The Swiss Red Cross uses FlashArray™ from Pure Storage to improve the performance of its critical ICT systems while staying within budget for operating expenses. This means that whenever a crisis demands its response, the organization will have the ICT resources to provide the necessary help.

WITH PURE STORAGE, THE SWISS RED CROSS REMAINS ABLE TO ACT EVEN IN AN EMERGENCY

The Swiss Red Cross (SRC) is a humanitarian organization belonging to the global Red Cross network. The 150-year-old SRC is involved in projects in Switzerland and more than 30 other countries. In addition to more than 400 staff in Bern and Wabern, it also employs a few hundred people in the 24 Cantonal Associations. The ICT Services department provides information and communication technologies (ICT) services not only for its own customers, such as the Red Cross Cantonal Associations, but also for partner organizations such as the Swiss Refugee Council. To ensure it can offer help wherever needed, the SRC requires a flexible and reliable ICT infrastructure.

To ensure the organization remains highly responsive, the SRC supplies information and communication services from two redundant, highly available computer centers. In addition, it is increasingly making use of offerings from the cloud, primarily Office 365 and Azure technologies. The SRC private cloud is available to SRC partner organizations and selected NPOs under a service-provider model.

The ICT environment has grown with the organization. The server environment now consists of almost 200 servers, nearly all of which are virtualized. Increasing volumes of data and a growing number of users resulted in ever-higher latency times on virtual machines. This was particularly critical for the operation of the Citrix XenApp and XenDesktop environments.

With a workload of 5,000 to 6,000 IOPS, the legacy disk-based SAN solution was no longer able to supply the required performance. In addition, it was extremely complicated to manage. Special adaptations were not only very complex, but could only be implemented by an external specialist.

“The slow VDI environment, waiting for programs to open, and the high maintenance effort increasingly restricted our flexibility,” explained Benno Stucki, Head of the ICT Services department at the SRC. “We had to look for a solution which guarantees quicker response times and thus more reliable compliance with our Service Level Agreements.”

RAPID HELP FOR THE HELPERS

The ICT team required a solution, which would allow them to act quickly while providing powerful data processing and high availability with low overall operating costs. The server environment of the two computer centers needed to operate at high performance without any bottlenecks, wait times, or failures. Consequently, only an all-flash solution could be considered here. The IT staff consulted with its IT partner, ITRIS Enterprise AG, to search for a storage solution.
"We focused up front on disk-based systems and thought that combining SSD caches might be powerful enough," Stucki recalled. "But we dropped this idea when the Pure Storage specialists explained the technical details relating to disk spindles and flash storage. Moreover, we had misgivings concerning the commonly held view that flash storage would become obsolete relatively quickly and would thus no longer be usable. Pure Storage was able to settle these doubts with convincing arguments."

**CONSOLIDATING MULTIPLE WORKLOADS ON FLASH**

Ultimately, a cost/benefit analysis — taking into account the high data-reduction rates and the innovative Pure Evergreen™ Storage procurement model — proved convincing for SRC management.

The SRC now operates a Pure Storage array in each of its two computer centers, guaranteeing high availability. The approximately 200 virtualized servers and the complete VDI are operated on the all-flash Pure arrays, as well as database servers based on Microsoft SQL Server. The largest database contains some 10 million data records in over 50,000 tables.

Stucki said installation of the Pure Storage arrays went very smoothly, thanks to their innovative design simplicity as well as the support from ITRIS Enterprise. Commissioning, including staff training, took only around five hours. "Unlike the predecessor system, we didn't have to make do without our technicians for five days, so that they could be trained how to use the storage system," Stucki noted. "Pure Storage is almost self-explanatory."

**HIGH PERFORMANCE FOR CRITICAL APPLICATIONS**

The new systems thrilled the ICT Services team immediately. "One of the users asked us if we'd finally released the handbrake," Stucki said. Particularly in the Microsoft Dynamics NAV sector, users noticed enormous enhancements in performance. Response times and IOPS for the databases and virtual servers were drastically improved. In some cases, data processes are handled five to seven times faster than before.

"Pure Storage enables us to provide our entire virtualized server environment with over 200 servers and around 80 virtual desktops reliably with constant performance for our customers and with high availability. That's because components can now be replaced and enhanced even during ongoing operation," Stucki reported.

Thanks to a 70% reduction in the footprint for XenApp servers and an 80% reduction in the footprint for XenDesktop servers (and the resultant cost-savings), the ICT Services team kept to the specified budget and can point to an optimized TCO. "The all-flash system from Pure Storage is modern, lightning fast, considerably more cost-effective in operation, and impresses with its fascinatingly simple management," Stucki said. "This enables us to not only achieve our performance goals, but also stay within our cost targets while continuing to offer customers our full range of services at an attractive price."

Thanks to its improved ICT environment, the SRC can concentrate fully on its main task: providing rapid and unconditional help in all crises.

"The flash systems of Pure Storage support our philosophy of preventing and lessening suffering in Switzerland and other countries. With the new solution, we will be able to achieve our goals within our budget and also guarantee operation even under the most difficult conditions," Stucki summarized. "For me, the Pure Storage FlashArray is the solution for everyone who requires uncomplicated and powerful storage systems."