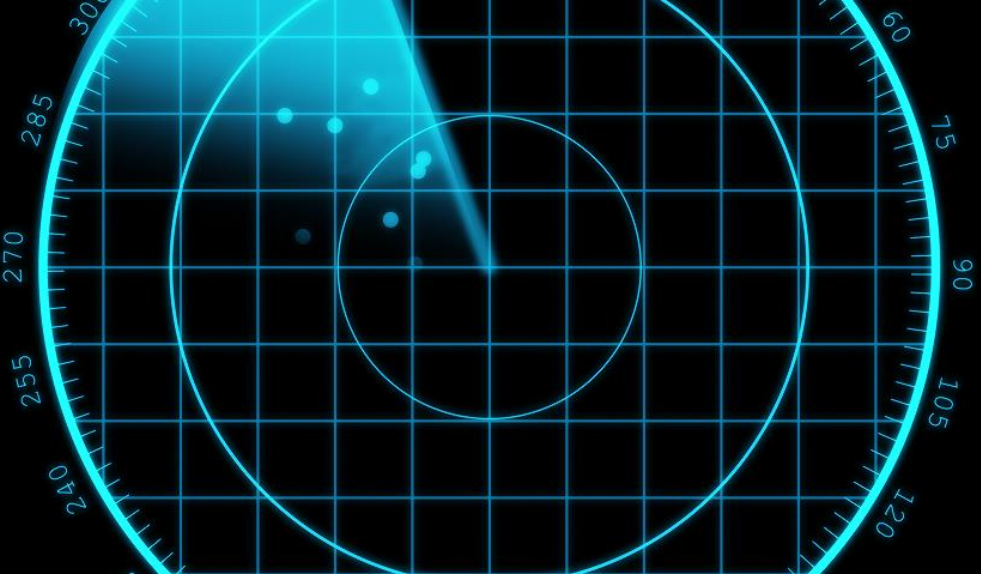


How to protect your SAP landscape against cyber threats?








Towards a cyber resilient SAP ecosystem

SAP landscapes are quickly evolving towards more complex environments while supporting critical business processes in many organizations. **SAP is now seen as the core system, the digital heart of an organization** and one of the most valuable digital assets. This success story explains how an organization with a large SAP ecosystem was able to assess security in their SAP landscape and how this assessment drove this organization into a more mature and cyber resilient SAP environment. Deloitte was engaged to perform this evaluation and leveraged Deloitte's SAP Security Framework and Onapsis Platform to deliver this project with a detailed technical assessment and roadmap, including quick-wins to mitigate critical findings raised throughout this engagement.

Our approach to desmistify security across SAP landscapes

Deloitte created an SAP Security Framework which relies on 5 domains of SAP Security:

- 
Secure Setup
 Reviewing settings and application parameters on configuration, data security and how to setup data encryption at rest, in transit and in use.
- 
Secure Operation
 How to set up users and authorizations, authentication, provide access to SAP support and how to address monitoring in SAP.
- 
Secure Code
 Guidelines to ensure a secure development lifecycle of code in SAP, including the use of standard SAP code instead of custom code and code security analysis to detect possible vulnerabilities.
- 
Infrastructure Security
 Recommendations on how to set up network security and hardening around OS, frontend and databases.
- 
Application Maintenance
 Guidelines and processes to be followed to guarantee best and secure practices around patch management, change management and promoting changes to production.

How we assess Security in SAP?

Scope of the Security Assessment included a detailed technical and functional assesment designed specifically for SAP platforms and it includes 4 main components.



Deloitte's automated framework to assess all security domains and give **detailed output about main gap comparison between current state and target state** including an industry benchmark.

Powered by Onapsis Platform.

Identify and report vulnerabilities in custom code which includes use cases for multiple domains:

- Security
- Compliance
- Performance
- Maintainability
- Robustness
- DLP

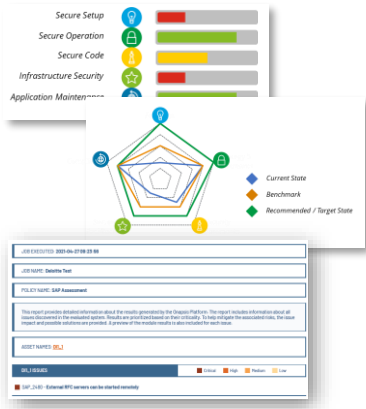
Powered by Onapsis Platform.

Identify and **report critical security vulnerabilities using automated pen testing** for the applicable case scenarios in SAP landscapes.

Powered by Deloitte's automated pen testing scenarios for SAP.

Design a list of prioritized initiatives with relevant attributes and consolidated **strategic roadmap based on the assessment results** and target state defined.

ASSESSMENT DELIVERABLES AND RESULTS



Vulnerability assessment included a **detailed report on security misconfigurations, unimplemented SAP Notes and compliance score** against Deloitte's SAP Security Framework.



With **100,000+ lines of custom code scanned** we were able to **identify 1,000+ critical vulnerabilities** and produce a how-to-fix procedure to resolve them.



Penetration testing report **identified and prioritized the main vulnerabilities** found and exploited in SAP applications.



Assessment results provided inputs to define strategic roadmap to improve SAP security **identifying quick-wins and detailed initiatives for the next 2 years.**

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