citrix™

Rain for Rent

Citrix Cloud enables the future of business

Preparing the future of its business

Since 1934, Rain for Rent has been providing solutions for temporary liquid handling. It's a 1,400-person company, but when you look at the challenges the several-person IT team must manage, the scope is massive. Rain for Rent's business – which encompasses more than 65 locations in the US and Canada – required modern technology to manage a computing environment that spans the entire continent.

In locations scattered across North America, technology was aging, with many of the on-premises data centers having infrastructure exceeding five years old. Add to that the fact that although the company typically operates eight hours a day in its various time zones, servers still were running 24/7. That meant that for 12 hours a day, infrastructure was up and running but not actually in use. A third issue was that remote users were forced to access their apps using Virtual Private Networks (VPNs). VPNs do not fully mitigate the risk of remote access so security may have gaps.

One of the other issues that concerned the company was Bakersfield's frequent power outages. Rain for Rent has back-up generators, but having its headquarters situated in this part of California meant a lack of stable infrastructure from service providers. "There were lots of risks in Bakersfield. We really wanted to take these geographical limitations out of the equation," explains Mike Baron, CIO.

"We had another significant issue that had plagued us in our data center," he notes. "When we first thought about moving to Microsoft Office 365, we were rapidly consuming all of our processor memory and disk space," he adds. "Then we made the move and found that we had over-rotated in our hardware purchases – we had too much capacity. Purchasing hardware was a constant challenge and we needed to right-size," he concludes.

Industry
Water management

Location
US

Citrix products
- Citrix ADC
- Citrix Gateway
- Citrix Virtual Apps

Key Benefits
- Citrix Apps enables the company to securely offer access to users' apps and data regardless of time, network, device or work location
- Citrix ADC load balances Citrix Storefront traffic
- Citrix Gateway provides secure remote access for users outside the corporate network

Cloud migration was a problem-solving strategy

"Instead of replacing outdated hardware, we decided to move to the cloud," Ken McNeil, Director of IT infrastructure explains. "Citrix Virtual Apps was a necessary part of our strategy because we needed it to run our company's two-tier ERP system – an SQL back end/fat client front end solution. This provides real business value for us," he declares.

The team's vision was to transition on-premises Citrix Virtual Apps to run on Amazon Web Services (AWS). Citrix ADC and Citrix Gateway would round out the solution in the company's initial steps transitioning to the cloud.

One of the future benefits that the team sees in this approach is a fix for the problem of servers across North America that are running 24/7. As they perfect the environment, the transition to AWS – and adding Citrix Cloud – will automatically align the times when the technology is actually running to the work schedules of the various regions using it.

Citrix and AWS deliver benefits

The migration was completed at the beginning of March. That meant that the team was prepared for a work from home mandate because Citrix already was up and running in AWS. "We were able to scale up our solution very quickly with the architecture we had put in place," McNeil says. "Although we were at a point where we were still measuring capacity, it was very easy to accommodate extra users and we could make changes very quickly," he elaborates.

With the new solution, the team no longer has the worry of hardware gains. The use of AWS alleviates that problem.

Flexibility is another of the benefits the team appreciates. "If something changes tomorrow, we can rapidly adjust to that business driver or technical challenge," says McNeil. "With our current app portfolio, this is a distinct advantage for us."

IT team members at Rain for Rent have noted that they see a big shift on the horizon for the whole business environment. "The new paradigm of working from home is here to stay," McNeil notes. "Having a solution that is agile enough to support remote work and rapid change is going to be a business-critical requirement for all IT departments."

"Deploying Citrix Cloud should help us with cost control. Autoscaling the Citrix environment is a critical step that is necessary for us to meet our budget goals and show IT as an integral part of the corporate structure."

Ken McNeil
Director of IT infrastructure
Rain for Rent

Demographics impacted an on-premises Bakersfield headquarters location

"When we talk about knowledge, demographics and geography, it's getting harder and harder to find technologists in Bakersfield who have the right kind of skill sets to run a modern IT department," Baron states. "That is one of the reasons why we had to reach outside of Bakersfield and expand."

Rain for Rent technologists now live in Orange County and Long Beach, California as well as in other locations. Initially it was hard to envision expanding the scope of geography in which crucial IT people were located. That kind of scenario presented challenges with on-premises hardware," McNeil explains. "A scattered team meant that a smaller group of people had the burden of running in and fixing an on-premises hardware issue. That just wasn't feasible."

Some Rain for Rent technologists still reside in Bakersfield, but the company strategy is to move infrastructure management to a cloud provider. Soon there will be a strategy as to what to do about ancillary services.

Citrix Virtual Apps and Citrix ADC are part of the solution stack at Rain for Rent

Prior to the cloud initiative, the team already was running a crucial Citrix component, Citrix Virtual Apps. In addition, the hardware version of Citrix ADC was in use for on-premises load balancing. Having ADC as part of the mix was a strategic part of the team's vision.

In the Rain for Rent environment, the team has integrated the gateway services and load balancing by using Citrix ADC with Citrix Gateway. Citrix Gateway is used with Citrix StoreFront to provide secure remote access for users outside the corporate network; Citrix ADC also serves as a load balancer for Citrix Storefront traffic. Gateway is used for access and fail-over. It is the single point of failure elimination.

The Storefront servers are in different availability zones. ADCs are in a single availability zone, while the other infrastructure delivery controllers and Storefront are in a multi-availability zone to give them extra resiliency.

Many kinds of devices are used in the virtual environment. Off of the branch network, for the most part, laptops are the favorite. In home office environments, PCs, laptops and company laptops are prevalent. A variety of home computers is also popular among users as are phones or iPads.

In the Rain for Rent environment, thin clients in branch offices connect directly to Storefront and they too are load balanced with ADCs. ADCs are also leveraged for Okta because Citrix Cloud also is compatible with this strategy.

A range of 400-500 concurrent users now access Citrix in AWS. This represents an increase in users since the work from home mandate began.

Migrating meant starting over

As they migrated the environment, the Rain for Rent technologists built-out the Citrix infrastructure from scratch. They chose to stick with an on-premises model even though running in AWS, because they felt that adding another change to the dynamic would add risk to the whole project. They wanted to take time to look at various strategies and options as they gained experience with AWS.

Because of the Citrix partnership with AWS, Rain for Rent purchased its ADC licenses from the AWS Marketplace. They chose to leverage the Citrix ADC VPX solution in AWS and to wait a period of time before implementing Citrix Cloud. They did this because when the team did the assessment and design phase, they wanted as little impact to end users as possible. The team was able to maintain its URL name space with the strategy it chose. Had they deployed Citrix Cloud immediately, they would have to go with a cloud.com URL.

Costs go up and then they will go down

The Rain for Rent team planned for a rise in cost to accommodate the cloud deployment. Now, after the initial deployment, the technologists will shift to cost control mode as the environment is stable with infrastructure in AWS. They see autoscaling for cost control as the next business driver.

"Deploying Citrix Cloud should help us with cost control," McNeil notes. "Autoscaling the Citrix environment is a critical step that is necessary for us to meet our budget goals and show IT as an integral part of the company financial structure."

How the team made its choices

A great deal of thought and consideration went into the choices made by the Rain for Rent team:

The choice of AWS had a lot to do with the examination of existing skill sets. They looked openly and honestly at the market and AWS and the capabilities that came with it. They felt the chosen solution was a good fit and that it would set up Rain for Rent for growth opportunity.

The team wanted to partner with experts that had experience in dealing with companies of a similar size. With that in mind, they chose to partner with Insight, Citrix Enterprise Partner of the Year for 2018. As an international Value-Added Reseller (VAR), Insight specializes in – and is deeply skilled in implementing – Citrix virtualization and networking solutions. Insight helps clients capitalize on the capabilities Citrix technologies deliver.

To ensure the best possible result, Insight designed a methodology consisting of an Assessment Phase, a Remediation Phase, a Planning Phase and an Implementation Cut-Over Phase.

Along with selecting Insight, the team evaluated digital technology solutions and more partners. The combination of VMware and AWS was considered, but ultimately, due to the skill set that Rain for Rent had amassed and the existing proven legacy of Citrix technology, the team chose to implement Citrix with AWS.

There were some performance issues tied to the version of Citrix that Rain for Rent still had in its data center prior to the migration, but several factors helped in resolving them. The team instituted some initiatives to improve performance on-premises. What's more, the new cloud environment added another performance boost to that.

Rain for Rent is positioned for the future

With its new digital technology infrastructure, Rain for Rent is poised for work at any time, any place, on any device and across any network. Its business is temporary liquid handling solutions –pumps, tanks, filtration and spill containment – encompassing projects ranging from flood relief to construction site dewatering, sewer bypasses and industrial plant turnarounds. All of them will be enhanced by technology that enables remote work. As growth occurs, the cloud computing environment will support future initiatives and expansion.

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