SAP Solution Brief
SAP Governance, Risk, and Compliance Solutions | SAP Solutions for Cybersecurity and Data Protection

Cybersecurity and Data Protection for Digital Enterprises and Business Models

THE BEST RUN SAP

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Intelligent, Automated, and Embedded Cyber and Data Security

Cyber threats are evolving, intensifying, and increasingly successful at reaching critical applications and sensitive data – even at seemingly security-hardened companies. One breach can damage your company's hard-won trust with customers and partners – and lead to costly regulatory infractions. Is your approach to cyber and data security **strong enough to build and sustain trust**?

The fact is, today's threats are more organized, funded, and targeted than ever – and motivated by economic, monetary, and political gain. If your organization's strategy is not underpinned by actual security measures and solutions, then it has a higher risk of security breaches. Now is the time to build new levels of digital trust that mitigate risks across your applications, processes, data, and business models; protect personal information (PI) your organization collects and stores; and differentiate your business in the marketplace.

This requires an intelligent, automated, and sustainable approach to cyber and data security. SAP provides integrated solutions and services that help secure your applications and data across users and landscapes. Created to be incorporated in the design of every digital transformation initiative, these SAP® offerings work together to scale and protect your interconnected global and business ecosystem and precious customer data, all while helping simplify compliance with changing regulations protecting PI.

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Protect Your Digital Transformation Journey to the Cloud

As your business engages in digital transformation and moves more applications to the cloud, you need security to be smarter, automated, and embedded. SAP helps you realize these goals with SAP solutions for cybersecurity and data protection.

Address data protection and privacy concerns and regulations with SAP offerings that enable you to:

- Secure files and data using transportable policies and encryption
- Add layers of granularity for access decisions based on key attributes
- Use data masking in sensitive data fields
- Manage personal and sensitive data across landscapes and geographies
- Use logging features to identify (and help stop) sources of potential data leaks, should a breach occur

Identify and manage risks, regulations, and polices to minimize breach impacts with SAP offerings that help you:

- Document and monitor security risks and align with business objectives, regulatory compliance and security best practices – all through a unified enterprise program
- Monitor and manage real-time security threats
- Establish security policies and test adherence and understanding
- Document and test response and recovery plans
- Audit the security program to provide independent assurance
- Report and manage at the board level to ensure awareness and status

Protect Your Digital Transformation Journey to the Cloud

Detect and Investigate Suspicious Activity

Check Source Code for Vulnerabilities

Scan Non-ABAP Code for Weaknesses

Monitor Thousands of Systems Simultaneously

Simplify and Automate Data Protection and Privacy Compliance

Employ Intelligent, Automated Data Privacy Management

Secure Access to PI with UI Data Protection Masking and Logging

Harness Cloud-Ready Encryption and Key Management

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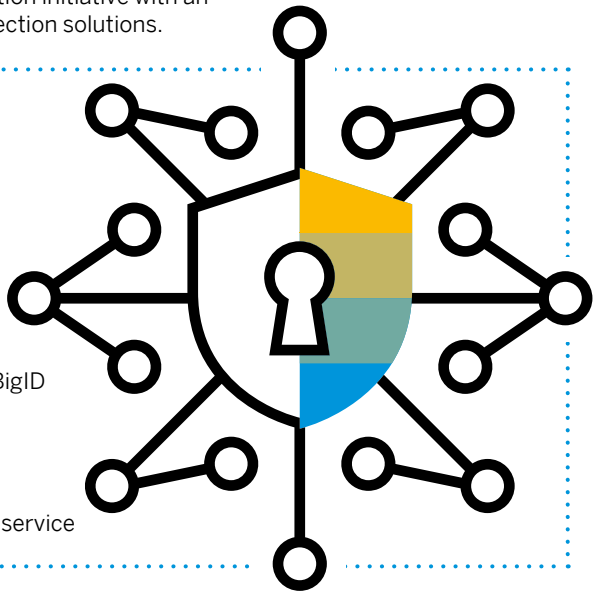
SAP helps you secure your digital transformation initiative with an integrated set of cybersecurity and data protection solutions.

SAP SOLUTIONS FOR CYBERSECURITY AND DATA PROTECTION

- ✓ SAP Enterprise Threat Detection
- ✓ SAP Code Vulnerability Analyzer
- ✓ SAP Fortify by Micro Focus
- ✓ SAP Focused Run
- ✓ SAP Privacy Governance
- ✓ SAP Data Mapping and Protection by BigID
- ✓ UI data protection masking
- ✓ UI data protection logging
- ✓ SAP Data Custodian
- ✓ SAP Data Custodian key management service



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Detect and Investigate Suspicious Activity

The **SAP Enterprise Threat Detection** application gives you insight into suspicious activities in your SAP software–centric landscape and helps to identify breaches as they occur. As a result, you can react faster to neutralize danger and minimize critical damage to your business. Use it to:

- **Analyze and correlate log data from multiple systems** – including applications, databases, operating systems, and network components – to monitor user activity. Log data is supplemented by contextual data, such as the role of a system or the location of an IT asset. Using this combination, you can scout for cyberattacks on valuable assets.
- **Find SAP software–specific threats** – by detecting their footprints in logs. To accelerate detection and minimize false positives, SAP Enterprise Threat Detection delivers continuously updated, predefined attack-detection patterns.
- **Perform forensic investigations** – using real-time analysis of large amounts of data. Get instantaneous responses to complex queries, uncover new types of attacks, and create and store new detection patterns.
- **Create your own patterns, charts, and dashboards** – by uploading contextual information or creating configurable, situational dashboards that help make security operators' jobs easier and more efficient.

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Check Source Code for Vulnerabilities

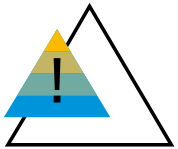
Your valuable data assets are only as secure as the applications that host and access them. Grown over the years, enterprise applications are often complex, built on changing requirements, created based on different development paradigms, and extended to meet new needs. Just one flaw in any of an application's components, functions, or infrastructure can open the door for an intruder.

That's why SAP offers the **SAP Code Vulnerability Analyzer** tool, which is the same tool our developers use to scan ABAP® programming language source code for security risks. Use it to locate security risks faster in the source code of your applications and create more secure applications with confidence.

Using built-in logic for data-flow detection, SAP Code Vulnerability Analyzer streamlines how you check development objects for security vulnerabilities such as:

- SQL injections
- ABAP code injections
- OS command injections
- Insufficient protection against directory traversal attacks
- Backdoors
- Missing or incorrect authorization checks

SAP Code Vulnerability Analyzer **focuses resources on higher-priority risks** related to source code in your applications.



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Scan Non-ABAP Code for Weaknesses

The technology your enterprise depends on is everywhere – in on-premise solutions, Web applications, cloud software, mobile apps, and Internet of Things–enabled devices. **SAP Fortify software by Micro Focus** helps keep your solutions secure, wherever they are deployed, throughout the application lifecycle. This greatly reduces risk in existing applications and enables you to deliver new solutions with high-quality security built in.

SAP Fortify fosters collaboration with an intuitive Web interface, provides line-of-code guidance specific to the programming language used, and helps QA teams find and fix security problems as early as possible. Use it to meet internal and external security and quality mandates and facilitate compliance. You can also establish continuous, automated procedures to address immediate security issues in deployed software and reduce systemic risk in software being developed or acquired.

SAP Fortify can be integrated with SAP Code Vulnerability Analyzer, enabling you to detect vulnerabilities in non-ABAP coding. This allows you to pinpoint the root cause of vulnerabilities with line-of-code details and remediation guidance and prioritize application vulnerabilities by severity and importance, all within one framework.

SAP Fortify helps you **maintain the security of your solutions**, wherever they are deployed, throughout their lifecycle.

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Monitor Thousands of Systems Simultaneously

Do you need to scale your ability to monitor and manage diverse systems? The **SAP Focused Run** solution is designed specifically for businesses that need high-volume system and application monitoring, alerting, and analytics. It's a powerful solution for service providers that want to host all their customers in one central, scalable, more secure, and automated environment. It's also ideal for those with advanced needs in the areas of system management, user monitoring, integration monitoring, and configuration and security analytics.

SAP Focused Run uses the full power of the SAP HANA® platform, including streaming, replication, scale-out, predictive analytics, and compression, to support thousands of systems in high-volume monitoring use cases. In addition to supporting a clear separation of different customers using a multitenancy concept, SAP Focused Run offers:

- Optimization for high-volume system and application monitoring use cases
- A simplified architecture with a small technical footprint and reduced total cost of ownership
- A proven, built-in security concept with HTTP(S) as communication protocols
- Maximized automation during the lifecycle of systems – from onboarding to decommissioning

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Simplify and Automate Data Protection and Privacy Compliance

As broad data privacy regulations emerge worldwide, your challenge is tracking which regulations impact your business and monitoring compliance – even as rules change.

The **SAP Privacy Governance** application brings order and transparency to how you meet these regulatory requirements by providing a proven framework for establishing data protection and privacy governance. The software supports this framework with embedded automation, transparency, and reporting capabilities so you always know where your organization stands and what needs attention now.

You can use an integrated set of purpose-built, automated tools to:

- Help simplify security and privacy compliance by evaluating organizational readiness and establishing a governance model aligned with requirements and best practices
- Operationalize privacy management by embedding data-driven assessments within business processes to meet privacy compliance requirements
- Manage the data subject rights request lifecycle by facilitating self-service requests and automating the review and response process

The solution integrates with the **SAP Data Mapping and Protection application by BigID**, which delivers the data intelligence, data mapping, and data change validation functions needed to stay compliant with evolving global data protection and privacy regulations.

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Employ Intelligent, Automated Data Privacy Management

Winning in the digital economy requires trusted relationships with customers so you can better serve their needs while safely securing their personal information (PI). The **SAP Data Mapping and Protection application by BigID** powers an intelligent, unified approach to managing the privacy of personal data with machine learning and comprehensive functionality for identification, PI processing activity, and breach response. Now you can:

- **Automatically maintain records of processing activities (ROPA)** – a key requirement of regulations such as the EU General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA)
- **Continuously assess data** – using machine learning to scan all structured, unstructured, semistructured, cloud, and on-premise data for PI; reveal where and how your organization uses PI; monitor data processing; and report risks
- **Build and maintain live data flows automatically** – while meeting the requirements of GDPR Article 30 with annotation functionality, and "living" data-flow diagrams that validate that PI is used for legitimate purposes
- **De-risk data** – using machine learning to find and track PI and monitor KPIs to understand your risks and exposure
- **Automate and fulfill data access rights at scale** – while supporting data-driven ROPA, consent-driven PI governance, and monitoring and reporting on third-party data sharing

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Secure Access to PI with UI Data Protection Masking and Logging

Securing access to sensitive personal data is a key requirement of data protection and privacy. UI-layer masking and logging help you refine access to sensitive data, improve protection against misuse, and make data access transparent across your systems.

Using our **UI data protection masking** package, you can prevent data leaks by restricting access to legally protected or business-critical data. It enables you to:

- Refine an existing authorization setup by masking sensitive fields or blocking data access for unauthorized users
- Dynamically grant context-aware and task-specific access to critical data
- Protect highly sensitive information by requiring additional approval or authentication
- Better comply with internal and legal data protection requirements
- Strongly reduce probability of data misuse

Our **UI data protection logging** package enables you to log requests and accesses to legally protected or business-critical data. Use it to:

- Decide on and provide a breach notification in a timely manner with critical information such as data objects and afflicted parties
- Use logs to identify unauthorized, noncompliant, or malicious activities
- Identify (and help stop) the person(s) responsible for a data leak
- Gauge the extent of leaks in cases of data misuse so you can make the right decisions and take corrective actions

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Harness Cloud-Ready Encryption and Key Management

A key data challenge facing businesses today is getting total control of encryption keys and data, malicious insider attacks, and government compulsion. Encryption can help protect data, but the challenge is how to secure the keys. Existing, proprietary key management and hardware security module solutions are no longer effective today.

That's why SAP provides an independent key management service that is segregated from the cloud providers hosting your data. The **SAP Data Custodian key management service** protects data in public, private, hybrid, or multi-cloud environments, helping simplify provisioning and control of encryption keys. It provides cloud scalability and secure key storage, addressing performance as well as governance, risk, and compliance requirements at the digital edge, close to clouds and carriers.

With it, you can provision next-generation key management service functionality at the click of a button. Built using Federal Information Processing Standards (FIPS) 140-2 level 3–certified hardware, it meets both compliance and security requirements with all the ease of software as a service.* The key management service offers innovative central tamperproof logging and RESTful APIs. Key access is restricted to authorized owners, protecting against insider attacks and exposure in a shared cloud infrastructure.

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*FIPS validation pending

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Realize the Benefits

SAP solutions for cybersecurity and data protection are unique in how they look at business transactions and security risks in parallel and deliver data security that's strong enough to build and sustain digital trust. Our solutions can help you:

- Consider security role design and governance early in the design process to minimize cross-system risk and insider threats
- Reap the benefits of interconnected systems and applications by monitoring and maintaining them in ways that minimize vulnerabilities and protect against data loss
- Replace manual controls and checks with smarter, artificial intelligence–driven controls that identify anomalies and potential issues early on
- Implement digital automation for more-reliable, effective monitoring of transactions and processes, even as threats continue to increase

Realize the Benefits

Build digital trust at every step along your digital transformation journey with intelligent, automated SAP solutions for cybersecurity and data protection.

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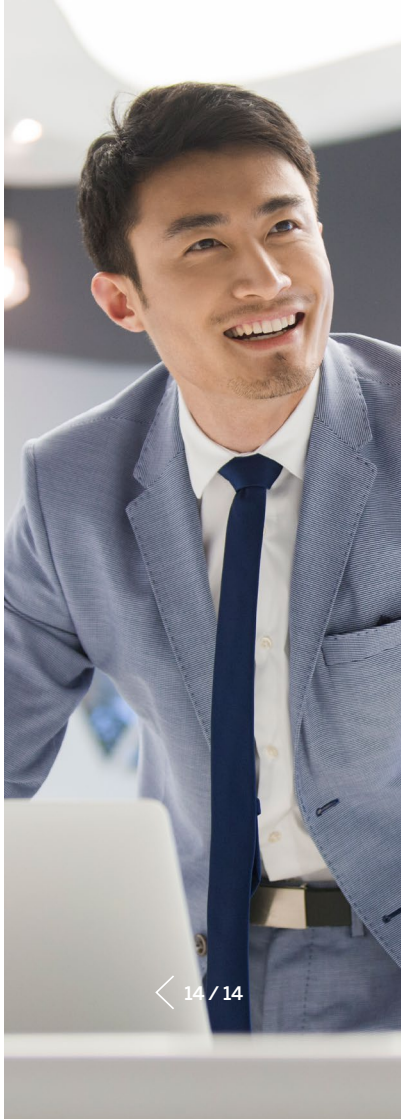
Summary
Use SAP® solutions for cybersecurity and data protection to help secure your applications and data across users and IT landscapes – both on premise and in the cloud. They can be built into the foundation of a digital transformation initiative, working together to scale and protect your interconnected global and business ecosystem and precious customer data – all while facilitating compliance with changing global regulations for protecting personal information.

Objectives
- Build sustainable digital trust with customers and partners
- Accurately detect threats, anomalies, and security gaps earlier to mitigate risks
- More effectively predict and prevent future occurrences

Solutions
- Solutions to detect and address suspicious activities in SAP® software landscapes
- Solutions that scan ABAP® programming language and non-ABAP source code for risks
- Solutions for high-volume system and application monitoring, alerting, and analytics
- Solutions for managing and securing personal data in a compliant manner

Benefits
- Intelligent, automated, and sustainable cybersecurity and data protection
- Earlier and more-accurate threat detection
- Increased digital trust by minimizing risk and business impacts
- Reduced cost through automated, efficient threat detection and mitigation

Learn more
To find out more, call your SAP representative today or visit us online.



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