



USB Strong Authentication Tokens and Network Security at Virchow Krause & Company

U.S. accounting and consulting leader's smart card-based information security program

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Virchow Krause knew passwords were their greatest network security weakness. They wanted strong authentication, user convenience, a seamless integration with their Microsoft infrastructure and a fast start. They turned to Gemalto.



VK management implemented a security strategy that mandated all employees use two-factor, strong authentication for network access.

> About Virchow Krause

Virchow Krause & Company LLP (VK) began its legacy in 1931 with the direct mission of making its clients' businesses better. Today, with more than 1,300 associates, they are recognized as the 15th largest certified public accounting and consulting firm in the United States. The company has offices in Michigan, Illinois, Minnesota, and throughout Wisconsin. They are also an independent member of Baker Tilly International, one of the world's top ten accounting and business services networks, represented by 144 firms in 108 countries.

> Background

In this industry, remote access to information is a must have, and high security is essential for protection of clients' identities and financial assets. In addition, compliance requirements are pushing companies in the accounting industry to strengthen login security and accountability.

VK was researching new possibilities for an information security solution that eliminated the use of conventional passwords to log onto PCs and networks. Matt Jennings, senior manager for the Information Technology Group, explained that the company had put strong password policies into place, but knew that was not the answer. "The more complicated you make passwords and the more often you change them, the more likely it is people will write them down. That's taking security in the wrong direction. No matter how 'strong' you make passwords, they do not give you strong protection," he said.

> Secure remote access

Another important goal was to ensure that the information security solutions could be used by VK associates while traveling in all situations where access is required, including airport kiosks, hotel business centers or behind client firewalls.

Equally important was the need to have a digital security solution that would be compatible with Microsoft Windows Vista and XP platforms. The conventional use of smart cards or tokens for two-factor authentication requires middleware or additional desktop applications—something the firm wanted to avoid.

> Balancing people and security

One overarching requirement was a solution that balanced strong security with convenience for employees. Going beyond ease of use, it was equally important to achieve zero downtime for employees due to lost or forgotten tokens.

Jennings and his team wanted an information security solution that addressed all of these needs. They selected digital security leader Gemalto to provide a two-factor security solution that was both strong and easy to use.

The deployment of Gemalto's .NET Dual USB tokens was carried out by CDW, a Gemalto value added reseller. VK also selected Microsoft's Identity Lifecycle Manager (ILM) for card and certificate management, along with Microsoft's Active Directory and Certificate Authority.

> Two authentication options

The personal device VK implemented, Gemalto's .NET Dual technology, provides two authentication options in a single USB token: a one-time password (OTP) capability and display, and built-in smart card technology to store PKI certificates and provide strong authentication. By using a Strong Authentication Server from Gemalto, VK was able to quickly implement OTP authentication. They can also issue and use PKI certificates with the smart card, their preferred authentication method, using the same device.

"For our employees, the Gemalto .NET Dual



Gemalto's .NET Dual
One device, two authentication methods. Use for PKI authentication when USB connected, or to generate one-time passwords (OTP) when it is not.

solution is actually more convenient because it eliminates complicated passwords," said Jennings. "Now all they have to do is remember their PIN to unlock the device, like an ATM card, and it provides strong two-factor security for them."

After a successful testing phase, the company is now issuing the device to all of its associates for use at the office as well as while traveling.

> OTP and PKI in one USB token

Gemalto's .NET Dual makes it convenient for users to access networks. The USB interface allows the user to plug directly into a USB port and gain access quickly and securely. There are times however when USB connection is not available. In those cases, the OTP feature is perfect. At the push of a button, Gemalto's .NET token displays a one-time use password on a small, built-in display. The OTP can be entered using the keyboard for secure access even from a public terminal like an airport Internet kiosk, or from behind a firewall at a client site.

> Pre-integration with Microsoft

Another important consideration was the close cooperation between Gemalto and Microsoft. "We're a Microsoft shop and the fact that Gemalto .NET Dual will just work with Microsoft's Windows Vista and XP platforms without any middleware is a really big advantage for us," said Jennings. "Plus the fact that Microsoft uses Gemalto .NET technology internally gave us a lot of confidence."

The joint Gemalto/Microsoft security solution was complementary with Microsoft's operating system and server platforms, and delivered a scalable solution that can be easily managed and monitored.

> Client trust and information security

VK employees now access network and client information using two-factor authentication for greater convenience and solid security. Employees no longer have to remember long and complicated passwords. Management can be more confident in their security too, knowing any lost or stolen password could not be used to steal customer information stored on their systems.

Gemalto's digital security solution enhances the firm's ability to maintain its high standards of client service with increased responsibility and confidence in a trusted information security solution. It also gives VK the highest levels of access security and non-repudiation for regulatory compliance and customer protection.

Gemalto's .NET technology enables VK associates to access network and client information while traveling to business sites across the world. The one-time password generated from the token enables users to conveniently login from any computer safely and securely, even when USB connectivity is not available.

An essential part of realizing these advantages



comes from the ease of using the Gemalto two-factor solution with Microsoft's Windows Vista and XP platforms, as well as with system level components of the Microsoft architecture. The convenience with which VK associates can access desktops, applications and networks stems directly from the tight integration of these technologies. The elimination of middleware also ensures that the deployment of Gemalto's information security solution is as convenient for the IT team as its daily use is for VK associates.

More information is available online about Gemalto solutions for [enterprise network security, identity management](#) and other applications. The Gemalto Web site is at <http://www.gemalto.com>. Gemalto is the world leader in [digital security](#).

This profile extracts content from the Gemalto press release "Virchow Krause Secures Client Accounting Data with Gemalto .NET Dual USB Authentication Tokens," June, 2008, and the Virchow Krause Web site at <http://www.virchowkrause.com>.

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