A cluster of low-cost Dell servers running Red Hat Linux on Oracle delivers high performance at a great value to truly change the way the City of Cairns does business.
to natural disasters, seven days a week, twenty-four hours a day. They all need access to data while in the field, and this infrastructure helps us deliver it to them.”

**Higher service levels, lower costs**

Cairns runs Oracle Financials 11i; Mat-Man, which is an asset and work order management program; and a local government product, Authority. When Cairns upgraded to Oracle 9i on its new Dell/Linux-based architecture, Crane says she saw a dramatic improvement in performance. “The batch processes were taking some 23 hours to run, and now they take just over an hour,” Crane says. “That’s about a fifteen-fold improvement.”

Perhaps the most comforting benefit from the new implementation—which took three months to plan and another three months to test—is the high availability it ensures. “We didn’t have appropriate redundancy in our infrastructure before now,” Crane says. “Because we were using proprietary systems, just to achieve the same amount of redundancy in our old environment would have cost us at least AU$1.5 million. This whole new solution cost us much less and we get to take advantage of the clustering technologies and other functionality it enables.”

Take the issue of load balancing, for example. With 450 staff at headquarters and another 500 people at outlying regional offices, Crane says everyone makes high demands on the city’s IT infrastructure, especially on the financial applications. “We run a lot of concurrent processes that used to degrade the responsiveness of the system. Now, we can balance the load across a secondary PowerEdge server so there’s no impact on the day-to-day operational processes. We have some unique scripting in the Oracle applications that allows us to designate where each transaction will be processed and under what circumstances. And once we start balancing and monitoring across the applications, we expect to see even more improvements in availability.”

**Look before you leap—and with whom you’re leaping**

Some would say the City of Cairns’ leap to open-source software was a brave move, but Crane had no reservations about it. “I have known the Linux operating system for a long time now and I have watched it mature over the past 10 years. At first, I was concerned that some of the tools available with Linux were not solid or well developed. But in working with Dell, Red Hat, and Oracle, those concerns were addressed quite easily.”

The teams behind the implementation were just as important as the solution itself. “Cost was a component, but price wasn’t our sole criteria,” Crane explains. “We considered the companies behind this collaboration and how they were going to help us succeed. We took note of the expertise and support quality of Dell, Oracle, and Red Hat. And, we ensured their strategic directions were in line with our future plans.”

The decision to migrate enterprise applications to a Dell/Linux platform also gave the City of Cairns a good excuse to upgrade its storage area network (SAN). “The complexity of the applications and the amount of data they enable are growing significantly, so we could foresee the need to increase our storage capacity. Today, the Cairns repository holds about 1 TB of data. But Crane and her IT team predict that, over the next five years, the amount of data will grow to between 3 TB and 4 TB. To accommodate that growth, Crane and her team selected a Dell/EMC® FC4700-2 storage array. That way, as Cairns’ needs grow in the future, the city will be able to preserve not only its heritage in the natural world, but its digital one as well.”