FUJITSU

The Galway Clinic

The Galway Clinic transforms its server and desktop environments with virtualisation

» The new infrastructure has increased our performance and future proofed the organisation for growth. We can now enjoy unprecedented levels of flexibility, scalability and robustness, while saving money on energy bills and reducing our carbon footprint «

Raphael Jaffrezic, IT Manager, The Galway Clinic

THE CUSTOMER

Country: Republic of Ireland
Industry: Healthcare
Founded: 2004
Employees: 500
Website: www.galwayclinic.com

THE CHALLENGE

The Galway Clinic was running a variety of mission-critical applications across a number of traditional servers but there was no disaster recovery in place and effective application management was difficult.

THE SOLUTION

The Galway Clinic turned to Fujtisu to deploy a virtualised server environment which allows it to host as many as 50 virtual servers across three physical hosts.

THE BENEFIT

- Three physical Fujitsu servers have replaced eight physical servers.
- Services and applications can be delivered in hours rather than in days.
- This project reduced electrical consumption and estimated CO_2 savings of 90 metric tonnes per year.
- Day-to-day administrative overhead has been significantly reduced.

The customer

Founded in 2004, The Galway Clinic is one of the most impressive and successful private healthcare facilities in the West of Ireland. The hospital consists of many clinical departments including Radiotherapy, Cardiology, Imaging and Robotics Assisted Surgery, bringing the latest medical technology and surgical procedures to the West of Ireland. The hospital opened with 136 beds, 36 consultant suites, five new operating theatres, two day-surgery theatres and an eight-bed intensive care unit. Since then, the hospital has seen tremendous growth. In order to meet the demands of this growth and to increase the services offered to its patients, The Galway Clinic has extended its healthcare infrastructure.

The challenge

Since its foundation, The Galway Clinic had built up a small server farm supporting core business functions such as HR, payroll and office applications as well as critical healthcare-specific applications. However, each of these eight servers were supporting as many as five different functions and there was no disaster recovery in place. This meant that if one server went down it could affect operations significantly.

Furthermore, adding new services was difficult and necessitated the purchase of new servers. *"We had no scalability and no disaster recovery,"* explains Raphael Jaffrezic, IT Manager at The Galway Clinic. *"As a result, performance was poor and resilience was non-existent. And with rising energy and administration costs as well as a planned expansion of the hospital in late 2009, we needed a dynamic and cost-effective infrastructure for the next five years. This would enable our ongoing expansion as well as allowing the Clinic to introduce emerging healthcare ICT solutions in the future. After an internal analysis of the infrastructure, it became clear that virtualisation would be the ideal solution to make the organisation run more smoothly and effectively, while providing a flexible platform for future growth."*

The solution

The Galway Clinic had worked with Fujitsu as a primary partner for systems provision, installation and support and turned to the company for advice in how best to implement a virtualised server environment. Fujitsu assessed the current state of the ICT infrastructure by undertaking a capacity planning exercise, which provided detailed storage, processing and memory utilisation figures and allowed Fujitsu to estimate future capacity requirements from a storage, server and desktop resource perspectives. Fujitsu then examined the planned expansion of the hospital and the impact to data and traffic volumes in the future.

Once all the data had been collated, Fujitsu designed a solution for an end-to-end virtual infrastructure for The Galway Clinic. This scalable infrastructure, based on VMware Server and Desktop Virtualisation, would meet The Galway Clinic's future requirements by allowing them to simply add additional resources as needed.

The benefit

The first stage of the project was to implement the server virtualisation, which took place in less than a month and which demonstrated immediate benefits. The Galway Clinic now has three host servers, each of which can accommodate as many as 20 virtual servers, which in turn support specific, dedicated applications.

"We are now running around 50 virtual servers across the three host servers and because each virtual server is dedicated to a specific application, performance and availability have increased significantly," adds Jaffrezic. *"Moreover, the services can be shared across all three servers, so if one goes down, the other two can pick up the slack without affecting operations or productivity."*

The new infrastructure also allows Jaffrezic to provision new services and applications quickly and easily: *"I can have a new server up and running within ten minutes, without having to invest in new hardware. This makes my life much easier and means we can deliver a more responsive service to our stakeholders."*

A comprehensive suite of management tools ensures Jaffrezic has total visibility of all operations and can easily track performance and usage across all applications. Instant alerts mean that any issues are flagged and dealt with instantly.

"The virtualised server infrastructure has transformed how we do business and it is also playing a role in our mission to become as environmentally responsible as possible," comments Jaffrezic. *"With only three servers running, our energy consumption has decreased and that translates into substantial costs savings over time."*

The second stage of the project was to begin rolling out virtualised desktops. Rather than have processing power concentrated in high-end PCs, the Clinic has begun rolling out thin clients to select groups of employees. As with the server implementation, this has reaped immediate rewards.

"I can build specific desktop images for different groups of workers and provision them instantly to low-spec thin clients that are easy to manage, switch on quickly and require little maintenance," adds Jaffrezic. *"We anticipated that users would be reluctant to switch to a thin client and give up their PCs but, in fact, the reverse has been the case. Because thin clients power up so quickly and can actually outperform PCs, as all the processing and storage occurs centrally, the user experience is much better so we actually have employees clamouring to take part in the next stage of the desktop virtualisation programme."*

Over the next year, Jaffrezic anticipates transitioning at least 150 users to a virtualised desktop – that represents 60 per cent of the devices in the organisation. And because thin clients use considerably less energy, he expects to make further cost savings: *"Not only do thin clients consume less energy but users are much happier to switch them off at night as they do not take minutes to power up in the morning. As a result, I expect the Clinic to save around €30,000 per year for every 100 virtual desktops we deploy."*

Conclusion

The virtualised infrastructure has transformed how The Galway Clinic operates. At the same time, it is helping the organization become greener while cutting energy costs.

"The new infrastructure has increased our performance and future proofed the organization for growth," concludes Jaffrezic. *"Thanks to the professionalism of Fujitsu and the excellence of its engineers we can now enjoy unprecedented levels of flexibility, scalability and robustness, while saving money on energy bills and reducing our carbon footprint."*

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