

Parallels® Server for Mac

Customer Success Story

Business Challenge

The Oregon City School District is dedicated to providing its more than 8,300 students within its 16-building K-12 school system with an actively engaging education focused on each student's individual learning goals. To provide this progressive approach, district officials work diligently through partnerships with the community at every level to secure financial resources and educational opportunities for its schools and students.

With so much emphasis on providing an individualized education that infuses technology into curriculum, the Oregon City School District found itself with a legacy server and storage infrastructure in desperate need of an overhaul. According to District Technology Coordinator Micah Baker, "We had over 40 aging servers in production use, most of which were out of warranty."

These out-of-date servers needed to be replaced; however, the school district simply did not have the funds to continue its traditional server environment model of one machine for one server application. New, more powerful hardware was required to replace the existing legacy machines. New buildings were needed to house the new hardware and to provide IT staff onsite access, and those new facilities would require a new heating, ventilation and air conditioning (HVAC) system. Bandwidth and power consumption would increase, and new data protection plans would need to be developed and implemented. In addition to the hard costs, implementation and training on the new server environment would take precious time.

Further compounding the problem was the school district's heterogeneous environment of Apple Xserves running Mac OS X Leopard Server and PC hardware hosting a wide variety of Windows server applications, including Microsoft Windows Server 2008, Microsoft SQL Server and Microsoft Exchange. Building a new server environment that accommodated both platforms and their varied workloads was going to consume valuable IT budget, time and resources.

Maximizing IT resources was especially critical as the school district was on the verge of launching its 1:1 computing initiative to equip each of its students with an Apple MacBook. Enabling students to access educational podcasts and take their laptops home would extend learning hours and create stronger relationships between teachers, students and parents. Resources that the new server environment consumed were resources that could otherwise provide students with these valuable modern educational tools.

The Oregon City School District needed a flexible, cost-effective new server environment that accommodated its variety of OSs and hardware platforms, maximized its critical IT resources and enabled the school district to focus its efforts on empowering its students to reach their educational goals. To find this solution, Baker looked to the same virtualization technology on which the school district already relied.

Solution

The Oregon City School District had already widely and successfully deployed Parallels Desktop for Mac and when Parallels Server for Mac was announced in January, 2008, Baker immediately explored it as a possible solution. "Parallels Desktop has been our standard virtualization technology for Mac desktops and laptops ever since it came out," declared Baker. "As soon as I heard about the Parallels Server for Mac beta program, I requested to get in on it."



Fast Facts

- **Company:** Oregon City School District
- **Industry:** Education
- **Location:** Oregon City, Oregon
- **Website:** www.orecity.k12.or.us

Parallels Server for Mac, the world's first server virtualization solution for the Mac OS X Leopard Server platform, enables users to run leading Windows, Linux and Mac OS X Leopard server applications in virtual machines on the Apple Xserve. Having participated in the Parallels Server for Mac beta program from its beginning all the way through until Parallels Server for Mac was officially released to the public, Baker "was convinced that Parallels Server for Mac could save us from our predicament as well as position us for lower costs in the future."

Cost Savings through Consolidation

Parallels Server for Mac enabled the school district to move many of its Windows server applications, including its Windows Server 2008, SQL and Exchange services, to virtual machines on its Apple Xserves. In total, the school district consolidated 44 physical servers onto just 15 instead of replacing all of its legacy hardware with new hardware.

Now the reduced amount of hardware requires fewer resources and leaves a smaller footprint, yet each virtual machine maintains each critical service as if it was on its own native hardware. For example, just one of the school district's Apple Xserves now hosts virtual machines that run Windows Server 2008 x64 print services, two Windows Server 2008 x64 domain controllers, Microsoft SQL Server 2008 x64 running on Windows Server 2008 x64, Microsoft Windows Software Update Server, DHCP, an antivirus server a Windows Server 2008 x64 terminal server. One Apple Xserve running Mac OS X Leopard Server host up to seven individual virtualized servers and their workloads. That's less hardware and less power for the same server applications and the same workloads.

Not only that, but because Parallels Server for Mac supports running Mac OS X Leopard Server in a virtual machine, the school district has also moved its Leopard Server services such as its Wiki, Web and Mac Updates to virtual machines on its Apple Xserves for additional consolidation and hardware savings. "It also gave us the opportunity to consolidate our workloads and allocate more resources to those services," said Baker. With specific workloads virtualized onto specific physical machines, IT administrators were then able to allocate bandwidth to specific tasks and specific IT needs such as assigning a particular group of administrators the Wiki responsibilities on a Mac OS X Leopard Server virtual machine.

With many of the server applications and workloads now on virtual machines, IT administrators no longer need onsite access to the physical servers. That coupled with deployment of gigabit fiber links between sites enabled the school district to move its 15 servers offsite to a colocation datacenter that was designed and equipped specifically to house, power and support critical server hardware. As a result, the school district was spared the expense of building, powering and maintaining its own server facility and has even seen an increase in service quality because its server hardware is now protected by industrial battery backups and air conditioning systems.

Deployment

Parallels Server for Mac has saved the Oregon City School District more than hardware, energy and facility costs. The school district's server and application deployment process has been streamlined to 5x faster and more efficient through its new virtualized server environment. Previously, IT administrators had to manually create cloning images on a single, older physical Windows XP machine. With Parallels Server for Mac, IT administrators create a baseline Windows XP virtual image, test it, modify it and deploy it to new machines via the network and simply use Microsoft's System Preparation Tool (Sysprep) to manage the virtualized XP image. Administrators now only need to maintain the single, customized virtual image instead of a physical PC machine. This has resulted in the ability to update a cloning image in less than three hours from a couple of days.

"Parallels Server for Mac cut our overall IT expenses by nearly 60%. We can now use these savings to focus on giving every child access to an Apple MacBook and other technologies which will enable the next evolution of education for our students."

— Micah Baker,
District Technology Coordinator

Management

Parallels Server for Mac has also made server management easier, faster and more efficient through complete, remote access to the new virtual landscape. The school district's IT administrators no longer need onsite access to a variety of physical servers; they now access and manage their virtualized Windows/Mac IT infrastructure – Exchange, Wiki, Mac Updates and all – right from their desktops. "Parallels Server for Mac provided a solution that lets us manage all our environments from a single console, and rebooting a virtual server takes a fraction of the time a physical server does." exclaimed Baker.

IT administrators also now use Parallels Server for Mac to quickly and easily set up virtual test labs to evaluate patches, applications and configurations before launching them into the production environment, increasing IT efficiency, almost eliminating downtime and further reducing IT costs.

Data Protection

Implementing the new virtualized server environment has been easier and more cost-effective than replacing the school district's traditional server environment. So has protecting it. With most of its server applications and workloads now on virtual machines, IT administrators quickly and easily create snapshots of the virtual servers and store them to a SAN. If necessary, they can quickly load each snapshot to a new virtual machine and restore services in much less time it would otherwise take.

Conclusion

By deploying Parallels Server for Mac to consolidate its 44 mixed-OS servers onto just 15, the Oregon City School District updated its server environment for a fraction of the cost it originally faced to replace its entire traditional physical IT infrastructure. It has streamlined its essential IT administrative tasks and ensured the safety and quick recovery of its new virtual landscape. Parallels Server for Mac has put the Oregon City School District on track to cut IT expenses by 60% over the next 3 years. Every bit of the 60% savings will now be put towards equipping each student with an Apple laptop. Parallels Server for Mac has given the Oregon City School District exactly what it needed – a reliable, up-to-date server environment and the IT resources needed to empower schools and students.

Learn more at <http://www.parallels.com/en/server/mac/>



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