
A case study in equitable educational access

By Logical Front with CRY-ROP

About CRY-ROP

CRY-ROP provides quality, hands-on career training programs in more than 40 high-demand career fields to assist high school students and adults in acquiring marketable job skills. Course content is validated by local business advisory committees, reflecting current industry standards, and approved by the ROP's Governing Board.

During the era of COVID-19, the question of accessibility became the forefront of educators everywhere. Logical Front turned out to be the missing link.

The challenge

As COVID-19 rippled across the country, lockdowns and remote learning became a necessary part of education. Physically going to the classroom became impossible. Of course, students still needed to learn. As a result, school districts and educational organizations rushed to find solutions.

One such organization was the Colton-Redlands-Yucaipa Regional Occupational Program (CRY-ROP). CRY-ROP focuses on creating engaging Career and Technical Education (CTE) courses for school districts to prepare students to be career-ready.

From the auto shop, metal shop, and woodshop to game design, animation, nursing, and criminal investigation, there's no shortage of options for districts aiming to level up their opportunities for students.

Yet, providing school districts and their teachers with the latest hardware and technology to teach these courses isn't easy. They require high-end computers and hardware to deliver the best experience.

At the same time, equal access to the necessary hardware and software did not exist for all students. This added to the complexity and magnitude of the already mounting problem.

"When the COVID-19 pandemic hit last year, around February or so of 2020, some of our lab teachers came to us and asked, 'Hey, we're doing distance learning now. How can students access the software in the lab?'" explained Ryan the computer network specialist at CRY-ROP. "You kind of start going through a list in your head of things that aren't secure like remote desktop and different options, and you're thinking, well, that's not going work."

According to Ryan, even though the organization had the means to develop an in-house solution, the size and speed that was required to do so was beyond their capabilities. As such, they required a 3rd-party solution to assist with remote learning.

The solution

About Logical Front

Founded In 2003, Logical Front continues to forge alliances with best-in-class offerings and Partners such as Dell and VMware to create integrated solutions for its clients. We offer cloud hosting, backup and recovery, desktop and server virtualization, with data storage, server hardware, network infrastructures, and end-user device management, alongside consulting, training, and support.

As the premier provider of complex information technology solutions, our mission is to provide the best possible end product for clients.

VDI and Some Quick Facts

Logical Front has successfully designed and deployed over 600,000 virtual desktops as part of its VDI solutions.

Their VDI solutions process begins with a consultative assessment to understand your architecture, business needs, and criteria to have a successful project.

For educational organizations, like CRY-ROP, finding the intersection between affordable and effective is one of the main points of consideration when it comes to choosing a partner.

At first, their search led them to big-tech players such as Amazon's AWS, Google, and Microsoft's Azure. All of these were deemed "very expensive" by Ryan and this team. So, they started looking elsewhere.

A specific need for the CRY-ROP team was the ability to split up graphic cards due to the high demand placed on the GPUs by the software the teachers and students used. Their solution also required the ability for students to run the software on Chromebooks. Both challenges were beyond the scope of their current solutions.

Many of the options that the team looked at lacked these abilities. It was only after they talked with VMware that they began to feel confident in a solution.

"[The VMware team] convinced us to go with [VMware Horizon], but I had no experience with VMware, zero experience other than running the free VMware player and I think a free version of the ESXi server for a couple of virtual servers" explained Ryan.

Though the VMware team was confident in their solution, they knew that deployment could be complicated. They recommended Logical Front since they had worked with Logical Front on numerous projects. They are aware that Logical Front has deployed almost one million virtual desktops and knew the Logical Front team could help CRY-ROP make this project a success.

The final solution included Dell servers, VMware Horizon software, and NVIDIA GRID hardware and software with focus on application delivery.

The result

As a result of working with Logical Front, CRY-ROP met its goal of creating an effective and affordable solution that both the teachers and students could utilize.

As stated earlier, equitable access to resources for the students was one of the primary goals CRY-ROP had when they set out to search for a solution. One way this was achieved was utilizing a more centralized solution for running the graphic-intensive computer programs needed.

By using virtual applications, students can now access graphic-intensive applications from any device. This in turn saves valuable computing resources, meaning

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You can always give us a ring at (801) 203-3141.

If you're more of an email person though you can reach out to us at info@logicalfront.com

“Whether it’s a datacenter migration, VDI refresh, or network configuration, we understand these processes are complicated. Don’t tackle them alone, our experts are here to answer your questions.”

students can use cheaper devices yet run the same high resource applications. This allows the districts that CRY-ROP supports to afford more equipment for their students.

Alexander O’ Brien is a teacher for Green Valley High School. He teaches animation and video design and could not have been happier with the result.

“I really think that the online desktop solution that we’ve implemented has helped out a tremendous lot. I mean a lot of these students don’t have access [at home] to the programs that we have in the computer labs, so being able to give them this has helped us dramatically,” Alex explained. “I mean, the whole beginning of everything when we first started doing distance learning, trying to come out with projects, especially animation and video game design, that they could do at home was very difficult to try and figure out how we could transfer our learning to something that they’re capable of doing at home.”

Not only did the students now have access to important software at home, but the extra resources meant interactive and hands-on teaching was now possible, despite being remote.

“It made a huge difference letting us be able to teach the class and lead because they can still see what we’re doing by sharing our screens through our meetings and looking at them.” Alexander continued, “plus with the remote system, I’m able to still access their files as their teacher to see if they’re stuck on something, and I can see how to help them out.”

There are other benefits highlighted by Ryan and Alexander. One benefit is the clone feature. The clone feature allowed CRY-ROP to change something on one machine, schedule maintenance, and then have that change reflect on all virtual machines. “It’s just really easy”, stated Ryan. Another benefit is being able to pick up right where they left off if the devices dies or if they are disconnected. A final benefit is how easy to use the solution has been. It has been so simple even K-12 students and busy faculty could figure it out with little to no training.

Looking towards the future Ryan, Alexander, and the CRY-ROP team all expect the solution that came as a result of working with Logical Front to provide teachers with the best means to teach students engaging and life-changing skills. This is happening while giving the students equitable access to a better future ahead.