

AI-Driven Access Automation for a Mining Major: Proactive Fraud Prevention

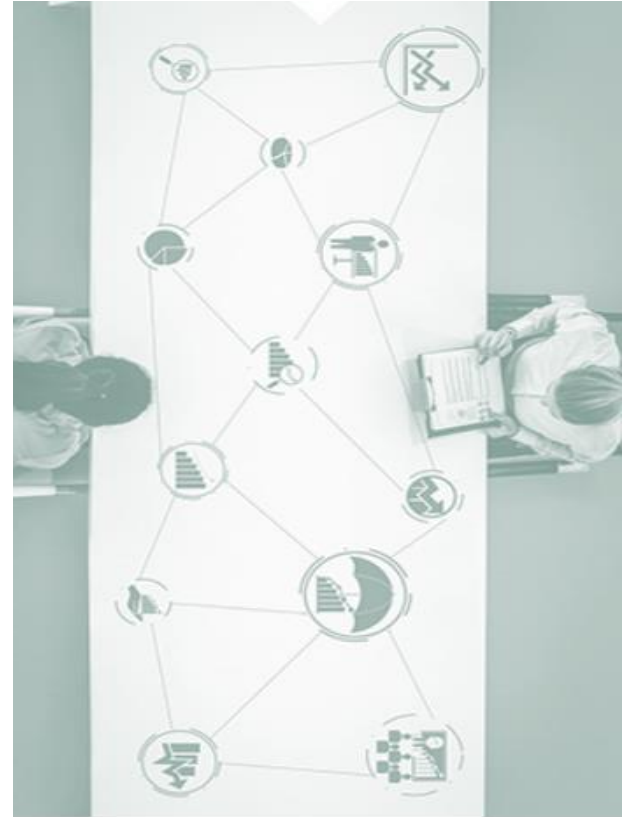
October 2024

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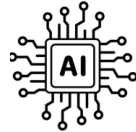
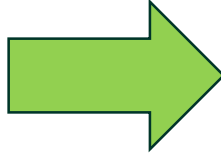
An aerial photograph of a desert landscape. In the center, there is a large, circular structure with many concentric, slightly raised rings, resembling a natural well or a man-made fortification. The surrounding terrain is arid and rocky, with several winding, light-colored paths or roads. The overall scene is captured in a monochromatic, high-contrast style.

Introduction

Why a Mining major decided for this Automation Project?



AUTOMATION



A mining major with revenues over 10 Billion \$, employing more than eight employees faced critical challenges in managing user access manually, tracking changes to critical Cloud ERP configuration, and transaction monitoring. **These manual user access provision issues had been drivers of imbibing Automation and AI capabilities to proactively detect risk of internal fraud in procurement/Finance/Payroll, to avoid loss of reputation & save \$\$ lost in manual processes.**

Challenges: What happens with weak Data & Access Security?

Wirecard executive arrested: suspicion of fraud
Oliver Bellenhaus ran unit at head of Wirecard's Dubai

The mysterious case of Wirecard's missing COO
20 hours ago

Wirecard: inside an accounting scandal
Wirecard's core business has been loss-making for years, audit shows

German prosecutors arrest head of Wirecard's Dubai unit

Beyond payments
All paths lead to success: with our intelligent financial commerce platform.

THE EVOLUTION OF GDPR FINES
Cumulative sum of GDPR Fines over time (Jul 2018-Dec 2022)
December 2022
€ 2,381,309,317

Abu Dhabi shuts down 8 healthcare facilities for violations
5 Feb 2024 — A fine of AED 1 million fine was issued to a dental clinic for suspected fraud and misuse of public funds, and an investigation launched into ...

LINE FINE

REINVENTING PAYMENTS

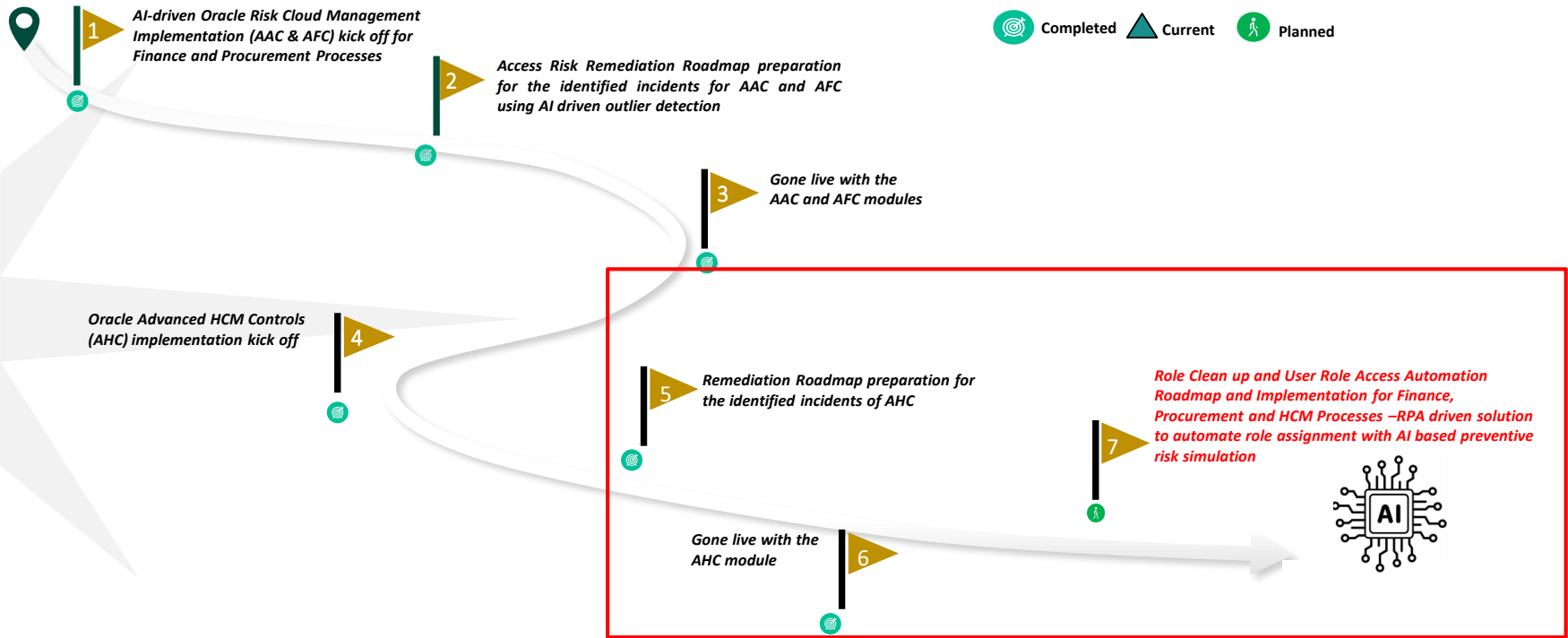
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Risk of Internal Fraud due to weak access controls contribute to leakage of about 5% of revenues, loss of reputation, shareholder trust loss, fines.

Introduction: Our AI-Automation Journey for IT Security



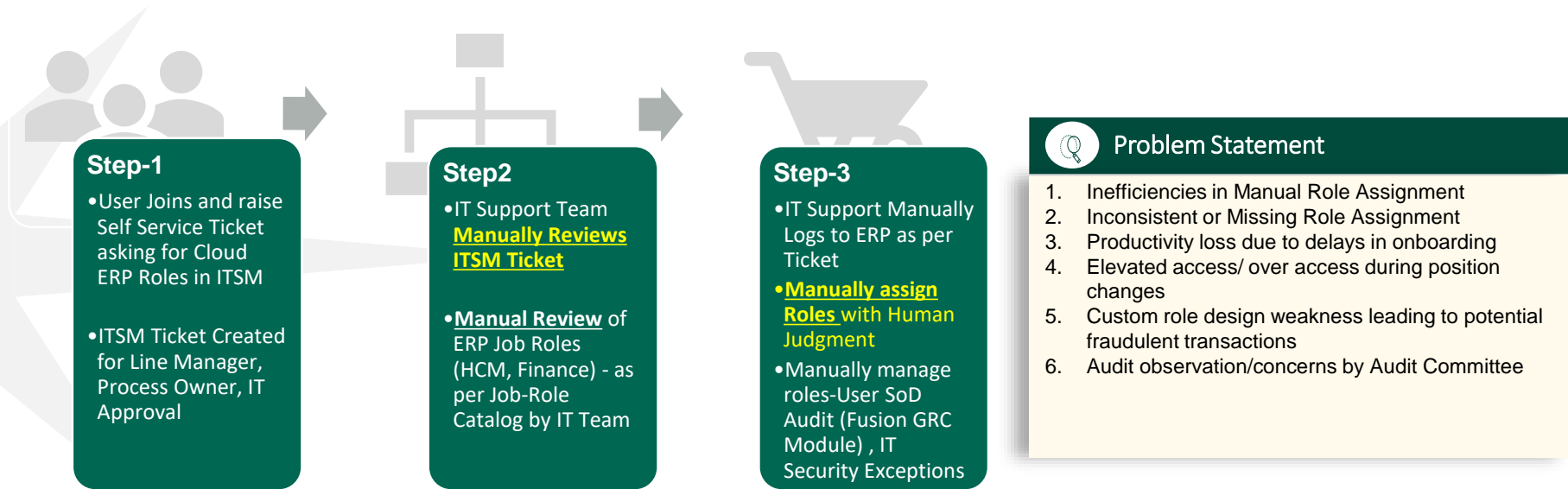
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An aerial photograph of a desert landscape. In the center, there is a large, circular structure with many concentric, slightly irregular rings, resembling a well or a small fortification. Several winding paths or roads cut through the terrain, some of which appear to be made of packed earth or stone. The overall scene is arid and rugged.

Scope of Work

Challenge: How did we manually grant access to Users in ERP?

Acute challenges in Current Manual process to grant ERP access / roles based on human judgement **wasting time and \$\$**

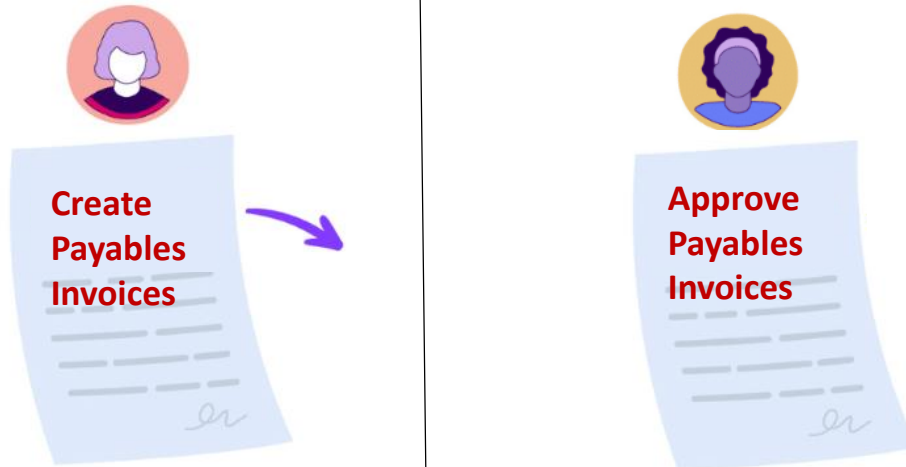


Manual process may lead to elevated Access in Cloud ERP leading to Audit issues, can lead to Internal Fraud (\$ Loss, Reputation Loss, Regulatory Fines)

What is the Access Security risk in ERP business Roles?

Recap: What is “SoD” or “Segregation-of-Duties” risk in Oracle Fusion? Is this a security topic?

SoD feature with AI based risk monitoring is live via Oracle Fusion GRC Modules (Finance, Procurement, HCM)



**Automated process to save time, save \$\$ & minimize human errors for decision on Oracle Role Assignment
Reduce potential chances of internal risk, Audit issues raised to CXO/Board and avoid regulatory fines due to Security Issues**

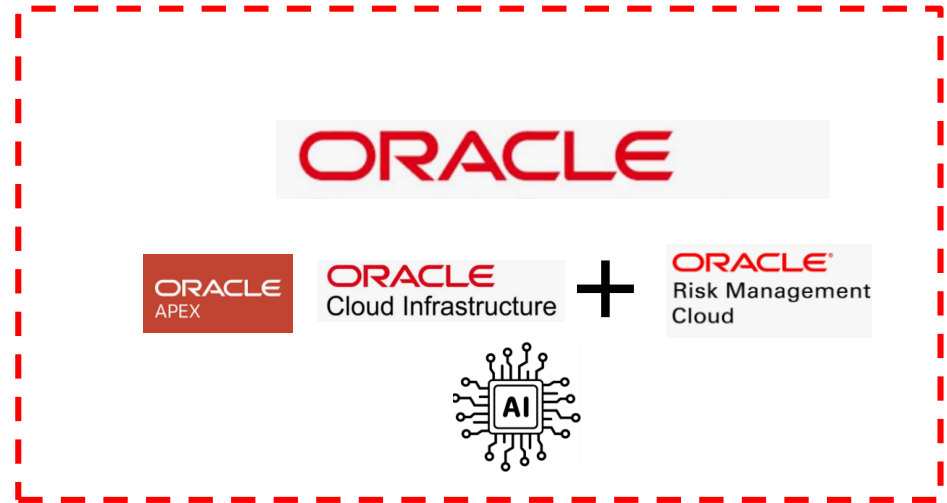
Automated Assignment of Roles using AI driven Risk Simulation

Solution Architecture: Fusion Role Access Automation with Preventive SoD via AI driven analysis of Oracle Risk Cloud (RMC)



Step-1

- Existing Users (8000+)
- User Joins and raise Self Service Ticket asking for Fusion Roles in Service-Now or Request is triggered after completion of training
- Service-Now Ticket Created for Line Manager and IT Approval



Self-Service Role request via OCI APEX Automation App validated For Access Risk in Oracle Risk Cloud (RMC)

Step 2 and Step 3 are Fully Automated & Secure Fusion Role Assignment via OCI APEX Automation App

How did we ensure to adopt Data security, Cyber security best Practices

Fusion Cloud SaaS & Oracle PaaS (OCI/APEX) App – “sensitive data” remains within “Oracle box”



Oracle Fusion HCM, RMC Standard and secure API based integration + SSO enabled



#	Cyber-Security, InfoSec Question	Response
1	How is data moving between Fusion SaaS and OCI PaaS Application?	TRP will use secure & standard Oracle HCM APIs & RMC REST APIs which are recommended by Oracle for integration of users, roles, RMC SoD simulation. TRP will not engineer any new APIs rather use the standard Oracle APIs supported by Oracle Dev. Data remains secure within Oracle box
2	How do we manage authentication and authorization in Oracle REST APIs?	Oracle recommended OAuth 2.0 (link) security protocol will be used
3	How do we ensure data security at Rest for data inside custom App/APEX?	Oracle Autonomous database TDE option that encrypts data ensuring data security at rest (link)
4	How do we ensure data security in Motion?	Oracle Fusion Cloud HCM REST APIs support (mutual) TLS 1.3 and SSL version. Transport Layer Security (TLS) allows clients and servers to communicate over the secured layer, where data travels in an encrypted format understood only by the involved parties

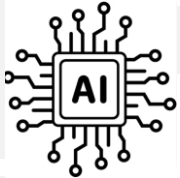
An aerial photograph of a mountainous region featuring a prominent circular terraced structure in the center. The terraces are arranged in concentric, roughly circular layers, creating a spiral-like pattern. The surrounding terrain is rugged and mountainous, with various ridges and valleys. A network of roads or paths is visible, winding through the landscape. The overall scene is captured in a grayscale or sepia tone, giving it a historical or archival appearance. A yellow triangular graphic element is positioned on the left side of the image, partially overlapping the text.

Goals, Results and Challenges

Project Goals



The Mining major began its journey by integrating Oracle Risk Management Cloud (RMC) to proactively prevent internal fraud through continuous user behavior monitoring. Recognizing that reactive detection was insufficient for its sensitive operations, the organization adopted a proactive risk management approach to safeguard financial data and critical resources.



Oracle Fusion GRC cloud system now uses AI-driven algorithms to detect potential fraud risks before they occur, continuously monitoring roles and user behavior. This proactive approach strengthens asset protection and builds a culture of trust and security with stakeholders and customers.



With AI and automation, the Mining Major optimized role structures to eliminate redundancies and align access with job functions. This strengthened security and efficiency, minimizing risks associated with excessive or misaligned access to sensitive systems

Business Benefits: Save \$\$ & hours spent in Manual Reviews



Estimated Savings of 22000 man-hours per month



Estimated Savings of approx. 7 million USD/year



Save risk of reputation loss, internal fraud risk (2% of rev.)

Challenges: How do we manage friction and change-management?



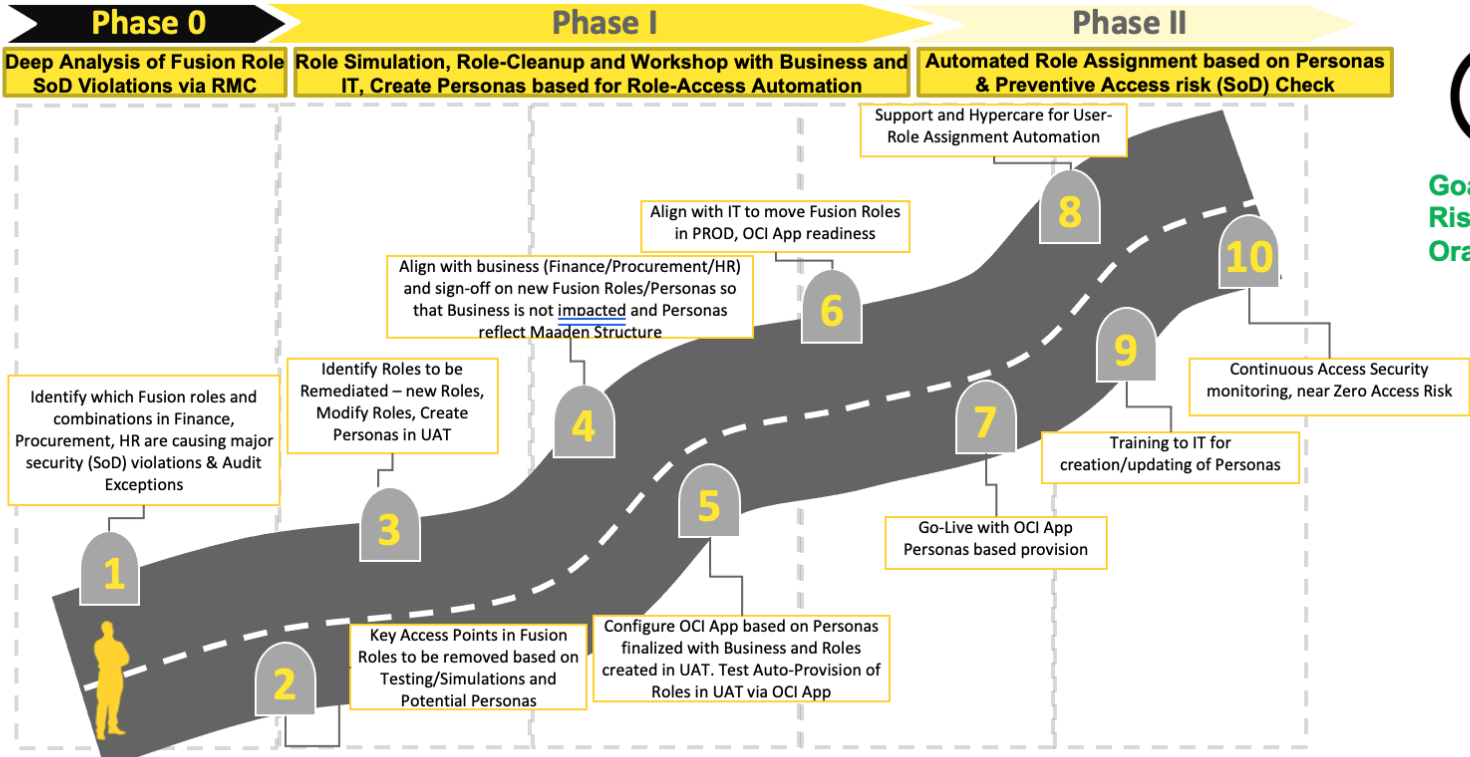
Solution: Workshops to arrive at consensus across Departments (IT, Business, Audit, Risk, IT Governance)

Push from the top-management to drive change, have “quick-wins”, divide-and-conquer a bigger problem in phases/Workstreams

An aerial photograph of a river delta system. A central circular structure, possibly a reservoir or a natural formation, is surrounded by a network of branching channels. The terrain is textured and appears to be a mix of water and land. A yellow graphic element is present on the left side of the image.

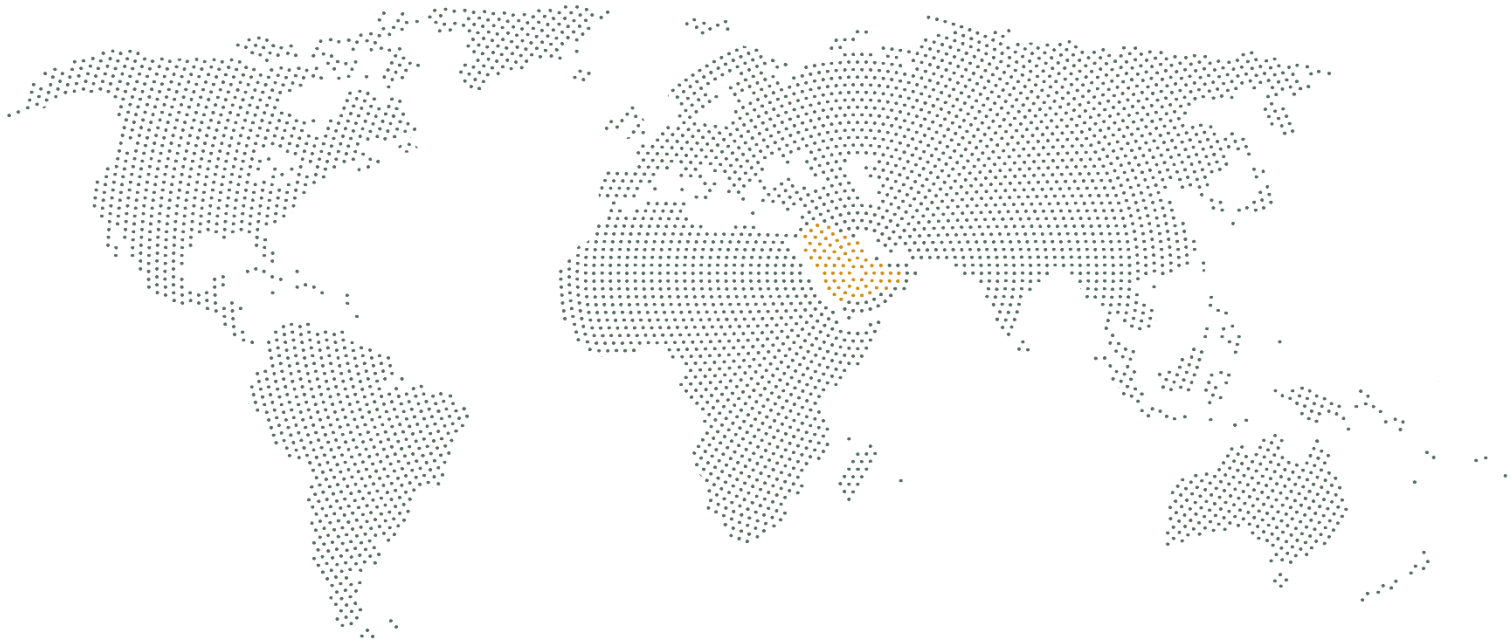
Next Steps...

IT Security is a never ending Journey...



Goal: Zero High Risk Issues in Oracle Fusion

Automated process to save time, \$\$, minimize human judgement errors that may lead to IT Security Issues, Reputation loss due to Internal Fraud, Fines



Thank You