Enterprise Architecture and IT Security

Building a Strategic Partnership for SAP Environments

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Premium Engagement & Advisory

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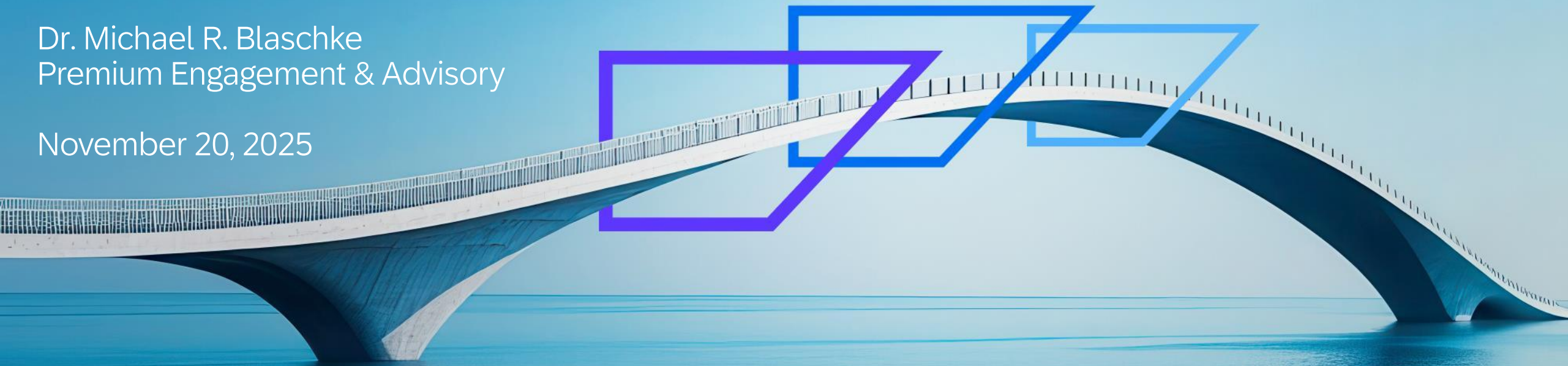

Address IT executives' concerns

CIO Demands for Practical Integration

Direct quotes from IT executives calling for a unified view on architecture and IT security

> Our security team works in isolation from architecture. We need them at the table for every major design decision, not just penetration testing at the end.
>
> –CIO, Healthcare Provider

> The architects design beautiful systems, but then security comes in and says half of it violates compliance. We need one unified approach from day one.
>
> –IT Director, Financial Services Company

> I need my security officer and chief architect working as partners. Right now, they speak different languages and create conflicting requirements.
>
> –CIO, Retail Chain

> Security keeps asking for architectural documentation we don't have. Architecture keeps ignoring security requirements until it's too late. This has to stop.
>
> –IT Director, Energy Company

> We spent months on an EAM framework that never mentioned security once. Then we failed our audit because basic controls weren't built into the design.
>
> –CIO, Manufacturing Company

Source: SAP customers, DSAG, SAP analysis; Note: CIO = Chief Information Officer; EA = Enterprise Architecture; EAM = Enterprise Architecture Management; IT = Information Technology;

Meet your presenter

Dr. Michael Blaschke

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Global Architect at SAP

Enterprise Architecture & Advisory,
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LSE-, AWS- and SAP-certified enterprise architect with 10+ years of international experience at SAP, A.T. Kearney, and Accenture

Note: AWS = Amazon Web Services; CS&D = Customer Success & Delivery; EA = Enterprise Architecture; LSE = London School of Economics; S/4HANA = SAP Business Suite 4 SAP HANA;

Topics

- Debunking EA Myths
- EA for Innovation-platform Ecosystems
- EA for AI-Suite Convergence
- Cloud Extensibility

SAP Webcast Series

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Integrate security and architecture practices for effective (SAP) landscapes

Executive Summary

Security and architecture must work together because **security provides risk frameworks** that improve architectural decisions while **architecture creates the structural foundation** that makes security controls scalable and sustainable.

Unifying security and architecture delivers **more resilient systems**, **faster decision-making** through objective criteria, **reduced technical debt**, and **lower operational overhead** through built-in controls rather than retrofitted solutions.

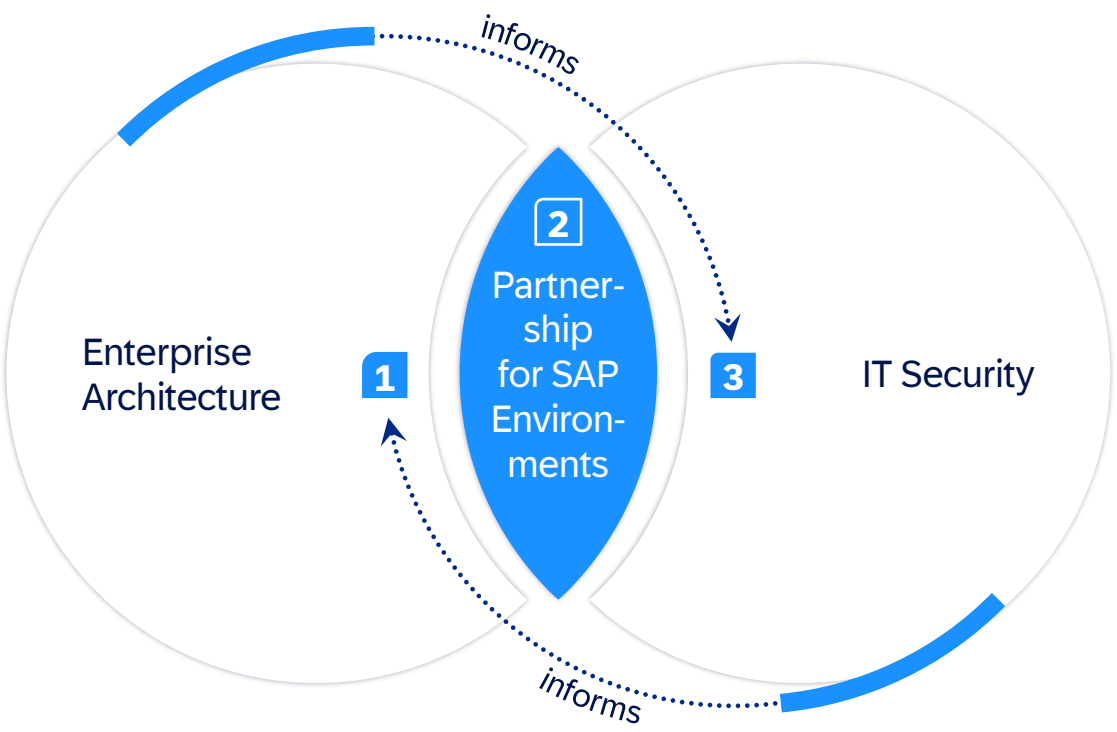
Operationalize integration through **joint design forums**, **shared reference architectures** with embedded security patterns, **integrated automation** validating both architectural and security compliance, and **cross-training programs** for competency in both disciplines.

Source: DSAG, SAP analysis

Recognize the need for integrating architecture and security

‘The Why’: Case for Architecture-Security Integration

The Challenge



Why Integration Matters

1 Enterprise Architecture
Enterprise architecture without security integration leads to subjective design debates, architectures vulnerable to multiple failure modes, and missing the discipline that compliance requirements naturally provide for documentation and standardization.

2 Partnership for SAP Environments
Complex SAP landscapes demand joint architecture-security ownership from project start to prevent the costly technical debt and retrofitting that occurs when these disciplines work separately instead of collaboratively.

3 IT Security
Security programs lacking architectural foundation cannot scale across complex landscapes, rely on unsustainable manual processes, and create controls that fight against system design rather than enhancing operational effectiveness.

Source: SAP analysis; Note: IT = Information Technology

Leverage architecture for security

‘The What’: Architecture’s Impact on Security

Security Domain	Key Challenge	How Architecture Helps	Impact Magnitude (require further analysis/evaluation)
Access & Identity	Complex access across multiple SAP systems	Standardized role models and federated identity patterns reduce provisioning time and ensure consistent segregation of duties	●
Data Protection	Sensitive data across distributed systems and regulatory compliance	Data flow mapping, classification frameworks, and privacy-by-design principles embedded in system design	◕
Network Security	Complex hybrid topologies with cloud and on-premises systems	Security zone strategies and standardized segmentation limit attack surface and lateral movement	◕
Application Security	Vulnerabilities in custom code and third-party integrations	Secure development patterns, API standards, and reusable security components in CI/CD pipelines	◔
Governance & Compliance	Consistent controls across distributed landscape	Control frameworks mapping business processes to technical controls with automated monitoring	●
Incident Response	Detection and recovery across multiple systems	Centralized logging strategies, defined escalation paths, and recovery patterns that preserve security	◑
Cloud & Hybrid	Securing workloads across multiple cloud platforms	Cloud security boundaries, responsibility matrices, and standardized integration patterns	●
Third-Party Risk	Partners, vendors, and supply chain integration security	Standardized integration patterns, security zones, and vendor assessment frameworks	◔

Source: SAP analysis; Note: API = Application Programming Interface; CI/CD = Continuous Integration/Continuous Deployment; IT = Information Technology

Legend: ◉ Very High Impact (75-100%) - Architecture is transformative; ◕ High Impact (50-75%) - Architecture provides substantial improvement; ◑ Moderate Impact (25-50%) - Architecture adds significant value; ◔ Notable Impact (10-25%) - Architecture contributes meaningfully; ○ Limited Impact (<10%) - Architecture provides minor benefit

Leverage security for architecture

‘The What’: Security’s Impact on Architecture

Architecture Domain	Key Challenge	How Security Helps	Impact Magnitude (require further analysis/evaluation)
Business Architecture & Capability Modeling	Defining and prioritizing capabilities across complex global SAP landscapes	Risk frameworks accelerate prioritization; threat modeling reveals critical dependencies; compliance clarifies capability boundaries	◑
Application Architecture & System Landscape	Designing scalable, maintainable SAP landscapes while managing complexity	Security zones create clear boundaries; zero-trust guides decomposition; threat modeling produces robust interfaces	●
Data Architecture & Information Management	Designing data models and flows serving diverse needs with consistency	Classification frameworks structure decisions; privacy principles reduce replication; lineage requirements improve documentation	●
Technology & Infrastructure	Selecting and standardizing platforms across hybrid landscapes	Hardening standards prevent drift; security automation improves consistency; vulnerability management informs refresh cycles	◕
Integration & Interface Architecture	Connecting SAP with internal and external systems managing complexity	Security requires explicit trust boundaries; API patterns drive standardization; auth requirements force clarity	●
Governance & Decision-Making	Establishing decision rights and standards without bottlenecks	Risk frameworks provide evaluation criteria; compliance creates objective standards; security metrics measure health	◕
Transformation & Roadmap	Planning multi-year transformations balancing value with sustainability	Risk assessments inform sequencing; security requirements eliminate re-planning; threat intelligence guides timing	◔
Cloud & Hybrid Architecture	Designing cloud strategies managing complexity and operational models	Shared responsibility clarifies boundaries; landing zones accelerate deployment; compliance informs residency decisions	●

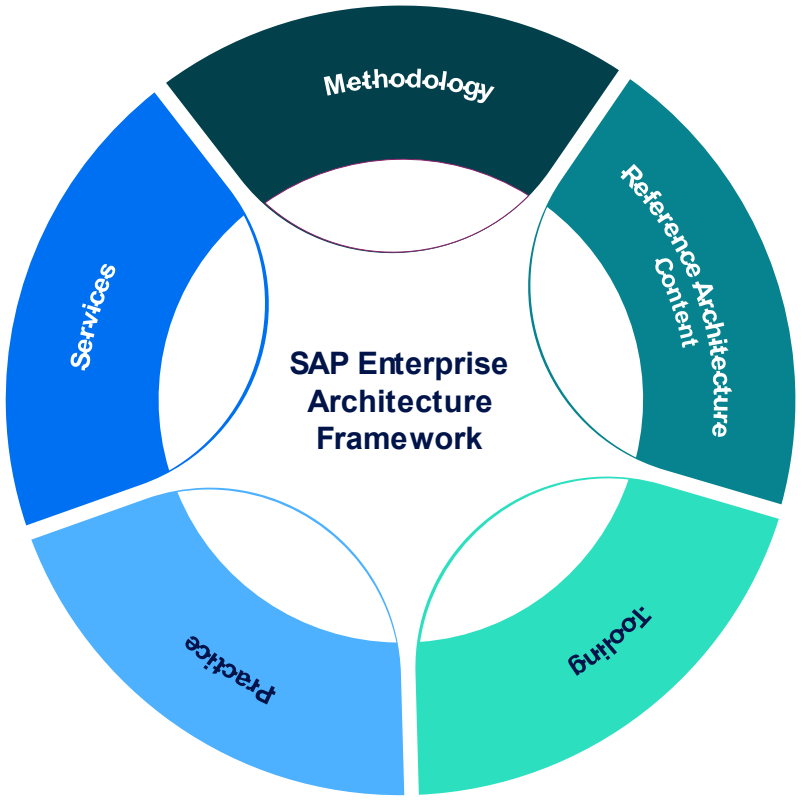
Source: SAP analysis; Note: API = Application Programming Interface

Legend: ◉ Very High (75-100%) - Security thinking is transformative; ◕ High (50-75%) - Security provides substantial improvement ◑ Moderate (25-50%) - Security adds significant value; ◔ Notable (10-25%) - Security contributes meaningfully

Follow our work

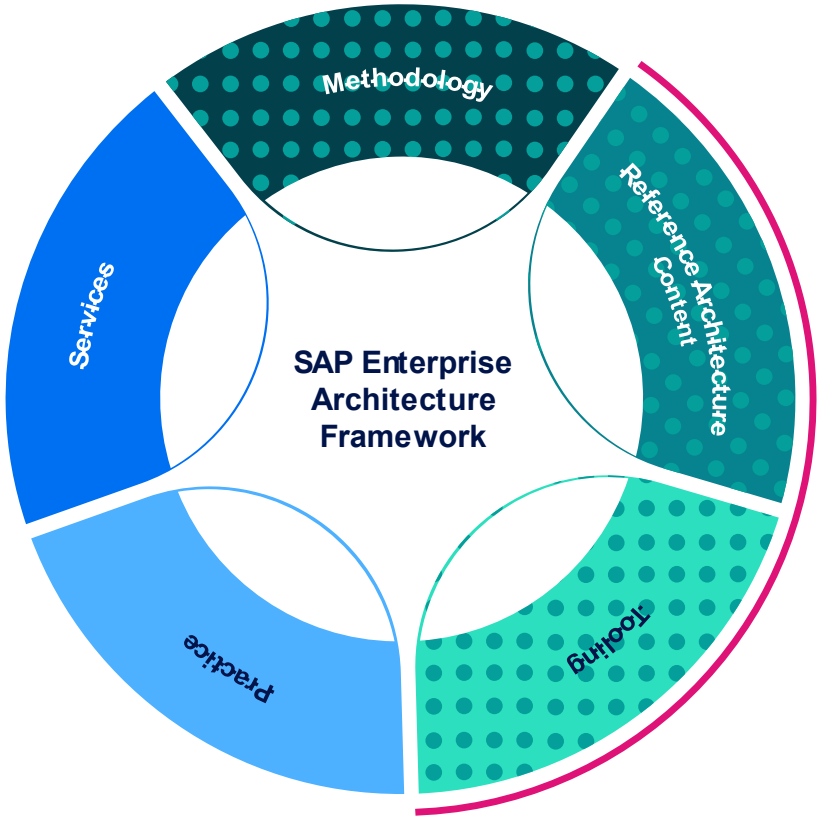
‘The How’: EAF Adapted for Security

The SAP Enterprise Architecture Framework (EAF)



Integration of Security

The EAF Adapted for Security



Source: SAP analysis; Note: EA = Enterprise Architecture; EAF = Enterprise Architecture Framework

Evaluate these claims about security-architecture integration

Testing Assumptions About Security-Architecture Integration

1

Security requirements always constrain architecture choices, while architecture decisions rarely improve security outcomes.

2

In SAP landscapes, architectural documentation created for compliance purposes delivers more long-term value than documentation created purely for technical teams.

3

The biggest benefit of integrating security and architecture is cost avoidance from preventing retrofits, not the security improvements themselves.

4

Security teams need architecture more than architects need security—complex SAP environments are manageable without security frameworks, but security controls cannot scale without architectural foundation.

5

When security and architecture conflict in SAP projects, security requirements should override architectural preferences because regulatory penalties exceed redesign costs.

Source: SAP analysis

Let’s stay in contact

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