

More Security with the  
Zero Trust Principle

## Office for Information Technology Canton of Zurich

How do you protect the IT infrastructure of the canton of Zurich? That's right, with a holistic strategy and Microsoft's Zero Trust approach. The basis for the project at the Office for Information Technology of the Canton of Zurich (AFI ZH) was the protection of identities.

Once identities had been secured in this complex and regulated environment at the AFI ZH, it was possible to build on this.

### About the Office for Information Technology of the Canton of Zurich (AFI ZH)

As the IT service provider for the administration of the Canton of Zurich, the Office of Information Technology is the central competence center for information technology. The office was founded in January 2018 to provide and operate the basic IT services of the cantonal administration in a centralized, standardized, and efficient manner.

Thanks to a secure basic infrastructure and trustworthy applications, it moves Switzerland's largest canton forward.

More information about the AFI ZH is on their [Website](#).

### The Vision: How to increase security with identity protection

- Protect the more than 100,000 users and secure their identities
- Base the vision on the Zero Trust approach to increase security
- Introduce hybrid entity and Azure AD
- Leverage the potential of the M365 range (introduce E3 and the necessary security features of the E5 license)

«Thanks to baseVISION's consistent and long-term approach and a clear roadmap, identities were protected in a structured way and in compliance with all legal aspects.»

Daniel Bühlmann, Project Lead and chairman of the board at baseVISION AG

# Challenges faced by the AFI ZH

## The situation before baseVISION

- The AFI ZH is subject to the cantonal data protection regulations
- Audited by data protection authorities and strict requirements regarding cloud solutions
- Obligation to keep data within Switzerland
- Dependencies and complex environment
- No uniform solution for identity protection
- Conventional IT infrastructure based on Windows 10
- Two-factor authentication must be guaranteed at all times

Together with baseVISION a holistic approach and an end-to-end solution were elaborated. As a first step, the focus of the project was on identity.

## Our Solution

### Zero Trust Modell put into practice

Microsoft's Zero Trust model is based on three pillars. These three principles were also the basis for the transformation of AFI ZH.



### Verify explicitly

The Microsoft services that were introduced make it possible to collect and evaluate data. Before entering the system, a user's identity is checked several times: Where is this user coming from? Is there a risk? Who is behind it? Can the device be trusted?

- Introduction of Azure AD as a basis for the use of cloud services
- End-to-end two-factor authentication was implemented
- Conditional Access policies
- Windows Hello for Business
- Design and development of a two-tier Windows Public Key Infrastructure (PKI) infrastructure with HSM connection

### Use least privilege access

This approach was implemented by limiting access. Just-in-time and just-enough-access (JIT/JEA) and risk-based adaptive measures were introduced.

- Privilege Identity Management
- Admin account concept

### Assume breach

This idea has always been in the background when it comes to infrastructure protection. A basis should be created that allows for the continuous monitoring and automatic detection of threats.

- Secure onboarding
- Focus on possible attacks during implementation

## Most useful Microsoft technologies

- ✓ Azure AD
- ✓ Conditional Access
- ✓ Windows Hello for Business
- ✓ Azure Application Proxy
- ✓ Privileged Identity Management
- ✓ Microsoft Security Baselines

«baseVISION's long-term cooperation with its customers shows that it has understood the Microsoft philosophy and optimally aligns its services with Microsoft technologies. The services can therefore be adapted and used effectively by customers in the long term.»

Daniel von Büren, Technical Specialist for Security & Compliance, Microsoft Switzerland



Contact us

We make your IT workplace ready for the future – modern, flexible and secure.

We are able to combine expert knowledge with practical experience due to our focused company strategy. You can rely on our expertise as consultants, integrators and coaches on your way to modern IT workplaces and the simple and secure operation of your end devices. Our young company is proud that we already won three times the Microsoft Partner of the Year Award for our innovative and successful projects.



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