Epitech

Recognizing the growing importance of cloud computing for both commercial and public-sector organizations, Epitech Marseille wanted to offer its students practical, hands-on experience in setting up and managing cloud services. By switching to SUSE® OpenStack Cloud, the organization benefits from a more packaged approach to OpenStack, one that is bundled with additional tools and documentation to simplify set-up and management and, as a result, help its students to build vital skills that will advance their future IT careers.

Overview

Established in 1999 and with 12 sites spread throughout France, Epitech is the country's leading specialist institution for education in computer science. It accepts post-baccalauréat (roughly equivalent to US high-school diploma) students for five-year courses designed to prepare them for careers in enterprise technology—and 100 percent of its graduates go on to employment after graduation.

Challenge

The ability of Epitech graduates to get desirable employment rivals the graduates of the group of elite French universities known as the "Grandes Ecoles". To maintain its reputation as the best preparatory institution for a successful career in information technology, Epitech continually adapts and evolves its curriculum to keep pace with changes in the professional world.

> "Using SUSE OpenStack Cloud helps us to prepare students for working in a world where cloud technologies are increasingly important."

ROXAN ROUMEGAS
Director
Epitech Marseille

Acknowledging the importance of cloud technologies for businesses and non-commercial organizations alike, Epitech wanted to give its students a firm grounding in creating and running private cloud infrastructures. This would also be an opportunity to give students cost-effective virtual workspaces where they can run their own software projects.

Roxan Roumegas, Director of Epitech Marseille, said: "We decided to deploy OpenStack in our cloud hub, so that we could run an internal private cloud—both to provide virtual resources to students and to give students experience in setting up and running the private cloud. However, we ran into configuration and deployment challenges with the standard community edition."

Solution

Epitech Marseille wanted an OpenStack environment that could be easily understood and maintained even by first-year students fresh from high school and with no previous experience. By switching to SUSE OpenStack Cloud, the organization was able to benefit from a more packaged approach to OpenStack, bundled with additional tools and documentation to simplify set-up and management.

"SUSE OpenStack Cloud resolved the difficulties we had experienced in setting up and supporting the community version,"

Epitech at a Glance:

Epitech is the leading French specialist institution for computer science. The organization offers five-year courses to post-baccalauréat students and enjoys employment rates comparable to the "Grandes Ecoles" (elite French universities).

■ **Industry and Location**
    Education—Higher, Marseille, France

■ **Products and Services**
    SUSE OpenStack Cloud 5
    SUSE Linux Enterprise Server 12

■ **Results**
+ *Simplified the deployment and management of cloud infrastructure*
+ *Enabled the rapid creation of sandbox environments for student projects*
+ *Provided valuable hands-on experience of open cloud technologies*

said Roxan Roumegas. "While it's good in general terms to learn the art of configuration, it wasn't appropriate to drop first-year students straight into a highly complex environment."

Stéphane Mombuleau, Manager of the Cloud Hub at Epitech Marseille and a fifth-year student, said: "SUSE OpenStack Cloud provides the right learning curve to enable our students to quickly build practical skills that will serve them in their future careers. Naturally, those who are interested in the stack can dig deeper, but there's no frustration for students who just want to get up and running quickly."

Epitech Marseille connected with hosted-services provider Jaguar Network through La French Tech—a leading French startup community. Jaguar Network delivered the server platform for SUSE OpenStack Cloud at Epitech Marseille. In addition to providing virtual sandbox environments for student projects, the private cloud supports production environments. "Our intranet runs entirely on OpenStack, as does a new system for student identification based on RFID cards," said Stéphane Mombuleau. "We also offer virtualization on the fly for student projects, giving them the OS and software of their choice."

The exposure of students to open source technologies does not end there: all of Epitech's desktop machines run the openSUSE operating system, so each year's intake of 1,000 students quickly gets to grips with Linux.

Results

Hands-on experience in using SUSE OpenStack Cloud gives students at Epitech Marseille a thorough grounding in cloud architecture, solution design, server deployment and systems administration. "SUSE OpenStack Cloud completely opens students' minds to what goes on in today's data centers and how systems are administered," said Roxan Roumegas. "When they set up solutions for their future employers, they will be using the practical skills they developed at Epitech in areas such as server virtualization."

The latest version of SUSE OpenStack Cloud is focused on ensuring ease of use for cloud administrators. This helps Epitech Marseille's students to hit the ground running and avoid becoming bogged down in frustrating configuration challenges. As they learn more about setting up and administering private cloud environments, the ease of using SUSE OpenStack Cloud keeps them engaged, working productively and, as a result, learning more effectively.

"It's vital to engage students and maintain their interest by giving them professional tools that are actually used in business," said Stéphane Mombuleau. "Because we use SUSE OpenStack Cloud to run our intranet and the student ID system, our student administrators gain practical experience in keeping production systems healthy and available."

"Using SUSE OpenStack Cloud helps us to prepare students for working in a world where cloud technologies are increasingly important," said Roxan Roumegas.

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