



# Make a smooth transition to SAP S/4HANA

**Trends in SAP risk, security, and controls**

# Contents



# Executive summary

**On May 20, 2021, KPMG hosted its annual SAP Security, Controls, and Analytics Share Forum. The share forum featured a panel of four professionals from various industries discussing trends and implementation methods of the SAP S/4HANA platform, and representatives from over 100 organizations were in attendance. We are delighted to share highlights from our general session, as well as hot topics addressed in our breakouts.**

## What's on the mind of risk and IT professionals?

Click to see how our audience responded to our polling questions posed during the conference.

Many companies across numerous industries are either well into the process of migrating to SAP S/4HANA or have recently completed the transition. Although this next-generation ERP platform represents an opportunity for organizations to address more complex business issues faster and process larger volumes of data accurately, it is not without its own system challenges.

All of our general session panelists acknowledged that S/4HANA's new, multifaceted capabilities can be daunting for companies to master and manage. Due to the sheer volume, aspects of access governance, enterprise risk and compliance, and cyber security and data protection are often overlooked by system integrators—albeit inadvertently.

To gain some insight into this dynamic, we recently made it a point to convene a panel of industry professionals who are deeply experienced in the planning, design, and deployment of enterprise applications like S/4HANA.

One of our panelists said, "With many S/4HANA transitions very much technically driven, one of the primary objectives is simply to minimize impact to the business."

As panelist **Teresa Wang, Senior Manager of Transformation at Liberty Utilities**, said, "The modern ERP is no longer just a single application that sits on premises in the back office; there are many additional cloud-connected solutions that come along with it."

Considering the many moving parts in an S/4HANA project, it's critical to partner with the business before, during, and after the migration—not only to ensure communication and transparency but to also lay the foundation for future transformations. **Berkeley D'Alton, Security and Controls Manager at Ingevity**, said analyzing processes and identifying opportunities for changes with the front office ahead of time were integral to solidifying the business case for the ERP work. It's an exercise in change management from finance and supply chain to marketing and HR. Clearly, keeping everybody informed about the possible operational risks and impacts is key.

What's more, as panelist **Sid Parakh, Director of Global Financial Controls at Walgreens**, said, "It's important to follow the risk across applications so we can build a portfolio of controls to mitigate those risks. While we can use technology to assess security for a single application, it's challenging to get that cross-application perspective, but it's something that we intend to do as part of our controls integration journey."

The leaders on our panel unanimously agree that addressing enterprise risk has become exceedingly complex. In this environment, companies installing new or updated business solutions such as S/4HANA are establishing new trusted controls, extracting insights through process mining, and seeking to eliminate conflicts by ensuring adequate separation of duties.

# Controls integration

## KPMG insight

As companies work to organize their controls under S/4HANA, we encourage thinking about a broad suite of dimensions that contribute to getting security and controls right. These dimensions include:

 Eliminating redundant controls

 Moving to exception-based monitoring

 Relying on preventive controls

 Automating controls testing and monitoring

 Reducing manual controls

 Streamlining security and control processes

 Helping to ensure that controls are incorporated into the transformation journey

Controls are the key enabler of the shared understanding and trust between internal and external stakeholders that these dimensions generate.

## What's on the mind of risk and IT professionals?

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## Trending

The business transformation that the migration to S/4HANA represents impacts virtually the entire organization. Unlike previous ERP platforms, S/4HANA is not merely a back-office solution. Today's ERP, in general, and S/4HANA in particular, integrates virtually all front-, middle-, and back-office processes. It also provides unprecedented access to data in real time, which allows for faster decision-making. At the same time, stakeholders across this spectrum must be able to trust the information and the solution. They must be able to rely on the information it generates so they can make timely decisions with confidence.

## Challenges

Companies installing or upgrading to S/4HANA must ensure the organization is prepared to address the new financial, regulatory, security, and technology risks that come along with the new solution. They should look into automating more of the business, where appropriate, to be more responsive to fraud, errors, and failures. Perhaps more importantly, companies must be committed to driving efficiencies as they work through this transformation. View it as an opportunity not only to improve functionality and controls but to also reassess some of the highly labor-intensive pain points for your organization. Focus on driving efficiency in both the way controls are followed as well as how you manage compliance on an ongoing basis.

## Controls integration considerations for companies migrating to S/4HANA

- ▶ **Controls orchestration**—We've found that after companies get their controls frameworks right, the vast majority of pain points associated with technology in general and S/4HANA specifically relates to manual controls (requiring the involvement of a human). Controls orchestration coordinates various stakeholders to ensure that controls perform the right way at the right time with the right evidence.
- ▶ **Aligning controls organization (three lines of defense)**—Many companies struggle to embed their internal audit function (third line) with their first and second lines to ensure they have all relevant controls present throughout the project lifecycle.
- ▶ **Shared responsibility**—With so many third-party touch points in today's business application ecosystem, it's important to understand the interdependencies and consider your controls from an end-to-end perspective. This reality makes it critical to define and integrate governance and accountability over areas that are outsourced to a third party.

# ERP analytics and process mining

## KPMG insight

S/4HANA and other modern technologies have ushered in an era of massive digital transformation across industries, enabling companies to quickly gain competitive advantage and efficiency. However, many large-scale SAP implementations continue to experience challenges due to the complexity, scope, and scale of technology, data, and organizational changes that need to be made across the enterprise. We believe advanced ERP analytics and process mining technology can help address these challenges by cutting through complexity and helping companies:



Quantify the benefits of S/4 transformation initiatives as well as position the enterprise to realize the desired return on investment (ROI)



Monitor performance of the business after go-live to drive ROI over time



Automate system and business process monitoring to measure the effectiveness of the go-live state relative to the final process design and drive continuous process improvement, automation and efficiency



Assess risks and control performance and gauge the overall quality of execution for each relevant business segment

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## Trending

Advanced ERP analytics and process mining are becoming foundational technologies essential to driving business performance and monitoring risks across the ERP landscape. Whatever the desired outcome companies want to achieve—cost takeout, process optimization, improved system and cyber security, continuous risk and control monitoring—these technologies are changing the way business is conducted. With Advanced ERP Analytics and process mining, companies now have the ability to manage and respond to risks and opportunities in real-time.

## Challenges

Business performance today is driven by progressively complex systems, processes and data, making it difficult to achieve transparency and derive insight into operational risks and inefficiencies. With millions of transactions processed daily, determining whether transactions have followed the correct process can be challenging. This lack of transparency often results in inefficiencies, costly rework, redundant processes, and increased potential for fraud or accounting errors.

## Process mining considerations for companies migrating to S/4HANA

- ▶ **Pre-implementation**—Reconstruct legacy system transaction flows based on digital footprints; conduct top-down, as-is analysis to understand process design requirements; identify best practices and ideal upgrade paths across systems and entities.
- ▶ **During implementation**—Define desired process model to be implemented based on best practices; assess the fit-gap between the "as-is" process and "to-be" process; refine process scenarios with simulated business transactions and testing data.
- ▶ **Post-implementation**—Continuously monitor standard/best-practice process adoption rates; stabilize migrated processes by proactively responding to unanticipated process deviations; assess the impact of the migration on the business; continuously monitor risks and control performance.

# Application security and separation of duties (SOD)

## KPMG insight

Companies today have ready access to so much data in near real time via mobile devices and through the cloud. This is the fuel they need to run their businesses more efficiently, but it comes at a price. As access to data proliferates throughout the organization, since there's more real-time access, the pathways to data are becoming increasingly less secure.

With so many organizational applications being pushed to the cloud and myriad transactions flowing through these apps, there are all manner of new complexities being introduced to corporate ecosystems as well as substantial new risks around who has access to what and when.

The big organizational conundrum in this environment is devising a strategy for managing separation of duties holistically across connected businesses.

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## Trending

From an application security and SOD perspective, it's no longer about information passing through a single, specific application. Today it's about the end-to-end lifecycle of a transaction. Companies must consider where a transaction originates, where it culminates, and who touches it in between across the front, middle, and back office, whether in the cloud or on premises. Access issues have evolved beyond solely SOX and CCPA compliance. It's become a matter of preventing fraud and maintaining data security. Bottom line, organizations are broadly pursuing a model that is operationally efficient, automated, and scalable in an effort to lower the overall cost of application security.

## Challenges

In SAP, traditional SOD compliance typically focuses on a single ERP system, which makes it difficult to scale as companies start to move to the cloud and adopt a more diverse application landscape. This is leading to a higher level of compliance costs as companies are forced into more inefficient manual security controls to manage SOD. And it's not just technology that is adding complexity. There's a lot of market activity starting to reappear—M&A, divestitures, and joint ventures—which are all creating significant SOD issues. With all of these challenges, it is no wonder that SOD compliance is still a major issue for companies as we approach the twentieth anniversary of Sarbanes-Oxley regulations. Even today, nearly one-third (32 percent)\* of audit material weaknesses for IPO companies were attributable to SOD. Across all public companies, the number is not much better, with 27% of material weaknesses attributed to SOD, according to a KPMG study.

## SOD considerations for companies migrating to S/4HANA

- ▶ **People**—Strive toward a secure and dynamic model characterized by collective responsibility—an ownership framework under which access and approval rights are shared among business units, IT, and risk/compliance.
- ▶ **Process**—Enable ongoing compliance, monitoring, and conflict resolution, and adaptability to different business requirements. Focus on security, business alignment, and prevention and detection of SOD issues in real time.
- ▶ **Technology**—Target operating model should include an aggregated view of risks across end-to-end business processes for multiple front-, middle-, and back-office applications. Must be compatible with any identity management solution.
- ▶ **Governance**—Program must feature defined standards, robust reporting, and regulatory support. Ensure continuous security and controls alignment, and generate reports that monitor key performance and risk indicators.

\*KPMG 2020 IPO material weakness study; and Trends in material weaknesses, Non-IPO Companies, KPMG 2020 Study. August 2020.

# How KPMG can help

Our established approach to security, controls, and GRC integration enables our multifaceted team to address risk and control considerations as embedded work streams within the overall S/4HANA implementation program.

This is an outcome-driven, business transformation solution that combines deep industry knowledge and experience, global delivery capability, and cloud technology that is built on years of KPMG leading practice knowledge of business processes, operating models, and delivery methodologies.

The industry-specific risk and compliance solution comes with a prebuilt GRC reference model, industry ruleset, accelerators (i.e., risk and controls matrix, templates), security roles, and position mappings. This enables KPMG to facilitate compliance requirements through each project phase, lowering risk and improving adoption.

Our SAP Security & Controls framework can help your organization deliver a security, controls, and governance strategy that protects the entire SAP environment.

Learn more by visiting [read.kpmg.us/GRC](https://read.kpmg.us/GRC)

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