

SUCCESS STORY

Perfit Computer Systems Group Inc.

CHALLENGE

Help Perfit Computer Systems Group Inc. scale its IT infrastructure during a time of rapid business growth

SOLUTION

A grid infrastructure from Dell, Oracle, and Red Hat including Dell™ PowerEdge™ 2850 and PowerEdge 2650 servers, a Dell/EMC CX300 storage area network (SAN), and a Dell PowerVault™ 122T tape backup enclosure; Dell OpenManage™ server management software with Dell Remote Access Cards; Dell Professional Services

BENEFIT

Accelerated user experience by installing grid architecture; provided a scalable infrastructure to keep pace with rapid business growth; reduced hardware acquisition costs

Navigating the Information Superhighway

A grid infrastructure from Dell, Oracle, EMC, and Red Hat helps put Perfit in the fast lane to success

Perfit Computer Systems Group Inc. specializes in the development of business solutions related to the transportation and construction industry, including applications for fleet maintenance, commercial repair shops, dispatch and logistics, rental and leasing, contract maintenance, and original equipment manufacturer dealerships. The company's EMDECS® suite of applications includes fully integrated accounting systems, and it interfaces with many external and corporate applications. Today, thanks to a strong and successful suite of products, the Toronto-based company has witnessed rapid expansion from a supplier of products for regional companies to a global software provider—serving users across the United States, Canada, Mexico, New Zealand, and Europe. Users of EMDECS range in size from small to large enterprises. These companies select EMDECS because it is capable of working with the unique challenges of “multi-” (multi-language, multi-location, multi-time zone, and multi-user) environments. Built exclusively on the Oracle® platform, the scalability and reliability of the EMDECS product is widely recognized.

Available via an enterprise company infrastructure or over the Internet, Perfit sells both a server-based product and a hosted

application service to meet the varied needs of its users. “Whether we are providing our users with the application or hosting it for them, we help simplify the business side of the transportation



industry with intelligent tools that help customers better manage business processes and keep track of financial information,” explains Joseph Ho, president of Perfit.

“The confidence that we have in the Dell and Oracle relationship for an Oracle grid computing infrastructure provided us with the assurance we needed to select Dell to become our sole hardware supplier.”

— **Kenton Ho**
Managing Director of IT
Perfit Computer Systems Group

The downside of growth

As Perfit began to grow—adding customers from locations worldwide—it experienced an enviable but vexing problem: user demands on the IT infrastructure outpaced the performance of the company’s servers. While attempting to manage the explosive growth of its user base, Perfit began to realize that its single-server environment could not scale to meet the company’s hefty growth projections. “We needed to become very scalable,” explains Kenton Ho, managing director of IT at Perfit. “At first, we wanted to get to the point where we could support 1,000 simultaneous users, which we couldn’t do with our old infrastructure. And then we needed to grow way beyond that. We needed to become more scalable. There simply wasn’t a choice.”

In order to host a mission-critical application for thousands of users, Perfit approached Oracle to inquire about Oracle grid computing. “As an Oracle Partner since our inception, we were able to speak to Oracle about our scalability issues. Oracle pointed us to several potential hardware vendors. Through our research, we were able to get the appropriate comfort level to select a Dell solution based on Intel® Extended Memory 64 Technology (EM64T),” explains Kenton Ho. “The confidence that we have in the Dell and Oracle relationship for an Oracle grid computing infrastructure provided us with the assurance we needed to select Dell to become our sole hardware supplier.”

The proof is in the grid

Today, the Perfit infrastructure runs a Dell/Oracle database grid built on a Dell validated configuration. The entire stack, including the operating system, the database, and the hardware configuration, has been pre-tested by Dell engineering to remove the guesswork and provide a higher level of confidence for customers.

The Perfit solution includes Dell PowerEdge 2850 servers and a Dell/EMC CX300 SAN that host a clustered Oracle Real Application Clusters (RAC) 10g database. A set of Dell PowerEdge 2650 servers act as the Oracle application server front end—making the information housed in the Oracle database rapidly available on any number of devices. With the exception of two application servers, the company’s Dell and Oracle configuration uses the Red Hat® Enterprise Linux® operating system exclusively. “We’re probably one of the first in the world to implement the Red Hat and Oracle configuration on Dell PowerEdge 2850 servers,” explains Kenton Ho. “Since fine-tuning the system, our infrastructure has become incredibly powerful and stable. The new Intel EM64T chips in the PowerEdge 2850 servers help us overcome memory resource limitations that come with running the Oracle and Red Hat configuration in a 32-bit environment.”

So powerful and stable is the infrastructure, in fact, that Kenton Ho is in the process of switching the remaining two PowerEdge 2650 servers currently based on the Microsoft® Windows® operating system to the Red Hat Enterprise Linux operating system. “We’ve had a lot of success with the Oracle, Red Hat, and Dell configuration,” explains Kenton Ho. “So we’re going with what works.”

“Dell has become the perfect fit for the hardware side of our infrastructure.”

— **Joseph Ho**
President
Perfit Computer Systems Group

In order to ensure consistent high performance, Kenton Ho relies on both Oracle Enterprise Manager and the Dell OpenManage server management software that comes with Dell Remote Access Cards (DRACs). “If we didn’t have Dell OpenManage and DRACs, we would have to drive down to the data center and reboot a server every time there was a problem,” says Kenton Ho. “Now we can check system health and reconfigure the servers remotely, saving us a lot of time.”

As part of the configuration, a Dell/EMC CX300 SAN helps boost performance and provides for disaster recovery—helping ensure that data is not lost in the event that a server goes down. “A PowerEdge 2850 that is separated from the cluster runs Oracle Data Guard to protect the cluster,” says Kenton Ho. “Data from the SAN is sent to the standby system, and from there everything gets backed up to tape using Dell PowerVault 122T tape backup enclosures. Not only does this help keep our data safe, it helps ensure high performance for our applications during backups.”

A key component to the success of the grid architecture at Perfit has been the invaluable assistance of Dell Professional Services. “We used Dell Professional Services for our SAN setup and again to help set up the Oracle RAC 10g solution,” explains Kenton Ho. “Both engagements were very successful, and they should really help us get the most out of our technology investment.”

A better tomorrow

The Dell, Red Hat, and Oracle configuration has benefited the business at Perfit in a number of ways—most notably by helping to speed the application and improve the user experience. “From a

HOW IT WORKS

HARDWARE

- Dell PowerEdge 2650 and Dell PowerEdge 2850 servers; Dell/EMC CX300 storage area network; Dell PowerVault 122T tape backup enclosures; Dell Remote Access Cards

SOFTWARE

- Red Hat Enterprise Linux and Microsoft® Windows® operating systems; Oracle Real Application Clusters 10g database; Dell OpenManage server management software

SERVICES

- Dell Professional Services

customer perspective, our users no longer feel the pain when we start our backup process,” says Kenton Ho. “In the past, the system would slow dramatically during backups and customers would get frustrated, but with our new cluster infrastructure, there is no discernable difference in performance during backups. Also, with the Oracle 10g RAC grid configuration, the system is always available—even when we perform system maintenance.”

Beyond improvements in the user experience, the ability of the Dell direct model to turn a growing business into a scalable enterprise helps support plans for future growth with an expandable and

extensible IT infrastructure. “With the cluster architecture, as I add users and increase the load on the servers, I simply plug in additional servers right on top of the infrastructure,” says Kenton Ho. “It couldn’t be more simple to add server resources to the cluster—regardless of whether they are Web servers, application servers, or database servers. The ability to pay as we grow supports our goals for future business growth.”

All told, Perfit is an extremely happy Dell customer. “With Dell, we simply get more performance for our dollar,” Joseph Ho explains. “We call our company Perfit because our software is a perfect fit for our users. And Dell has become the perfect fit for the hardware side of our infrastructure.”

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SCALABLE ENTERPRISE.**



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