Identity and Access Management (IAM) Mastering System Migration

The Canton of Aargau is home to many innovative, technology companies, forming a strong economic center within Switzerland.

Attractive to both commercial and consumer interests, Aargau is currently experiencing rapid growth. However, the influx of business and intellectual property has drawn the attention of cyber criminals who are intent on taking advantage of the situation. One of the prime targets has been the Aargau government itself.

Cyber criminals prefer exploiting employee credentials as that often grants them access to the entire internal system. For example, if an administrator's credentials were stolen, a cyber criminal could easily gain access to databases, the network and even security devices themselves.

In response, the Canton of Aargau has begun taking steps to thwart the criminal element by improving its cyber security. One critical step has been to improve network perimeter defenses, such as critical identity and access management systems (IAM).

CREDENTIAL MANAGEMENT CHALLENGES

Privileges for employees, contractors and third-parties are created or retired rapidly to enable people to do their jobs efficiently. In addition, these individuals may have multiple work-based accounts they use, making credential management a headache. Often, identical or scheme-based passwords are used – a security nightmare. The central management of these credentials – resetting, updating, decommissioning – is very costly, not to mention a major security risk if not handled the right way.

The Canton of Aargau decided a new solution was needed, and reached out to TÜV Rheinland to plan and implement a new IAM system. The project took 14 months to complete, and was supported by a team of five highly-skilled, experienced staff from TÜV Rheinland who worked hand-in-hand with IT security specialists from the Canton of Aargau.

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PLANNING FOR THE FUTURE

In 2016, the Canton of Aargau wanted to migrate from their legacy Sun Identity Management System to the newer, more robust Oracle Identity Manager. With deep technical experience across both systems, TÜV Rheinland was their partner of choice to plan and implement the migration.

The first step was planning the migration, and TÜV Rheinland conducted a thorough review of the requirements the Canton of Aargau had, as well as how the existing Sun system was being used in order to maintain service throughout the project, avoiding downtime. Additionally, Aargau was adopting Voice over IP (VoIP), which meant re-architecting how the telephony service integrated with an Active Directory.

FROM LEGACY TO CUTTING EDGE

In order to put plan into action, TÜV Rheinland developed a detailed design that ensured the availability of all connected systems. Opting for a 'flip of the switch' strategy where the entire migration takes place in just one weekend, the production environment was moved to Oracle Identity Manager with no disruption to normal operation. Data was seamlessly migrated, connections were re-established and IAM profiles updated, rule sets and mapping were imported to the new Oracle Identity Manager without incident.

CONFIGURING AND DOCUMENTING

Once the new system was online, TÜV Rheinland configured each of the five data profiles across the development, test and production environments, working out any kinks before going live. TÜV Rheinland then undertook a comprehensive documentation process, laying the foundation for maintenance as well as any future upgrades that may be desired.

"In light of the complexity of our previously implemented IAM, the system change was a tremendous challenge for us, which we probably would not have mastered without external support," said Benno Kissling, Section Director Application-Management. "At any given time, the collaboration with TÜV Rheinland was always based on partnership and beneficial to us."

01 actual state/ requirements analysis

IAM

creation of detailed concept 02

03 implementation
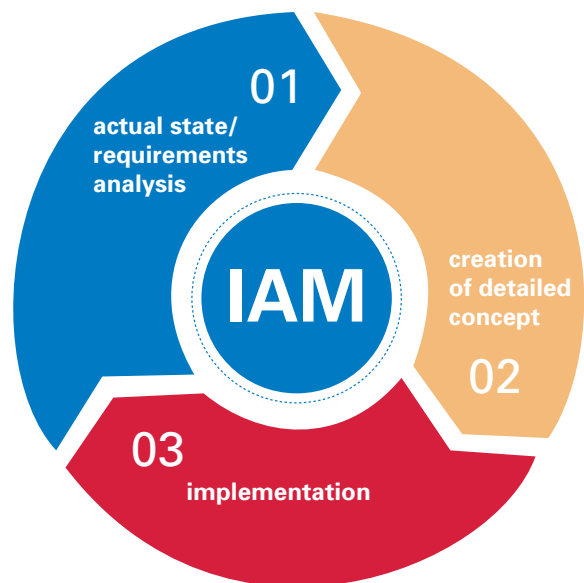
TÜV Rheinland
Digital Transformation & Cybersecurity
service@i-sec.tuv.com

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