Hartford HealthCare

Hartford HealthCare is a comprehensive, institute-based healthcare system with more than 400 locations serving 185 towns and cities across Connecticut. Centered on two tertiary-level teaching hospitals, acute care and trauma centers, the 36,000-employee organization offers medical services to more than 17,000 people each day.

Industry

Healthcare

Strategic priorities

• Anywhere Workspace

• Cloud Transformation

VMware footprint

• VMware® Horizon® Enterprise

• VMware Cloud Foundation™

• VMware vSphere®

• VMware Workspace ONE®

• VMware Professional Services

• Google Cloud VMware Engine

Hartford HealthCare Humanizes Care with Information Technology

Hartford HealthCare tends to the healthcare needs of more than 17,000 patients each day. The pandemic prompted the organization to reconfigure how information technology could help it adapt to a rapidly changing healthcare landscape. Using VMware Horizon Enterprise, Hartford HealthCare moved its digital infrastructure to a hybrid cloud environment and launched a 3,000-station virtual desktop environment that improves physician-patient connection and real-time collaboration between dispersed care teams.

Making the healthcare experience as welcoming as possible

A teaching hospital system affiliated with the University of Connecticut, Hartford HealthCare delivers services from community healthcare, trauma care and tertiary specialty healthcare through more than 400 locations across 185 towns and cities. The organization traces its roots to 1854 with the founding of Hartford Hospital. During its more than 150-year history, the organization has become one of the region's largest and most comprehensive healthcare systems.

Over the last decade, Hartford HealthCare has grown through several mergers and acquisitions, from two hospitals to seven. "We have level one, two and three trauma centers," says Dan Clymer, systems architect, Hartford HealthCare. "We have urgent care, a couple of hundred doctor's offices and the goal of all these services is to provide personalized, coordinated care. Our goal is to make the healthcare experience as welcoming as possible."

"We've used VMware for at least the past decade. We use VMware vSphere for our virtualized core infrastructure and following industry trends, we'll be extending our on-premises infrastructure to the cloud using Google Cloud VMware Engine, which allows us to use a similar infrastructure architecture."

Dan Clymer, Systems Architect, Hartford HealthCare

SEE HOW HARTFORD HEALTHCARE TRANSFORMS CARE WITH VMWARE

The pandemic transformation of healthcare

The very human moments of healthcare—the discussion of a diagnosis, an emergency procedure, the ongoing treatment of a long-term condition—require specialized medical teams to engage directly and indirectly with patients. Hartford HealthCare needed to expand its capacity to serve more patients and provide more preventative care while preserving its signature personal approach. "We're institute-based, with multiple specialties, including bone and joint, women's and men's health clinics, senior care and others. Our focus really starts at preventative care. We want to keep people healthy and to keep them out of the hospitals," says Clymer. "That's why we avoid calling ourselves a hospital system. It's the basis for our tagline, 'More life in your life.'"

As with every healthcare system worldwide, the COVID-19 pandemic changed everything. "The pandemic was a challenge for healthcare and I'm proud that the response from Hartford HealthCare and other providers in the state was so good," says Clymer. "Throughout the pandemic, Connecticut tended to be one of the safer areas to be, and Hartford HealthCare was very early getting pop-up and mass testing sites going, along with vaccination sites later on. Our IT department was very involved in those efforts and in transitioning to remote work."

Though remote work began as an emergency response to the pandemic, healthcare providers quickly understood that the ability to work from anywhere offered more opportunities to connect with patients more frequently and safely. "Many of us have been working remotely since the first days of the pandemic," says Clymer, "and that's not going to change."

Expanding the possibilities of healthcare

The pandemic prompted Hartford HealthCare to reimagine how information technology could improve healthcare. Remote access created new models of physician-patient interaction, opening possibilities for more collaborative engagement, from telemedicine to research opportunities. Wellness appointments or informal consultations that previously required in-office visits can now occur remotely. Providers can check in with patients more frequently and help fine-tune their healthcare accordingly.

Using VMware Horizon Enterprise, Hartford HealthCare expanded its virtual desktop system for clinical teams, enabling it to deliver secure, remote access to an increasingly distributed workforce. Non-clinical staff were able to work off-site, increasing productivity and reducing the number of employee interactions and potential exposure, creating a safer environment overall. The VMware virtual desktop solution—delivered to 3,000 workstations—has transformed staffing practices, enabling Hartford HealthCare to source the best talent from anywhere in the world. The talent pool is no longer limited to the environs of Hartford, Connecticut.

"Connecticut is a small state. We have some consultants who work with our business analytics who are overseas. And we have colleagues who live in North Carolina, Georgia and many other states. We would never have been able to do that before," says Clymer.

"We've used Professional Services for many years to design and implement our infrastructure. They didn't come in and do my job for me. It was a partnership. They became a part of my team. When I work with VMware Professional Services, I get experts with the tools and best practices who have the ability to deliver according to my timeline."

Dan Clymer, Systems Architect, Hartford HealthCare

Creating an IT ecosystem for healthcare

To enable its remote workforce, Hartford HealthCare engaged VMware to develop a virtual workspace environment built on VMware Horizon Enterprise.

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"We've used VMware for at least the past decade," says Clymer. "We use VMware vSphere for our virtualized core infrastructure and following industry trends, we plan to extend our on-premises infrastructure to the cloud using Google Cloud VMware Engine." When moving to the cloud, Hartford HealthCare expects to gain additional benefits like increased scale, capacity, flexibility and agility in serving patient and business needs, without the need to refactor or rearchitect existing applications.

VMware Professional Services deployed and managed a comprehensive system built on several integrated VMware solutions. "It's an ecosystem," says Clymer, "and we get an extra benefit when everything works together.

"For our end-user compute, we use VMware Cloud Foundation to deploy and automate our infrastructure and VMware Horizon Enterprise to deliver desktops on demand. For some really cool patient apps, we use VMware Workspace ONE Unified Endpoint Management."

One of these innovative apps delivers a telemedicine physical rehab solution. Patients leave the hospital with an iPad equipped with a custom designed rehabilitation program. "It can walk them through exercises, arrange sessions with their doctors and enable real-time rehab progress," says Clymer. "Being able to offer multilingual services via the patient portal is already game-changing, enabling patients and providers to speak with precision," says Clymer. "We want to do more of that."

Another application, also delivered via iPad, provides a comprehensive view of the physician's care plan while the patient is in the hospital. "Nobody likes being in the hospital," says Clymer, "so to provide more transparency around their care, the iPad shows everything the doctor is doing to help the patient. To make their stay a bit more bearable, it even offers some fun stuff like Netflix or Hulu."

Working with VMware extended a longstanding collaboration with Hartford HealthCare. "We've used VMware Professional Services for many years to design and implement our infrastructure," says Clymer. With these new projects, the first stage was launched by VMware Professional Services, the second by Clymer and his team. "They didn't come in and do my job for me," says Clymer. "It was a partnership. When I work with VMware Professional Services, I get experts with the tools and best practices who have the ability to deliver according to my timeline. And the proof of concept blew our CTO's socks off. His response was, 'OK, go.'"

> "We have a great deal of confidence in our ability to create and deliver new products and applications. With VMware, it feels like we're making this journey together."
>
> Dan Clymer, Systems Architect, Hartford HealthCare

Reducing the friction to enhance the patient experience

Hartford HealthCare wants to encourage people to stay healthy. "No one wants to go to the doctor, no one wants to be sick," says Clymer. "So, if we can reduce the friction, make it more accessible, make it easier for patients, we want to do that. We want to give people reasons to choose Hartford HealthCare." Streamlining processes is also key to this effort and providing patients more convenient ways to interact with healthcare providers. "You can go to any doctor, any hospital, but what makes ours different? Do I have to fill out a stack of papers every time I walk into the doctor's office, or can I just tap an app on my phone to check in, and be shown to my room?"

Going forward, Hartford HealthCare wants to model its offerings on the same convenient experiences people enjoy in the consumer sector, including services integrated with wearable tech, new telemedicine offerings or translation apps to enhance physician-patient interaction.

"We have a great deal of confidence in our ability to create and deliver new products and applications," says Clymer. "With VMware, it feels like we're making this journey together."

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