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» CASE STUDY

HAMK solves computer labs' challenges with Snow Commander

The challenge

Complicated VM management and high overhead create stressed IT infrastructure

From seven campus locations in the Häme region of Finland, Häme University of Applied Sciences (HAMK) offers 27 graduate and 10 postgraduate degree programs, delivered both in-person and online. With educational roots stretching back to 1840, the modern HAMK now specializes in research, development, and innovation, provided in diverse courses from smart, organic farming to teacher training.

Many programs include elements such as managing servers running Linux or Microsoft® Windows, and VM environments based on VMware ESX and Microsoft Hyper-V. Hands-on experimentation encourages students to learn about the detailed technical services and protocols that support local and wide-area networks and the internet.

To make this approach possible, HAMK creates VMs fully isolated both from each other and from real-world production systems. Typically, HAMK runs more than 1,000 active VMs, providing them as virtual laboratories (vLabs) for students, supported by a VMware cluster. In these safe vLab spaces, students can test their knowledge, change core system settings, and complete coursework without impacting essential HAMK services.

HAMK–Häme University of Applied Sciences

» AT A GLANCE

Higher education community that offers online and in-person coursework across business, design, education, health and technology

Industry: Higher education

Location: Finland

Employees: 700, supporting 10,000 students

Products: Snow Commander

» FEATURED RESULTS

- 800-1,500 VMware virtual machines running, depending on course calendars
- Over 2,000 virtual machines (VMs) deployed yearly
- 24/7 on-demand deployment for students

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Sami Kapanen, ICT Manager at HAMK, explains: “Managing many VMs could become a nightmare. For example, students can easily damage a VM when experimenting with it or doing some bad installations, then they would require a new VM deployed, again and again.”

The HAMK team looked for ways to reduce administration overhead and simplify VM management. By eliminating redundant VMs, HAMK would reduce the pressure on its IT infrastructure and avoid unnecessary capacity investments.

The solution

A single interface and a self-service savior

HAMK selected Snow Commander, a platform-neutral solution designed to provide integrated, cost-effective management of hybrid cloud environments.

“The key driver for choosing Snow Commander was that we could quickly and easily implement a self-service model for students, reducing our workload while enhancing the delivery of VMs for the study programs,” says Kapanen. “Importantly, Snow Commander provides self-service capabilities, enabling students to request and delete old VMs and create new VMs, which offers them the greatest possible flexibility and also cuts administration tasks for the IT team.”

Snow Commander enables a single interface for managing Microsoft Hyper-V and VMware VMs, as well as a host of related services such as Microsoft Azure®, Amazon Web Services, Google Cloud Platform, Kubernetes, and more.

Using Snow Commander, HAMK students log into a VMware vSphere cluster and order VMs for their courses. To ensure that redundant images do not consume valuable storage space, all VMs are created with a default lifetime—although this can be extended if appropriate. If a student’s vLab is damaged or corrupted, they can use Snow Commander to delete it and order a new VM immediately. These functions are all available remotely to enable online and on-campus learning.

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Sami Kapanen,
ICT Manager, Häme University of Applied Sciences (HAMK)

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The result

Simplified, centralized VM management enables cost-effective planning and provisioning

HAMK now relies on Snow Commander to provide integrated management of all the VMs in the vLabs workspace, as Kapanen reports: “Currently, we have more than 1,400 VMs provisioned in the VMware vSphere cluster. Without Snow Commander, all this would be a nightmare to manage; it would require a lot of scripting and manual labor, and change requests would be handled as ServiceDesk tickets during office hours, absorbing IT team time and potentially delaying response. Snow Commander enables simplified, centralized VM management that cuts HAMK’s IT administration workload, while ensuring service provisioning and capacity are optimized for efficiency, capability and service.”

Kapanen concludes: “With Snow Commander, students can handle VM management themselves—anytime, anywhere. In addition, Snow Commander provides comprehensive monitoring and reporting for the vLabs and VMware vSphere environments, which means we can plan capacity and provisioning as cost effectively as possible, while maintaining operational and educational excellence.”

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> ICT Manager, Häme University of Applied Sciences (HAMK)

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