

CASE STUDY

AUSTRALIAN TRANSPORTATION COMPANY UTILIZES RED HAT® ENTERPRISE LINUX TO INCREASE EFFICIENCY AND LOWER COSTS

One of Australia's largest transportation companies, Patrick Corporation is an integrated chain of complimentary businesses that specializes in the land-based collection, distribution, and storage of cargo within Australia and for imports and exports. Because Patrick Corporation is composed of several specialized businesses, they must be able to effectively eliminate inefficiencies along the chain to offer customers comprehensive transport logistic solutions.

FAST FACTS

Location: Australia

Industry: Transportation

Challenge:

- To continually increase efficiency by finding an operating system that was as reliable as UNIX, yet far more cost-effective.

Solution:

- Red Hat Enterprise Linux AS 3

Benefits:

- High-reliability and ease of deployment and maintenance.

One of these businesses is Patrick Technology and Systems, which is responsible for the IT and communications systems supporting the extensive network of operations throughout the corporation. Patrick Corporation considers technology an integral part in making the company a leader in container handling systems and believes that continued investment in technology will improve the productivity and reliability of its operations.

STRIVING FOR OPTIMAL PERFORMANCE

In the early 2000s, Patrick Corporation was already running real-time control systems at its terminals around the country. Among other things, the real-time control system, running on distributed UNIX® servers, delivered full systems control of the container handling operation and automated position detection using GPS technology.

Constantly trying to eliminate inefficiencies, Patrick wanted to add an optimisation component to the real-time control system. The optimisation component would introduce in-cabin screens connected to the real-time control system to monitor position and status of the vehicles. The GPS technology would automatically refresh, allowing them to choose the most efficient job for individual vehicles to do next. Additionally, the new system would allow operators in control towers to schedule jobs for both vehicles and drivers via a GUI component.

LINUX MEETS THE CHALLENGE

The new optimization software, iLog, was available on multiple operating platforms, which prompted Andrew Rembel, Systems Development Manager for Patrick Technology and Systems, to research different options. As a round the clock operation, it was imperative that Patrick Corporation choose a highly-reliable environment.

These investigations identified Linux® as the platform that could not only meet Patrick Corporation's strict requirements for reliability but also offer the most cost-effective solution for both software and hardware.

RED HAT IS AN EASY CHOICE

Patrick Corporation selected Red Hat as their Linux provider because it is widely regarded as the world market leader. Additionally, Red Hat® Enterprise Linux® came with all the tools for installation, and it was easy to find good documentation. Patrick's staff was already familiar with Linux and had found Red Hat Enterprise Linux to be the easiest version of Linux to deploy and install.

"We really got our feet wet with Red Hat with the optimisation component. Over time, we've increased our use of Red Hat Enterprise Linux, developing small applications and deploying them on PCs running alongside our UNIX systems," said Rembel. Throughout this process, he's found Red Hat's enterprise-focus to be increasingly important and reassuring.

Patrick Corporation is now using Red Hat Enterprise Linux to run the world's first free-ranging automated equipment in the port industry. Currently, fourteen fully Automated Straddle Carriers (ASC) are being tested at Fisherman Islands, Brisbane. This site will eventually be developed into the world's first Automated Straddle Carrier Terminal. It's also in the process of being expanded to handle all container cargo for Patrick Corporation in Brisbane. The facility includes a traffic management system, powered by Red Hat Enterprise Linux, to determine the best path for vehicles, incorporating navigation and collision detection.

RELIABILITY AND SIMPLICITY ARE MAJOR BENEFITS

A 24x7 operation, Patrick Corporation's most stringent requirement is reliability. And for Rembel, reliability is the best feature that Red Hat Enterprise Linux brings to his operation.

"We just never have to touch the machines. For example, we had one machine in Melbourne that we pretty much forgotten about. About a year later, somebody asked what the machine was doing, and it was still running—we didn't have to maintain it. The only time we've had to reboot our Red Hat machines have been after major power cuts—other than that, we pretty much leave them alone."

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Another benefit of moving to Linux was that the skills of Patrick Corporation's IT team were easily transferred. According to Rembel, the transition was pretty painless. The only challenge faced during the company's migration to Red Hat Enterprise Linux was when they embarked on a cluster project. However, Rembel is quick to point out that the difficulties came because his team had little experience, and that Red Hat Technical Support quickly and efficiently resolved their issues.

As Patrick Corporation expands, so does their use of Red Hat Enterprise Linux. Their near-term projects include a sweeping upgrade of both hardware and software, including an upgrade to the newest version of Red Hat Enterprise Linux.