**Improved security
of banking network**

**More time
for innovation**

**Full and automatic
compliance**

DVB Bank SE enhances and simplifies network security with VMware while navigating increasingly complex cybersecurity and compliance landscape

DVB Bank SE is a financial services provider that specializes in international transport finance. As all other finance institutes in Germany, the bank is a big target for cyberattacks and must respond promptly to constantly changing threats. In recent years, the number of attacks targeting the finance industry has increased exponentially. Thanks to VMware Carbon Black Cloud™ Workload, DVB Bank SE has implemented a solution that is ideally suited to warding off modern threats. The inherent security layer built into VMware solutions enables a performance-based security, boosting not only the customers trust in the bank but also cultivating a keener awareness for IT security within the employees and their behaviors.

Never stop moving! DVB Bank SE clears the way for international transport finance

Headquartered in Frankfurt/Main, DVB Bank SE is a subsidiary of DZ BANK AG Deutsche Zentral-Genossenschaftsbank – the second-largest banking group in Germany. The 346 employees worldwide manage a credit portfolio valued at around EUR 5.7 billion, financing loans in the transport sector, especially in the shipping

DVB Bank SE is a financial service provider that specializes in international transport finance. For more information, please visit *www.dvbbank.com*.

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VMWARE FOOTPRINT
VMware vSphere®
VMware vCenter®
VMware Carbon Black Cloud™ Workload
VMware NSX®
VMware vRealize®

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industry. It operates in additional eight offices around the globe, serving a worldwide base of shipping clients made up of publicly-traded enterprises and private companies, multinational corporations and smaller, family-owned businesses.

Increasingly complex cybersecurity and compliance landscape

As threats grow in volume and sophistication financial institutions in particular are exposed to a multitude of risks. Just last year, DVB Bank SE has recognized about 55,000 security attacks. Ransomware assaults alone hundreds of incidents per day.

DVB Bank SE faces the challenge of running its business smoothly in the midst of this incessant crossfire. Regular operations and customer trust are heavily dependent on the bank's ability to secure its data. Financial losses and damage to reputation must be avoided at all costs – all while ensuring compliance with a wide range of regulatory requirements— such as from the European Central Bank (ECB),the Prudential requirements for IT of BaFin (BAIT), the Monetary Authority of Singapore (MAS) or the International Organization for Standardisation (ISO). However, compliance in its current form requires a huge amount of manual labor. The Technical Information Security Officer (TISO) of the bank spends an entire week per month merely reviewing the latest prescriptions and compliance stipulations and synchronizing them with IT-supported processes and systems. Yet no sooner are the latest guidelines implemented then the process starts over. The TISO admits that his time should be refocused on other, more strategic tasks.

The changing nature of work is also complicating compliance and cybersecurity efforts. At the start of the year, the pandemic forced the bank to get as many people as possible working productively from home virtually overnight. The need for permanent system availability and automated processes had to be met at lightning speed.

Micro-segmentation of the network and inherent workload protection

DVB Bank SE looked to a trusted technology partner to help manage complex cybersecurity and compliance requirements

while dealing with a changing workforce. The bank had already been working with VMware for over a decade to virtualize networking and security.

"At the time, we already knew we were backing the key player in the virtualization space," said Robert Seidemann, Vice President Engineering & Operating Services, DVB Bank SE. "And as we have realigned our network and security activities, VMware has increasingly become an important strategic partner to our enterprise IT."

DVB Bank SE uses VMware NSX®, a complete L2-L7 platform, to virtualize networking and security through microsegmentation. Moving away from physical firewall appliances allows the bank to separate distributed applications at the workload level seamlessly and at scale.

"That would have left us sitting together in a prison but with all the doors to the outside world wide open," the said Seidemann, thinking back to the state of the network before microsegmentation.


"Introducing VMware Carbon Black has made life so much easier for our Technical Information Security Officer (TISO). Instead of spending a week working through all the latest security regulations, he now has time to devote to implementing innovative projects."

ROBERT SEIDEMANN
VISE PRESIDENT OS&IT - ENGINEERING
& OPERATING SERVICES, DVB BANK SE

In the end, the virtual solution provided better security – and involved a lot less work: "if we had opted for the hardware solution, we would have had to rebuild many of our custom-developed applications as well as the entire network infrastructure", Seidemann explained.

"With NSX, it was possible to secure each VM individually. After the project, our network was divided into small segmented and protected areas. During the implementation, VMware's vRealize® Network Insight product helped us a lot by automating the analysis of our existing communications between VMs but also to physical systems. This allowed us to determine all the necessary connections before enabling the distributed firewall on the VMs, and to create the appropriate rules for them. It was phenomenal for us to be able to implement and activate this in live operation without any downtime."

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As digital transformation continues to evolve network architecture, DVB Bank SE faces an ever-changing regulatory landscape and a need to continue to enhance its security strategy. VMware Carbon Black Cloud Workload ensures the security of individual applications at the hypervisor level. Instead of merely responding to threats after the event, as in the past, the financial institution is now able to proactively reduce the attack surface. VMware Carbon Black models intended application behaviors, identifies abnormal activities and combines application control with reputation appraisal (subject to central management) and extensive automation.
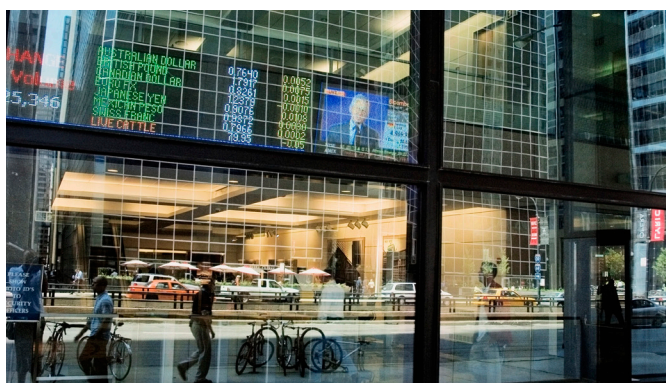
"Prior to installation, the IT staff had a free hit: For two days, we were able to perform live simulations of all kinds of attacks, on test systems provided specifically for this purpose," Seidemann said. "The system stood up to the worst they could throw at it. And then everything moved very quickly. VMware Carbon Black was up and running as our cloud solution within a day."

Enhanced yet simplified network security enables innovation and customer service.

DVB Bank SE has now virtualized nearly 100 percent of its critical applications. Thanks to VMware Carbon Black and the NSX Service-defined Firewall, no applications are left exposed to threats, while client data and payment transactions are protected. Within the bank's IT system, VMware Carbon Black automatically validates any changes and synchronizes them with the implemented security mechanisms. The microsegmentation of the network that was already in place has now been made even more effective. Faster and more detailed responses can now be found to risky workload behaviors, and operating system integrity is guaranteed at all times.

"VMware Carbon Black has made life so much easier for our TISO," Seidemann said. "Instead of spending a week working through all the latest security regulations, he now has time to devote to implementing innovative projects."

His staff is free to determine the level of automation. Alerts are sent to the Security Officer whenever adjustments need to be made, and the next step will involve the system making these adjustments autonomously. Users don't even notice the new solutions – except, perhaps, when talking to colleagues who are palpably more relaxed.

"VMware has helped DVB Bank SE keep IT management as simple as possible," Seidemann said. "And we can use the time that saves us to stay innovative."

Crisis-resistant growth and robust defense against attackers

For DVB Bank SE, the strategic journey does not end here. "The demands on the banking sector are not going to ease off in the future, that's for sure," Seidemann said. "So, in parallel, we are constantly ramping up the number of virtual machines." The next items on the agenda have already been agreed: in the future, Seidemann and his team plan to take a closer look at the other functions of the VMware Carbon Black family.

#VMwareCarbonBlack gives us more time for #innovation and guaranteed #security – @dvbbankse trusts @VMware as its strategic partner for network and application security #nsx #successstory #finance