Hewlett Packard Enterprise

The ADAPEI de la Meuse chooses All-Flash for its IT system

This association accelerates its ERP with HPE Nimble Storage

Industry
Medical and social enterprise

Objective
To deal with the needs of ever-increasing volumes of data and users of a centralized ERP

Approach
Installation of an HPE Nimble Storage All-Flash Array coupled with the HPE InfoSight proactive software maintenance tool

IT benefits
- Proactive maintenance and supervision
- Automatic shipping of replacement parts
- Solution implementation in 48 hours
- Compatibility with pre-existing storage solutions

Business benefits
- Data access time decreased by a factor of 100
- Instant availability of information, regardless of the distances between sites
- Deduplication/compression for more storage

Faced with the increasing current and future performance needs of its ERP, the ADAPEI de la Meuse chose the HPE Nimble Storage All-Flash Array. It decreases data access time by a factor of 100 and is supervised for proactive maintenance through HPE InfoSight.

Challenge

Increasing performance needs of the information system

The ADAPEI de la Meuse is an association created by the friends and parents of disabled children. From the age of 3 to 5 years, the children enter special education and rehabilitation services centers, where they receive schooling and then, later, vocational training according to their abilities. On reaching adulthood, they enter an ESAT, a work integration social enterprise, where they can participate in various activities such as horticulture, market gardening, industry, etc.

"Hewlett Packard Enterprise offered to come to our data center to carry out a POC. After estimating the volume required, they connected their full SSD array to our information system. The initial tests showed that the time to access the storage fell on average to 0.2 milliseconds, compared to our previous array that did not go below 15 to 20 milliseconds."

– Jérôme Borras, Information System Manager, ADAPEI de la Meuse

The ADAPEI has signed agreements with many companies in the Meuse department, where these young disabled persons complete their activities perfectly. Today, the organization employs 800 people, soon to increase to 1,000, and uses ERP for its many operating needs, such as human resources or the individual computerized medical files of these young patients. "In addition, in our region, our association represents 23 sites, with various personnel who do not know each other but who need to exchange data regularly. Therefore, in 2014, we decided to unite everyone through IT, with a data center deployed at our head office in Vassincourt. We are also aware that we have more and more sensitive data which needs to comply with GDPR," says Jérôme Borras, Information System Manager, ADAPEI de la Meuse.
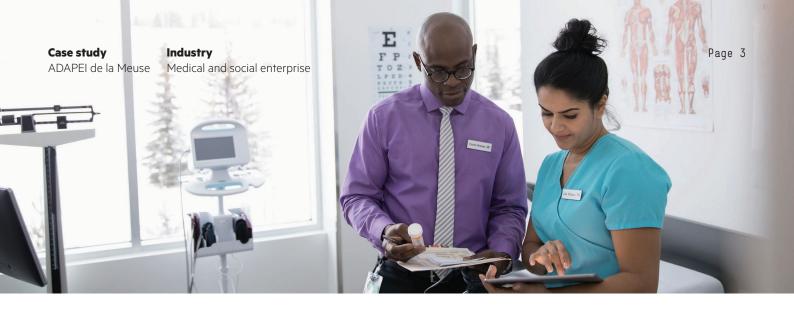
Linking several remote sites to a business ERP increased performance needs enormously, because, although installed in the data center, it is accessible through remote offices. For example, it enables 800 pay slips to be edited every month, and ensures the operation of several office software tools. "Initially, we used a 4 TB storage array with mechanical hard drives, from a rival brand of HPE. Everything was fine until we reached 400 users after two to three years. My diagnosis was that this was a problem of latency on the storage, that slowed remote sessions as simultaneous accesses to the data increased," says Jérôme Borras. It is true that the ADAPEI sites were connected to the ERP via several different communications technologies such as ADSL, MPLS, etc. Optical fiber had not

been installed everywhere yet, which prevented implementation of a cloud-based system. It was essential that the links with the least bandwidth receive the benefit of a reliable flow at the data center level to avoid serial slowdowns on the users' interfaces. It must be pointed out that the ADAPEI de la Meuse is an establishment that operates night and day. Its ERP must therefore be accessible continuously, in particular, the DIUs (Users' Individual Medical Files) where all the information and actions linked to a patient are entered and stored.

Solution

Performance increased by a factor of 100
In 2017, Jérôme Borras, who alone ensures the functioning of the information system, was searching for a proactive solution. The goal was to make a number of tasks automatic, so as not to be confronted with a breakdown that blocked everything. By chance, he met with teams from HPE Nimble Storage at an IT conference. "HPE offered to come to our data center to do a POC free of charge. After jointly estimating the volume required, they connected their full SSD array to our information system. The first tests showed that the storage access times fell on average to 0.2 milliseconds, when our previous array did not go below 15 to 20 milliseconds. In terms of inputs-outputs, we stagnated at 400 inputs/outputs per second with the current solution, whereas the Nimble AF1000 All-Flash array from HPE went up to 35,000 I/O per second," he emphasized.

The POC led to a purchase, and the HPE Nimble Storage solution was installed over a weekend so that everything was quickly totally operational. However, the 1 Gbps wiring had to be replaced by a 10 Gbps network for the new array. "But the most important thing is that this new bandwidth allowed us not only to eliminate the latency effect but also to make our IT more secure by doing a full backup twice a day, during the day and during the night," he added. In this way, this only takes a few minutes compared to 30 minutes to an hour previously. The overall result is they have the data instantly, and no longer have to wait for it to be displayed, even for those who are the furthest from the data center.

Although this array has the same capacity as the previous one, i.e., 4 TB usable, with 24 SSDs of 256 GB each, its internal deduplication function offers the possibility of storing the equivalent of 12 TB of data. "This additional capacity allows us to consider deploying our EDM project, a big consumer of data. Ultimately, we could even extend the capacity of the Nimble array by adding another 24 SSDs," adds Jérôme Borras.

Benefits

Proactive maintenance and faster administration

After using the HPE Nimble Storage array, Jérôme Borras noticed that it not only increases the performance of his information system, it also saves him time on maintenance. Delivered with the HPE InfoSight monitoring system and combined with the HPE Proactive Care contract, it sends its readings to where the HPE Pointnext engineers can proactively help avoid breakdowns by reacting rapidly in the event of a problem.

"One morning, I was just getting up when I received an email warning me that one of the two controllers of the array had a small problem, and that a new one was on its way so that I could replace it as quickly as possible. Another time, I was alerted that an SSD had a problem and I received a new one within two days," he said happily.

He specifies that on receiving each package, an HPE engineer supports him in French via Skype to show him the amendments that need to be carried out. "So it was possible for me to replace the array controller on-the-spot. At no time did I have to stop production. The operation took only ten minutes, and it was mainly a question of turning a few screws."

"The most important thing is that this new bandwidth capability will enable us to not only eliminate the latency effect but also improve the security of our IT."

– Jérôme Borras, Information System Manager, ADAPEI de la Meuse

Customer at a glance

Hardware
• HPE Nimble Storage AF1000 All-Flash

Software
• HPE InfoSight

HPE Pointnext services
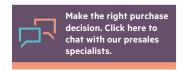• HPE Proactive Care

Furthermore, because of the greater number of inputs/outputs per second, Jérôme Borras can parallelize the updating of his applications. "Previously, I updated the ten virtual machines of our ERP one by one, which took me four to five hours each time. Now, this operation only takes me 30 minutes. It's the same for updating the operating systems. In the end, the time that I save can now be devoted to my users rather than to the infrastructure," he declares.

In the next six months, the ADAPEI de la Meuse will add a new HPE Nimble Storage Array to replace the old one installed in one of the two computer rooms. This will ensure the operation of the PRA (Activity Recovery Plan). Jérôme Borras is looking forward to the deployment of new functions such as synchronous replication with the All-Flash technology.

"We are also currently working on the concept of a connected residence, with a home automation system that could give the people we work with more autonomy in their homes," says the Information Systems Manager.

For Jérôme Borras, in addition to the performance and the capacities of the HPE Nimble Storage arrays, HPE InfoSight represents a real plus, which will be installed on all the hardware such as the servers. "The benefit our clients and the entire community have received, our ability to carry out analysis of Big Data and use Artificial Intelligence mean I'll be staying in this environment," he concludes.

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