Case study

Branching out with hosted desktops

Jordan Ahli Bank lowers TCO and gains simplicity in move to HP ConvergedSystem 100 for Hosted Desktops

Industry
Finance

Objective
Advance delivery of desktops to bank branch offices to provide increased uptime, lower TCO, and simplified management

Approach
Engage with HP Labs and technology partner SMS to deploy hundreds of hosted desktops via HP ConvergedSystem 100, including HP Moonshot 1500 Chassis and HP ProLiant m700 Servers

IT matters
- Deploys 90% faster than traditional VDI architecture, speeding time to value
- Eliminates site visits for hardware failure, reclaiming valuable application development time
- Drives out complexity, cabling, storage networks, and minimizes data center footprint

Business matters
- Performs flawlessly with branch software and peripherals where other VDI solutions didn't
- Lowers TCO 44% by minimizing hardware and extending the life of endpoints twofold
- Maximizes bank uptime by allowing branch employees to perform quick fixes

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– Waleed Qassem, CTO, Jordan Ahli Bank

An early innovator in the financial landscape the kingdom, Jordan Ahli Bank began life in 1955 with an initial capital investment of 350,000 Jordanian Dinar. Staying ahead of the game has kept the bank on the leading edge of the financial world in Jordan. It's a philosophy that extends to its technology investments as well. Jordan Ahli Bank recently embarked on a desktop centralization project, and chose HP Moonshot solutions to deliver uncompromised performance and connectivity at its branch banks.

The innovator's advantage

Seeing new opportunities before the rest of the crowd is a kind of intelligence that rewards the bold, and leaves the timid scrambling for the next big idea. When founders Yousef Mouasher and Suleiman Sukkar founded Jordan Ahli Bank in 1955, it was the first bank to be founded in East Jordan.

It soon became just the sixth public shareholding company to be established in the kingdom. The institution has since become a leading Jordanian institution steeped in both national history and heritage. Today, the bank boasts presences in Lebanon, Palestine, and Cyprus.

Keeping with its tradition of forward thinking, the bank's IT department undertook a server virtualization project in 2010 to reduce its data center footprint, save energy, and ultimately streamline its operations.

Staying ahead of the curve

The project got the bank thinking about virtualizing its desktop environment. Surely if the savings and management benefits of server virtualization could be applied to end users in the bank's many branches, it would be a company-wide win.

"We loved the idea of desktop virtualization, and bringing that kind of flexibility and reliability to our remote branch locations," remembers Waleed Qassem, CTO of Jordan Ahli Bank. "But the reality of getting that solution to do what we wanted it to do was more complicated than it appeared."

Recently, Qassem and his IT team began looking at building a desktop virtualization environment on industry-standard servers and software solutions from Microsoft and VMware. "At first, it looked like it might make sense from a management, cost, and support perspective," Qassem relates.

Waiting for technology to catch up

So the team put together a small proof of concept based on delivering desktops to two dual quad-core branch workstations. But there were problems. "First, the desktops were hogging all of the CPU on the servers, and we couldn't see how this would really scale out in our environment," Qassem recalls.

Also at issue was connectivity at the branch offices. "These branch desktops are all customer-service related. All the apps and the peripherals on these machines have to work, or we're going to have unhappy customers," Qassem says.

Since each of the machines has a check scanner, a printer, and a barcode reader and maybe a document scanner attached, the need for peripherals to integrate with the virtual desktop environment is key. "No matter what we tried, we just couldn't get the peripherals to work," Qassem recalls.

Hope on the horizon

Around this time, the bank's technology partner SMS (Scientific and Medical Systems) introduced Qassem and team to the idea of hosted desktops using HP Moonshot Systems, which provide dedicated—instead of shared—resources from the data center to the desktop. "It seemed like an interesting idea, given our experience with the traditional method of virtualizing desktops," Qassem says.

Next, an HP sales representative arranged a remote proof of concept in conjunction with HP Labs in Europe. "We connected remotely and performed the full test on our branch desktops with all our apps, all our peripherals, and had no performance issues. It all just worked," explains Qassem.

Qassem was especially impressed with the quality of the graphics on the hosted desktop machines. "You might not think of graphics as

being a high priority for a financial institution, but when you rely on high resolution imagery for important jobs like signature verification and viewing check images, you can't really be without it," Qassem says.

Dedicated resources to the rescue

Ultimately, Jordan Ahli Bank decided to pursue the remote delivery of its branch desktops using a hosted desktop architecture based on HP Moonshot. "The solution was evaluated against traditional VDI solutions, and the proof of concept showed that HP Moonshot outranged traditional VDI solutions in all aspects—mainly because it allocates dedicated hardware resources (CPU, RAM, GPU, SSD storage, and Ethernet networking) on a per-user basis instead of shared resource allocation," Qassem explains.

Based on the HP ProLiant m700 Server and the HP Moonshot 1500 Chassis, the HP ConvergedSystem 100 for Hosted Desktops bundles Citrix XenDesktop in a turnkey solution to deliver 180 desktops in a single HP Moonshot Chassis.

With four AMD Opteron X2150 processors (each with 8 GB RAM), 64 GB available onboard SSD storage, integrated AMD Radeon HD 8000 Series Graphics GPU, and a dual-port Gb network interface controller, each ProLiant m700 offers plenty of dedicated resources to end users.

Small footprint, huge impact

Besides being the right-sized technology for the task at hand, the Moonshot solution is already providing other tangible improvements over competing VDI solutions as well as Ahli Bank's previous desktop environment.

Deploying hosted desktops with HP Moonshot was quick and smooth—up to 90% faster than installing a traditional VDI architecture. "It didn't take us long to physically get it going," Qassem recalls. "We didn't need a dedicated storage network, so that was easy—it's all running off of local storage on each m700 server—and we didn't need to introduce a bunch of new cabling or network switches, because these Moonshot servers are network equipped. We just got our Microsoft Windows desktop images deployed over Citrix for remote access, and we were up and running."

Self-sufficient branches

From an IT administrator's perspective, the bank's branch offices just became self-sufficient. "It used to be a big deal if a branch desktop failed in some way," Qassem says. "For us in the data center, it used to mean sending a technician out on the road to make a site visit, which could take hours. And during the assessment and repair process, the branch is down one terminal, which affects customer service."

With hosted desktops, the IT team can see if there's a problem and fix software and network issues remotely. And if there is a physical problem with one of the monitors or workstations, there's a simpler way to fix that too. "We keep spares at each of the branches, and if there's a hardware issue, a branch employee just plugs in a new unit," Qassem explains. "We're saving precious IT staff time for more valuable projects, such as application development, while also maximizing branch uptime."

Even software updates and service pack updates have been simplified. "Instead of sending techs out to the site to manually update desktops, we're able to deliver those over the network in a fraction of the time it used to take," Qassem relates.

Customer at a glance

HP ConvergedSystem 100 Hardware
- HP Moonshot 1500 Chassis
- HP ProLiant Moonshot m700 Servers

HP Partner
- SMS (Scientific and Medical Systems)

Software
- Citrix XenDesktop
- Microsoft Windows

Slim and simple for the future

The move to hosted desktops is also saving the bank's resources by lowering TCO approximately 44%. "If you think about replacing end-user desktops every three years, that adds up," Qassem says. "With hosted desktops, we've basically doubled the life of every branch endpoint by bypassing multiple points of failure within each machine."

Eventually Qassem wants to move to the use of ultra-thin zero clients at the endpoint to further extend the flexibility and scalability of his branch desktop model. "With zero clients, you've basically removed anything that could fail within several years," Qassem says. "With no hard drive and no power supply, you're literally getting everything you need, including power, over the network."

Today, the bank has 120 users relying on the hosted desktop solution, and the future has more innovation in store. "We're looking at sizing our hosted desktop environment for 700 users within the year, which sounds like a lot, but it's all going to run off of four HP Moonshot chassis," Qassem says. "It would take 70 industry standard servers to give us that kind of performance, and it still couldn't match the integration we're seeing in HP ConvergedSystem 100."

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