

CSS Insurance

Accelerations Achieve Transaction Processing within Seconds

Switzerland-based CSS Insurance is a century-honored commercial insurance organization established in 1899. It is the second-biggest medical insurer in the country. CSS has over 120 branches and reported an income of 5.1 billion Swiss francs in 2012. The organization currently insures 1.73 million customers and 18,850 companies. CSS is rather delighted by the business developments. However, there was one person that felt the pressure. That individual was Michael Tschuck, the Head of Backup and Recovery Processes. Mr. Tschuck has worked at CSS for quite some time and has overseen the data consolidation initiative and deployment of the first all flash array. He was also dealing with the service performance bottlenecks.

Business benefits



Scale-out & up

Performance and scalability to match business growth



"0" wait time

Instant response for mission-critical services

Business Challenges

Increasingly more customers were choosing CSS for their medical insurance needs. The expansion to business volume meant the data centers at the organization had to process higher volumes of each service everyday (such as policy creation, query, claims submittal, and tracking). During the second half of 2012, some technical problems started to show up. CSS employees, insurance brokers, and customers were all experiencing slowed access to systems during peak hours.



Transformation

"In terms of performance, Huawei's all flash storage systems are comparable to that of the other vendor. However, when it comes to scalability, more nodes and cabinets are added to the Huawei systems instead of having to stack more systems. This linear scalability is exactly what we needed!" Michael Tschuck, Head of Backup and Recovery Processes at CSS Insurance.



Service Acceleration a Must

Data consolidation has become an essential undertaking in the financial and insurance industry. Consolidation of business data like customer files, insurer data, premium payments, claims, and so forth in the data center at headquarters allows the organization to improve operational efficiency, reduce risks, raise service levels, and lower total cost of IT.

Although consolidating data bring many benefits to insurance companies, it also presents several technical challenges such as achieving the proper levels of disaster recovery (DR), information security, and response speed. Response speeds have a direct impact on operational efficiency and customer satisfaction, which makes this item a priority for CIOs at insurance companies. CIOs have been trying to improve response at their data centers through a variety of means for quite some time now. One of the most adopted measures for insurance companies mainly focused on databases is to enhance the IOPS performance of storage devices.

Mr. Tschuck informed that CSS Insurance had completed its data consolidations early on. Two data centers in Lucerne provide the supports for the business throughout the country. As the second-biggest medical insurer in the country, CSS fully understands the significance of rapid data processing to its business, which is precisely why it has always attached much importance to technical innovation in its IT systems. In 2009, CSS purchased its first set of all-SSD arrays to handle pressure from growing traffic at its data centers. The arrays were used to help accelerate storage services for core application systems. CSS is considered an early adopter in all flash systems.

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The capacity of IT systems could not keep up with the rapid business development. This became a serious contradiction for the organization. Mr. Tschuck, led a team to investigate the matter and found that the main reason for the slowdown was that the all flash arrays carrying the mission-critical services were limited to 150,000 IOPS, which was insufficient during peak hours. According to estimates based on the current

pace of development from the IT Department at CSS, core business systems would require 300,000 IOPS in performance to satisfy requirements for the next three to five years.

In addition to performance issues, Mr. Tschuck and his team also noted capacity issues in the existing system. The number of customers CSS Insurance served continued to grow, resulting in higher volumes of data being generated. At the same time, the company was introducing new products, which also raised requirements for high-speed data and storage services. The all flash arrays that were placed online in 2009 only offered 5 TB in capacity and could not support cascaded expansion efforts. The system had reached its maximum capacity after several expansions. CSS had to procure an all flash array with better scalability.



Perfect Mix of Performance and Capacity

Mr. Tschuck was on the hunt for a new solution. With all the choices available, sifting through the offerings and finding the right one was a rather long and involved process. He was considering the possibility of adding to the existing equipment. He also had to consider how much performance would be needed to satisfy requirements for several years into the future. He repeatedly discussed the situation with Infonika, the integrator for CSS, and ultimately decided to purchase new all flash arrays to replace the existing system.

Infonika initially recommended two vendors and started testing. Mr. Tschuck stated: "The equipment from the first supplier failed to pass the stress test. When IOPS increased to more than 300,000, latency rose significantly. As a result, that product was eliminated. The equipment from the second supplier passed the stress test but scalability left a lot to be desired. CSS would have to purchase another set of equipment to satisfy foreseeable capacity requirements, which would entail additional investments."

Mr. Tschuck was becoming troubled in what to do about the matter. Infonika started to take notice of the Huawei Dorado all flash storage systems able to yield 600,000 IOPS in performance while keeping latency down to a low and stable 1 ms. Dorado arrays also achieved 40 TB in capacity, enough to meet requirements from CSS for years to come. Infonika recommended the Huawei array for testing.

Mr. Tschuck was hopeful yet spectacle; he was worried about product stability. After nearly two months of stress and functional testing, he was fully convinced of the stability of Huawei's all flash storage systems boasting the largest in-class storage capacity with wide-open scalability capabilities.

CSS insurance decided to buy three sets of Huawei all flash devices (initial capacity of 10 TB) to revamp its existing storage system. One set would be deployed at each production data center in support of core services. These sets would replace the two existing sets of all flash arrays. The third set would be used to carry out functional testing for new services.

In September 2013, CSS Insurance rolled out the Huawei all flash storage systems. The accelerated systems relieve CSS Insurance of its various IT pressures. As business continues to grow, IOPS performance is increased linearly. Systems are able to maintain rapid and stable response, effectively relieving the pressures at data centers. Productivity and customer satisfaction both improved as a result. The Huawei solution was able to solve all pressing issues while ensuring overall affordability at the architecture design level. The built-in linear increases in scalability and performance allow CSS to make the best use of its IT budget both now and in the future. Find out how Huawei can help you make the best use of your limited IT budget with the wide-open scalability to grow with your business.

