

# The UCL Institute of Child Health and Great Ormond Street Hospital maximise resources with standardised infrastructure

Canonical partner Fry-IT implements a high-performing infrastructure based on Ubuntu Server Edition

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## Summary

The UCL Institute of Child Health and Great Ormond Street Hospital wanted to replace the disparate server infrastructure on which their joint website was running. The Institute of Child Health decided to introduce a cost-effective solution that could maximise resources, ease management and enhance business continuity. It worked with solutions provider Fry-IT to implement an IT environment based on Ubuntu Server Edition and OpenVZ virtualization software. As a result, it expects to reduce the number of physical servers it runs from 11 to four. With a standardised infrastructure in place, the IT team has dramatically simplified maintenance and disaster recovery processes, while making considerable cost savings.

## Challenge

Today's healthcare organisations face increasing pressure to deliver an exceptional service at lower costs. They must also ensure that staff and patients can depend on a reliable and efficient IT infrastructure that provides them with the information they need as and when they need it.

The UCL Institute of Child Health (ICH) and Great Ormond Street Hospital (GOSH) have a joint website that aims to provide up-to-date information to academics, doctors, patients and parents. It plays a vital role in building public awareness, which means that high availability and minimal downtime are essential. Paula Stephenson, Web Manager, GOSH and ICH, says: “The joint GOSH-ICH website represents the public-facing image of both institutions and is often the first point of contact the public has with us. The website aims to promote our identity, publicise our expertise and communicate our values and vision.”

With a mixture of legacy technology, the ICH IT team found that the server infrastructure on which its website was running was becoming increasingly difficult to manage. Trevor Peacock, Manager, Information Systems Unit, ICH, says: “We were running different generations of Red Hat and FreeBSD on a range of hardware models. With a number of technologies in place, it was turning into a maintenance nightmare.”

ICH decided to standardise and consolidate its server infrastructure. Peacock says: “We wanted to boost efficiencies, maximise our resources, deliver enhanced business continuity and save costs. We asked IT service provider Fry-IT to introduce a solution that could meet our requirements.”





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## The Ubuntu Desktop solution

ICH tested a range of potential operating systems before finally choosing Ubuntu Server Edition. Peacock says: “We conducted a review and found that Ubuntu was the easiest operating system to maintain. We looked at how each system coped with patch deployment, and Ubuntu was by far the quickest and easiest to manage.”

After settling on its new server operating system, Fry-IT worked with ICH to implement a new solution based on a cluster of four Dell PowerEdge servers running Ubuntu Server Edition 8.04 LTS and OpenVZ virtualization software.

Peacock says: “We’re in the process of cutting our infrastructure from 11 servers to four. We’re planning to run our common workloads such as email and backups on the servers as well as our external website. We have already migrated our content management system over to the Ubuntu solution.”

## Results

### Ease of management results in dramatic time savings

The Ubuntu server infrastructure has seen ICH streamline its maintenance processes and speed up day-to-day systems management tasks. The IT team can deploy patches and complete backups more quickly. And, it can create virtual machines in a fraction of the time it would take to install a new server or service before. This has opened up new possibilities for experimenting and testing new services.

Peacock says: “Patch deployment is much faster and we can now deploy a virtual server in a matter of minutes. It’s also saving us a lot of time fire-fighting our servers. Backups are much more straightforward too because we don’t have to back up individual hardware to tapes.”

### Reliable technology ensures business continuity

ICH has experienced no disruption to its services since implementing the Ubuntu Server solution. Peacock says: “We can continue to run services during scheduled hardware maintenance by migrating the virtual hosts to another physical host.” As a result, ICH staff, along with doctors, academics and patients visiting the website, can access the services and information they need without interruption.

Peacock says: “Our disparate server infrastructure meant that we were caught in a cycle of maintenance problems. Different issues needed to be solved in different ways according to the hardware or operating system we were running.

“With a standardised, reliable infrastructure, we have streamlined our processes and established a better system for disaster recovery in the event of failure. We’re planning on deploying some fairly mission-critical activities to our new server infrastructure so business continuity is vital. The Ubuntu-based infrastructure gives us the confidence we need to make that move.”

### Consolidated infrastructure delivers significant cost savings

The introduction of Ubuntu Server Edition with OpenVZ will help ICH to cut its server infrastructure by more than half.

Peacock says: “The new solution is definitely saving us money. Licence costs aside, the fact that we have consolidated our server infrastructure makes a big difference. As well as reducing the number of servers we need to run our day-to-day operations from 11 to four, the new virtualization software means that we can add new services and applications at no additional cost. We also make much better use of hardware capacity by consolidating services in this way.”

