



EASY MANAGEMENT OF MISSION-CRITICAL WORKLOADS

University leverages Dell EMC OpenManage Enterprise to stay on top of a vast IT environment.



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Business needs

The University of Pisa needed a comprehensive systems management tool to manage the IT systems for the university's IT departments and programs.

Solutions at a glance

- Dell EMC OpenManage Enterprise systems management console
- Dell EMC PowerEdge MX servers

Business results

- Gained quick time to value with fast software installation
- Simplified common IT administrative tasks
- Enabled remote management of data centers
- Unified management of heterogeneous resources

The university's CTO *downloaded, deployed and configured* the OpenManage Enterprise appliance in less than

30 minutes



Compared to an earlier deployment, the CTO found that the *installation process* was about

90% faster



An expansive management mission

At the University of Pisa, a small team of IT professionals manages a vast IT infrastructure. That team, which is led by Maurizio Davini, CTO for the University of Pisa and its IT Center, provides services to all of the university's departments.

As a key part of its mission, the IT Center supports a wide range of research and development work, including both academic initiatives and industrial collaborations. The team provides guidance to IT users, tests new technologies, monitors production systems, and allocates resources for research projects.

The IT Center manages a variety of servers that power the university's IT departments and programs. It supports many different types of workloads running on a wide range of IT systems, including high-performance computing clusters. In addition, the IT Center supports a rich mix of applications, from data analytics to administrative business systems, along with a new hyper-converged infrastructure laboratory.

The University of Pisa is always on the cutting edge of technology. That was the case when the CTO and his team deployed Dell EMC OpenManage Enterprise to carry out their extensive IT management mission.

The OpenManage Enterprise systems management console empowers IT professionals with simplicity and intelligent automation. It provides a single management layer that enables a unified approach to the management of various generations of Dell EMC PowerEdge™ systems (ranging from 12G to 14G), including MX, FX and VRTX systems, as well as monitoring of third-party hardware.

The deployment

The University of Pisa deployed OpenManage Enterprise 3.0 to manage a variety of server nodes distributed across three main sites and two smaller locations. The deployment went quickly and smoothly, Davini says. He and his team were able to download, install and deploy the OpenManage Enterprise virtual appliance in less than 30 minutes. That was about 90 percent faster compared with the previous OpenManage console generation, the well-known OpenManage Essentials version of the software.

Once they had the software up and running, the IT staff leveraged the built-in OpenManage Enterprise capabilities to easily discover and inventory the devices in the various assigned IP ranges, and also got the software to operationally interact with their entire server infrastructure. OpenManage Enterprise now supports more than 400 servers, including both Dell EMC and third-party devices, spread across four data centers. In addition, they are currently testing OpenManage Enterprise's integrated monitoring and alerting capabilities for storage arrays and network switches.

"We have a mixed environment with solutions coming from different suppliers and hardware vendors,"

Davini says. "With OpenManage Enterprise, it is possible to monitor heterogeneous environments, thanks to the fact that it leverages multiple industry-standard technologies."

Realizing the benefits

Davini and his colleagues like the ease of use of the OpenManage Enterprise HTML5 user interface, which simplifies common management tasks, such as updates to BIOS, firmware and drivers. They also like the platform's remote management capabilities, which make it easier to support data centers that have no IT personnel onsite.



"Everything is managed by OpenManage Enterprise. It's like a guardian that watches over our data centers."

Maurizio Davini
CTO, University of Pisa

OpenManage Enterprise manages Dell EMC servers through the integrated Dell Remote Access Controller (iDRAC) with Lifecycle Controller, which is embedded in each Dell EMC PowerEdge server. The iDRAC is the board management controller and executes a variety of management and monitoring tasks independently from the operating system running on the server. Furthermore, its agent-free implementation saves valuable resources (in terms of CPU and memory) for the applications running on the server, allowing increased efficiency, superior automation and built-in security.

“Our data centers are largely unattended, and operations are running 24/7,” Davini says. “Everything is and has to be remotely managed. So the integration of OpenManage Enterprise and iDRAC9 was really a game-changer for us.”

Additional tools

Davini and his team are also deploying Dell Repository Manager (DRM), SupportAssist Enterprise (SAE) and OpenManage Power Center (OMPC). These tools, which can be installed either on Microsoft Windows or Linux, allow them to leverage the additional capabilities of the Dell EMC Systems Management stack.

- Dell Repository Manager allows them to create customized catalogs and repositories for firmware and driver updates with the desired level of granularity. With DRM, they can maintain a customized baseline to identify and gather system updates based on the University of Pisa’s specific standards for each project. This removes a lot of “guesswork” from system-update tasks.



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- SupportAssist Enterprise allows a tighter integration with Dell EMC Support Services, enabling the automatic logging of service requests and the predictive analysis of hardware failures (typically memory, HDDs and SSDs).
- OpenManage Power Center accounts for and allows them to better understand current power utilization and space allocation within the various data center rooms, aisles and racks.

Looking ahead

As they look to the days ahead, the IT leaders at the University of Pisa are focused on keeping their environment at the leading edge.

With that thought in mind, they are now testing the new Dell EMC PowerEdge MX7000 modular chassis, which enable a flexible, modular approach to building and combining compute, storage and networking resources. As with their other Dell EMC servers, they will also manage the MX systems via the single pane of glass provided by the OpenManage Enterprise console. It can work in conjunction with the OpenManage Enterprise Modular edition, which is specifically targeted to manage the MX chassis components.

The advantage of OpenManage Enterprise is about using a unified management console for all server form factors in a data center (rack-mount, modular, tower). In the presence of MX’s multiple chassis, it would be up to the user to manage with OpenManage Enterprise or OpenManage Enterprise Modular. The usability experience and the operational workflow will stay the same.

“Everything is managed by OpenManage Enterprise,” Davini says. “It’s like a guardian that watches over our data centers.”



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