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CASE STUDY:

Automation allows UPCnet to reduce roll-out times for its IT services

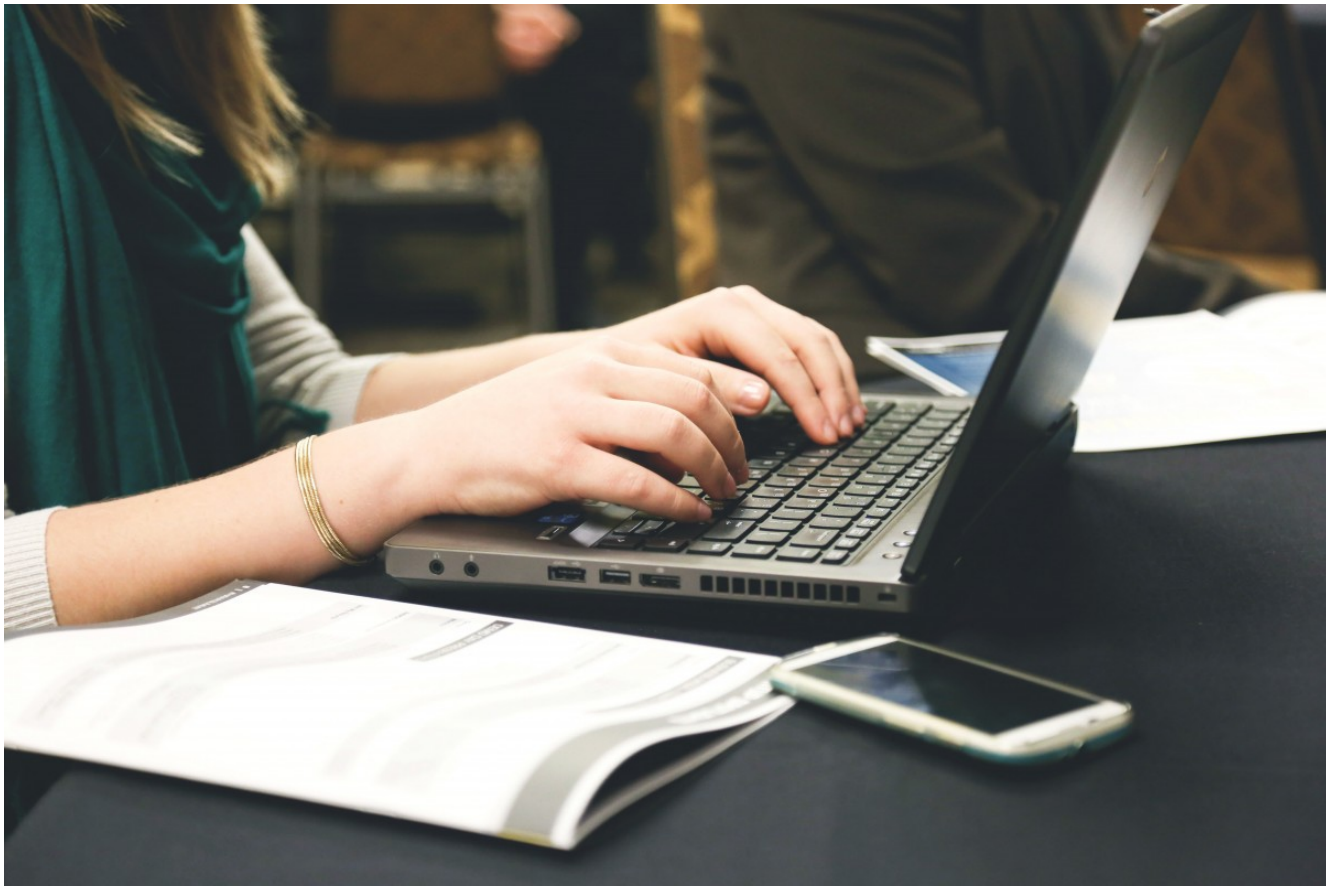
UPCnet

- 90% reduction in roll-out times for new services
- Improved security thanks to micro-segmentation
- Increased availability of IT infrastructure

COMPANY & CHALLENGE

Headquartered in Barcelona, UPCnet is the technology consultancy firm and service provider at the Polytechnic University of Catalonia, an expert in helping companies and public administrations to streamline businesses through the use of ICT.

The previous cloud platform limited their ability to roll out new services swiftly, so they chose to renew and evolve through VMware solutions. Now, UPCnet has a more secure automated IT infrastructure, with greater availability.



OBJECTIVES

In addition to serving the University, UPCnet provides knowledge to different sectors such as health, industry, consumer goods and public administration. Its technological expertise is equally broad and encompasses the areas of Analytics & Big Data, knowledge and talent management, corporate applications, Cloud Computing, managed services and cybersecurity services. The professionals at UPCnet offer society the experience they have gained in the management of ICT services for more than 45,000 users and more than 10,000,000 monthly hits to web pages managed by UPCnet, among others.

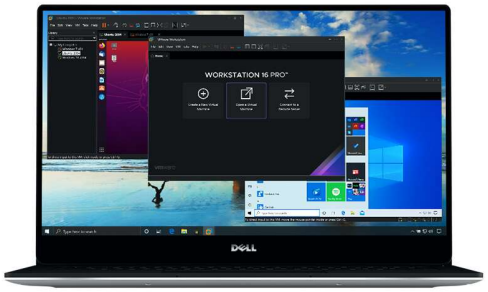
The project was launched for two main reasons. The first was to renew the private cloud platform used by the Polytechnic University of Catalonia (UPC), and the second was to evolve the IT platform managed by the infrastructures team and move toward a self-service model within the management firm UPCnet and UPC.

UPC's previous private cloud solution offered a series of limited features to users, so it needed to be renewed in order to improve the cloud portal and correct several of the previous shortcomings detected, include new features through the user portal, modify the network model towards routable networks within the CPD without the need for NAT, and consolidate the different virtualisation environments in a single self-service model.

In addition, there was room for improvement in terms of automation via the settings manager, the process of creating virtual machines and authorisation in the allocation of resources, linking with documentations, etc. The challenge was to evolve the platform in order to a deliver self-service mode to the different departments and units, improve the efficiency of communications through distributed routing features, improve platform availability through the publication of BGP routes toward the different routers of UPC's main CPD, enable automatic network failover, improve the security of services by moving from a perimeter security model to one based on micro-segmentation, and have a platform that would allow for more automatable integration with other elements such as DNS and monitoring.

"With VMware solutions we now have a comprehensive solution that allows us not only to manage the cloud platform but also communications and security through a centralised approach."

JORDI COLLADO, INFRASTRUCTURE ENGINEERING MANAGER, UPCNET



SOLUTIONS

The project was advertised and awarded by means of a public tender competition, so several departments participated in the decision-making process. The infrastructures and communications departments evaluated the technical aspects, and the financial department assessed the economic elements.

The pre-sales team at VMware, together with Ricoh company IPM, ran several product sessions on vRealize Automation and NSX. There was also a proof-of-concept session held for vRealize Automation, to examine the improvements it offered over UPCnet's previous cloud management software, as well as the future trajectory of the solution with the client.
IPM worked together with the department that manages VMware's cloud solutions in UPCnet to determine possible uses to develop on the platform, and to define the hardware and licensing required to support the current platform. After this initial phase, it was concluded that the best solutions to roll out the project were VRealize Suite and NSX-T.

The project involved modernising the UPCnet data centre through the installation, configuration and customisation of the VRealize Suite with NSX-T as the network element, including the necessary licenses.

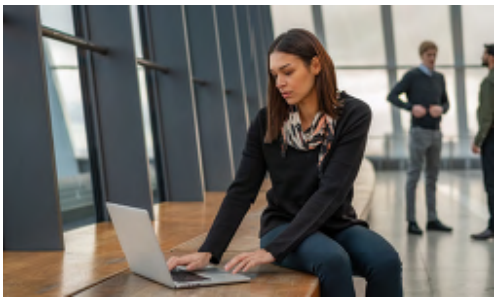
All in a "brown field" environment, since there are no plans to procure new hardware; instead, the current platform based on vSphere had to be used without interrupting the service, given that they were around 1,000 virtual machines already deployed and in productive service.

BENEFITS

The project has made several important changes. On the one hand, the process of deploying virtual machines has completely changed, transitioning from a centralised task taking place in the infrastructure department, to a self-service model accessible by all departments and units. This same process, through automation, has absorbed other processes linked to the generation of virtual machines such as DNS registration, monitoring, backup, and information systems. The security model has also undergone a major transformation towards a model based on micro-segmentation with a "zero trust" policy and self-management on the part of the departments and units. In terms of management, moving from several virtualisation environments to just one, which also has with new tools, has allowed UPCnet to centralise and improve the management processes of the platform and traceability applications.

BENEFITS CONTINUED

"This has been a very ambitious project, which was not just about renewal but was a whole technological evolution," says Jordi Collado, Infrastructure Engineering Manager, UPCnet. Thanks to the new platform, UPCnet can now offer the roll-out of virtual machines in self-service mode to the company's different departments, and has improved the efficiency of communications, the availability of the platform enabling automatic network failover to the contingency CPD, and the security of services by shifting from a perimeter security model to one based on micro-segmentation. In addition, it has enabled the automation of various procedures associated with the creation and exploitation of virtual machines as monitoring, backup, and information systems, the consolidation of various virtualisation environments within a single platform with centralised administration systems, monitoring and troubleshooting tools.



In short, the main advantages for UPCnet following the roll-out of this project are stability, versatility and security. All of these qualities are essential for productive environments. The stability provided by VMware products, which are very mature and reliable, the versatility of vRealize Suite, specifically thanks to vRealize Orchestrator, which has allowed them to automate processes that until now were impossible, and security, not only thanks to the vSphere suite with the isolation it provides at a computation level, but also through NSX-T, which has allowed them to move from a perimeter security model to one based on micro-segmentation following the policy of 'all closed by default'.

ABOUT RICOH

IPM was acquired by Ricoh to grow its IT Services capabilities. Ricoh offers innovative services and solutions for the digital workplace, enabling people and companies to use smart working more widely. For 85 years, Ricoh has helped to transform workplaces with document management solutions, IT services, communication services, commercial and industrial printing, digital cameras and industrial products. Headquartered in Tokyo, Ricoh operates in more than 200 countries. In the financial year ending March 2020, the company had global sales of $19.06 billion. For more information, visit www.ricoh-europe.com

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