Hartford Healthcare Accelerates Innovation During COVID-19 and Transforms the Future of Care

Hartford HealthCare

NWN and Hartford Healthcare Partners to Support Better Patient Outcomes and Practitioner Experience with Integrated Technology Solutions.

HEALTHCARE FACED A GENERATIONAL OPPORTUNITY IN 2020

Hartford HealthCare is Connecticut's integrated healthcare system. With 33,000 staff members and 4,000 providers serving 185 towns from seven hospitals and multiple senior-care facilities, Hartford HealthCare faced dramatic technical and logistical challenges following the outbreak of COVID-19. Ensuring the health of Connecticut's 3.5 million residents is the network's primary mission. As the chief technology officer, Joe Venturelli bore the responsibility of ensuring Hartford HealthCare's communications and infrastructure could support this life-saving mission.

"I've been in healthcare for 31 years," said Venturelli. "Never in my career have my efforts had a more direct impact on patient welfare. The faster I can get a testing site set up or the faster we can get a vaccination site up, the faster we can save lives. NWN helps those efforts."

NWN, the leading Cloud Communications Service Provider, partnered with Hartford Healthcare's to achieve the following results:

- Transitioned 2,000 employees to remote work in three weeks
- Scaled networks to support 500% increase in virtual meetings and telemedicine
- Launched field hospitals, testing and vaccination megasites powered by NWN's intelligent networking solutions

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"Over the last year, NWN has helped Hartford HealthCare be agile. As large as we are, we can think outside of the box to save lives and still have operational excellence at the forefront."

JOE VENTURELLI, CHIEF TECHNOLOGY OFFICER AT HARTFORD HEALTHCARE

NWN PARTNERSHIP DELIVERED FASTER INNOVATION

Fortunately, Hartford HealthCare and NWN have been partnering for over 15 years supporting all aspects of the hospital's innovation vision which has been an essential ingredient in their ability to address COVID-19 challenges. NWN delivers a comprehensive mix of integrated communication solutions with infrastructure and network support services. Hartford HealthCare leveraged NWN's solutions to:

- **Connect** remote workers and care providers with unified communications for maximum productivity.

- **Transform** distributed clinical experiences with IT support, networks and devices that enable providers and patients to communicate effectively from everywhere.

- **Maximize** and protect technology investments by simplifying operations and gaining deeper insights with integrated advanced technology solutions and security.

ENABLING REMOTE WORK FOR NON-CLINICAL EMPLOYEES

As the network became aware of the virus, Hartford HealthCare sought solutions for protecting the health of non-clinical staff members. Venturelli and his directors gathered quickly to determine what was needed to support these staff members.

"On February 29th, we got into a room for about an hour and started brainstorming," recalls Venturelli. "We had to decide what was needed in the next two weeks to facilitate moving all of the non-clinical people home, so that they could work. We're talking about moving to 2,000 system support office workers. Basically, everybody who doesn't have exposure to patients."

The sudden shift to remote work required significant hardware investments: 500 laptops, 300 phones, 300 headsets and $400,000 in network upgrades. To support this work, Hartford Healthcare's staff would need additional network connectivity, communications and cloud managed security capabilities. NWN infrastructure solutions helped support the software and networking needs. Within a three week window, NWN delivered connectivity for Hartford Healthcare's system support offices enabling an effective distributed workforce rollout.

"We asked NWN for miracles," said Venturelli, "We needed these connectivity solutions tomorrow, and our procurement process takes three or four days. NWN was willing to work with us and facilitate what our staff needed to work from home effectively."

DELIVERING INNOVATIVE HEALTHCARE THROUGH VIRTUAL APPOINTMENTS

Before Connecticut entered the surge stage of the COVID-19 pandemic, Hartford HealthCare sought to help residents stay safe at home by offering virtual health consultations. Fortunately, the Hartford

HealthCare IT staff had previously worked with NWN to transform existing networks to support virtual communications. These networks support virtual access to the 1,300 primary and specialty care providers. However, the existing infrastructure was not designed for the kind of demand presented by COVID-19.

"We needed to flex up exponentially in no time whatsoever," said Venturelli. "Prior to the pandemic we were using 300,000 virtual conferencing minutes a month. Each month since the pandemic began, we typically used 1.8 million minutes. To scale up our virtual conferencing, the first thing we needed was to add more telecom lines. Then, we had to increase internet bandwidth to support this workforce. Again, we wanted all of this hardware tomorrow and NWN was able to facilitate that for us."

NWN delivered the needed communications infrastructure support to quickly scale for Hartford HealthCare's rapidly expanding needs. Between 2019 to 2020, the network supported 400 virtual health visits. Between March and June of 2020, Hartford HealthCare logged more than 193,000 virtual visits - a nearly 500% increase in four months.

LAUNCHING MOBILE TESTING SITES

Combating the spread of COVID-19 began with testing. As the pandemic began to spread, Hartford HealthCare sought to increase testing capacity by as much as 500%. This meant broadening the availability of testing beyond hospitals and healthcare settings. The network needed to launch more accessible testing in public spaces. However, these spaces had very limited communications support.

"We were asked to set up new testing sites, which were just big parking lots," recalled Venturelli. "We didn't know what we would encounter on these sites, but we needed to do it right the first time. So we worked with NWN and put together a network in a box. Then, all we needed was an electrical cord. We plugged it in, opened up the box and took out wristband printers, laptops, routers, switches, hubs – the whole thing. And, we were online in 10 minutes."

NWN procured and delivered all of the routers, switches, and secure connectivity and wireless networking for Hartford HealthCare's hospital-in-a-box solution. The team established multiple testing sites and mobile units supported by more than 150 staff members performing 2,600 tests daily. By July, the Hartford HealthCare network had tested more than 100,000 residents.

LAUNCHING AND SUPPORTING FIELD HOSPITALS

By mid-April the eastern seaboard experienced a surge of COVID-19. To treat patients who required hospitalization, Hartford HealthCare partnered with the Army National Guard to build multiple alternative-care sites. While the National Guard could provide the nearly-900 beds required, the technology needed to support treating these new patients fell to Venturelli and his IT team. From a device and communications perspective, the new sites were a huge undertaking.

"Prior to COVID-19, this kind of work was done through acquisitions," said Venturelli. "We would buy a practice and tell our vendor we need a circuit for this location. And they would say `no problem we'll have a team 90 to 110 days.'" COVID-19 wouldn't allow for a three month launch, so Hartford HealthCare turned to NWN for support.

"The greatest support NWN offered was probably facilitating delivery of equipment to the sites," Venturelli continued. "NWN helped us move equipment, set up the gear and installed it for testing. NWN was absolutely indispensable in this process. We got the equipment we needed and weren't bogged down by all of the paperwork and red tape."

ADMINISTERING HOPE FROM VACCINATION MEGASITES

In an effort to vaccinate as many residents as possible, Hartford HealthCare began opening a network of megasites across Connecticut in early 2021. These megasites required the same technical support as their testing sites and alternative-care facilities. However, the megasites also required a level of scheduling administration that the network's IT team had never encountered.

> "The megasites were about getting equipment, and staging it by literally putting it in boxes on wheels," said Venturelli, "We had done this before at testing sites. But now at vaccination sites, we became ultra-focused on being able to have seven to ten thousand people logged into our site so they could sign up for their vaccinations. We achieved that with NWN's support on our network, we were signing up people faster than we got the vials of vaccine."

By early March, Hartford HealthCare opened its seventh megasite for vaccinations. For each of these sites, NWN was able to provide networking cradles, hubs and communications software. Additionally, the network's website relies on the online scheduling capabilities that NWN helps to deliver. With this level of ongoing device and communications support, Hartford HealthCare offered residents a baseline allocation of nearly 7,000 vaccination doses each week.

"Medical staff don't know what it takes to make these megasites function in the middle of a parking lot," said Venturelli. "I can deliver them the same services and support they have in the emergency room. They don't realize all the magic that NWN helps deliver behind the scenes. And that's how it should be. We're like the Wizard of Oz, happy to be behind the green curtain making the magic happen."