

Preserving the past through digitisation

The Serbian Academy of Sciences and Arts protects the nation's heritage for future generations worldwide with Dell Technologies and Intel.



Arts, Entertainment and Media | Serbia

Business needs

The Serbian Academy of Sciences and Arts wanted to digitally preserve its artefacts—including 14th-century manuscripts and a number of documents of historical value making them available online to people worldwide.

Solutions at a glance

- [Dell EMC PowerScale family—Isilon A200 storage](#)
- [Dell EMC PowerEdge R640 servers with Intel® Xeon® processors](#)
- [Dell EMC Networking S4128F-ON switch](#)
- [VMware ESXi hypervisor](#)
- [Dell Remote Access Controller \(iDRAC\) software](#)

Business results

- Protects Serbian heritage for future generations
- Gains archive for millions of digital master images
- Ensures reliable computing with Intel processor technology
- Works with partner that understands the cultural importance of the project

Supports closer
study
of artefacts for new
discoveries



Enables many to
see precious
cultural
objects for the first
time online





The word “museum” has traditionally described an institution that physically stores objects of historical, scientific, artistic or cultural value. Maybe that definition needs updating to include cyberspace, as more museums create digital archives of the artefacts in their possession.

Digitising history, increasing access

The Serbian Academy of Sciences and Arts, located in Belgrade, is digitising its collections of precious Serbian artefacts. These include 14th-century Serbian manuscripts, as well as a large number of books and documents, some of which are of great historical value. Academician Aleksandar Kostić, digitisation project leader, says, “Digitising our collections makes sense when you consider how important they are to Serbian history and the fact they won’t last forever—no matter how well we preserve them.”

Furthermore, as Kostić explains, digitisation will open the collections to a new audience as images are posted online. “Not everyone can get to the Academy to see what we have,” he says. “And there is a limit on what we can physically display, not least because many of the artefacts are so fragile. Putting the digitised documents online will meet the public’s demand while keeping the collections protected. It may also lead to some discoveries as scholars get to study artefacts in high-resolution for the first time.”

A tried and tested solution

To capture images of its collections, the Academy needed both best camera technology and an IT infrastructure to catalogue and store the images. It would be a significant investment, and Kostić and the project team wanted to get it right. “We consulted museums and institutions around the world that were in the process of digitisation,” says Kostić. “Time and again, Dell Technologies came up in our survey.”

Finding a partner that feels your passion

The Academy engaged Dell Technologies, and a local team met with Kostić and his colleagues to hear their requirements. With some images up to 600 megabytes in size and millions of them to be stored, the Dell Technologies team proposed the Dell EMC PowerScale family of products and its Isilon A200 node for large-scale archiving capacity. To complete the infrastructure, the team also proposed two Dell EMC PowerEdge R640 servers with Intel® Xeon® processors, which have embedded PCI Express lanes for improved input/output speeds.

“We were certain the Dell Technologies solution with Intel processors could provide a secure archive for digitisation.”

Academician Aleksandar Kostić, Digitisation Project Leader, Serbian Academy of Sciences and Arts

As part of the solution, the servers included integrated Dell Remote Access Controller (iDRAC) software for monitoring server performance. Providing Microsoft Active Directory and domain controller services, the servers were also virtualized with a VMware ESXi hypervisor and connected to the storage via a Dell EMC Networking S4128F-ON switch. Says Kostić, “We were certain the Dell Technologies solution with Intel processors could provide a secure archive for digitisation. Plus, we saw the value offered by Isilon and were really impressed with how the team members from Dell Technologies approached the project. They grasped the cultural importance of what we were doing for our country, and we soon felt as though they were part of our team.”

Support ensures smooth deployment

The Academy implemented the solution with the support of Dell Technologies partner Oblak Tehnologije. Comments Kostić, “Everyone who worked on the deployment was very professional. The communication between all parties worked well, and the entire solution was up and running according to schedule.”

Laying the foundation for new discoveries

Today, the Academy is protecting historical artefacts important to Serbia, and the world, using Dell Technologies. So far, it has digitised around 300 rare books and 200 medieval manuscripts. “We’re only at the beginning of this project, so there are still millions of items to photograph and images to store,” says Kostić. “We are learning as we go and defining processes for digitizing items that can hardly be touched because they are so fragile.”

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Academician Aleksandar Kostić, Digitisation Project Leader, Serbian Academy of Sciences and Arts

Along with each digital master image, the Academy is also creating a JPEG image that will be uploaded to the internet. “We’re looking forward to the reaction of people and scholars in particular, many of whom will be seeing parts of our collection for the first time. Our hope is that this project will enable them to come up with discoveries that may enhance our understanding of the past and be of value for generations to come,” says Kostić.



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