

Vulnerability Management

Secure Your Most Important Application Platform

AT A GLANCE

Pathlock's Vulnerability Management solution continuously scans your SAP applications to identify critical vulnerabilities. It dynamically visualizes your SAP landscape, shows you where your vulnerabilities are, automatically prioritizes them, and then shows you how to remove the weaknesses in your applications. The solution automates audits by applying a comprehensive ruleset that detects missing patches and configuration issues and by tracking when and how risks are addressed.

ELIMINATE PAIN

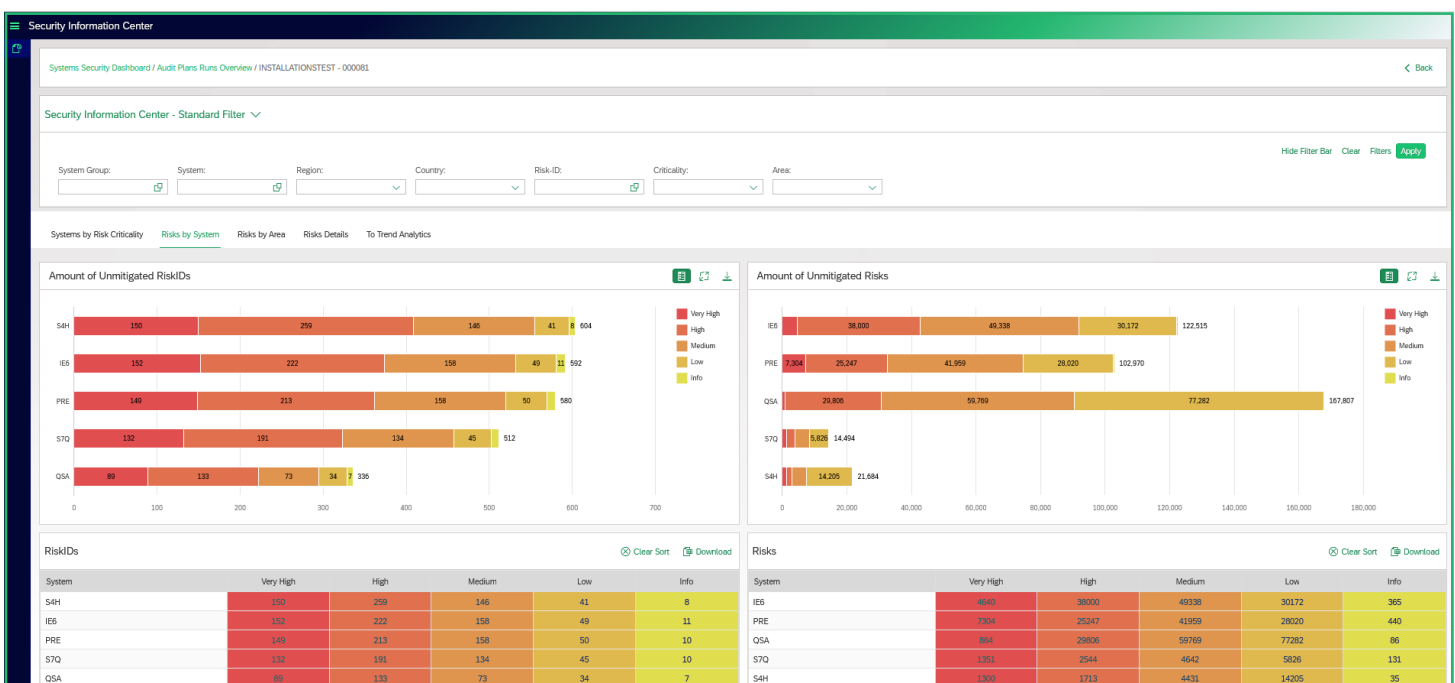
Without Pathlock, administrators must continuously monitor their SAP systems to identify and evaluate vulnerabilities. They need to build competencies around arcane and detailed technical knowledge, which requires continuous investments in training for the team to stay current on the latest patches, recommended configurations, patch deployment guidelines, and patch testing requirements. Additionally, your best SAP engineers need to spend time documenting and enhancing notes. They also need to support all change management processes by providing analyses

on the priorities of work to be accomplished during planned downtime windows. Inevitably, the enterprise will need to accept risks associated with increased unplanned downtime and risks associated with security gaps due to delayed or prolonged patch and configuration management.

KEY BENEFITS

Ensure Regulatory Compliance: Auditors can reduce the time and complexity of ensuring their SAP environments are properly patched and configured. Without requiring sample testing or spot checks, periodic and ad-hoc reports ensure auditors have the information they need to prove that the enterprise is securing its SAP landscape.

Optimized Uptime During SAP Patching: Pathlock's Vulnerability Management reduces SAP downtime, both planned and unplanned, by comprehensively scanning and prioritizing patches and configuration corrections. Instead of researching patches and manually cataloging system scans, SAP application owners and administrators can understand and respond efficiently to system vulnerability issues.



Review Risks by System

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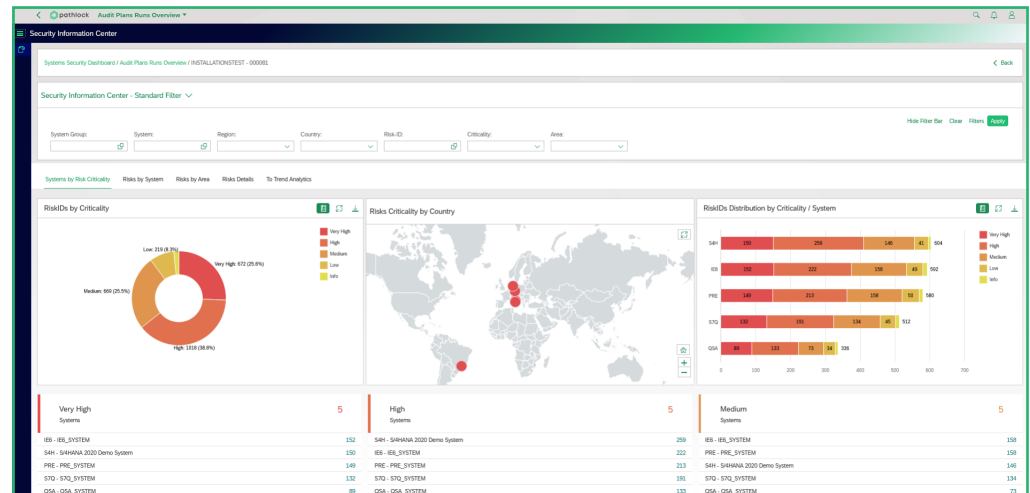
SAP Protection on All Levels: Manual protection against all possible SAP system weaknesses is simply impossible. The complexity of SAP system landscapes leads to a lack of transparency of the security status. Pathlock secures your SAP systems on all levels, including presentation, application, database, and operating system levels.

Automated Inspections: There are thousands of security-relevant settings in every SAP system. Setting them all correctly is impossible without automation. Pathlock's Vulnerability Management offers automated inspections via all system levels.

Holistic SAP Security: Pathlock Vulnerability Management integrates with your SAP systems, identifying critical and unusual activities in real time and protecting your SAP landscape against cyberattacks, espionage, manipulation, abuse of rights, and data theft.

ARCHITECTURE, KEY FEATURES, AND COMPONENTS

ABAP Architecture: Pathlock's Vulnerability Management solution is built on ABAP. Enterprises can leverage their existing expertise



The Pathlock Security Dashboard

to install and maintain the solution with no need to purchase or maintain additional hardware, operating systems, or middleware. They can keep all data behind their trusted firewall while achieving the same service levels (SLAs) they do for their SAP platform.

SAP S/4HANA Migration and Platform Support: Whenever SAP releases major updates or versions, such as the introduction of SAP S/4HANA, security requirements change. Vulnerability Management ensures that any patches or configuration settings that need to be updated are identified and tracked. This ensures the new platform will be even more secure than the last.

Risks Details								
SystemID	Check Type	Description	RiskID	Area	Criticality	Risks Amount	Mitigated Risks	Remaining Risks
S4H	TSE	Critical ABAP statement: DELETE REPORT	ABAP_00002	ABAP	Very High	16	0	16
S4H	TSE	Critical ABAP statement: Directory Traversal / File Access	ABAP_00016	ABAP	Very High	6	0	6
S4H	TSE	Critical ABAP statement: Change tables USRBF or USRBF2	ABAP_00019	ABAP	Very High	4	0	4
S4H	TSE	BREAK-POINT as statement in the coding without ID to switch on/off	ABAP_00023	ABAP	Very High	8	0	8
S4H	TSE	SQL-injection durch dynamische WHERE-Bedingung in UPDATE/DELETE	ABAP_00029	ABAP	Very High	2	0	2
S4H	TSE	Generic table name call in write SQL statements	ABAP_00030	ABAP	Very High	28	0	28
S4H	TSE	Generic table name call in read SQL statement SELECT ... FROM (*)	ABAP_00031	ABAP	Very High	42	0	42
S4H	TSE	Secure Network Communication not active	PARAM00056	BASIS	Very High	1	0	1
S4Q	TSE	Secure Network Communication not active	PARAM00056	BASIS	Very High	1	0	1
S4Q	TSE	File "PROXY_INFO.DAT" not maintained	RFC_00020	BASIS	Very High	1	0	1
S7Q	TSE	Login with SAP* would be possible if user SAP* is deleted	PARAM00031	BASIS	Very High	1	0	1
S7Q	TSE	Secure Network Communication not active	PARAM00056	BASIS	Very High	1	0	1
S7Q	TSE	Usage of standard keys for the safe storage	PARAM00118	BASIS	Very High	1	0	1
S7Q	TSE	Critical RFC connection SAP_SSFATAS	RFC_00018	BASIS	Very High	1	0	1
S4H	TSE	Critical ABAP statement: INSERT REPORT	ABAP_00001	ABAP	High	42	0	42
S4H	TSE	Critical ABAP statement: GENERATE REPORT / GENERATE SUBROUTINE POOL	ABAP_00003	ABAP	High	4	0	4
S4H	TSE	Critical ABAP statement: EDITOR CALL	ABAP_00006	ABAP	High	6	0	6

Take a Closer Look at the Details of Each Risk

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In addition to application-level support, Pathlock provides 150 automated checks to ensure your HANA database is secure.

Comprehensive Audits: Pathlock's Vulnerability Management solution automates audits and tracks findings so they can be fully addressed. Pathlock supports audits per SAP user group guidelines, auditing companies, German Federal Office for Information Security (BSI) recommendations, SAP security guides, and many decades of in-house security expertise.

Detailed Findings: Pathlock supplies more than 4,000 automated checks and security notes to all customers.

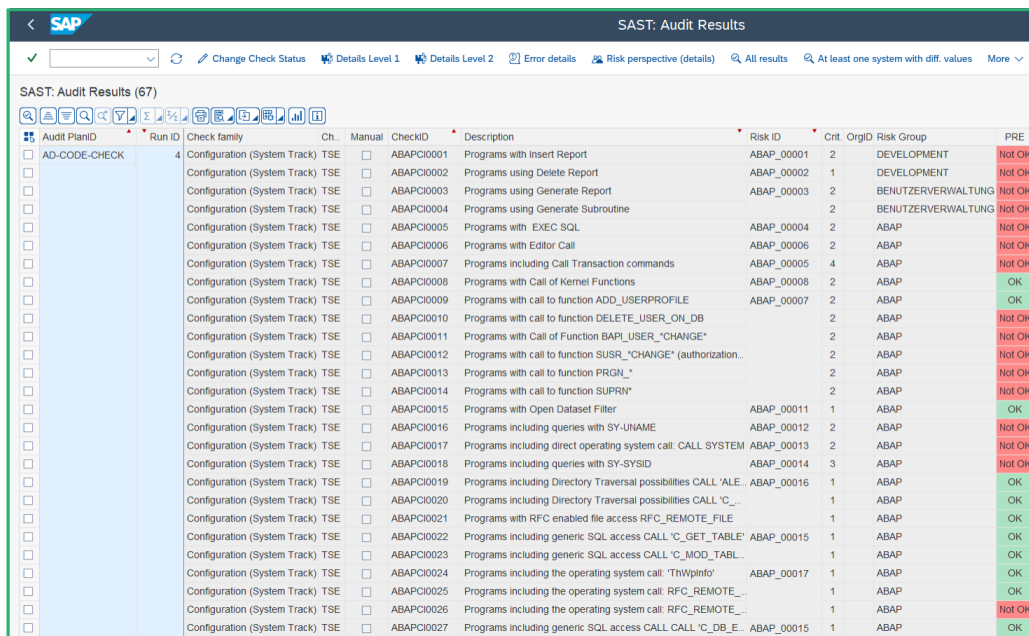
This comprehensive catalog is updated monthly based on the SAP security patch day and for any zero-day findings. These rules provide enhanced SAP notes content and risk ratings, so administrators understand what needs to be done and why. Pathlock continuously scans your landscape and updates risk prioritizations so that the most important work required to secure your SAP landscape is always clear.

Hardened Interfaces: Pathlock provides a cockpit for managing your SAP interfaces. Pathlock inventories your SAP interfaces, maps them against your SAP landscape, displays them graphically, and then analyzes them to provide a cross-system assessment. This assessment includes differentiating risks according to RFC connection types, authorizations, and traffic. Through automation, Pathlock secures the SAP Gateway, notifies administrators of any interface changes, and continuously monitors both active and non-active interfaces.

RFC Role Creation: Pathlock automatically determines exact authorization values for each interface (technical user) and then automatically generates appropriate RFC roles to minimize access risks related to RFCs.

Automated ABAP Code Scanning: Pathlock's detects security vulnerabilities and compliance problems due to custom ABAP code in both production and pre-production environments. Once detected, Pathlock evaluates contextual information (when used by whom) to understand risk severity and prioritize work. Pathlock also provides an explanation of the problem along with best practices for its remediation.

Security Intelligence: Pathlock's Vulnerability Management integrates with Pathlock's Threat Detection and Response solution. Together these monitor critical transactions, applications, and log files and then, in real-time, using a proven and comprehensive threat detection ruleset, identify and alert on attack patterns and suspicious user behaviors. Additionally, Pathlock can export SAP threat and vulnerability information to enterprise SIEM solutions.



Audit PlanID	Run ID	Check family	Ch.	Manual	CheckID	Description	Risk ID	Crit	OrgID	Risk Group	PRE
AD-CODE-CHECK	4	Configuration (System Track)	TSE		ABAPCI0001	Programs with Insert Report	ABAP_00001	2	DEVELOPMENT		Not OK
		Configuration (System Track)	TSE		ABAPCI0002	Programs using Delete Report	ABAP_00002	1	DEVELOPMENT		Not OK
		Configuration (System Track)	TSE		ABAPCI0003	Programs using Generate Report	ABAP_00003	2	BENUTZERWARTUNG		Not OK
		Configuration (System Track)	TSE		ABAPCI0004	Programs using Generate Subroutine		2	BENUTZERWARTUNG		Not OK
		Configuration (System Track)	TSE		ABAPCI0005	Programs with EXEC SQL	ABAP_00004	2	ABAP		Not OK
		Configuration (System Track)	TSE		ABAPCI0006	Programs with Editor Call	ABAP_00006	2	ABAP		Not OK
		Configuration (System Track)	TSE		ABAPCI0007	Programs including Call Transaction commands	ABAP_00005	4	ABAP		Not OK
		Configuration (System Track)	TSE		ABAPCI0008	Programs with Call of Kernel Functions	ABAP_00008	2	ABAP		OK
		Configuration (System Track)	TSE		ABAPCI0009	Programs with call to function ADD_USERPROFILE	ABAP_00007	2	ABAP		OK
		Configuration (System Track)	TSE		ABAPCI0010	Programs with call to function DELETE_USER_ON_DB		2	ABAP		Not OK
		Configuration (System Track)	TSE		ABAPCI0011	Programs with Call of Function BAPI_USER_CHANGE		2	ABAP		Not OK
		Configuration (System Track)	TSE		ABAPCI0012	Programs with call to function SUSR_CHANGE (authorization...		2	ABAP		Not OK
		Configuration (System Track)	TSE		ABAPCI0013	Programs with call to function PRGN_		2	ABAP		Not OK
		Configuration (System Track)	TSE		ABAPCI0014	Programs with call to function SUPRN		2	ABAP		Not OK
		Configuration (System Track)	TSE		ABAPCI0015	Programs with Open Dataset Filter	ABAP_00011	1	ABAP		OK
		Configuration (System Track)	TSE		ABAPCI0016	Programs including queries with SY-UNAME	ABAP_00012	2	ABAP		Not OK
		Configuration (System Track)	TSE		ABAPCI0017	Programs including direct operating system call: CALL SYSTEM	ABAP_00013	2	ABAP		Not OK
		Configuration (System Track)	TSE		ABAPCI0018	Programs including queries with SY-SYSD	ABAP_00014	3	ABAP		Not OK
		Configuration (System Track)	TSE		ABAPCI0019	Programs including Directory Traversal possibilities CALL 'ALE...	ABAP_00016	1	ABAP		OK
		Configuration (System Track)	TSE		ABAPCI0020	Programs including Directory Traversal possibilities CALL 'C...		1	ABAP		OK
		Configuration (System Track)	TSE		ABAPCI0021	Programs with RFC enabled file access RFC_REMOTE_FILE		1	ABAP		OK
		Configuration (System Track)	TSE		ABAPCI0022	Programs including generic SQL access CALL 'C_GET_TABLE'	ABAP_00015	1	ABAP		OK
		Configuration (System Track)	TSE		ABAPCI0023	Programs including generic SQL access CALL 'C_MOD_TABLE...		1	ABAP		OK
		Configuration (System Track)	TSE		ABAPCI0024	Programs including the operating system call: 'ThWpinfo'	ABAP_00017	1	ABAP		OK
		Configuration (System Track)	TSE		ABAPCI0025	Programs including the operating system call: RFC_REMOTE...		1	ABAP		OK
		Configuration (System Track)	TSE		ABAPCI0026	Programs including the operating system call: RFC_REMOTE...		1	ABAP		Not OK
		Configuration (System Track)	TSE		ABAPCI0027	Programs including generic SQL access CALL CALL 'C_DB_E...	ABAP_00015	1	ABAP		OK

Review the Results of a Code Scan

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SUCCESSFUL IMPLEMENTATIONS

Linde Group and s. Oliver are among the organizations that have used Pathlock's Vulnerability Management module to identify and eliminate SAP vulnerabilities.

"With the help of Pathlock, we were able to significantly reduce the probability of occurrence for critical events. We are now in a position where we can respond much faster to critical events."

Klaus Brenk
Linde Group (Technology and
Chemical Company)



"With Pathlock, we save around 20 working days for an audit. This hugely relieves the burden on our departments and on IT security. We, therefore, have greater security and compliance but spend less time to achieve it."

Matthias Endrich
s.Oliver (Fashion Company)



REQUIREMENTS

Pathlock's Vulnerability Management solution can be rapidly implemented across most production SAP environments. Consistent with all Pathlock applications, Vulnerability Management is designed and built for quick and inexpensive deployment. Vulnerability Management can be installed and configured within a matter of minutes using only existing SAP resources. Additionally, there is no hardware investment required, and storage requirements are minimal for even the most robust data collection settings.

SERVICES AND SUPPORT

Services: Pathlock has a proud history of successfully partnering with customers seeking a tailored solution. Because of the cost-conscious nature of many organizations, Pathlock offers its implementation and customization services at compelling price points. Pathlock provides custom development to help enterprises make the most of detailed user histories.

Support: Pathlock offers 24 x 7 x 365 support options with a local presence and has been recognized by its customers for providing exceptional value through training, software, and support services.

LEARN MORE

With Vulnerability Management, enterprises save valuable time and money by automating SAP patch and configuration audits while simultaneously increasing the uptime of their most valuable applications.

Visit [pathlock.com](https://www.pathlock.com) to learn more about Pathlock's Application Security solutions.

About Pathlock

The Pathlock platform protects over 140 enterprise business applications and the critical transactions they power. Our application governance solutions help companies enforce GRC controls and take action to prevent loss.

Enterprises can manage all aspects of application governance in a single platform, including user provisioning and temporary elevation, ongoing user access reviews, control testing, transaction monitoring, and audit preparation.

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