

What You Need to Know About SAP Offerings for Data Protection and Privacy

Erin Hughes, Anne Marie Colombo, SAP
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Key Takeaways

- Understand why cybersecurity is a critical part of digital transformation
- Hear about SAP's key pillars for cybersecurity and data protection
- Learn which solutions from SAP can help companies manage data protection and privacy risk

Your speakers today



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Board and executive perspectives on top risks 2019

Global study reveals 4 of the Top 10 risks involve cybersecurity and data protection



1

Meeting performance expectations, competing against “born digital” firms



2

Succession challenges and ability to attract and retain top talent



3

Regulatory changes and regulatory scrutiny



4

Cyber threats



5

Resistance to change operations



6

Rapid speed of disruptive innovations and new technologies



7

Privacy/identity management and information security



8

Analytics and big data



9






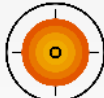






Organization’s culture may not encourage timely or early identification and escalation of risk issues



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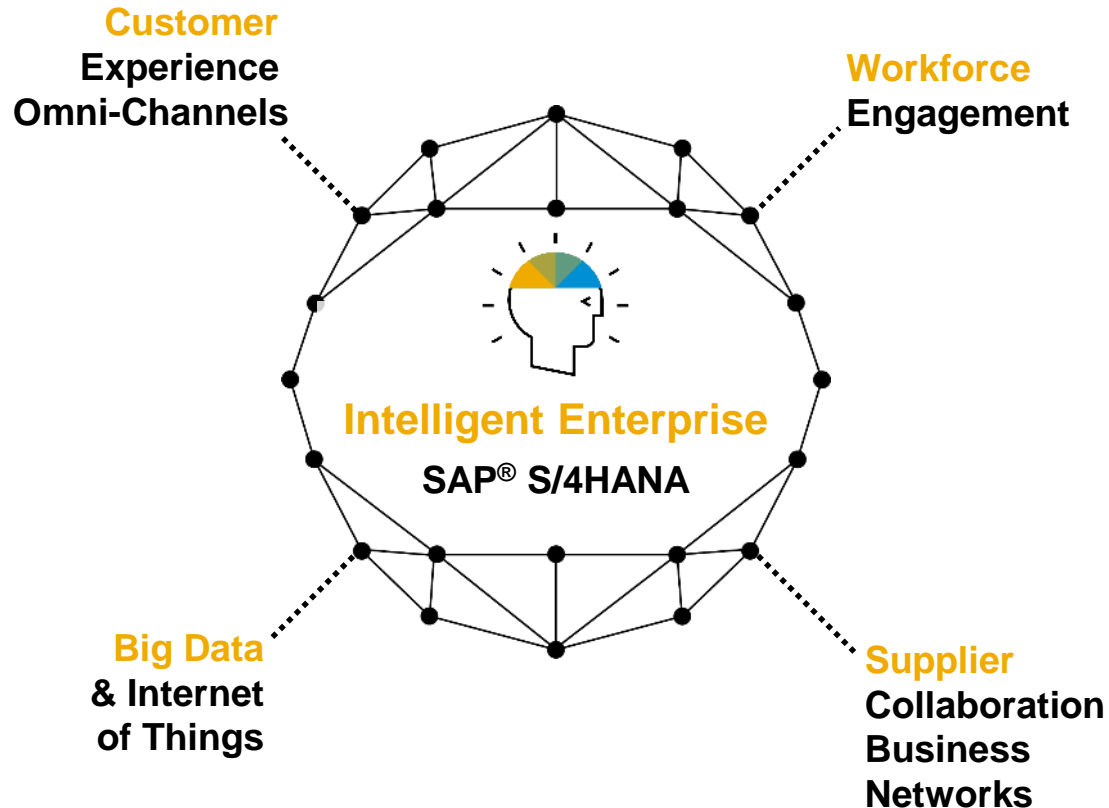
Sustaining customer loyalty and retention

Evolving security perspectives

	Historical IT Security Perspectives	Today's Leading Cybersecurity Insights
Scope of the Challenge	 <p>Limited to your “four walls” and extended to the enterprise</p>	 <p>Spans your interconnected global and business ecosystem</p>
Ownership and Accountability	 <p>IT led and operated</p>	 <p>Business-aligned and owned; CEO and board driven</p>
Adversaries' Characteristics	 <p>One-off and opportunistic; motivated by notoriety, technical challenge and individual gain</p>	 <p>Organized, funded and targeted; motivated by economic, monetary and political gain</p>
Information Asset Protection	 <p>One-size-fits-all approach</p>	 <p>Prioritize and protect the “crown jewels”</p>
Defense Posture	 <p>Protect the perimeter; respond if attacked</p>	 <p>Protect the application and data yet plan for a breach, monitor and rapidly respond</p>
Security Intelligence and Information Sharing	 <p>Keep to yourself</p>	 <p>Public/private partnerships; collaboration with industry working groups</p>

SAP helps build Digital Trust in digital transformation

Effectively manage cybersecurity and data protection risk



Digital transformation requires security to be smarter, automated, and embedded

- 1 **Security role design and governance** must be considered early on to minimize cross-system risk and insider threats
- 2 **Systems and applications** must be monitored and maintained to minimize vulnerabilities and protect against data loss
- 3 **Manual controls and checks** must be replaced with smarter, AI-driven controls to identify anomalies and potential issues early on
- 4 **Digital automation** requires even more reliable and effective monitoring of transactions and processes as human intervention is minimized

Two key recommendations for managing Cybersecurity and Data Protection

Cyber risks should be managed at the enterprise level with business context

One view across all enterprise risks through the SAP Digital Boardroom



Tied to Objectives

- Risk management framework aligned with business value drivers
- One view of business objectives linked to related risks, controls, and issues

Increased Accountability

- Clear lines of responsibility across operations, risk and compliance management, and internal audit
- Support for an integrated three lines of defense approach

Improved Alignment

- Risk-based approach to reduce unneeded effort for controls and audits
- Focused collaboration to leverage expert knowledge and improve decision making

GRC and Security must be foundational to enterprise transformation

Large opportunity to engage security and GRC experts at the **start** of digital transformations

From PwC's "The journey to digital trust"¹



91%

of enterprise-wide digital transformation include security and/or privacy personnel as stakeholders

but only...



53%

include proactive management of cyber and privacy risks by design in the project plan and budget "fully from the start"

"Companies that misuse personal data will lose the trust of their customers. Trustworthiness is a key factor in driving revenue and profitability... By 2020, we expect that companies that are digitally trustworthy will generate 20% more online profit than those that aren't."

— Gartner, Top 10 Technology Trends for 2019²

Pillars for addressing Cybersecurity and Data Protection

Pillars for addressing Cybersecurity and Data Protection

Comprehensive capabilities

SAP GRC and Security solutions are designed to protect your applications and help govern your compliance process through:



Cyber Risk and Governance



Application Security



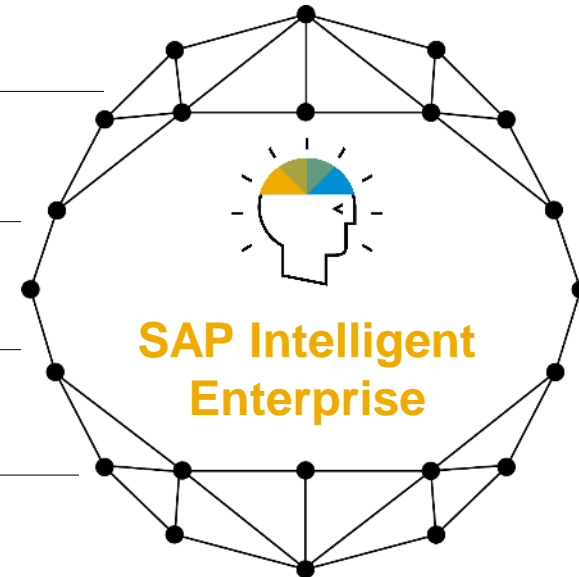
Identity and Access Management



Data Protection and Privacy



Cloud Transparency and Control





Cyber Risk and Governance

Identify and manage risks, regulations and policies to minimize potential business impact

- Document and monitor security risks and regulatory compliance as part of the enterprise risk management program
- Align risk management and controls with business objectives and security best practices
- Establish security policies and test adherence and understanding
- Document and test response and recovery plan
- Audit the security program to provide independent assurance
- Report and manage at the board level to ensure awareness and status

SAP GRC and Security solutions are designed to help manage risk and provide governance for your compliance processes.





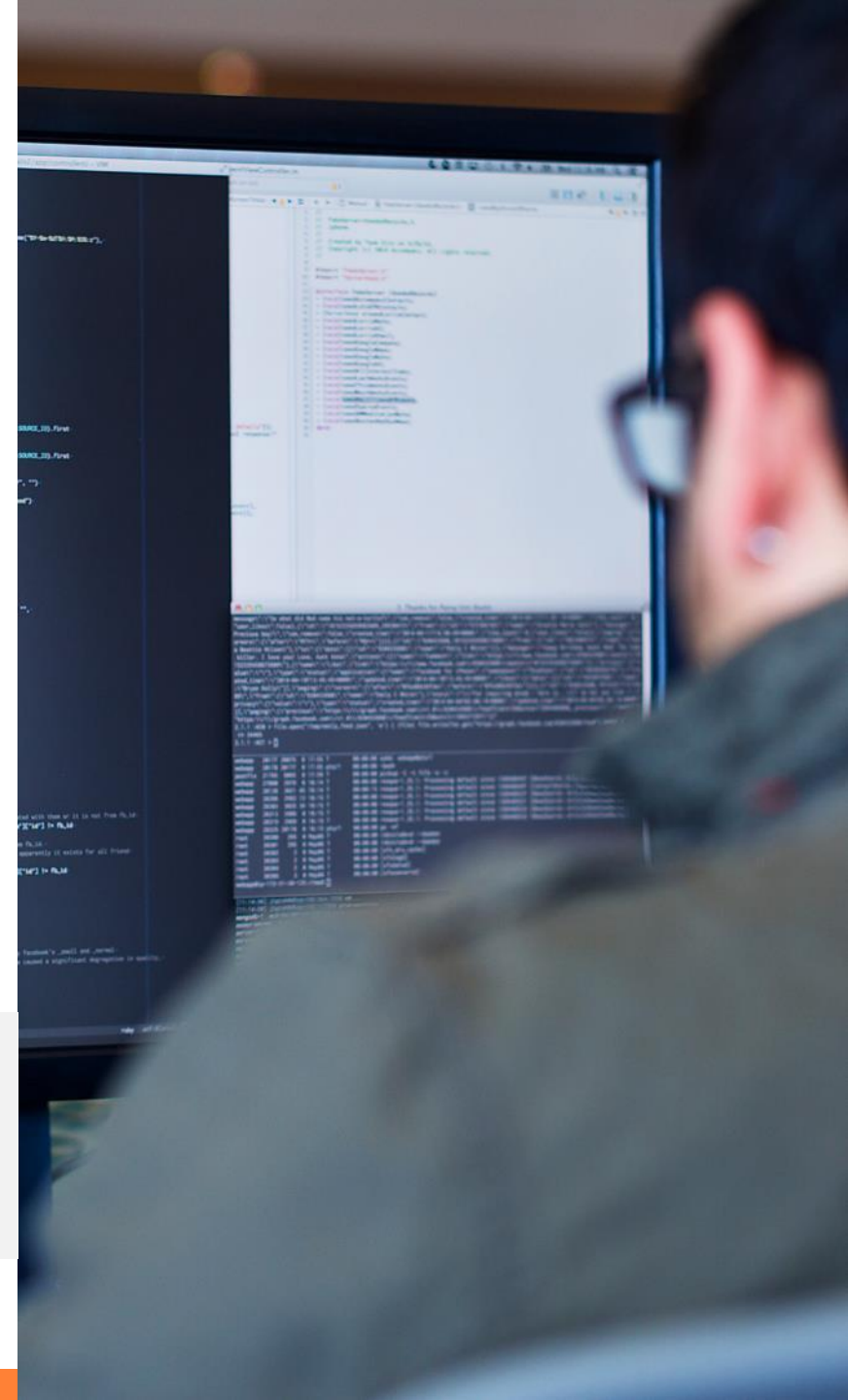
Application Security

Protecting the applications that run your business

SAP GRC and Security solutions are designed to help secure your core applications:

- Monitor business applications for anomalies and attacks
- Analyze business transactions for fraud and unusual activity
- Correlate insights from security and business alerts
- Apply security patches and updates
- Focus on custom code, find and fix vulnerabilities
- Continuously monitor critical security configuration

“ERP systems make an appealing target for hackers, as they run business-critical processes and house sensitive corporate information, which can be used for cyber espionage, sabotage, and fraud.”¹





Identity and Access Management

Optimizing digital identities across the enterprise

- Reduce cost and improve security with identity management and automated provisioning
- Manage access for enterprise applications – cloud or on premise – role and/or attribute-based controls
- Enable greater user productivity by eliminating excessive logins with single sign-on
- Reduce audit costs by quantifying the financial impact of access risk violations
- Support super user account access with monitoring and integrated log review workflow

Identity and Access Management provide the key capabilities to manage system accounts and ensure the correct authorization assignments.





Data Protection and Privacy

Addressing data protection and privacy concerns and regulations

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

Protect company reputation and intellectual property, and improve compliance and reporting for specific regulations.





Public Cloud Transparency and Control

SAP solutions are designed to deliver multi-cloud data transparency and control

- Create and enforce public-cloud data access, location, movement, and processing policies
- Monitor and report on data access, storage, movement, processing, and location in the public cloud
- Configure public-cloud data location, movement, processing, and access policies
- Enforce geolocation controls for data access, storage, processing, and movement
- Prevent unlawful transfer of business data



SAP Solutions for GRC and Security

Overview

Securing the Intelligent Enterprise with SAP GRC

Solution mapping to key themes



Cyber Risk and Governance



Application Security



Identity and Access Management



Data Protection and Privacy



Cloud Transparency and Control

SAP Risk Management
SAP Process Control
SAP Audit Management
SAP Digital Boardroom

Securing the Intelligent Enterprise with SAP GRC

Solution mapping to key themes



Cyber Risk and Governance



Application Security



Identity and Access Management



Data Protection and Privacy



Cloud Transparency and Control

SAP Enterprise Threat Detection
SAP Business Integrity Screening
SAP Solution Manager
Code Vulnerability Analyzer
Unified Connectivity

Securing the Intelligent Enterprise with SAP GRC

Solution mapping to key themes



Cyber Risk and Governance



Application Security



Identity and Access Management



Data Protection and Privacy



Cloud Transparency and Control

SAP Identity Management

SAP Identity Provisioning Service

SAP Access Control

SAP Identity Access Governance

SAP Single Sign-on

SAP Identity Authentication Service

SAP Access Violation Management
by Greenlight

SAP Dynamic Authorization
Management by NextLabs

Securing the Intelligent Enterprise with SAP GRC

Solution mapping to key themes



Cyber Risk and Governance



Application Security



Identity and Access Management



Data Protection and Privacy



Cloud Transparency and Control

SAP Privacy Governance

SAP Privacy Management by BigID

UI data protection masking

UI data protection logging

SAP Enterprise Digital Rights

Management by NextLabs

Securing the Intelligent Enterprise with SAP GRC

Solution mapping to key themes



Cyber Risk and Governance



Application Security



Identity and Access Management



Data Protection and Privacy



Cloud Transparency and Control

SAP Data Custodian
SAP Data Custodian Key
Management System

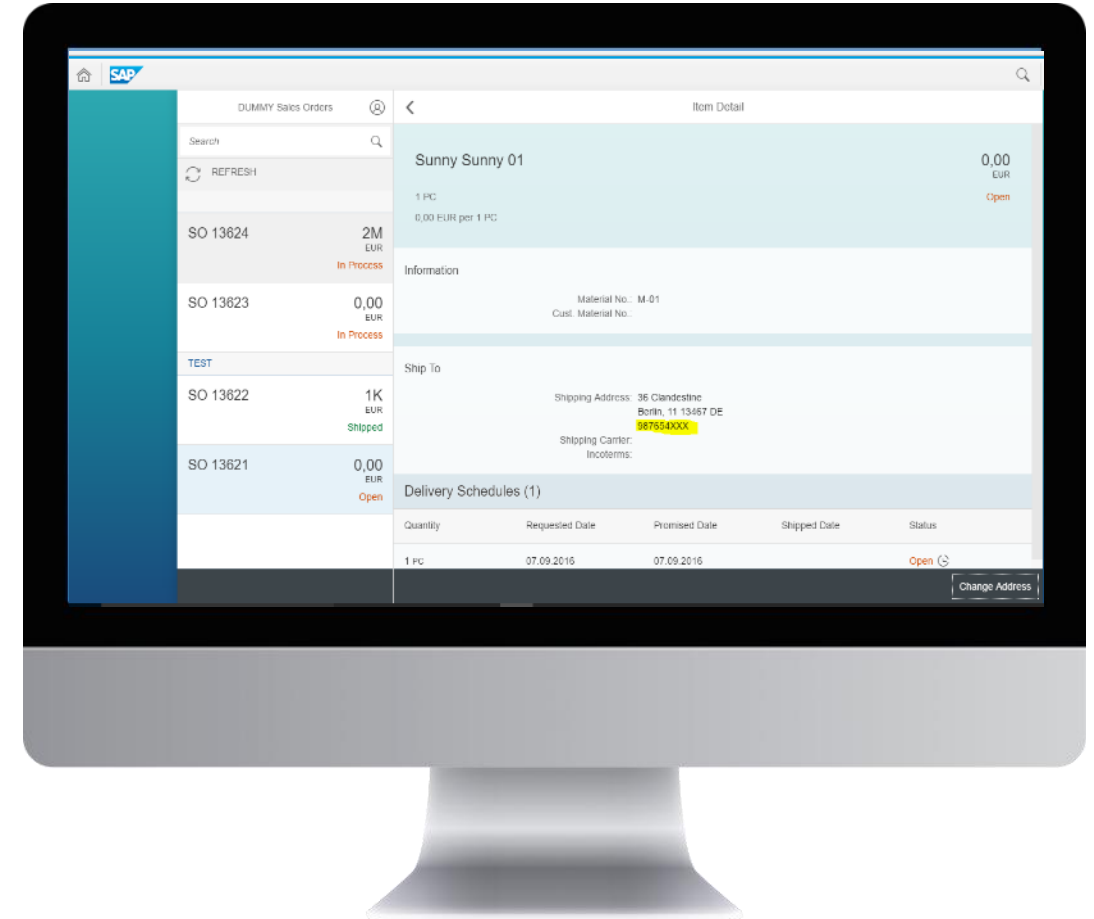
Data Security UI Data Services

UI data protection masking

Enhance data security and compliance

Prevent data leaks by restricting access to legally protected or business critical data

- Attribute-driven determination of authorization; suppression of lines; and “reveal on demand” (a two-step way of gaining access)
- Refine existing PFCG authorization setup to grant task-specific access to critical data by masking for unauthorized users, and write a trace of data access
- Strongly reduce probability of data misuse
- Review audit trail for access of sensitive data

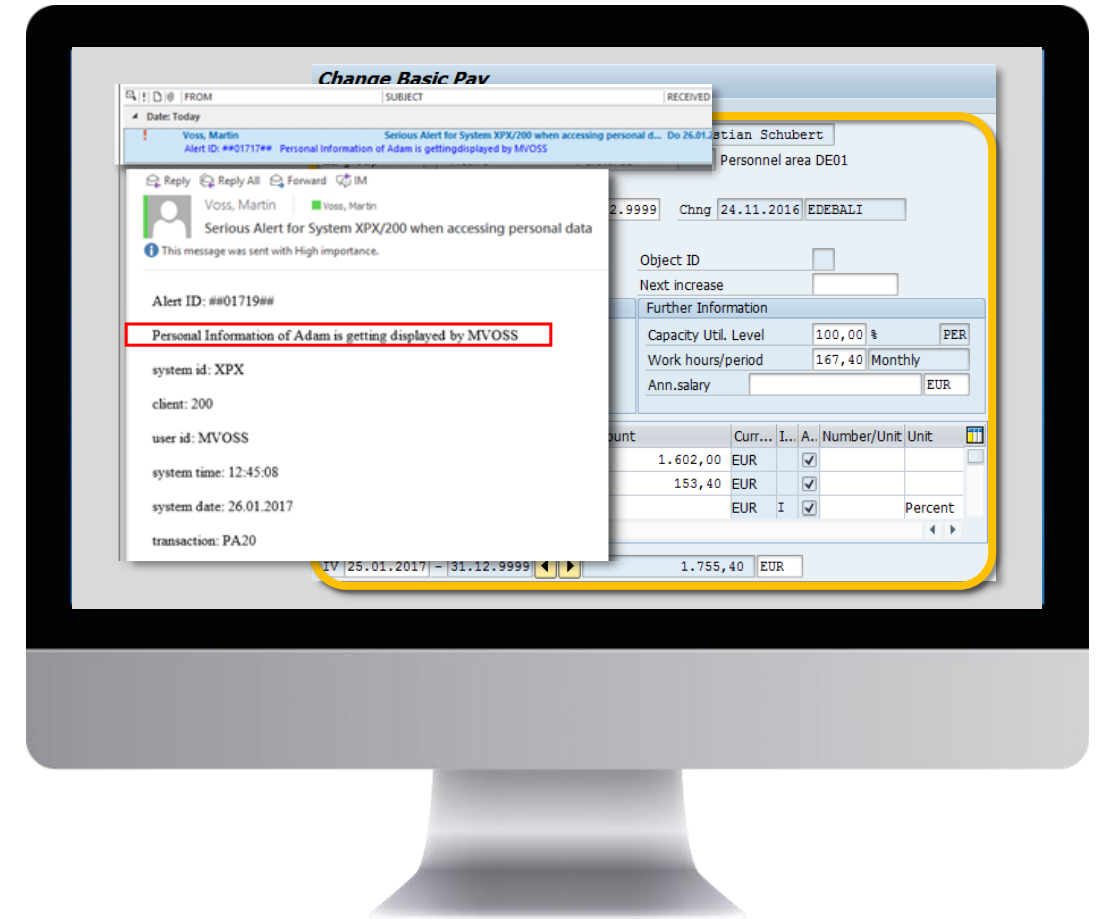


UI data protection logging

Enhance data security and compliance

Prevent data leaks by restricting access to legally protected or business critical data

- Decide on and provide a breach notification in a timely manner with critical information such as data objects, and afflicted parties, and etc.
- Leverage logs to identify unauthorized, non-compliant or malicious activities; direct integration with SAP Enterprise Threat Detection
- Identify (and stop) the person(s) responsible for a data leak



Application Security

SAP Enterprise Threat Detection

Effectively identify and analyze threats

Identify security breaches in real time

- Perform real-time security monitoring of applications and events
- Find application-specific threats related to attacks by using attack detection patterns
- Analyze vast quantities of log data and correlate information to get a complete picture of landscape activities
- Conduct attack investigations based on generated alerts

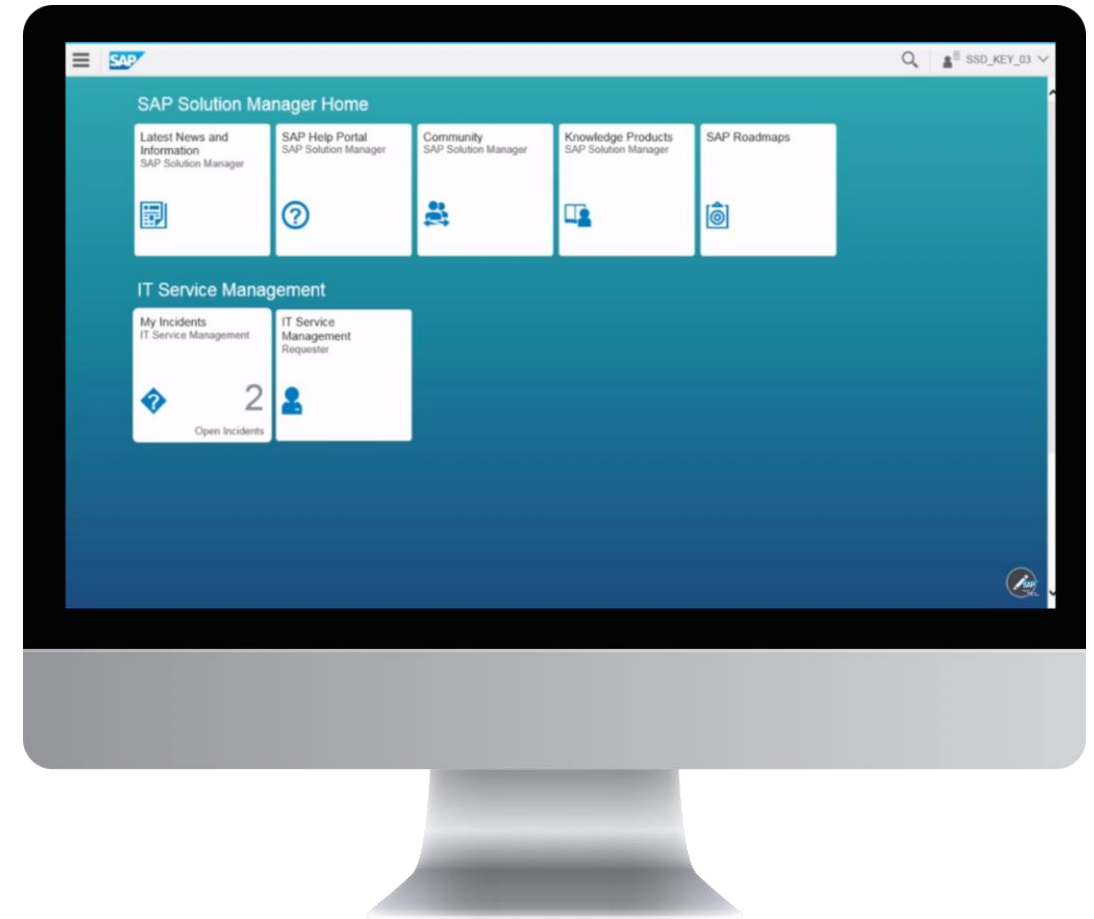


SAP Solution Manager

Centralized application management

Avoid critical IT situations through proactive monitoring

- Lower total cost of ownership throughout the solution lifecycle
- Minimize risk and increase reliability of SAP and non-SAP software by managing software and configuration changes
- Accelerate problem resolution and increase business availability by isolating performance bottlenecks

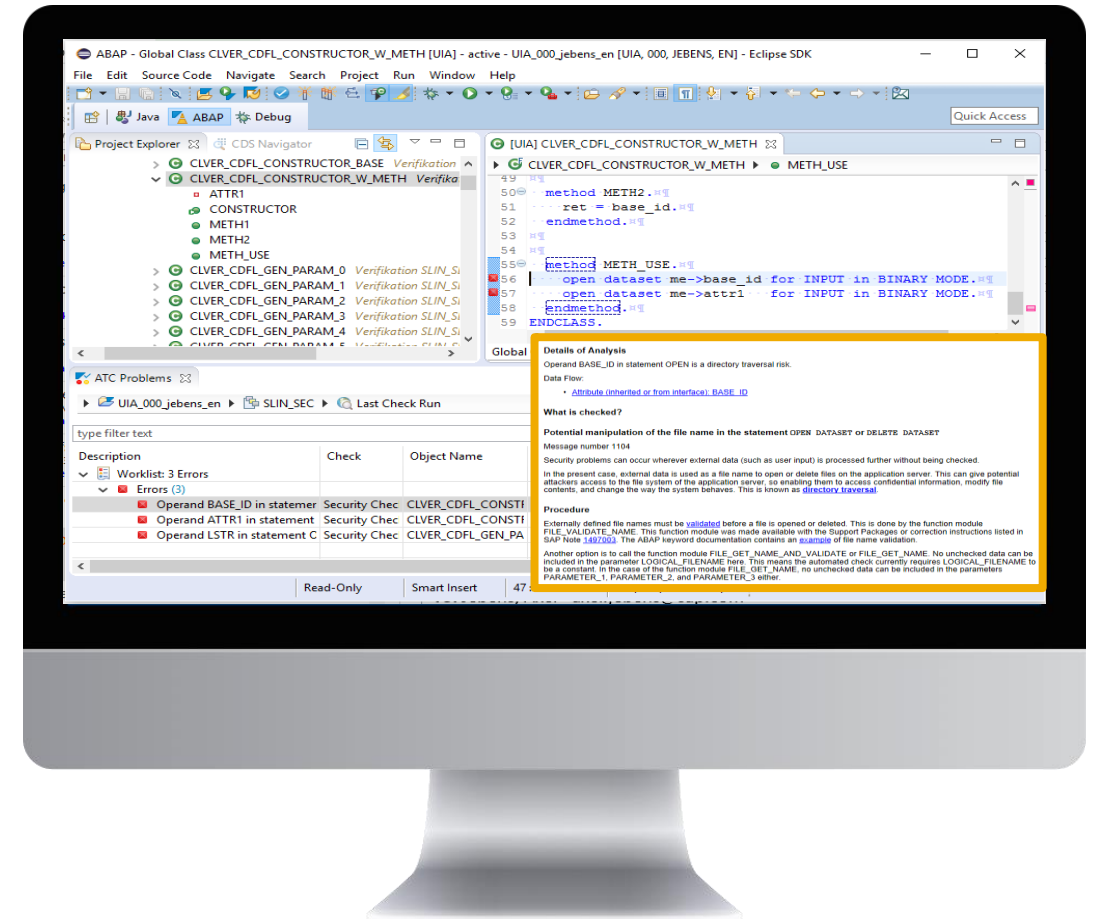


SAP NetWeaver Application Server, add-on for code vulnerability analysis

Develop highly secure SAP ABAP applications

Identify and remedy security vulnerabilities in ABAP custom code

- Tighten application security by scanning custom ABAP code
- Protect against malicious code attacks and data breaches
- Rely on a solution that has been rigorously tested on a massive scale



Cloud Transparency and Control

Confidence in SAP Cloud Secure service through transparency



Comprehensive Contracts

Privacy, security framework, and applicable local regulations



Independent Audits

Service Organization Control reports
certifications



Cyber Defense

Multiple layers of defense
Holistic: Prevent, detect, and react



Secure Cloud Model

Holistic approach
Secure architecture

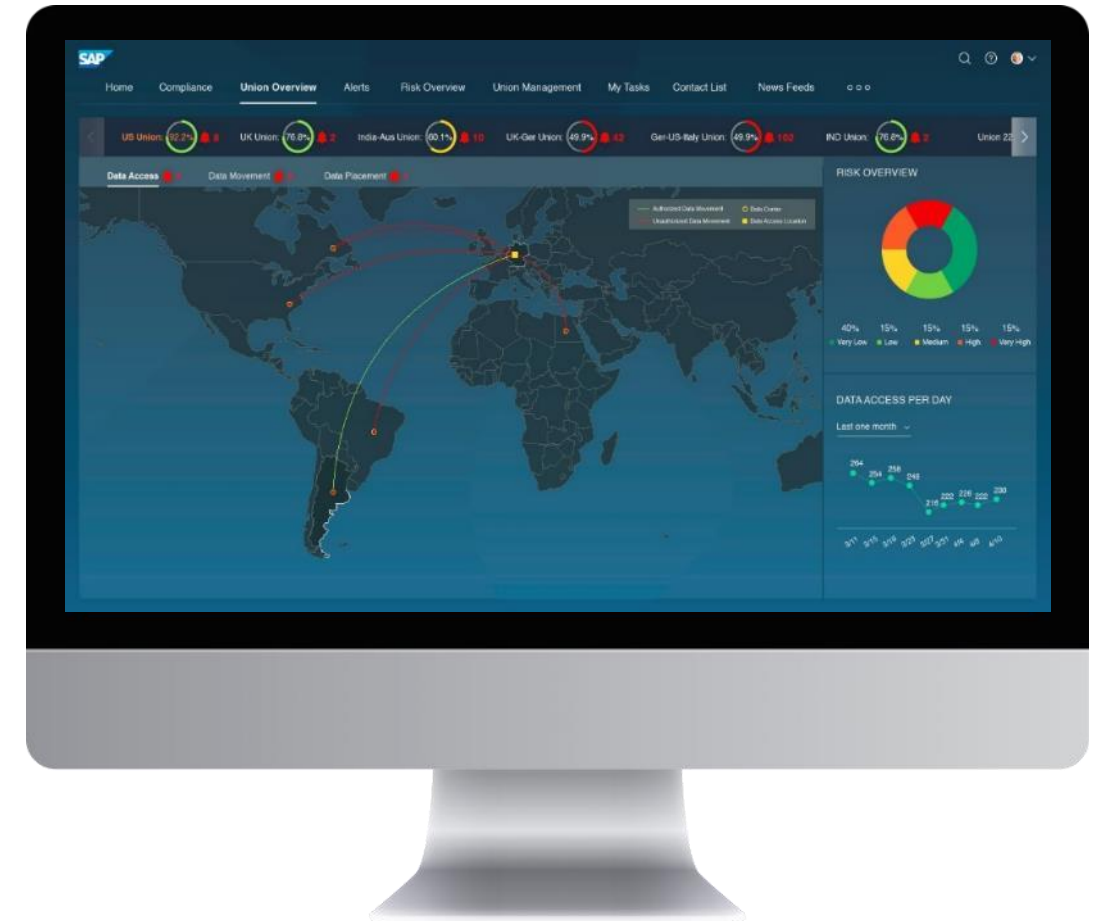


SAP Data Custodian

Data protection in the public cloud

Delivering multi-cloud data transparency and control

- Google Cloud Platform, Microsoft Azure, AWS and AliCloud integration
- Full stack transparency; infrastructure, operating systems, databases, SAP enterprise applications
- Data localization and residency controls
- Geolocation access and export controls
- Cloud provider access control



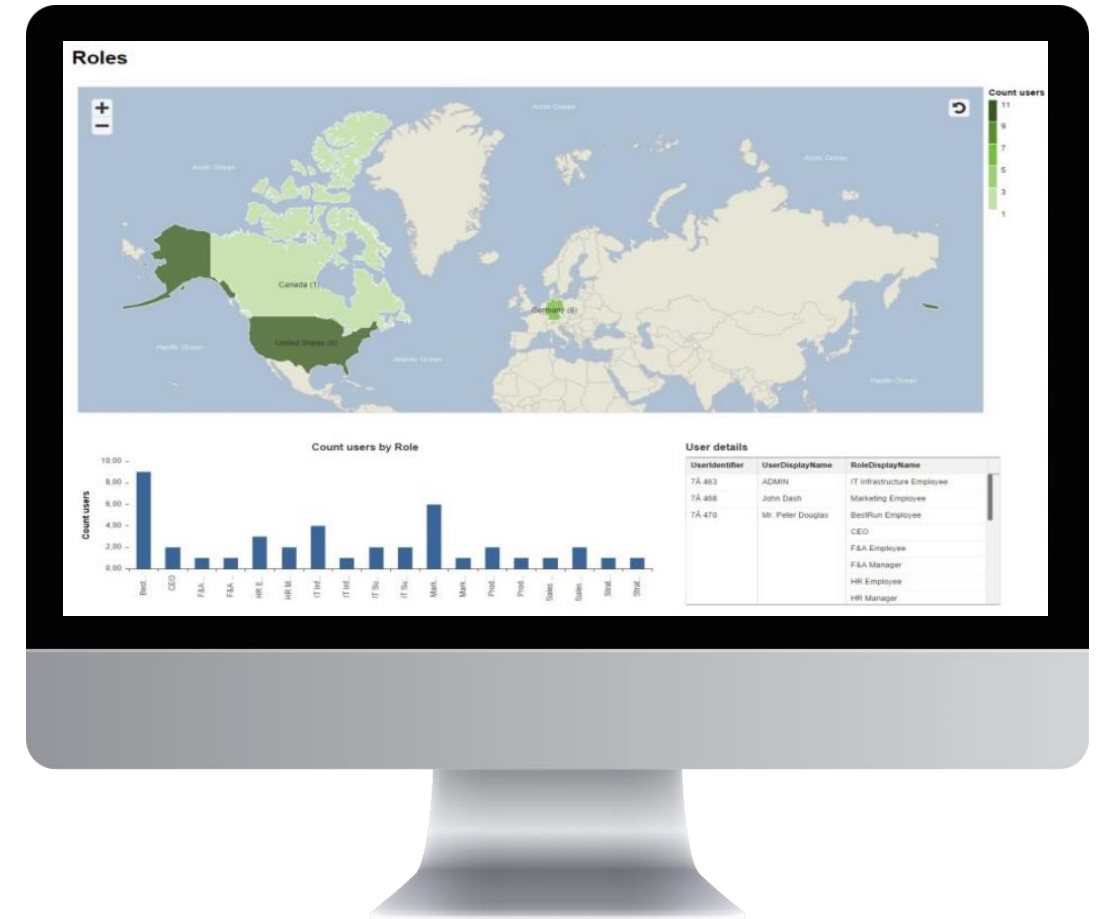
Identity and Access Management

SAP Cloud Identity Provisioning and SAP Identity Management

Integrate and automate the full identity lifecycle

Embed identity management into your business processes – for tighter security

- Provide secure, role-based user access to business applications
- Eliminate redundancies with one central location for identity data storage
- Automate user and role provisioning, and align identity management with business processes
- Reduce operational costs in complex, heterogeneous system landscapes
- Comply with local and global regulations
- Leverage industry standards



SAP Cloud Identity Authentication and SAP Single Sign-On

Secure authentication, single sign-on and more

Single user login for secure access across companies, domains, and devices

- Improve productivity by eliminating multiple authentication procedures
- Provide one password to remember and enforce strong password policies
- Minimize password-related helpdesk calls
- Enhance authentication security using smart cards, two-factor and risk-based authentication, and digital signatures
- Increase data security by encrypting data in transit

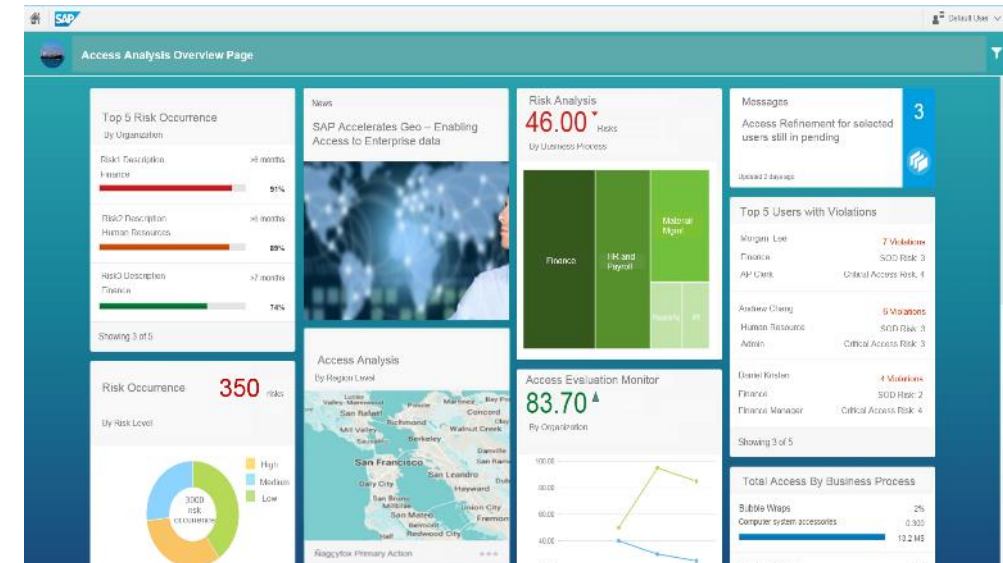


SAP Cloud Identity Access Governance and SAP Access Control

Manage access risk in a hybrid landscape

Streamline user access management on-premise and in the cloud

- Intuitive user interface design on SAP Fiori user experience
- Instant visibility into access issues including access analysis, role design, access request, access certification, and privilege access management
- Support for cloud applications



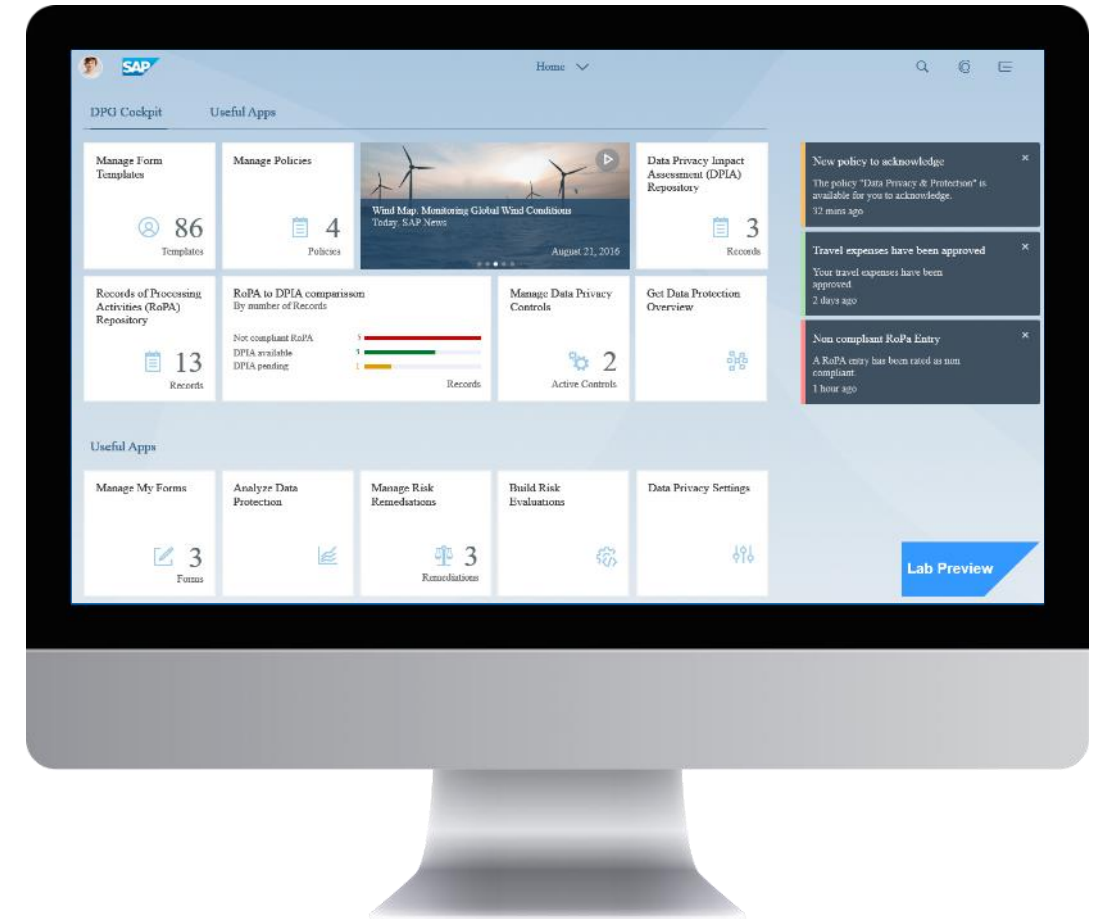
Data Protection and Privacy

SAP Privacy Governance

Data protection and privacy governance for the extended enterprise

Establish governance for data privacy requirements

- Targeted data privacy solution based on the SAP Cloud Platform
- Intuitive user interface design based on the SAP Fiori user experience
- Out-of-the-box support for gathering and reporting records of processing activities

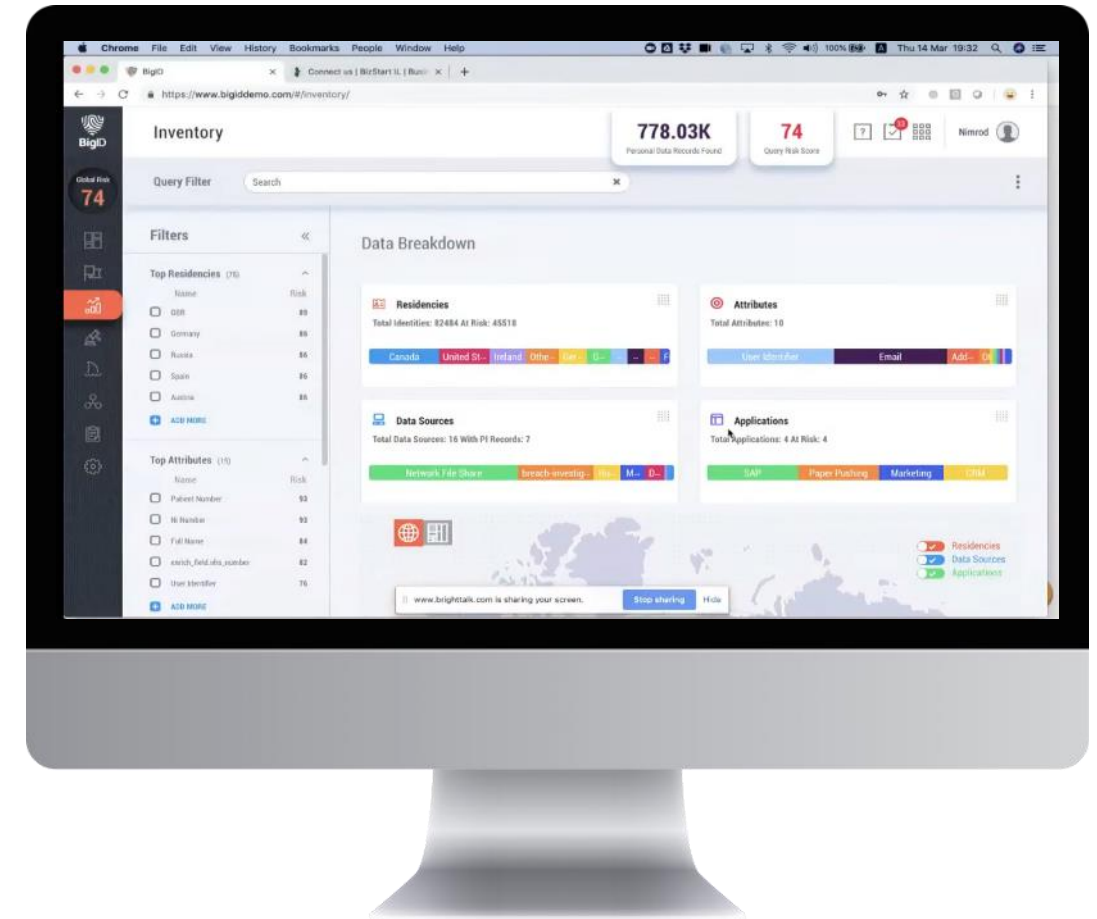


SAP Privacy Management by BigID

Protection, privacy, and governance for data

Machine learning helps redefine how to find, analyze and de-risk identity data

- Document processes that involve personal data (PII) to ensure that the appropriate legal purpose of use and protections are in place
- Maintain an inventory of PII in your enterprise to enable response to data subject access requests (DSAR)



Summary

Where do we go from here?

Upcoming ASUG webinars

Solution deep dives

First Half Webinars

- April 14: Solution highlight: SAP Privacy Management by BigID
- April 28: Solution highlight: SAP Privacy Governance
- May 5: Solution highlight: User interface logging and field masking solutions by SAP
- June 2: Solution highlight: SAP Enterprise Threat Detection

Second Half Webinars – dates to be confirmed

- Cloud Security Considerations
- Managing the identity lifecycle in hybrid landscapes
- Solution highlight: SAP Cloud Identity Access Governance
- Solution Highlight: Authentication scenarios
- Solution Highlight: Authorization scenarios
- Solution highlight: SAP Data Custodian

More information for SAP GRC and Security solutions

Select the area of interest below

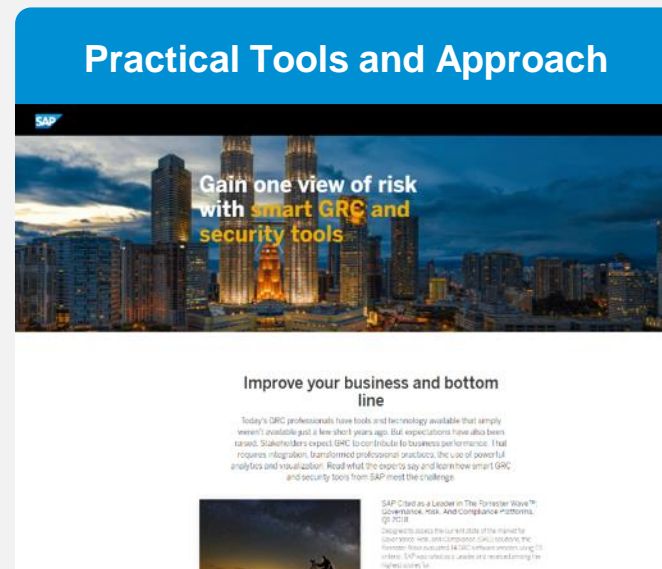


SAP solutions for GRC & Security

Cybersecurity and Governance, Risk, and Compliance (GRC)

International SAP Conference for Internal Controls, Compliance and Risk Management
Join us in Barcelona, Spain on March 12-13, 2019 to discover how next generation GRC solutions deliver connected and real-time operations to your teams. Hear first-hand from customers on the benefits of using SAP across the entire GRC value chain.

Protect your business and bottom line with smart GRC and security tools
Quickly adapt to changes in technology, regulations, and the economy – with governance, risk, and compliance (GRC) solutions from SAP. Our sophisticated and integrated GRC solutions are organized into four categories: Three Lines of Defense, Access Governance, International Trade, and Cybersecurity.



Practical Tools and Approach

Gain one view of risk with smart GRC and security tools

Improve your business and bottom line
Today's GRC professionals have tools and technology available that simply weren't available just a few short years ago. But expectations have also been raised. Stakeholders expect GRC to contribute to business performance. That requires integration, transformed professional practices, the use of powerful analytics and your intuition. Read what the experts say and learn how smart GRC and security tools from SAP meet the challenge.

SAP Cloud as a Leader in The Forrester Wave™ Governance, Risk, and Compliance Platforms, Q3 2018

Check out our latest report on the top rated GRC solutions. We compare the top rated GRC solutions in the market. SAP was ranked #1 in the GRC solutions category. SAP was ranked #1 in the GRC solutions category. SAP was ranked #1 in the GRC solutions category.



SAP Cloud Trust Center

Security, privacy, and compliance in the cloud – we keep your data safe
Your business is built on trust, and you expect the same from your software provider. As a leading software provider and a cloud company, we're dedicated to building – and keeping – our customers' trust.

Cloud Service Status
Discover the uptime and availability of SAP's cloud services with access to real-time insights.
[Cloud Service Status >](#)

Security
Rest assured that your data is protected with a cloud security foundation based on the highest security standards.
[Security >](#)

Data Center
Visit our data centers and see state-of-the-art technologies and rigorous security methodologies.
[Data Center >](#)

Data Protection and Privacy
[Data Protection and Privacy >](#)

Compliance
[Compliance >](#)

Agreements
[Agreements >](#)

Questions?

For questions after this session, contact us at:

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