

Mastering SAP Collaborate
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Crown Promenade, Melbourne

Building a Cyber Security Mindset in a SAP Security Environment

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Manager SAP Cyber Security, Under Armour

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Speaker: Who am I?

- 18+ Years in SAP World
- Upcoming SAP Press Author

Gaurav Singh

Manager, SAP Cyber Security, Under Armour

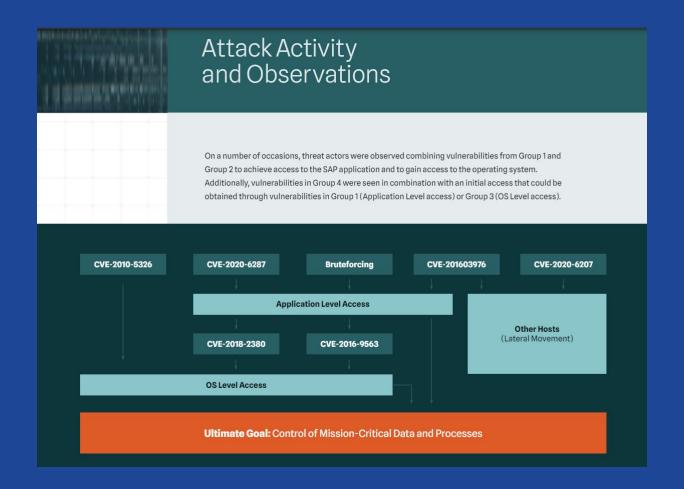


Why?





Onapsis – SAP Cyber Attacks Observations





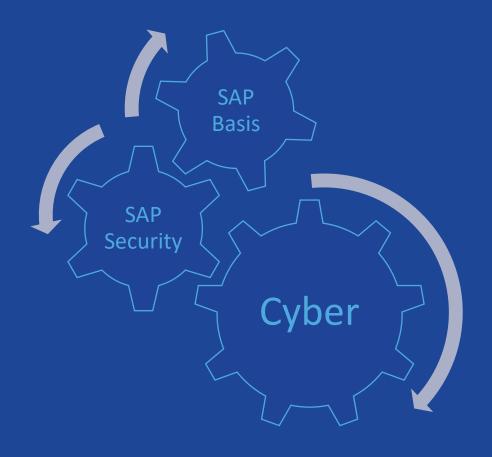
Let's Start with A Question!

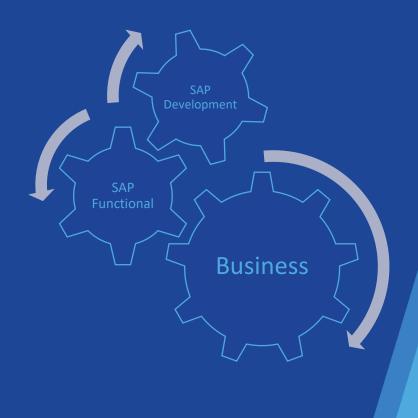


Who's Responsible for Protecting Your SAP Systems from Cyber Threats?



Our SAP World: A World of Silos.....





Who Owns the Cyber Security of our SAP?

- Who Owns Organizations IT Security?
 - CISO?
 - CIO?
- Who Owns Your SAP System and Application Security?
 - CISO?
 - SAP Department? Why Not CISO's Organization?
 - SAP Basis
 - SAP Security
- Why the team which owns the entire IT Security don't own securing SAP
 - If your IT/Cyber team also own Security(actually own and work to secure it), you are way ahead, even there is Shared Responsibility amongst Cyber and SAP Security and Basis teams.



What is Cyber?



CIA Triad – Core Cyber Principal.....





Confidentiality

- Vendor Master Table
- Masking Credit Card



Integrity

- Update Vendor Master
- Dialog User Only/Named Users



Availability

- SAP System Uptime
- BC/DR

What is Cyber Security Mindset for SAP?

- Think Beyond Traditional SAP Security
 - Access Control, Identity and access management
 - Governance, Risk and Compliance(GRC) Access Control
 - SOX(Sarbanes-Oxley)
- Understand that what we do is just a part of Cyber Security
 - Identity and Access Management
 - Vulnerability Management
 - Threat Management
 - Incident Response
 - Busines Continuity and Disaster Recovery
 - Logging and Monitoring
 - Infrasctture and Network Security



What is Cyber Security Mindset for SAP?

- False Sense of Security
 - GRC/SOX, Controls heavy and historical SAP Mindset(All within Firewall) create False Sense of Security
- Who is responsible for Securing SAP? SAP team or CISO /Information Security Team?



Why We need Cyber Security in SAP Security World?

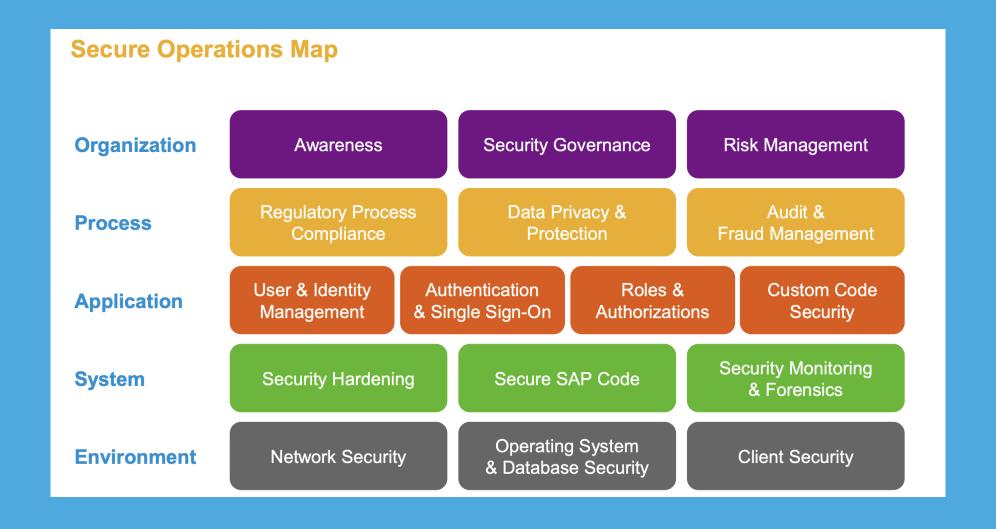
- SAP is No Longer an Internal Only system which sits within a Firewall
- Cloud Adoption: As per the ASUG(American SAP User Group) Survey, 81% of SAP Customers use the Cloud in some form for SAP
 - SaaS(SuccessFactors, Ariba, Concur)
- S/4 HANA Transformation
 - BTP(Business Technology Platform)
 - Rise with SAP
 - Grow with SAP
 - Customers Moving On-Prem to AWS/Azure/GCP (Customer Owned)



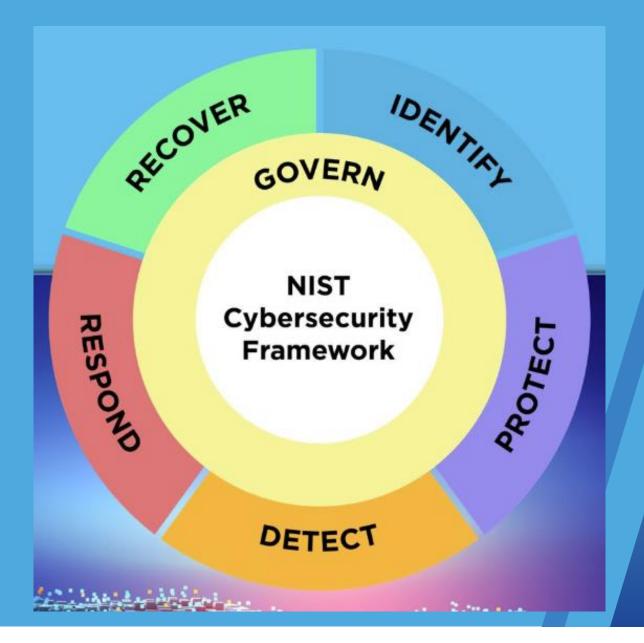
Where Do we Start?



Start with Reviewing SAP Security Operations Map



NIST Cyber Security Framework





Key Takeaways



1. Are you Doing Enough to Secure your SAP Systems? Bring in Cyber Mindset in SAP Security World !!!



2. Adopt Cloud – Yes, Its More Secure



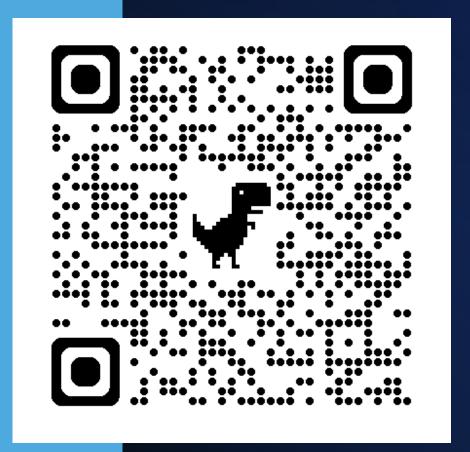
3. Shared Responsibility Model – Yes You Can't do it Alone.....



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Cybersecurity capabilities that you get with SAP RISE and GROW offerings

Colleen Hebbert (she/her, human)

Head of Cyber Security and Compliance - ANZ, SAP

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Random story time (my experience in "SAP Security")



RISE, GROW, PUBLIC, PRIVATE

RISE

GROW



SAP S/4HANA Cloud, private edition

Cloud value, traditional flexibility & full scope

Designed to provide innovation and cloud value while allowing customers to retain their investments by converting their existing system(s)



SAP S/4HANA Cloud, public edition

Complete, modern, SaaS ERP

Our strategic choice for companies ready to embrace the future of ERP with a new implementation and pre-defined processes

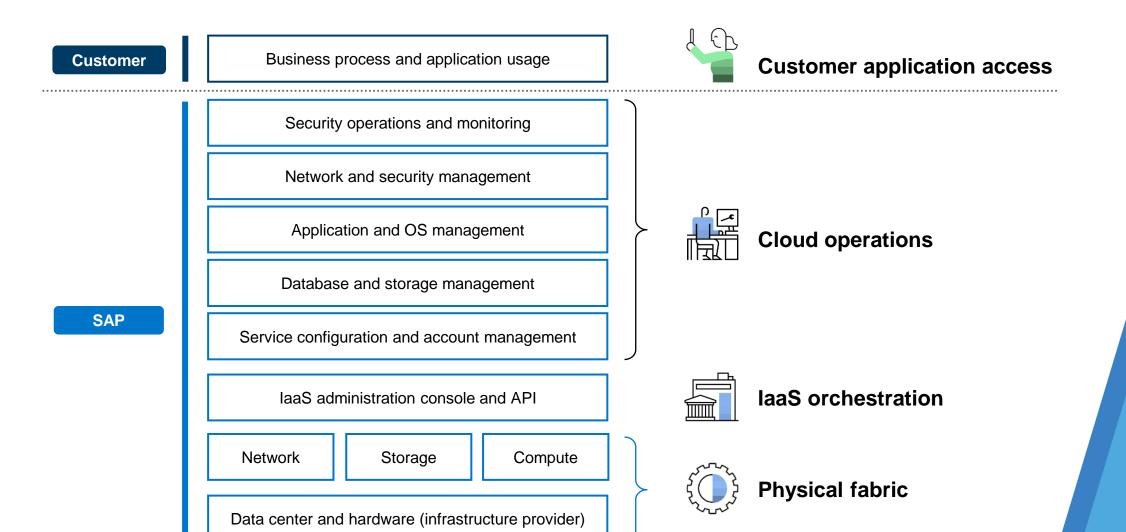


SAP BTP + Other SAP Cloud Services

https://learning.sap.com/learning-journeys/explore-sap-cloud-erp/differentiating-grow-and-rise-with-sap b3cd2d48-289a-4842-a8ce-bb3a40527cbb

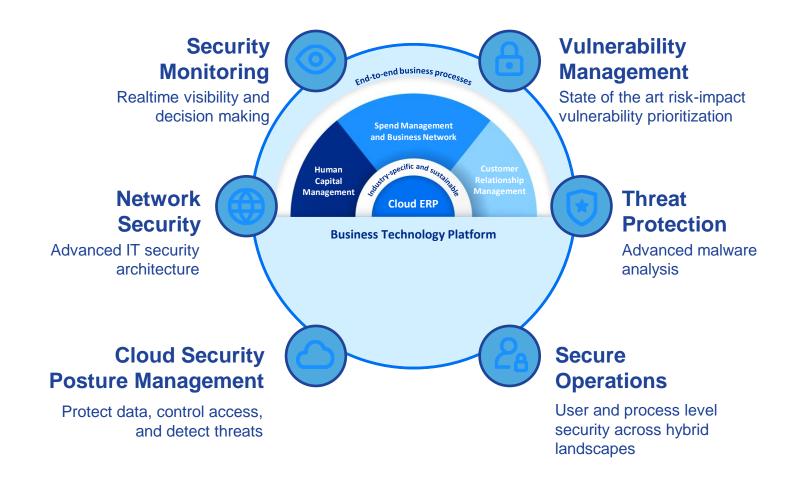


Sharing the Responsibility





SAP Cloud –Security Features





Comparing the editions (some highlights)

	SAP S/4HANA Cloud, private edition	SAP S/4HANA Cloud, public edition	
SaaS	SaaS-like	Yes	
IaaS Provider	Customer choice of Hyperscaler (AWS, Azure, GCP)	Depends on Region/Location (SAP Converged Cloud, Azure & GCP)	
Tenant Isolation	VPC/VNET	Multi-tenancy (application in own security group; own DB HANA tenant)	
Internet Access	Customer Decision – secure by default – no Internet traffic unless allowed	Yes - Public facing end point	
Maintenance Windows	Agreed with the Customer	Set windows for the region	
Patching	Shared Responsibility	Managed by SAP	
Infra log access	Optional (LogServ subscription)	No	
Customer Keys	Roadmap Item	Yes (with Data Custodian)	
DR failover	Optional CIF (Customer Invoked Failover)	Declared by SAP	

(This is not an exhaustive list.)

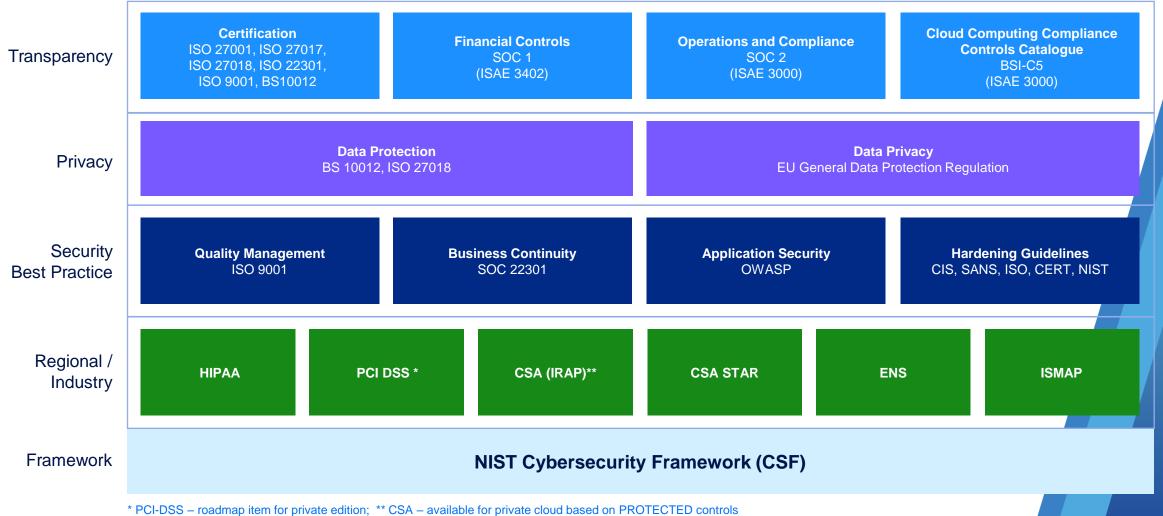


SAP Framework: NIST CSF Adoption

Govern*	Identify	Protect	Detect	Respond	Recover
 Organizational Context RM Strategy and Supply Chain Risk Management Roles, Responsibilities and Authorities Policies, Processes & Procedures Oversight 	Asset ManagementRisk AssessmentImprovement	 Identity Management and Access Control Awareness and Training Data Security Platform Security Technology Infrastructure Resilience 	 Continuous Monitoring Adverse Event Analysis 	 Incident Management Incident Analysis Incident Response Reporting and Communication Incident Mitigation 	 Incident Recovery Plan Execution Incident Recovery Communication
Risk, Policy and Oversight	Asset Management	Preventive Measures	Scans and Analysis	Response and Remediation	Resiliency and Recovery
Cloud accounts by policy in • SAP cloud organizationsRisk management strategy •	CCIR/SISM, MCDB and metadata tagging Central scans and asset	IAM, MFA and Cloud Infrastructure Entitlement Mgt (CIEM)	Continuous CSPM and CNAPP scans, cloud audit logs	SOC, LoB security	Cyber resiliency processes incl. primary and secondary back-ups, CI/CD, anti- ransomware
 TPRM and Office of OSS Mgt 	discovery Vulnerability Management	 Mandatory Security Fundamentals, Dev Learning, 3rd party training, 	Host and container runtime detectionNetwork security, incl.	 Incident communication processes 	Product security response and patch management
 Roles, responsibilities and mandates Security policies, processes and validation 	Threat intelligence Risk assessment and FAIR • quantitative risk	events Data Privacy and Protection	 IDS/IPS, WAF, DNS SIEM ingestion, data enrichment, automation, 	 Security and compliance reporting, dashboarding, SLA tracking, audit findings 	 Post-incident RCA and continuous improvement Trust Office, Cyber Legal
processes and validation (DevSecOps) Internal and 3 rd party audits	managementGap analysis and prioritization	Cloud guardrails and secure resource orchestration, incl. Golden Images, CI/CD build	distribution and reportingThreat detection and hunt	 mgt. BISO Council, Security Execution, Office Hours Continuous improvement 	and MCC



External Assurance



SAP Trust Centre – Compliance Finder - https://www.sap.com/about/trust-center/certification-compliance/compliance-finder.html



Australian context

Our Compliance

- Comply with local laws and regulations (applicable to SAP)
- Australian Privacy Act (1998)
- SOCI Act (2018)

Support Australian Customers by:

- Deploying Australian Location Cloud Services to HCF Strategic Locations
- Invest in Cloud Security Assessments (IRAP assessor)

Our Customers

- Comply with local laws and regulations (applicable to Customer)
- Financial Services (APRA)
- Critical Infrastructure (SOCI Act)
- Government Policy ISM / PSPF

Customer support to provide transparency to help risk assess adoption of SAP Cloud Services



SAP Cloud Security Benefits





Improve business continuity and disaster recovery

Leverage SAP and hyperscaler service level agreements for business continuity, disaster recovery, and uptime capabilities



Increase compliance

Leverage SAP and hyperscaler third party audits (validated through various Certifications & Attestations) to increase compliance that can assist with CMMC and build Zero Trust efforts



Reduce security maintenance cost

Improve efficiency and effectiveness in the areas of patch management, security configuration, vulnerability scanning, threat management, compliance costs



Reduce talent acquisition and training costs

Leverage SAP skilled cybersecurity resources and best practices to reduce risk related to the cybersecurity talent shortage



Improve incident response time

Leverage SAP's Global Security Operations Center with 24 x 7 support including incident response, threat hunting for proactive security management



Increase enterprise security with strategic & transformational initiatives

Free up IT and security resources to focus on strategic security initiatives, manage risk related to cybersecurity, and software supply chain issues



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