FUJITSU

Case Study
Mediterranean University of Reggio Calabria

»The platform created as a result of this project puts the Mediterranean University at the cutting edge in terms of facilities and infrastructure for food and agriculture research.«

Santo Marcello Zimbone, Director General, Mediterranean University of Reggio Calabria

The customer

Country: Italy
Industry: Education
Number of employees: 500
Website: www.unirc.it/

Università degli Studi
Mediterranea
di Reggio Calabria

The challenge

The main goal of the IT Department at the Mediterranean University was to meet the communications, data processing and results sharing requirements arising from the Saf@med research project and the futuristic laboratory set up for its completion. Instead of allocating new, dedicated resources to the project, there was an opportunity to exploit the scope for optimization and flexibility inherent to virtualization.

The solution

FUJITSU Integrated System PRIMEFLEX® for VMware EVO:RAIL™ appliance provides a ready-to-run platform for the deployment of virtualization, VDI or Private Cloud projects. With the ability to manage up to 100 virtual servers or up to 250 Client VMs, the solution is based on FUJITSU Server PRIMERGY CX400 equipped with four FUJITSU PRIMERGY server nodes CX2550, driven by Intel® Xeon® E5-2620v3 processors and latest-generation DDR4 memory with a powerful virtualization engine, the VMware EVO:RAIL.

The customer

The Mediterranean University of Reggio Calabria was founded in 1967 and now has six departments and more than eight thousand students. In addition to its historic central building, almost all university facilities are located at the modern campus, including teaching and administrative facilities and 60 laboratories. The university aims to foster growth in Calabria and Italy as a whole through research, training and the quality of the services offered to students and the local area. It promotes the ethical and civil development of the community, innovation, the transfer of technologies and skills in partnership with business and social entities, cooperation with research institutions and national and international institutions.

The challenge

In recent years, the university has focused on new areas of research, especially surrounding farming technologies. Following on from the themes addressed by Expo 2015, it created a research unit based on the European model, called Saf@med, whose main area of concentration concerns the influence of climate change on agricultural and agri-food products, as well as the effect on production security. The expected impact of the new structure, both on the local area and the international scientific community, called for a huge commitment from the university's IT department, which responded by rationalizing data center resources and adapting them to the new unit's requirements.

The solution

The integrated components of the ready-to-run FUJITSU Integrated System PRIMEFLEX for VMware EVO:RAIL appliance met the requirements for speed of implementation and flexibility deemed essential by the Mediterranean University. "It took three months from the decision to go ahead with the project until its completion," says Prof. Domenico Ursino, Deputy Chancellor for IT. He adds: "We decided on the virtualization route to consolidate existing IT resources and provide rapid support for the important research project."

Melchiorre Monaca, Head of the University IT Service says: "A dozen servers were consolidated into a single unit with immediate savings in terms of man-hours dedicated to the systems and energy consumption." Following this positive experience, the testing phase has begun for the future desktop virtualization project.

The benefit

- Satisfy the essential requirements to support the Saf@med research project
- System consolidation and drastic reduction in man-hours dedicated to maintenance
- Significant energy savings on consumption and cooling

Products and services

- FUJITSU Integrated System PRIMEFLEX® for VMware EVO:RAIL
- 1x FUJITSU Server PRIMERGY CX400
- 4x FUJITSU Server PRIMERGY CX2550 nodes with Intel® Xeon® E5-2620 v3
- VMware EVO:RAIL™ engine
- On-site consulting and technical support
- Guarantee covering the products' excellent reliability

The benefit

"The Saf@med project at the Mediterranean University of Reggio Calabria led to the creation of a Research Infrastructure built across five platforms, coordinated by as many lead scientists and dedicated to: sustainability in primary production in the Mediterranean; monitoring, protection, enhancement and sustainable management of Mediterranean agricultural land and forests; agri-food processes and development of sub-products; food safety; and the economy of sustainable development. According to Santo Marcello Zimbone, Saf@med Coordinator and General Director of the university: "The research platform created as part of this project puts the Mediterranean University at the cutting edge. The results of the research and innovative services will definitely have an impact, both in the academic sphere and, above all, in industry."

The contribution of the IT department to the project involved readying processes for data communication, storage and processing, and also for sharing results. "The previous system was characterized by extreme hardware fragmentation, with servers dedicated to every single activity or service," Monaca explains. "For us it was essential to consolidate the infrastructure to make it more flexible and better suited to the demands of the new laboratory."

Virtualization seemed to be the most natural way to achieve IT infrastructure objectives and to meet the short timeframe to create the Saf@med laboratory. "The decision to use FUJITSU Integrated System PRIMEFLEX for VMware EVO:RAIL stems from our previous good experiences with the two suppliers, but above all from the limited number of man-hours required for implementation and management, simplicity of use and ease of provisioning," Monaca says.

It took about three months from the decision to go ahead with the project to its completion. During this period, the process moved on from the initial identification of requirements to the consolidation of IT services, which range from the university's administration and communication needs, to managing the activities of more than 8,000 current students and 500 teaching or technical staff, to the needs of the 120,000 users in the database. From the initial set-up of a dozen dedicated servers, everything has now been consolidated into a single system with obvious and immediate savings in terms of maintenance staff and energy costs. "Our infrastructure is without doubt more stable and efficient now," says Monaca, "but we have also already seen positive effects in terms of data availability and security. Fujitsu worked with us in all phases of the process and we appreciated the joint effort with VMware and Gruppomega, especially for the initial activation procedure, which was performed with specialist technicians on-site."

Conclusion

The successful outcome of the infrastructure consolidation project relating to the launch of the Saf@med research infrastructure has led the Mediterranean University to consider the same solution for desktop virtualization, which is currently being tested. The decision stems from a natural tendency towards mobility and the ability to set up workstations in any environment, as well as the possibility of moving data to a single server and focusing on it both in terms of using appropriate security tools and maintenance operations.

"Fujitsu and Gruppomega were able to understand our needs and meet our requirements, offering us a solution that was quick and easy to implement."
Melchiorre Monaca, IT Service, Mediterranean University of Reggio Calabria

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In collaboration with

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TURNKEY SYSTEMS INTEGRATOR

vmware®

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