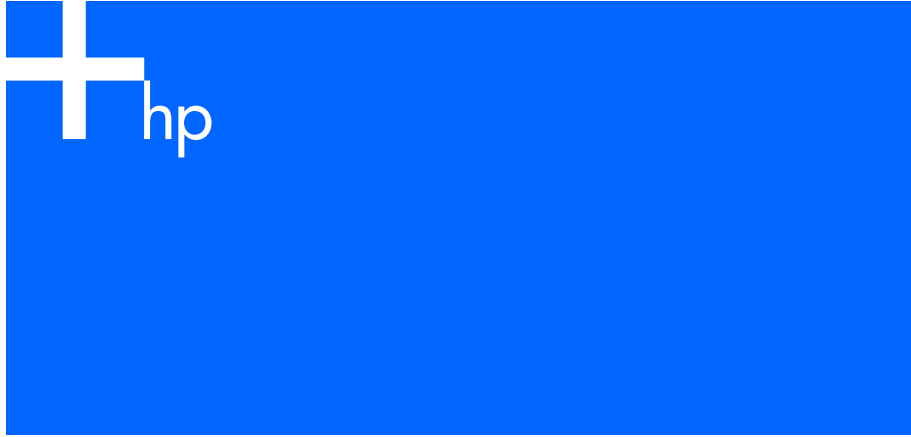# Sunrise Health Region discovers HP servers and management tools are just what the doctor ordered.

Sunrise Health Region

"HP has helped us build one of the best IT environments for health care in Saskatchewan."

– Director of Information Technology, Butch Albrecht

Executive summary:

Canada's health care is publicly funded and the provinces are divided into different health care entities. Prior to 2002, the province of Saskatchewan was divided into several districts. In the summer of that year, the province elected to reorganize the many districts into larger regions in order to improve the continuum of care. Sunrise Health Region was formed by combining three separate districts, each with its own IT infrastructure. The organization needed to efficiently migrate all the different IT environments to one platform, as well as create a central data center. As if that wasn't a big enough challenge, Sunrise Health Region, a public entity funded by the provincial government, has rigid cost constraints affecting every facet of the business.

After weighing different proposals from several technology companies, Sunrise decided on a solution that initially included HP ML350 and ML310 servers. Since then, Sunrise has begun converting to the HP ProLiant DL360 and DL380 servers for their central data center. Butch Albrecht, Director of Information Technology, and his staff take full advantage of HP Systems Insight Manager (SIM) to manage the environment. In fact, the organization utilizes HP throughout their entire infrastructure, including HP workstations, cameras, printers, scanners and network gear. With HP's help, the organization's IT department has transformed a mixed bag of servers and systems into what Albrecht described as "one of the best IT environments for health care in the province of Saskatchewan."

The challenge: a coordinated, synergistic IT environment

Sunrise Health Region is made up of six hospitals, 14 long-term care facilities and a number of community health centers and clinics. The IT department has eight people serving 2700 employees. Given the limited financial and labor resources, managing the entire IT environment would be a tall order even if everyone in the system were actually on the same system. Albrecht discusses some of the issues his team faced:

- **"It was a very scary situation to take charge of since management was so difficult."** When Albrecht and his staff inherited the environment, there was no monitoring of the servers. Nothing was in place to evaluate disk space utilization or CPU utilization. Most of the equipment was very old. Drivers and security patches were in desperate need of updates. "We were constantly having to put out fires, and we could only get to the big ones," Albrecht said. "It was triage."

- **"The server environment was helter skelter and each of the districts had their own separate applications."** While Sunrise did have some HP servers, company-wide they were making the most of a hodge-podge collection of different units from a variety of different technology companies. They were even using generic workstation grade boxes as makeshift servers to run some applications. Certainly, in those cases, performance was poor and stability was non-existent.

- **"We lost a server in one of the old districts and were without financials for more than two weeks."** Prior to the reorganization and migration to HP, a minor problem could escalate into a major crisis. One server went down and the financial system for an entire district was gone: no billing, no invoices, and no accounts receivable. Albrecht describes the recovery process: "We found some old backup tapes and some old software and patched together some old hardware to run it on. We used the older hardware because the software was so old it wouldn't run on newer hardware."

- **"Server reliability was affecting the way our physicians could do their jobs."** Dictation is used by physicians to record the activities of a patient visit and is then transcribed into the permanent health record. One day a server hosting that application failed. The box was not a business class solution, so it was virtually impossible to find a replacement component.

The solution and success: central data center and unified server platform across organization

Sunrise Health Region was utilizing some HP servers within the organization, so a relationship with HP had been established. The strong support HP had been providing played a big role in winning this significant migration project. "HP went the extra mile," said Albrecht, who happens to be a former employee of a rival technology company. We're out in the middle of nowhere, two hours from the nearest airport. Yet when we needed it, HP was giving us next-day support. We just weren't getting the same kind of service from the other technology partners. When it came time for the full migration, we sent a request for proposal to all three major players. HP's proposal was by far the most thorough and informative." Albrecht discussed some of the results:

- **"Thanks to HP SIM, management of our server environment is a far cry from what it was a few years ago."** If Sunrise experiences a hard drive failure at one of the remote sites or at the data center, the IT department knows about it immediately. "We have on more than one occasion had SIM send an email alert that I had a pending hard disk drive failure," said Albrecht. "We were able to respond immediately to that message, investigate the issue, replace the drive and have it rebuild the RAID over night, without a single second of downtime. Had we not had the HP tools to alert us, the drive would have kept spinning until it did fail – probably in the middle of the day – and would have caused down time for our users. That, to us, is the true value of HP."

- **"The other thing that HP SIM's version control repository does for us is that it allows us to create scheduled tasks."** Yvonne Bueckert, IT administrator, used to spend significant time searching for BIOS updates, firmware updates, driver updates etc. "I would schedule downtime to go in – usually after hours – drive to the site, stick in a floppy drive, and do the updates," Bueckert said. "Sometimes the updates just didn't get done, which presents its own set of risks and costs. I used to spend weeks getting the servers up to date, only to start the cycle over again. Now I have Systems Insight Manager setup to automatically search for, and then download, the updates for our servers. Then I can schedule the updates to be pushed and schedule a server reboot during a maintenance window. I can now do in 30 minutes what used to take several days, and I rarely put in overtime for updates anymore."

- **"With the HP ProLiant servers, deployment is much faster and easier. We save a day's labor per server."** Since the IT staff is small and provincial funds are so limited, every man-hour saved is critical. Since committing to the HP ProLiant servers Albrecht's team has cut deployment time in half.

- **"HP Integrated Lights Out (iLO) technology is saving us significant time and money."** The Sunrise IT team makes good use of the HP iLO, saving them travel time and overtime according to Bueckert. "If I get a red flag, I don't have to drive an hour to the location. In fact, I can often take care of matters from home."

- **"Before we centralized and standardized our servers, we literally lived in fear of the next crash."** The HP ProLiant server line has provided Sunrise Health Region a stable, reliable and scalable solution. "For the 2005 calendar year, the HP ProLiant servers provided the region 99.99% uptime," Albrecht said. The ProLiant solution allows for built-in redundancy at the core components: power, network, cooling, drives, and memory. Even if a hardware failure occurs, as long as it doesn't take you down the end user is not affected. That's a big deal because as a health region, we're a 24/7 shop. We absolutely must make sure the clinical data and communication systems are solid."

- **"We have much better results working with our clinical reporting software now that it's on HP ProLiant servers."** Clinical reporting software is used by people in health records to generate reports on visit volumes, types of visits, types of diagnoses, demographics, and diagnostic coding. The information is used to establish health trends and do analyses. Since moving this software to the HP ProLiant servers, performance is way up, and we don't have our user base calling daily with complaints.

- **"HP ProLiant servers make sense on our bottom line as well."** Sunrise is funded by the provincial government and cost constraints affect everything, from staffing to equipment to maintenance. According to Bueckert, HP's solution meets their performance and reliability demands without breaking their budget. "For example, we really like the HP ProLiant DL360 server," she says. "With a 1U design and redundancy available for power, network and drives, the DL360 is a cost-effective, space-saving solution for us."

About Sunrise Health Region

Sunrise Health Region of Saskatchewan provides services at six hospital facilities with 185 acute care beds. Also 14 long-term care facilities, located in all major communities in the region, provide approximately 878 beds for residents. The region, serving a population of roughly 60,000, extends from the Qu'Appelle Valley in the south to the edge of the northern boreal forest, and from the Manitoba border west into the farmlands of the Saskatchewan prairies. The major care facility in the region is the Yorkton Regional Health Center, which is also home of the IT department.

Challenges

- Build a central data center

- Develop a unified server platform across entire organization

- Deploy servers quicker

- Develop more efficient utilization of IT staff

- Improve network performance and reliability

Solution

- Hardware:

  For data center
  - 6 HP ProLiant ML310 G1 servers
  - 1 HP ProLiant ML350 G1 server
  - 1 HP ProLiant ML330 G3 server
  - 1 HP ProLiant ML350 G2 server
  - 4 HP ProLiant ML350 G3 servers
  - 2 HP ProLiant ML370 G2 servers
  - 5 HP ProLiant ML370 G3 servers
  - 2 HP ProLiant DL360 G4 servers
  - 2 HP ProLiant DL380 G4 servers

  For remote sites
  - HP ProLiant ML310 servers

- Software:

  - HP Systems Insight Manager (SIM)
  - HP Integrated Lights Out (iLO)

Results

Simplicity

- A central data center and system-wide platform for the entire organization

- Server deployment time cut in half

- Updates handled more efficiently. Formerly a two-day job, now just 30 minutes

Agility

- Gained remote management capability

- Increased reliability and performance for critical software applications, both administrative and medical

Value

- Increased productivity and reduced overtime for IT staff

- Premier telemedicine system

This customers results depended upon its unique business and IT environment, the way it used HP products and services and other IT factors. These results may not be typical; your results may vary.

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