DELLEMC | (intel)

Powerful,

ENDRESS+HAUSER IMPLEMENT A POWERFUL PRIVATE CLOUD FROM DELL EMC FOR SAP HANA

Together with Dell EMC, automation specialist Endress+Hauser has implemented a state-of-the-art environment for all of the company's critical applications.

Endress+Hauser **EH**
People for Process Automation | Industrial process technology | Reinach, Switzerland

The challenge

Starting in the mid-2000s, Endress+Hauser ran its SAP applications using SUSE Linux on a mainframe. However, because this configuration was not cer-tified for the planned migration to SAP HANA, the company decided to transfer its system to another IT environment. The measurement and automation technology specialist evaluated the alternatives and selected a complete IT infrastructure solution from Dell EMC for its migration.

The solution

- Dell EMC PowerEdge R930 servers equipped with E7 v4 series Intel® Xeon® processors with up to 24 cores per processor
- Dell EMC VMAX3 Enterprise storage arrays
- VMware vCloud Suite Advanced
- VMware SRM Enterprise
- SUSE Linux Enterprise for SAP Applications

The results

- Reduced total operating costs for uniform platform
- Reliable foundation for planned transition to SAP S/4HANA
- Conception, planning and implementation all from one source

30 %
higher
performance

Powerful,
universal platform for all IT services worldwide

Migration to SAP HANA and standardized platform unlocks new innovation opportunities

Together with Dell EMC, automation specialist Endress+Hauser has implemented a state-of-the-art environment for all of the company's critical applications. Endress+Hauser has migrated SAP and non-SAP applications from its mainframe to an open, standards-based x86 environment, thereby unlocking a world of new innovation opportunities.

Two become one: By the end of 2018, Endress+Hauser, one of the world's leading providers of measurement tools, services, and solutions for industrial process technology, will be switching off its mainframe and operating all of its IT components in a uniform, standards-based x86 environment. With its powerful solutions, Dell EMC provided the technological foundation for this major shift.

Prior to this new framework, the company's IT occupied two parallel environments: the mainframe, which contained the critical SAP and non-SAP applications, and the x86 system landscape. One of the driving forces behind this consolidation was the planned migration of the SAP landscape to the SAP HANA in-memory platform and then,

in a second stage, to SAP's new Business Suite S/4HANA. However, this would have been extremely difficult due to the company's mainframe. Since the mid-2000s, the Swiss group had been running its SAP applications using SUSE Linux Enterprise Server, which would not have been certified for SAP HANA when operating on the mainframe. However, it is certified for use on Dell EMC's x86 servers.

"The migration to SAP HANA, and eventually to S/4HANA, was one of the goals," reports Ralf Straub, Director Operations at Endress+Hauser InfoServe GmbH+Co. KG, which is based in Weil am Rhein, Germany. "And that goal is closely connected to a second goal, one which we call 'data center in one box'." We want to be able to provide all IT services to our group companies around the world on a single, uniform platform consisting of solutions from Dell EMC. That will dramatically reduce the total operating costs for the infrastructure and simplify systems administration by homogenizing and standardizing our processes in the Dell EMC environment."

> *"With our 'data center in one box' concept, we provide all IT services to our group companies around the world on a single, uniform platform. The consolidation will also reduce the total operating costs for the infrastructure."*
>
> Ralf Straub, Director Operations at Endress+Hauser InfoServe GmbH+Co. KG in Weil am Rhein

"Dell EMC carried out the migration project with an established team and a single point of contact while meeting all of the deadlines and budgetary requirements for the project, complete with Implementation Services, Support, and Dell Financial Services."

Ralf Straub, Director Operations at Endress+Hauser
InfoServe GmbH+Co. KG in Weil am Rhein

Virtualized IT infrastructure with solutions from Dell EMC

The technical goal in implementing the new IT systems landscape is to establish an on premises private cloud for SAP HANA and all other non-SAP applications, to be managed directly by Endress+Hauser InfoServe. The fully virtualized private cloud would be based entirely on solutions from Dell EMC and operated at two mirrored data centers in the group.

Endress+Hauser's longstanding business relationship with Dell EMC was an important part of the decision to implement an x86-based IT infrastructure. The measure- ment and automation technology specialist was already using a virtualized environment for its open systems based on Dell EMC products. Ralf Straub and his team were able to utilize this knowledge and experience.

In addition, Endress+Hauser valued the fact that Dell EMC would be able to develop, plan, and implement the entire IT infrastructure solution in house. "Dell EMC carried out the migration project with an established team and a single point of contact. That contributed significantly to the success of the project," remarks Ralf Straub. "Dell EMC was able to meet all of the deadlines and budgetary requirements for the project, complete with Implementation Services, ProSupport Plus, and Dell Financial Services. Thanks to Dell EMC's excellent service, we were able to speed up our SAP project by two months and stick to our SAP migration plan without any trouble."

Dell EMC, working together with the IT department of Endress+Hauser, was able to transfer the entire mainframe workload for 9,500 SAP users by implementing a solution consisting of 46 Dell EMC PowerEdge R930 servers equipped with E7 v4 series Intel® Xeon® processors with up to 24 cores per processor, Dell EMC VMAX3 Enterprise storage arrays, VMware vCloud Suite Advanced, VMware SRM (Site Recovery Manager) Enterprise, and SUSE Linux Enterprise for SAP Applications. The Dell EMC PowerEdge R930 servers are divided into two configuration types, one with 1.5 TB main memory and one with 3 TB. The entire x86-based SAP and non-SAP environment consists of around 110 VMware ESXi Hosts and approximately 1,600 virtual machines.

Optimizing applications for SAP HANA

The transfer of the SAP ERP landscape from the main-frame to the x86 environment was completed by the end of 2017, and Endress+Hauser was then able to perform the first performance assessments. Transaction times had already improved by up to 30 percent for the large majority of the applications – and that was just the beginning. "By the end of 2017, the SAP ERP code was HANA-enabled," reports Ralf Straub." In the second stage of the process, the code will be optimized for SAP HANA so that the applications can really begin to benefit from the SAP HANA database technology."

Data intensive calculations in particular stand to improve significantly, making it possible for the company's business processes to take advantage of a wide range of opportunities for innovation. Endress+Hauser, together with its partners, has years of experience working with SAP, and as of the beginning of 2018, the company will begin to carry out additional performance optimization for SAP HANA. According to Ralf Straub, the next step will be to transition to SAP S/4HANA.
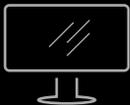
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