CASE STUDY

VÚB BANK

BANKING

Vúb bank has enhanced its data security by implementing controlled network access

"In the interest of providing high quality services to our clients, we place a great emphasis on security. The project of controlled access to our network is just part of the broad range of security measures that our bank has recently implemented. This underlines the fact that this issue is of utmost importance to us."

Vladimír Jančok
VÚB Bank, Head of IT Security

1. REQUIREMENTS

- **ensure the controlled access of computers and IP devices** in the bank's premises via a cable connection
- **enhance network security** and thus data and bank system security

2. TECHNOLOGIES USED

- **Cisco ISE** (Identity Services Engine) **platform**
- **Cisco authentication servers**
- **IEEE 802.1X protocol** for secured computer network access
- **Cisco Catalyst switches**
- **Cisco Wireless LAN Controller**

3. OUTCOMES AND BENEFITS

- **controlled access to the bank's network**: an overview of who, when, and through which devices people connect to the network by a cable connection in the bank's building
- **enhanced network and data security**
- the **option to set different levels of access to the network for different user types** (guests, management, the technical department and other staff)

Background

Banks have always been an appealing target for people who have wanted to get their hands on someone else's money. That is why banks have always had a good reason to have a high level of security. However, this does not only apply to physical spaces anymore.

In the ever more digital world, there is an urgent need to protect data and access to information systems from both the outside and inside, from where malware-infected devices or their owners with malicious intentions can get into a bank's network. This can include the private devices of employees and visitors, or a notebook of contracting staff authorized to move around the building.

Step by step

For VÚB Bank, a member of the Intesa Sanpaolo group, ensuring a highest level of security has been one of its key priorities for quite some time. This effort has resulted in the implementation of a set of security measures. This is why the bank has implemented a system for the controlled access of external contractors to its network environment through a virtual private network (VPN).

In the second phase, Soitron, the bank's traditional network technology provider, implemented controlled access over the wireless network as well. In the third phase, the company decided to modernize the controlled access to the bank's network via a cable connection in the building.

When choosing a Network Access Control (NAC) solution for the VÚB Bank network, Soitron considered several technologies. They quite quickly settled for the proven Cisco ISE (Identity Services Engine) platform of Cisco authentication servers supporting an 802.1X protocol-based authentication.

"We chose Cisco's technology for a number of reasons. Since the network infrastructure of VÚB Bank is built on the Cisco platform, we can make the most of this combination. From the functionality point of view, what is important is that the technology is able to profile devices and automatically detect if the device connecting to the network is a printer or an IP phone, i.e., the manual definition of MAC addresses is not necessary. Last but not least, we are a long-time Cisco Gold partner and we have had great experiences with the brand's products," said Peter Marček, a network specialist at Soitron.

"From the functionality point of view, what is important is that the technology is able to profile devices and automatically detect if the device connecting to the network is a computer, printer, IP phone, or mobile device. Based on identifying the user and the device type, the system either authorizes or rejects the connection. If authorized, the user is granted access to all or part of the network."

Peter Marček
Soitron, Network Specialist
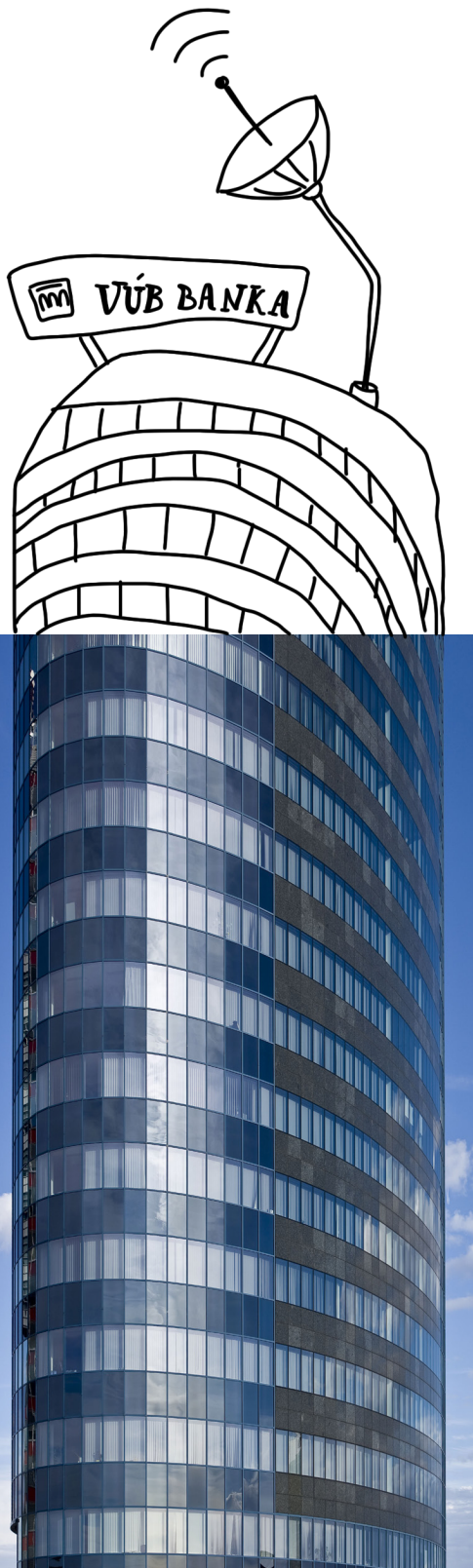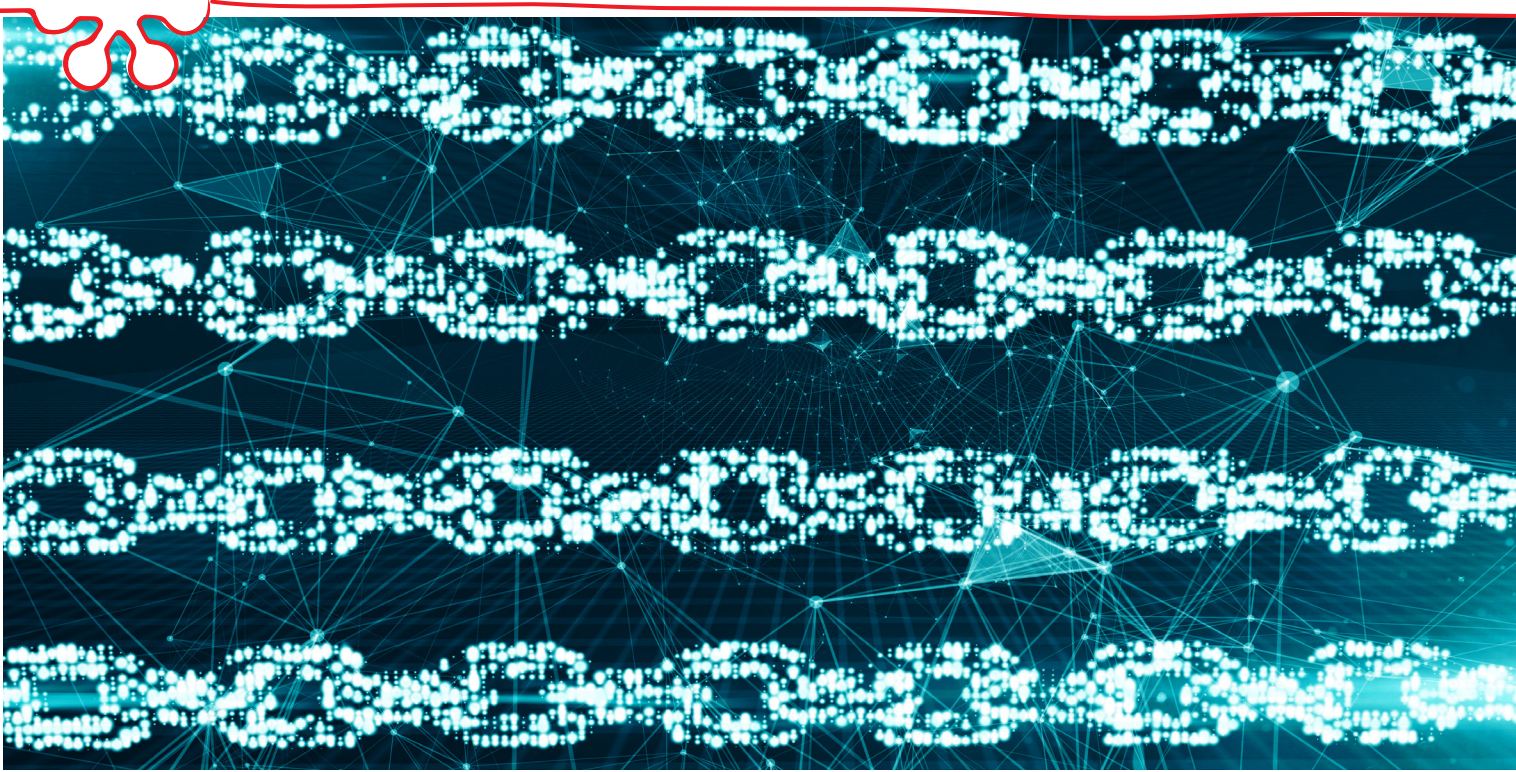
Functional model tuning

Two types of licences had to be purchased for the selected hardware: one for authentication and another for the recognition and profiling of devices logging in, such as IP printers or IP phones. However, the main part of Soitron's work was to fine-tune the functional model of the solution. What it meant in practice was configuring the network infrastructure and terminal devices, such as computers and IP phones.

Sample configurations are prepared for various scenarios. These include the connections of employees connecting either with their business computers or private devices, those of external contractors, or devices such as printers or IP phones. *"We explored all possible scenarios that could happen when trying to access the network, including various combinations such as connecting a workstation over an IP phone,"* explains Peter Marček.

Based on identifying the user and the device type, the system either authorizes or rejects the connection. The scope of network access is determined based on the associated authorization profile. *"Security measures are often a nuisance for general users, but we have designed this solution to have a minimum impact on the user experience,"* Marček adds.

Do-it-yourself scaling

After the model situations were fine-tuned, VÚB Bank started to deploy the access control technology with their own means. To make the solution scaling easier, Soitron experts provided them with detailed documentation.

"Since they have a strong in-house technical department, our client is able to deploy the fine-tuned system with their own means. If needed, we are, of course, ready to help them with the implementation," says Richard Beňo, who is the business manager at Soitron.

This model is more cost-effective for the client. They use the contractor's expertise to create a functional model. Figuratively speaking, once they know the way they are able to walk it on their own.

VÚB BANK

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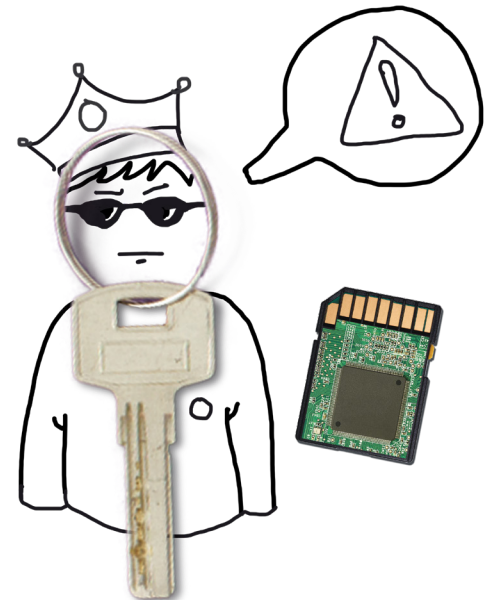
"Identity is becoming a key element for the implementation of security policies in the IT environment of VÚB Bank, not only concerning the identity of users but also that of devices. The implemented system thus allows the convenient application of secure access to data based on roles and rights. In addition to that, it allows a secure segmentation of the entire infrastructure, which is a very effective tool for combating cyber attacks. "

Peter Mesjar
Cisco, Consulting System Engineer

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VÚB Bank
a member of the Intesa Sanpaolo international banking group

VÚB Bank is the second largest bank in Slovakia and the only universal bank licensed to provide a full range of banking services to public, corporate, and institutional clients. At the core of its services are mortgage and consumer loans, deposit and payment products and services, corporate banking and foreign trade financing, consumer finance, and factoring. Through its subsidiaries and affiliates, it offers services in the area of leasing and retirement savings. The bank is also an insurance broker.
VÚB Bank provides its services through a network of 163 retail outlets, including 32 branch offices and 11 mortgage centres. The bank operates one branch in the Czech Republic as well.

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