

Delivering New Building Blocks for Construction Faster with HP Client Virtualization

Shifting the heavy lifting from the desktop to the data center helps employees reclaim 750 hours per week.



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Patrick E. Belding, general manager and chief financial officer, Willamette Graystone

Objective

Eliminate network bottlenecks while limiting major client-side hardware upgrades

Approach

Willamette Graystone leveraged the HP Virtual Desktop Infrastructure (VDI), including HP ProLiant, HP BladeSystem, and HP StorageWorks SAN solutions, and the services of Opus Interactive, to virtualize its desktop environment and speed performance as well as deployment.

IT improvements

- 2x faster login times
- 25 days of downtime per year eliminated
- Life of existing desktops extended
- 4x faster deployment of new desktops (4 hours vs. days)

Business benefits

- Reclaims 750 hours of employee productivity per week
- Delivers \$75,000 hardware savings by extending refresh cycle
- Eliminates need for expensive, high-bandwidth connections
- Creates a reliable, repeatable deployment model for future growth



Constructing a boom

There was more happening in the U.S. after World War II than Elvis Presley, hamburger joints, and big-finned American cars. The postwar era's rapid population expansion led to a massive need for increased housing.

Making the raw materials to fuel housing growth was a booming business. It's how Willamette Graystone began life.

Manufacturing concrete blocks on the Willamette River in Eugene, Oregon, since 1946, the business helped provide the housing stock that made the great suburban dream of the 1950s and '60s possible in the Pacific Northwest.

Willamette Graystone has since grown its business presence as well as its product offerings—now manufacturing everything from concrete masonry units (CMU) to interlocking pavers to retaining wall. The business also resells tools, cultured stone, natural stone, and glass blocks—and today operates more than 10 Pacific Northwest locations.

HP customer case study:
HP client virtualization

Industry: manufacturing



New building blocks

In order to tie its various sales and manufacturing locations to a single data center, the business was relying on frame-relay and other connectivity solutions from local telecommunications companies, which weren't always offering the kind of reliability a business needed. "Their different locations are all geographically dispersed, so one office might have cable, another might have DSL, and they ended up with a wide variety of telcos providing whatever level of service they offer," says Jeremy Sherwood, vice president of sales and operations for hosting company Opus Interactive, an HP partner organization.

The solution was creating a bottleneck for Willamette Graystone. Using thin clients powered by a local server at each location, each branch office sent data back to the main data center. "They had all their data going through a 256 KB pipe, which included their Internet access," Sherwood recalls. "It was very slow ... when it worked."

When it didn't work, it meant a single outage at the main data center could bring the whole company down. "Their corporate office was located in a part of town where you'd have a lot of power interruption because of construction, so their connectivity lines

would get cut," Sherwood says. "So the whole company would go down and they'd have to go back to paper and pencil, and write out invoices by hand just because they had no other option."

With business booming again in the second decade of the new millennium, Willamette Graystone is looking at opening new locations in the near future. The business knew it needed not just a reliable IT solution, but a template for new environments that would be repeatable and quick to deploy. "They do an incredible job making concrete masonry products," Sherwood relates. "They're a smart company that's privately owned and is looking to grow and improve—the last thing they want to do is get into the IT business."

Branching out

So Willamette Graystone contracted with Opus Interactive to design and host a solution that would leverage server-powered thin clients over its various consumer Internet connections, but offer the speed and processing power of a big-business enterprise solution.

For Willamette Graystone, it meant receiving the benefit of Opus Interactive's virtualized HP data center powered by HP ProLiant BL460c server blades



Company profile

About Opus Interactive

Opus Interactive is an IT solutions provider in Portland, Oregon that began life as a Web hosting company. As it continued to grow and broadcast its new capabilities, more and more businesses started relying on its expertise for a larger suite of IT solutions. Opus Interactive recently helped Northwest manufacturer Willamette Graystone transform its entire IT environment with HP client virtualization solutions.

in HP BladeSystem c7000 Enclosures with storage via HP StorageWorks P4000 SAN solutions. The HP hardware is powering Willamette Graystone's virtual desktops with a combination of VMware vSphere 4 and Microsoft® Hyper-V software.

With the HP solution driving the thin clients behind the scenes, network reliability and speed have increased dramatically. "The beauty of it is that all the heavy lifting—all the actual computation and all the actual documents—is happening in our data center with HP client virtualization solutions on ProLiant servers and StorageWorks storage on our virtualization platform. There's no data actually being moved," Sherwood explains. "The only things really happening at the end users' machines are cursor moves and screen refreshes."

Saving \$75,000 in desktop refresh

Because the solution makes use of not just the offices' standard DSL and cable connections, but also the same desktop computers that its 60-plus end users are already using, Willamette Graystone was able to achieve its network reliability and speed targets while avoiding companywide desktop upgrades.

"With HP client virtualization being delivered by HP ProLiant servers, Willamette Graystone saved about \$75,000 in hardware savings at its 10 locations and extended the life of their current desktops for another three years," Sherwood says.

Reclaiming 750 hours per week

With the company's previous network model, when the offices were sending data over their various 256 KB DSL and cable connections, simple tasks such as logging in or checking email were consuming valuable employee productivity. "Any given day, each employee might have spent up to an hour over the course of a day just trying to get into the system," Sherwood relates. "Because there was such a login bottleneck, employees started creating workarounds which actually took more time and cost more money to operate."

Now that HP servers and storage are doing the heavy lifting for Willamette Graystone's 150 thin clients, employees at all of the business locations are experiencing faster network response and near-instant login times. "Now that we're no longer sending data across the connections, employees are logged in almost instantly, helping Willamette Graystone to reclaim about 750 hours each week," Sherwood says.

Avoiding five weeks of downtime per year

Now that the thin clients at Willamette Graystone's locations are mapping back to the data center at Opus Interactive instead of the company's own, outages have less impact and reliability has grown. "Out of the 10 branch offices, probably one would go down every couple days," Sherwood recalls. "But more importantly, when the corporate office went down, it would take out the whole company—all the branches' connectivity would go out."

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It was happening at least twice a month, causing all the company's end users to lose access to their services. "Each time the main data center went down, the whole business could be down for one or more days," Sherwood recalls. "Now, the company can survive an outage locally without bringing business to a halt. Client virtualization from HP is saving Willamette Graystone at least 25 days of downtime each year."

A light-bulb experience

As Willamette Graystone opens more locations over the next two years, its owners know the client virtualization solution they created with Opus Interactive is exportable and repeatable. From the perspective of new deployments, it makes growth less of a headache.

Willamette Graystone now can deploy HP solutions to new locations or new users in a matter of hours, not days or weeks. "Our investment in HP servers and virtualization technology coupled with our partnership with Opus Interactive as our IT technology advisor allows us to focus on our customers, our employees, and our key business processes," explains Patrick E. Belding, general manager and chief financial officer for Willamette Graystone.

Sherwood agrees. "The way their CFO looks at this, every thin client, every desktop or laptop employees are using is like a light bulb. There's no local data on them, so if one breaks, you just plug in a new one."

Virtualizing its desktops will also help limit business risk as Willamette Graystone continues to grow in the future. "Because proprietary assets, billing information, and credit card transactions—all the data that's essential to business—is no longer local, it can't be obtained maliciously from any of the locations," Sherwood says. "It's all back at our data center, where it's housed in an extremely safe, extremely redundant, and extremely powerful environment."

Customer solution at a glance

Hardware

- HP ProLiant BL460c server blades
- HP BladeSystem c7000 Enclosure
- HP StorageWorks P4000 SAN
- HP t5540 and t5510 Thin Clients

Software

- HP StorageWorks P4000 Virtual SAN Appliance Software
- HP Insight Control
- VMware vSphere 4
- Microsoft Hyper-V

Operating system

- Microsoft Windows® Server 2008

Leveraging HP client virtualization through HP Partner Opus Interactive ultimately gives the growing company an enterprise solution it could never afford to build for itself. "It's a brilliant move for Willamette Graystone," Sherwood relates. "They're legally mitigating their risk of data theft, exposure, or loss—and they're saving money doing it."

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