

# Equitec chooses Ubuntu and cuts server infrastructure by 70 per cent

## Summary

Financial services company Equitec was running its mission-critical, proprietary trading software on 100 Windows-based servers. After experiencing a series of performance issues, the company decided to upgrade to Ubuntu 8.04 LTS. Now Equitec can run its entire workload on just 30 Ubuntu-based servers, which equates to a dramatic hardware, space and power saving of 70 per cent for the same performance. Additionally, Equitec has experienced significant reduction in systems management overheads, running their critical common workloads and their trading system with a minimum of fuss, outage or maintenance. The company is seeing a very real reduction in the total cost of ownership (TCO) of its IT infrastructure through switching its servers to Ubuntu.

## Business challenge

Financial services companies must ensure that their business-critical processes run without interruption. With real money at stake, completing and recording trade agreements is central to their success.

Equitec Group, LLC needs to run its transaction and pricing activities around the clock. The company must be confident that its IT infrastructure can support its day-to-day processes, while running as efficiently as possible.

Equitec found that its existing Windows-based server infrastructure was not delivering the efficiency that the business demanded. Igor Chudov, Senior Software Developer, Equitec, says: "At a certain point, we started to have performance problems with the network that seemed to be Windows-related."

The company's IT team was responsible for maintaining and managing 100 servers in all. This was becoming a time-consuming process that needed an IT administrator to perform frequent manual system upgrades.

Chudov says: "We were working hard on cost of ownership and we didn't want to spend too much time managing and installing each server. Nor did we want to have to keep installing each server from a custom CD. We wanted all those things to manage themselves."

Chudov decided to introduce new software that could simplify the scripting of server management and installation tasks. He wanted to ensure that all the scripts could be viewed and managed from a central console.

Equitec also wanted the new infrastructure to work seamlessly with the proprietary trading software on which the business runs. It also needed to be compatible with the HP ProLiant machines that the company primarily used, along with the Dell servers on which they ran some functions. At the same time, the company needed to ensure that its traders could continue to use their familiar Windows desktops. With a tight budget and aims to reduce the TCO of its infrastructure, Equitec decided to use common tools and software so that the improved IT experience did not come at a premium.

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## The Ubuntu Server solution

Chudov was sure that he wanted to move the servers to a Linux platform, which he'd been working with for years. After evaluating the options, he rejected Red Hat Fedora and decided to introduce Ubuntu. He explains: "I found that the Ubuntu platform was a lot easier to automate."

The Red Hat Package Manager (RPM) manager process did not make the grade. Chudov says: "There were a lot of circular dependencies. You had to be a genius to figure out what to install first. I didn't want to mess around with something like that."

Nearly all of the Equitec servers now run either the long-term support (LTS) version of Ubuntu Server Edition, Ubuntu 8.04, or Ubuntu 8.10. As a result, upgrades and system tweaks are all managed by scripts.

In addition to the Windows-to-Ubuntu upgrade, Equitec has moved its database from Sybase on Windows to the MySQL version that comes with Ubuntu. The database is backed up daily and continually replicated. Each back up involved around 100 megabytes of data.

Equitec completed 90 per cent of the project in just four months. The traders kept their familiar Windows desktop and tools, while half of the company's software development team runs Ubuntu, and half run Windows.

## Results

### Ubuntu server infrastructure improves performance

The company's proprietary software continues to operate as before, but without the network latencies that helped spark the migration in the first place. Now, Ubuntu runs the common workloads – such as email and file and print – that keep Equitec running without interruption.

### Centralised infrastructure simplifies management and saves time

With a central console for its server management tasks, Ubuntu eases systems maintenance and ensures that IT administrators can spend more time on business-critical activities.

Chudov says: "When someone wants to set up an extra function, they can do that from a central console." They can write scripts to run batch-mode functions and can avoid physically transferring data from server to server.

### Efficiency boost delivers potential hardware savings of 70 per cent

As Ubuntu requires less processing power than Windows to perform the same tasks, the company has seen a dramatic improvement in the efficiency of its server infrastructure. As a result, it has reduced the number of physical servers it needs to perform its business-critical tasks by 70 per cent.

Chudov says: "We had about 100 servers in use and now 30 are running the workload. We're trying to find use for the remaining 70. I'm optimistic we'll find something for them although it's obviously better to have 30 than 100."

