



## HIGHEST SECURITY REQUIREMENTS FOR IT AT ZAHNÄRZTEKASSE AG



### CUSTOMER

ZAHNÄRZTEKASSE AG

### WEB SITE

WWW.ZAKAG.CH/DE/HOME

### INDUSTRY

FINANCIAL SERVICES

### LOCATION

WÄDENSWIL, SWITZERLAND

### KEY CHALLENGES

- Protection against current cybersecurity threats
- Security for sensitive patient data in the healthcare sector
- Comply with new Swiss data protection law

### SOLUTION

With VMware NSX Data Center, Zahnärztekasse can completely separate individual systems through micro-segmentation and completely isolate critical systems if necessary.

### RESULT

- Employees and customers of the Zahnärztekasse benefit from improved security of IT systems
- Central management, process simplification, flexibility and massive resource consolidation
- Improved network visibility and higher throughput rates

Zahnärztekasse AG is Switzerland's leading provider of customized financial services for dental surgeries, with a focus on fee and accounting management. The product portfolio of Zahnärztekasse relies on digital technologies and an efficient IT infrastructure. The IT department is currently working on protecting the IT environment against current threats of cybercrime and on implementing the forthcoming Swiss Data Protection Law. Sensitive personal data in the healthcare sector requires special security measures. In case of a data breach, affected companies face enormous costs and sustained damage to their reputation. Because Zahnärztekasse has been virtualizing its servers for several years, the step towards network virtualisation in order to secure critical systems, applications and the network was a logical one.

Zahnärztekasse AG supports about 1,000 dentists in the area of fee and accounting management and is considered the Swiss market leader. The company's approximately 33 employees are based at its headquarters in Wädenswil near Zurich and at a branch office in western Switzerland. Zahnärztekasse ensures sufficient liquidity for its customers, effectively protects them against bad debt losses and thus makes them more successful. Thanks to this comprehensive administrative relief, dentists and their staff can focus on patients, not paperwork.

### Challenge

Digitalization is a major challenge for the conservative dental market. Zahnärztekasse has responded to this trend by digitizing its assets including interfaces, various platforms ([www.debident.ch](http://www.debident.ch) und [www.zahngeld.ch](http://www.zahngeld.ch)) and the iPhone app Crediflex, and is now considered to be a market leader and pioneer in this area. As digitalization increases security vulnerabilities, potential cyber threats are accelerating as well. According to recent studies, the healthcare sector is often a target of cyber and hacking attacks. An important strategic project in Zahnärztekasse IT is to protect against current cybersecurity threats. Sensitive patient data in the healthcare sector must be specially protected, because data breaches can cause enormous costs and a lasting damage to reputation.

With its mission statement 'We make dentists more successful', the needs of its customers are key for Zahnärztekasse. Andy Hosennen, Head of IT Infrastructure and Support at Zahnärztekasse AG, summarizes: "With our financial services, we help dentists to make the most of their time. They can spend more time at the dentist's chair and with their patients and outsource the

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ANDY HOSENEN  
HEAD OF IT INFRASTRUCTURE AND SUPPORT  
ZAHNÄRZTEKASSE AG

#### VMWARE FOOTPRINT

- VMware NSX® Data Center
- VMware vRealize® Network Insight™

#### PARTNER

**agiba**  
IT SERVICES

annoying and time-consuming billing to Zahnärztekasse.” Dental surgeries are increasingly demanding more information about the security levels of products and services offered by Zahnärztekasse. In addition, a Swiss counterpart to the EU Datenschutz Grundverordnung (DSGVO) federal law on data protection is on the horizon, which will require Zahnärztekasse to further strengthen its IT security. Zahnärztekasse is also working towards ISO certification, so technological innovation is a major task on their agenda.

### Solution

As early as 2010, Zahnärztekasse started virtualizing its systems and built on this trend until the last systems were virtualized about three years ago. At the heart of Zahnärztekasse is their critical application ERP (Enterprise Resource Planning) system, including all customer data and business logic. Currently, approximately 144 VMs run on two separate clusters with a total of 5 hosts and one ESXi host. The virtualized storage has in total 10.5 TB for Cluster 1 (MS), 2.6 TB for Cluster 2 (ORA) and 0.5 TB for the ESXi.

The highest possible security level is the overall goal for Zahnärztekasse, because customer confidence in data security is of the utmost importance. In cooperation with partner AGIBA, it quickly became clear that VMware NSX Data Center and VMware vRealize Network Insight was offering a very good extension to the existing systems. Due to the positive experiences with VMware solutions so far, management and handling were already understood and the project could be implemented at short notice. “Thanks to the good preparation, we were able to implement VMware NSX Data Center and VMware vRealize Network Insight in just four days and also jointly develop the basic settings of the firewall regulations. Implementing a classic firewall would have taken two weeks,” said Pascal Fröhlich, System Engineer at AGIBA IT Services AG. With NSX Data Center, individual systems can be completely separated by micro-segmentation and critical systems can be completely isolated if necessary. The data were analyzed with vRealize Network Insight, so that all connections between the different virtual machines could be evaluated. Thanks to vRealize Network Insight, the Zahnärztekasse can set and control security guidelines and compliance requirements.

### Results

Today, employees and customers of Zahnärztekasse benefit from improved IT security. “If we protect our systems from threats, it affects everyone - both employees and customers. Our customers trust us to handle their data responsibly,” adds Andy Hosennen. And the entire company benefits from cost reductions, increased efficiency and data center automation. The heart of the solution is NSX Data Center, the network virtualization platform for the software-defined data center (SDDC). It enables network and security features to be fully software-based and implemented separately from the underlying physical infrastructure. Key advantages for Zahnärztekasse are central administration, simplification of processes, flexibility and massive consolidation of resources. The throughput rate is much higher than a physical solution: 5-6 GBit/s (physical solution) versus 20 GBit/s (NSX) per host - total firewalling capacity in Zahnärztekasses data center is 100 GBit/s.

The transparency in the network has improved immensely through regular insights from vRealize Network Insight. Machine learning and artificial intelligence are also used in security programs of Zahnärztekasse. Seamless integration into the existing VMware environment and the familiarity of the 3-person IT team led by Andy Hosennen with the already known products was

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PASCAL FRÖHLICH  
SYSTEM ENGINEER  
AGIBA IT SERVICES AG

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the most important point in the decision making process. In addition, the reasonable price of the VMware solution and half the implementation time compared to other options convinced Zahnärztekasse. Andy Hosennen summarizes: “I can’t imagine working without VMware today. The solutions complement each other perfectly: NSX and VMware vRealize Network Insight were integrated into our existing system like one building block on top of the other, fitting exactly and easily.”

With the additional security gained, Zahnärztekasse is well prepared for keeping the position as market leader and meeting increasing demands of its customers for state-of-the-art technology to cope with latest cybersecurity threats. It will obviously not increase revenue for Zahnärztekasse, but prevent revenue from declining due to lacking responsibility for data security or ignoring updates, and customer confidence from being gambled away.

### Looking Ahead

With 100% virtualization and the current level of security, Zahnärztekasse has reached two important milestones. “Without today’s digital technologies, Zahnärztekasse AG would certainly not be where it is today,” concludes Andy Hosennen. “We are already relying on current and up-to-date technologies and can look to the future with optimism.”

