



Should You Fix Your SAP S/4HANA Security Risks Before, During, or After Going Live?

Greg Wendt, Pathlock

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In This Session



- How to streamline role redesign by swiftly identifying and resolving underlying security issues during SAP S/4HANA implementation.
- How to effortlessly discern outdated transaction codes used by users and their corresponding replacements in the new SAP S/4 system.
- How to optimize roles by eliminating infrequently utilized transactions
- How to minimize security testing time and allow for a sharper focus on critical matters.

Who Am I...

- Greg Wendt
- Executive Director, Pathlock
- I am one of the top ERP security experts with knowledge across multiple ERP platforms. During my 24-year career, I have been recognized as a leader in data security, application architecture and enterprise business operations.



Agenda



- Introduction
- Role Risks, Redesigns and SAP S/4HANA
- Should you Fix your Security Risks Before, During, or After Go Live?
- How Authorization Architect Can Help
- Summary



*“By combining their expertise with these four industry players, Pathlock is on its way to **becoming a powerhouse** in the application access governance space”*

– Martin Kuppinger, KuppingerCole



- Previously known as Greenlight
- Longstanding SAP Solution Extension Partner
- More recently known for cross-app governance expertise



- ERP Data Security and Compliance
- Industry leader for PeopleSoft, JD Edwards and Oracle controls auditing and data security
- Offices in US and India



- Governance, risk, and compliance management provider
- SOD, risk detection and prevention
- Based in Herent, Belgium



- Leading provider of GRC software for SAP
- Market leading controls for SAP security
- Offices in US and India



- Holistic solution provider for hardening of SAP environments
- Industry leading Data, process and IT general controls
- Based in Hamburg, Germany

The Complete Platform to Protect Business Applications

360-degree protection for cloud and on-premise business applications

GRC



Role design and Re-design



Compliant Provisioning



Separation of Duties and Risk Analysis



User Access Certifications and Review



Privileged and Temporary Access Management

Data Security



Transaction Monitoring



Data Masking



Control Enforcement and Transaction Blocking



Dynamic Authorization



Adaptive Policy

Application Security



Vulnerability Management



Code Scanning



Continuous Control Monitoring



Detection and Response



Logging and SIEM Integration

The new leader for access governance and application security

Trusted by **the** world's leading enterprises, governments, **and** auditors

Our Customers



Our Partners



Millions

User monitored for our customers

Billions

Business activities monitored for our customers

500+

Employees around the world

1000+

Typical ROI achieved by customers through automation, automation, reduced costs, and minimized risk exposure exposure

Role Risks, Redesigns and SAP S/4HANA

Why the need to periodically revise security roles?

- Segregation of Duties risks in current roles
- Current role structure makes SOD mitigation difficult
- Business changes
 - Organizational changes
 - Mergers & Acquisitions
- Role structure difficult to understand
- Duplication between roles
- Unused transactions
- License optimization

Typical Role Redesign Barriers



- Time
- Costs
- Skills
- Risks
- Previous Projects



Challenges When Moving to SAP S/4HANA

SAP is re-architecting its solution for business processes

- Massive simplifications in processes & data models
 - Huge impact on security roles
- Goal- reduce need for custom programs
- Major Upgrade
 - Most transactions should be tested
- Impact to transactions
 - Transaction Replacement
 - Fiori Tiles
- Push for Rapid migration

Factors Affecting Timing of Security Work

Company size

- # of Landscapes
- # of roles

State of the current roles

Skill set of internal resources

Big bang migration?

Project duration

Cost

- Earlier start may be more expensive

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Analysis and Planning

Regardless of when you start the role work, start Analysis & Planning before the project begins

- Analyze current role situation
 - Document current concerns with roles
- Get stakeholder input
- Record goals of the role redesign project
- Agree on role strategy
- Begin planning/ scoping of project
- Develop high level project plan
- Begin training efforts

Before SAP S/4HANA Project

Unless you have a small landscape, or your roles clean... Start the role clean up/ redesign work before SAP S/4HANA project

- Implement the role strategy
- Perform role cleanups
- Remove unneeded transactions
- Address SOD Risks
- Perform testing
- Begin Fiori work
- Authorization Architect can reduce time spent on this phase

During SAP S/4HANA Project

Begin when SAP S/4HANA Development Box is available

- SAP S/4HANA specific issues
 - Transaction, process and table changes
- Deal with project team security issues
- Integrate Fiori functionality
- Testing in SAP S/4HANA
- Timeframe may be limited
 - Authorization Architect can make it doable

After SAP S/4HANA Go-Live

- Deferred issues
- Fine tuning
- Adjustments to security as needed

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What is Authorization Architect?

Authorization Architect (AA) is a product that helps design and build SAP Roles.

- Based on least privilege
- Reviewed for SOD prior to role creation
- Features automated role build
- Can help reduce the number of roles
- Addresses transaction changes due to SAP S/4HANA simplifications
- Addresses unused transactions in security roles
- Offers stress-free testing

Features -Automated Data Analysis

- AA Uses Pathlock's Transaction Archive (TA) tool
- Ideally 13 months of TA data
- AA Uses a TA Runtime License
- Typically, response time < 2 Minutes. Often Seconds!

Authorization Architect: Consolidated List for Analysis

User Assignment for : USA >> SAL >> SALES ASSISTANT

Number of Users analysed: 3 out of 3 -- Date Range: 10/04/2019 to 10/04/2021

Authorization Architect: Consolidated Details

Transaction	Transaction Description	TCode Count	Users Count	Usage %
ME21N	Create Purchase Order	1	1	33
MIGO	Goods Movement	2	2	67
MM03	Display Material &	1	1	33
RSUSR200	List of Users per Login Date	1	1	33
SBWP	SAP Business Workplace	1	1	33
SE16	Data Browser	1	1	33
SESSION_MANAGER	Session Manager Menu Tree Display	7	3	100
SM37	Overview of inh selection	1	1	33

VA05

List of Sales Orders

1

1

33

Display

Sales Reporting

Swap Tr

Features- SAP Migration Provisioning

ECC6	Exists in S4/HANA?	AA Suggests
XD01	No	BP
MM01	Yes	MM01
VA01	Yes	VA01
XK01	No	BP

SAP adds or replaces transactions with each new release

- In SAP S/4HANA this is documented in “Simplification Guides”
- AA Migration Provisioning finds impacted transactions
 - Suggests replacement transactions
- Any ECC release to higher release (ECC or S/4)

Features –Integrated SoD Analysis

Virtual SoD analysis on the Role Proposal

- Uses latest Pathlock's Separations Enforcer functionality
- Uses default Ruleset or any Ruleset of the Client
- Includes checks for Sensitive Transactions as well
- Can be Optional or Mandatory
- Integral SoD remediation feature







Features –Workflow Approvals

- AA can provide Workflow Approvals for Role Build based on the proposed design
- With AA, Role Owners are sent a prefilled-in email and have their own area within AA to approve Role Designs
- This includes the Transactions, Org levels and the SoD result based on the design proposal

Features –Workflow Approvals (cont.)

Workflow User Types

- Role Operators- creates Role Proposal and submits for approval
- Role Owners- responsible for role content. Approves role proposal before creation
- Role Approvers- approves composite roles for deployment to production client

<div><div> Role Owner</div><div> Role Approver</div><div> Role Operator</div></div>									
<div>    </div>									
Business Unit	Department	Position	Role	Requested By	Role Status	Role Owner	Approve Role	Return	Role Details
SPA	LOG	PACKER	ZPS_SPA_LOG_PACKER	NMALHOTRA	Pending	ASINGH			

Features –Automated Role Builds

AA Builds the roles for you and also

- Defines the Role Name and Role Description
- Enters Role Long Text Details
- Creates a structured Role Menu
- Defines the Role Org Levels automatically
- Goes beyond just SU24 recommendations
- Creates Master and Derived
- Creates Standalone Maintain, Display and Composite (Job) Roles

Other Features

- Semi-automated Testing
- Trace and SU24 Analysis
- Comprehensive Reporting of role development and testing

Key Points to Take Home

- **Never postpone or delay security planning during upgrades**
- **Moving to SAP S/4HANA adds additional challenges to upgrade cycle**
- **New UI's often change security as well as look and feel**
- **Companies should start updating security roles before S/4 project begins**
- **During SAP S/4HANA upgrade additional security work can be done on S/4 specific changes**
- **Pathlock's Authorization Architect can dramatically cut security upgrade time, effort, and risk**

Where to Find More Information

- <https://pathlock.com/>
- www.somesite.com/whitepaper
 - Paper describing the details of building components
- <http://help.sap.com>
 - Follow Product Hierarchy > Supply Chain Management > SAP Extended Warehouse Management > SAP Extended Warehouse Management (SAP EWM)

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