

Giving Students the Right Support

Brazilian university's cloud strategy gives students and academics improved access to learning tools, information, and resources

Customer Name: Universidade de São Paulo

Industry: Education

Location: Brazil

Number of Employees: Over 25,000

Business Impact

- 60 percent reduction in server maintenance contracts
- 43 percent overall reduction in power, maintenance, and cooling
- Faster provisioning of services, from months to hours



Case Study

Business Challenge

The Universidade de São Paulo (USP) is the largest higher education and research institution in Brazil. Founded in 1934, the university has more than 90,000 students located across eleven sites, four of which are located in São Paulo. The institution offers 230 undergraduate courses covering over 3400 different disciplines. According to the Brazilian Ministry of Science and Technology, more than a quarter of the scientific papers that are published in Brazil are written by students from USP.

The university is proud of its academic record and is keen to maintain and enhance its growing reputation. Equipping staff and students with the tools they need to do their work has always been a top priority. In the past, this has proven to be a challenge. The university's IT systems regularly came under frequent pressure, particularly at the start of the semester when there is an influx of new joiners and at the end of the academic year when students want to access exam results. Quite simply, the institution had no means of managing fluctuations in demand and boosting capability when required.

In response, USP decided to replace its existing data center. Aside from wanting to improve availability, there were other factors. The facility, which was built around a supercomputer and dedicated UNIX and RISC servers, took up a considerable amount of space and required continual maintenance. Hard to cool and expensive to power, the data center had also become a significant drain on resources.

Solution and Results

To address these issues, USP decided on an agile cloud computing platform that would allow it to consolidate and virtualize its server estate. After careful consideration, it chose the Cisco Unified Computing System (UCS). This is a central component of Cisco Unified Data Center, an architectural framework for accelerating data center transformation. Designed to provision new services quickly and securely, the solution includes sixteen Cisco UCS B-Series Blade Servers.

Since launching the solution, USP has been able to simplify operations and eliminate expense. More than 48 physical servers have been decommissioned and replaced with 350 virtual machines. This move has enabled the university to lower power consumption by 26 percent. Greater energy efficiency, combined with a 60 percent consolidation in server maintenance contracts, has contributed towards a 43 percent total reduction in power, maintenance, and cooling costs.

Fewer devices now require setup, power, and cabling. It is also much easier for the university to match capacity to demand. Cisco extended memory technology is built into the servers, giving the university the ability to enjoy more RAM per blade at lower cost. In addition, USP can now rapidly configure and provision new services using UCS service profile templates.

This newfound flexibility is also being used to launch a virtual desktop infrastructure project. The university plans to expand

the Cisco UCS platform to deliver Infrastructure as a Service, Platform as a Service, Desktop as a Service, and Software as a Service to other administrative units and research groups.



"It is essential that we give students and academics easy access to the services they need to carry out their work. Now that we have Cisco UCS in place we know that we can deal with any eventuality and provide the standard of service our end users rightly expect."

Cyrano Rizzo
Manager of Corporate IT Infrastructure
Universidade de São Paulo

For More Information

To learn more about Cisco's architectural approach for the data center, please go [here](#)

To learn more about Cisco's approach to the cloud, please go [here](#)

For more information about Cisco UCS, please go [here](#)