

Hardening for over 80 SAP installations worldwide with real-time monitoring

Success Story Linde



Initial situation: Whether internal or external in nature, attacks and threats are an ever-increasing risk. And it is no coincidence that Linde's interest in focusing on SAP security was also triggered by a major security incident. Incident analysis revealed that security-relevant configuration work had not been completed quickly enough at the time. Vulnerabilities were also found in authorization management and another problem area was the lack of transparency for critical events.

Project goal: Continuous protection for the company's highly complex SAP installations around the world was therefore a key objective for Linde. Importantly, the project also needed to accommodate stricter legal requirements for IT security, audit reports and compliance with general-purpose standards such as ISO, for example.

The overall project was split into five work packages, most of which were handled simultaneously – and all to be delivered in the space of just 16 months. From the rollout of new GRC tool to the clearing-up of all technical findings and SAP basis authorizations, to system hardening with interface optimization and gateway hardening, and down to the implementation of a single sign-on system and a dashboard for future real-time monitoring.

“The depth of expertise shown by AKQUINET consultants while analyzing security events and investigating critical incidents proved to be immensely helpful. Last but not least, our experience of working with AKQUINET was as pleasant as it was successful.”

KLAUS BRENK,
Head of Monitoring, QA & Governance
Linde Group

Project implementation: During the selection process, Linde was particularly impressed by the fact that the feature set of AKQUINET's SAST SUITE handled all of the stated requirements. AKQUINET was also commissioned to implement all of the other deliverables in the five work packages. This decision was taken based on the long experience held by AKQUINET's consultants and their extensive expertise in SAP security work.

Following the SAST SUITE rollout, teams then started hardening work on all of Linde's SAP systems in parallel. Configurations were the first step, followed by RFC interface optimization, gateway hardening and then verifying the security of critical SAP basis authorizations.

Simultaneously, a new single sign-on system was implemented for all SAP users at Linde. The final stage of the project involved the setup of the SAST Security Radar, which Linde now uses to monitor its SAP systems in real-time and tracks using the high-level SAST Management Dashboard. Throughout the project, Linde's Security Team received regular training in the new GRC tool from AKQUINET's consultants.

Apart from the project scope and large number of stakeholders, major challenges during the project included the coordination of the necessary security modifications to the SAP systems with the release cycles for the corresponding applications. This work required the implementation of effective change management and the fine-tuning of the event filters to match event severity.

✓ At a glance:

- **Hardening of over 80 SAP installations worldwide with over 30,000 active SAP user accounts**
- **Software rollout, interface optimization and gateway hardening handled as parallel projects**
- **Optimization of all critical SAP basis authorization roles**
- **Implementation of a Security Dashboard for real-time monitoring**
- **Project completion in just 16 months – on time and within budget**

Project result: Klaus Brenk: "With the help of the SAST SUITE, we were able to significantly reduce the probability of occurrence for critical events. And thanks to the introduction of the Security Dashboard, the visibility of these incidents is now considerably better than before. As a result, we are now in a position where we can respond much faster to critical events."

⊕ Advantages for Linde:

- **Fully informed about security-relevant SAP system settings at all times**
- **Real-time compliance plus ad hoc reporting facility**
- **Management Dashboard offers overview with maximum transparency and extensive analysis options**
- **User-friendly, reliable tool for authorization management**
- **Impressive cost-effectiveness**



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