

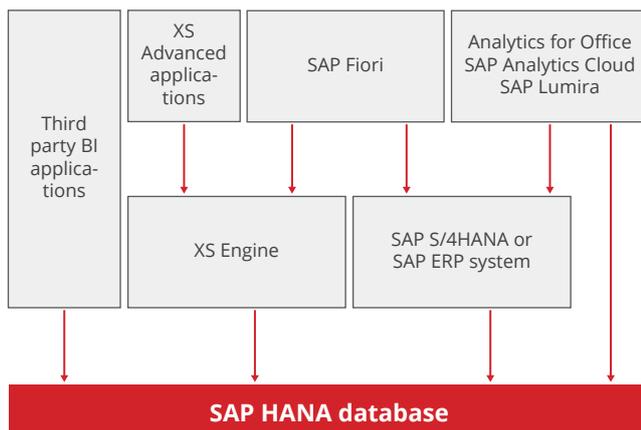


Achieving security in SAP HANA databases

SAP authorization concepts and system architectures

When referring to risk assessment, SAP HANA is often understood as an ordinary database management system like any other. The close integration of application and database, which affect the company's own processes and responsibilities, is often taken into consideration. For many companies nowadays, SAP S/4HANA is the central application for numerous processes, including reporting (mostly via SAP Fiori apps). Direct access to a SAP HANA database is not necessary for the use of the reporting functionalities, but complex modeling can call up scenarios that go beyond classic administration through the SAP Basis and provide for additional user groups in the SAP HANA database.

Depending on the application scenario, however, direct access to the SAP HANA database is quite conceivable, as shown in the illustration below, as an example. But even without direct access, internal controls must be performed consistently in order to mitigate any risk that could jeopardize the integrity and consistency of the data.



The consequence is the need for an overarching risk assessment of a more complex system architecture with effects on IT governance. There are several questions that should be answered in:

- Which authorizations (privileges) do the user groups need?
- How do I create a global authorization concept for my entire SAP system landscape, including SAP HANA?
- How do I properly protect the ABAP productive data?
- How is audit-proof change logging ensured?
- How do I enable adequate emergency user management?
- Who is responsible for managing technical users?

An integrative approach to authorizations and processes in SAP HANA

A privilege framework represents the basis for the access to SAP HANA. The administration and development interfaces with the Web IDE, HANA Cockpit or HANA Studio differ fundamentally from familiar ones from the ABAP environment. As a result, existing authorization and role concepts as well as the associated processes for user and authorization management do not apply analogously.

However, this can be supported by the integration of the SAP HANA authorization management in ABAP using the DBMS functionality or a dedicated interface for managing the SAP HANA security functions.

ADDED VALUE OF XAMS

As a well-known ABAP-based tool, the Xiting Authorizations Management Suite (XAMS) is ideally suited for monitoring security parameters and authorizations in SAP HANA. The functionalities for SAP HANA are seamlessly integrated in the respective XAMS modules. XAMS supports you in the following areas of application:

- Checking the SAP HANA security parameters
- Checking the audit log configuration
- Risk analysis of critical authorizations
- Evaluation of users and roles
- Evaluation of the audit logs
- Creation of a SAP HANA authorization concept
- Security monitoring (including SIEM integration)
- Monitoring of technical users
- Emergency user management and evaluation



OUR SERVICES

We support you in making your organization aware of the security requirements in SAP HANA. In addition, we are your competent and reliable partner for mapping these requirements in an authorization concept – tailored to the relevant risks and in line with your control system. By creating a ruleset, we enable you to keep an eye on the risks that have been identified. If you have already taken the first step and implemented a SAP HANA authorization concept, we will be happy to support you with a review of your controls and provide further recommendations for action.

