationally based in that underlying infrastructure. That guided the choices that we made then, which we're now able to leverage."
>
> – Stephanie Lahr, M.D.
> CIO and CMIO, Monument Health

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## Rapid Response:

### Program priorities and roll out

The first priority was to give patients access to their primary and advanced practice care providers. Primary care was rolled out in week one, followed by specialty and long-term care.

"The technology team did a very fast turnaround on project identification and build out," says Lahr. "Literally within the course of 3 days, we went from an idea to being live in our first clinic." Rollout to an additional 25 locations across hundreds of miles took the form of self-deployment, supported by live Webex training, tip sheets, and videos. "It just goes to show what we can accomplish in a short period of time when everybody is motivated and rowing in the same direction."

### Start strong and grow from there

In three weeks, Monument Health went from program inception to 4,500 appointments. "We went from literally no telemedicine visits to going live and 2 weeks later, a total of 4,500 visits. We're averaging 600 visits a day between a combination of telephone and video visits. And I fully expect that we could be doing 1,000 of these visits a day in a very short time," Lahr says.

As those numbers rise and specialty areas increase, Lahr believes that caregivers and providers are seeing an easy fit for telemedicine in their processes. And she believes that patients are seeing it as a viable option for interacting with Monument Health.

### Innovate in real time

When COVID-19 hit, healthcare systems faced both the opportunity and the urgency of finding new ways to deliver care and protect the people doing it.

In addition to rapid deployment of online tools, including a chat bot and nurse triage line, Monument Health strategically focused on a program for physician conservation.

Specialists and caregivers required for onsite treatment—including radiation oncologists—are backed up by duplicate specialists in home isolation. "If an onsite caregiver is exposed and needs to be quarantined, we have physicians in backup who have been safely isolated and can step in to provide onsite care," Lahr explains.

On the inpatient side, technologies and tools are being adapted to minimize caregiver exposure and risk, including the use of audio and video tools for physician scribes in safe locations. That same approach is allowing ICU bedside care teams to communicate with physicians located outside the unit. In addition to limiting exposure, physicians are able to see a higher number of patients in a shorter period of time, without having to walk from room to room, donning and doffing PPE.

"From a technology perspective, right now is a great time to be thinking outside the box," Lahr says. She acknowledges that the organization is eager to hear new ideas, which provides a nurturing environment for innovation. In addition to expanded telehealth services, she expects that work-from-home programs will be increasingly adopted in the future.

"Most of the applications that staff use are already part of our VDI image. We have plenty of bandwidth from the standpoint of both our service space and storage, with the ability to easily scale up or down as required."

> "We built on an infrastructure based in VDI leveraging VMware and our NetApp storage. We really didn't have to do anything in order to scale the infrastructure, because it was already there."
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> – Stephanie Lahr, M.D.
> CIO and CMIO, Monument Health

### Secure data, scale on demand

The regulatory and technological challenges that once stood in the way of telemedicine deployments are beginning to be relaxed. However, infrastructure is still standing in the way of successful deployment of telemedicine programs, says Lisa Hines, former director of telehealth at Greenville Hospital System in South Carolina and now a strategic advisor for healthcare at NetApp. "Infrastructure is vital to the enablement of telemedicine initiatives. Data from electronic health records, diagnostic images, and bedside monitors has inundated healthcare systems. Having the necessary technology to ingest that data for analysis and then provide valuable insights that enable patient care actions and treatment is an underlying necessity."

According to Lahr, "Security and integration are absolutely necessary for a successful telehealth offering. If you are running this as part of a business in which you need to reach patients at 25 clinics from 50, 60, 80 miles away, you must have integration and the technology to facilitate the orchestration and coordination of patient data.

"We were in the very fortunate position of reinventing all of our infrastructure when we went live with Epic, which is the heart of all our clinical work, whether that's the hospitals and clinics, radiology and PACS, home health, or therapies. And all of that we built on an infrastructure based in VDI leveraging VMware and our NetApp storage. We really didn't have to do anything in order to scale the infrastructure, because it was already there."

## Telemedicine today…and tomorrow

A crisis has created a temporary opportunity to relieve some of the regulatory challenges around virtual health and telemedicine. But the question remains: Where will we go from here?

"As we look back on the experience and examine the data we collect on patient experience, quality of care, efficacy of management, and other outcome metrics, I'm hopeful that what we're going to see is that we can deliver high-quality, low-cost, effective care that both the physician and other advanced practice providers feel good about delivering through telemedicine—and that patients feel good about receiving through telemedicine," Lahr concludes.

"And I'm hopeful that we'll see success in our regulatory and payer interactions that will enable us to continue to do the great work that's happening right now into the future."

## Take the next step

Discuss your program and plans with a NetApp telehealth expert. We provide guidance and infrastructure planning to help you stand up and scale your program.

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