Ferguson empowers remote workers to serve North America

ⵎ NetApp

With Azure NetApp Files and Windows Virtual Desktop from Microsoft, Ferguson expedites its cloud journey to enable a remote workforce of 14,000 in just one weekend, allowing the company to maintain its first-rate service levels during a crisis.

Ferguson is committed to creating the best customer experiences and keeping essential services operational
Ferguson raises the bar for industry standards as the top-rated and largest U.S. wholesale supplier of commercial and residential plumbing, lighting, and HVAC supplies. Customer satisfaction is the driving force behind everything Ferguson does. Headquartered in Newport News, Virginia, with more than 1,400 locations and over 26,000 expert associates across the United States, Ferguson is proud to provide world-class products and services to a customer base that is as vast and varied as its inventory.

Ferguson is more than just a provider of products. It is a trusted partner in communities and industries across North America. It's a company that connects people with both expertise and high-quality. For more than 65 years, Ferguson businesses have operated across a multitude of industries, working together to help build better infrastructure, better homes, and better businesses and driven by the desire to build a better nation.

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"The results with Azure NetApp Files have been amazing. Our users have never been able to get things done as quickly as they have been since integrating with Azure Cloud and Azure NetApp Files. We've been able to create an on-demand data strategy for our company as well as provide that speed and capability to our users throughout the country."

Scott Wright
Senior Cloud Architect, Ferguson

A behind-the-scenes ecosystem poised to support essential services

The pandemic has highlighted just how essential clean water and clean air are to our health. Doctors have recommended better ventilation and increased sanitation as important steps in combatting the spread of disease. Hospitals, nursing homes, businesses, schools, and private homes rely on basic infrastructure to function safely. Much of the time, we take running water and ventilation for granted in North America. It's not until the turn of the tap results in no water that we start to consider our dependency. Then we call a plumber.

But what if the plumber doesn't have access to what he or she needs?

There is an often-overlooked ecosystem and supply chain that supports businesses that support society: plumbing, waterworks, heating ventilation and air conditioning (HVAC), and pipes, valves, and fittings (PVF). PVF and HVAC components, as well as the specialists who install and repair them, are critical to fighting the spread of COVID-19, keeping essential services running, and operating our businesses and homes.

The products and services that Ferguson offers are the backbone of urban development and maintenance. People interact with products and services that Ferguson provides every day, often without realizing it. From water meters and water pipe infrastructure to HVAC and fire and fabrication, businesses and hospitals, and homes all rely on Ferguson.

For both homeowners and contractors, Ferguson must make transactions quick and efficient, and be strategic with real-time inventory calculations to ensure that the products their customers need are readily available. The inclination to continuously improve and create the ultimate customer experience is what led Ferguson to start its cloud journey.

"We've improved the experience for our supply chain, which translates into helping our customers and our contractors."

Scott Wright

Ferguson's cloud journey translates into an improved experience for users and customers
Ferguson's transition to the cloud has been rolling out over the past 3 years. When it began, they looked at the big three clouds – AWS, Google Cloud, and Azure. "We ultimately ended up as a Microsoft Azure shop," says Wright. "Which of course was just one question answered. For us, it was then about 'What can we do from a cloud native perspective? Where were those offerings? And how could we adopt things like SaaS, PaaS, and IaaS?'"

Seeking answers to their questions led the Ferguson team to explore Azure Data Lake and SQL Data Warehouse, and question how they could replicate some of their on-premises data from their current databases with tools like Attunity. From there, they used Power BI to make that data readily available to branches and their headquarters.

The data and analytics allow Ferguson to have a clear view of inventory, performance, and location availability, and to accurately evaluate how they can spread out the stock load and availability of component parts based on where they're needed throughout North America.

They are continually looking at new ways to innovate as well as how they can impact their associates, customers, vendors, and anyone they work with closely from an industrial perspective – right back to the homeowner.

When COVID-19 struck, Ferguson was ready to go remote in one weekend with Azure NetApp Files and Windows Virtual Desktop

"We looked at Windows Virtual Desktop and Azure NetApp Files, long before a lot of folks did, and paired the two. And that helped us with the COVID-19 impact. It put us out there, way in the front."
Scott Wright

Ferguson was already heavily invested in modernizing and simplifying its architecture. In 2019, they looked at Windows Virtual Desktop (WVD) as part of a private preview. "We were looking at it as a way to get off of our existing legacy virtual desktop infrastructure," says Wright. "That was our first introduction to Azure NetApp Files – through its potential with WVD."

In March, when COVID-19 first hit the United States, Ferguson could not risk disruption. Contractors on the ground and their supply chain needed to be equipped to meet critical infrastructure needs for hospitals and emergency services. Ferguson was forced to rapidly enable a remote workforce. "Organization-wide, that immediately impacted about 14,000 to 15,000 of our employees. But, as we were already well along on our cloud journey, we were well-poised in how we were going to handle a crisis," says Wright.

"Over the course of a weekend, between the cloud and our VPN solutions, we were able to accommodate between 14,000 and 15,000 employees to work out of the comfort of their own homes and provide our business with key initiatives and capabilities that ultimately allowed us to service our customers."
Scott Wright

Azure NetApp Files was a problem-solver for the Ferguson team with regard to how to move users into WVD, provide access to files, and move internal users (like the finance department and the natural disaster specialist) off of an existing VDI solution and create a cloud-native path solution. Now they can work from anywhere, on any device, and support customers in need.

The team put that data locality and the presentation layer together in the same region in Azure – a choice that paid off in dividends across the board. From there, they also looked at how Azure NetApp Files could help some of Ferguson's other use cases that have CAD and large renderings or drawings. The team asked, "How can we take that distributed

model we have today with DFS, and centralize it with something like Azure NetApp Files?"

"The big thing that was helpful was that we were ahead of the curve," says Wright. "We had already stood up Windows Virtual Desktop. We had already stood up Azure NetApp Files. It put us in a good position."

Ferguson executives expect that users are going to be working remotely for quite some time. Looking beyond the pandemic, Wright states, "The days of our users being required to be physically in an office, unless they need to deal directly with the customer, are probably something that's in the past for us."

That has made the company look at operational issues, such as bridging the gap between business continuity and disaster recovery. How can they make that data available, in multiple regions, by using replication and cloud sync to migrate from on premises into Azure?

Where can we go next, together?
Wright recognizes that "NetApp is playing a key role in how we are designing and distributing data throughout not only our on-premises environment, but also our cloud-based Azure environments and regions across the country."

The Ferguson team was so impressed with Azure NetApp Files performance capabilities and the Azure and NetApp® partnership that they've started to look for where else they can take advantage of it.

"The future looks very bright, between the work that we're doing today with Microsoft, and NetApp and Azure NetApp Files," says Wright. "We're looking at ways that we can push data to the edge with NetApp Global File Cache. We're looking at how we can utilize block-base replication, and how we can do things along the lines of business continuity and disaster recovery across our environments, making that data recoverable from region to region for our end users. Azure NetApp Files industry-leading capabilities allow us to pivot based on our business requirements and our customers' requirements – ultimately delivering best-of-breed solutions."
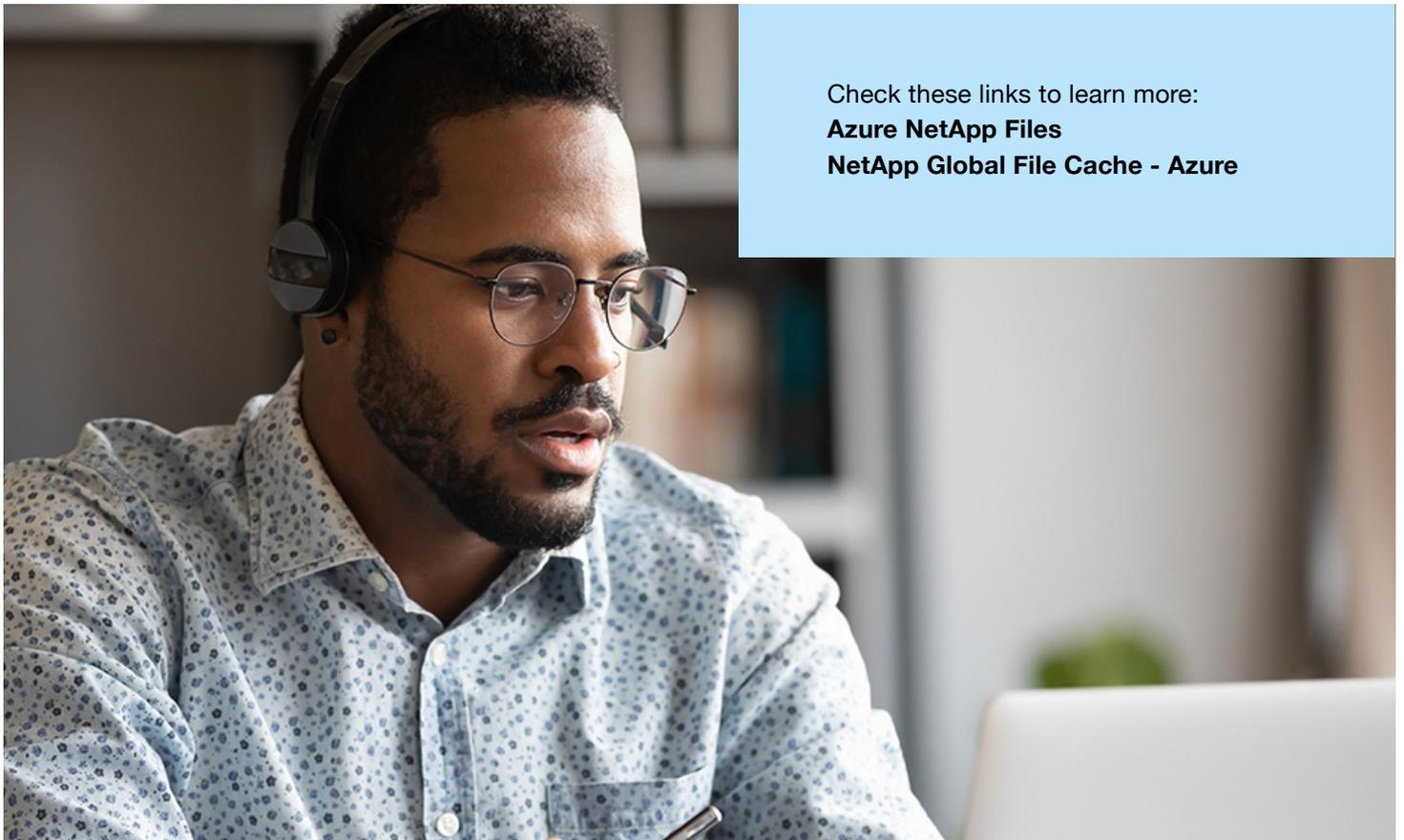
Azure NetApp Files is a first-party service, fully managed and supported by Microsoft, native in the Portal

"We'll continue looking at how Azure and NetApp can take us further, identifying ways we can get the data to the edge, and serving our customers and our associates simultaneously," says Wright.

Ferguson's goal is to be out of its data centers within the next two-and-a-half years and be a 100% cloud-based business. "Azure NetApp Files is a true PaaS offering, which gives us the capability to look at

what we've done on-premises with NetApp, and at how we can utilize Azure NetApp Files in the cloud for many other applications," says Wright. Azure NetApp Files is helping Ferguson forge an innovative path, creating more impactful and meaningful customer experiences – which is the reason Ferguson began its cloud journey in the first place.

Check these links to learn more:
Azure NetApp Files
NetApp Global File Cache - Azure

NetApp