A COMMITMENT TO PROVIDE CARE

presbyterian homes & services

THE CUSTOMER
Presbyterian Homes & Services

INDUSTRY
Senior Living Communities & Care

THE SOLUTION
Multi-site network re-design & optimization

BENEFITS
- Efficient new network architecture

- Improved customer care by eliminating outages to core applications

- Empowered & educated internal IT staff

- Seven-fold average bandwidth increase across the network

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> "I genuinely have nothing but praise for all the Atomic Data employees that worked on this project. It went exceptionally smoothly because of these individuals' knowledge and hard work."
>
> –Nick Kriz, *Manager of Networks & Systems at Presbyterian Homes & Services*

The Situation:

Presbyterian Homes & Services serves over 26,000 older adults through forty-three senior living communities in Minnesota, Iowa and Wisconsin. The non-profit organization takes particular pride in the care it provides and goes to great lengths to see that care is not impinged upon or interrupted. Providing that high quality care depends, in part, on making sure that data networks and infrastructure are top of the line. To that end, Presbyterian Homes & Services built a state-of-the-art data center for its network backbone, but still had some concerns with its far flung satellite locations. Specifically, many locations were relying on a single WAN connection with no redundancy. Inclement weather or other unplanned outages would cause one or more sites to lose connectivity. Without access to the internal network or the Internet, staff would be forced to use manual or paper-based processes that greatly reduced efficiency. Addressing the network bottleneck on a single point of failure with one carrier was a top goal.

"Lightning strikes, floods, ground shifts, and other

circumstances outside our control would cause a site to have a service outage. We have so many physically diverse locations all over the place, we're guaranteed to get hit," said Nick Kriz, Network and Systems Manager at Presbyterian Homes & Services.

Inclement weather is unavoidable, but should not cause a service outage. When an outage occurs at a site, it impacts productivity, efficiency and Presbyterian Homes & Services' care-based workflow. Nick explains

Atomic Data's Engineers didn't just say 'alright, we did what we came here to do and we're not going to take on the liability and risk to do more.' Instead, these guys totally sat in the trenches all night with us until it was resolved. I knew that Atomic Data was the company I wanted to be part of the core project moving forward." Presbyterian Homes & Services asked Atomic Data to come up with a plan for the infrastructure redesign project. Atomic Data's Architects got together and

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Atomic Data and Presbyterian Homes & Services implemented their network plan at those sites and everything went according to plan. Mother Nature even stepped in to help test the new network infrastructure.

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in that circumstance, "I then have a bunch of staff who can't do their job or are doing their job significantly less efficiently because, not only do they have to go back to these paper processes, they also have to train the new people who have only worked on an electronic chart."

In addition to the lack of carrier redundancy at many sites, Presbyterian Homes & Services' network infrastructure and hardware was starting to age and required a design overhaul to route traffic more effectively. The system needed new network firewalls and routers, viable network failovers, and increased bandwidth to deal with future demand. Presbyterian Homes & Services' network team had its hands full.

The Solution and Planning:

During a project converting MPLS connectivity to OSPF, Nick got to know Atomic Data's Network Engineering team pretty well. "One of the main architectural components of our network went down and so I reached out to Atomic Data to assist in rectifying the issue. Atomic Data's Network Engineers totally saved the day with their preparation, knowledge and hard work." Nick reflects upon what impressed him most about Atomic Data's Network Engineers, "The thing you have to understand is that it was the middle of the night, and one of the legs got kicked out from under our network.

came up with a couple of proposals that would fulfill Presbyterian Homes & Services' needs. Atomic Data supplied three different solutions. Each one fulfilled the objectives set out by Presbyterian Homes & Services, but one was particularly tailored to fully address short term objectives while not losing site of long term goals for the department. The plan was founded upon Atomic Data and Presbyterian Homes & Services working closely in partnership to address and implement changes at the many communities. "In Atomic Data we felt we had found a partner. We didn't ask them to come in here alone and fix everything and then leave. We weren't looking for a company to create a dependency that required us to go running to them for every little detail. We were looking for a partner to work closely with us, understand our goals, and empower my team to carry on the work after implementation," Nick said. From there, Atomic Data's Project Manager and Nick got together and planned tasks, target dates, templates to be used, and the engineers who would be executing implementation for all 43 communities. It was an intricate and detailed plan that required cooperation from both sides to succeed.

Implementation:

First, two test sites were chosen to evaluate the efficacy of the plan and determine if any tweaks needed to

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be made before it was implemented organization-wide. Atomic Data and Presbyterian Homes & Services implemented the network plan at those sites. After the test sites were set up, Mother Nature even stepped in to help test the new network infrastructure.

"We were up and rolling at the introductory sites with secondary internet connections and new firewalls, and then we had a bunch of failover events due to weather," Nick recalls. It was a great demonstration of the new technology. "We kept losing connectivity to our outer satellite sites due to this spate of storms and it would cause failovers to the new redundant solution. I wasn't getting phone calls of, 'everything is down and I can't do my job' from the staff at these locations. The staff was able to carry on as if nothing had happened and the residents kept receiving the top care that they expect from Presbyterian Homes & Services."

Nick and his team knew they had struck gold. The plan had worked and was pushed out to all Presbyterian Homes & Services communities. The Atomic Data Network Engineering team in conjunction with Presbyterian Homes & Services' Network team implemented this detailed project plan over a series of months. They drove to each of the 43 communities around the upper Midwest configuring the network and setting up firewalls. Nick recalls that it went well, though the project was not without issues. "Coordinating staff for installation of secondary Internet circuits along with the firewall migrations caused delays at a few buildings. Each individual location had specific issues with cabling, equipment, port availability, and other historical factors. We learned something new with nearly every implementation. Both the Presbyterian Homes & Services and Atomic Data team were able to learn from each setback and refine the implementation plan moving forward. The question isn't, will something go wrong," Nick goes on to say, "the question is, when something goes wrong, how quickly and effectively will my vendors respond and with how much transparency? Atomic Data was always responsive and a great partner in addressing the issues as they happened."

Further complicating matters, a new community that finished construction early had to be added to the network architecture ahead of schedule. Atomic Data worked seamlessly with Nick to get it scheduled and added the additional site with no difficulties. Nick

praised Atomic Data saying, "Atomic Data was always responsive and flexible. They were ready to get this project done when I had the time and needed them. The project kept on target for dates and workload." There were a few issues with cutovers very early on in the project and both teams quickly learned from those challenges. This meant that while network infrastructure was upgraded across the company, there was virtually no unplanned down time that may have cost Presbyterian Homes & Services productivity or quality of care for residents.

Throughout the project, Atomic Data's team ensured that whatever was happening, Nick and his team were

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informed. Transparency was paramount on the project to ensure that the network team at Presbyterian Homes & Services would be able to take over once Atomic Data's work was done.

Nick recollects, "I never felt like there was a point where I was in the dark or I didn't know what was going on with the project."

Additionally, Presbyterian Homes & Services wanted to build a knowledge base about this new network. Atomic Data's design for Presbyterian Homes & Services emphasized reproducible templates and ease of implementation. This gave Presbyterian Homes & Services flexibility to add sites to the network on the fly. "I know that I can have consistent and reliable results because Atomic Data has developed a process that the engineers on my team can use. This process has been applied internally now."

The Results:

Implementation of the project went well, but what were the takeaways and end results for Presbyterian Homes now that the network has been updated and the project is over?

"The major improvements we've seen is that while we may lose individual network connections and we can lose individual pieces of hardware, our remote sites which rely on connectivity back to the centralized hub don't lose connectivity. And that having architecture that's designed by Atomic Data gets us is the ability to sustain those losses without losing productivity."

Another benefit of the hardware upgrades and the new network configuration is that Presbyterian Homes & Services' communities now have, on average, seven times the bandwidth that they used to have. Communities stay up and running without connectivity losses. In fact, the tools that the nurses and staff use are more responsive than ever. These results mean that Presbyterian Homes & Services is able to provide even better service and care to residents continuously without interruption.

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Today, Presbyterian Homes & Services continues to provide great care at its communities. The staff is able to fulfill the commitment to providing care, in part because Presbyterian Homes & Services partnered with Atomic Data's design, and together they implemented, and executed an infrastructure upgrade project expertly tailored to Presbyterian Homes & Services' needs that fulfilled all its objectives.

"I genuinely have nothing but praise for all the Atomic Data employees who worked on this project. It went exceptionally smoothly because of these individuals' knowledge and hard work," said Nick.

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