



# Introduction

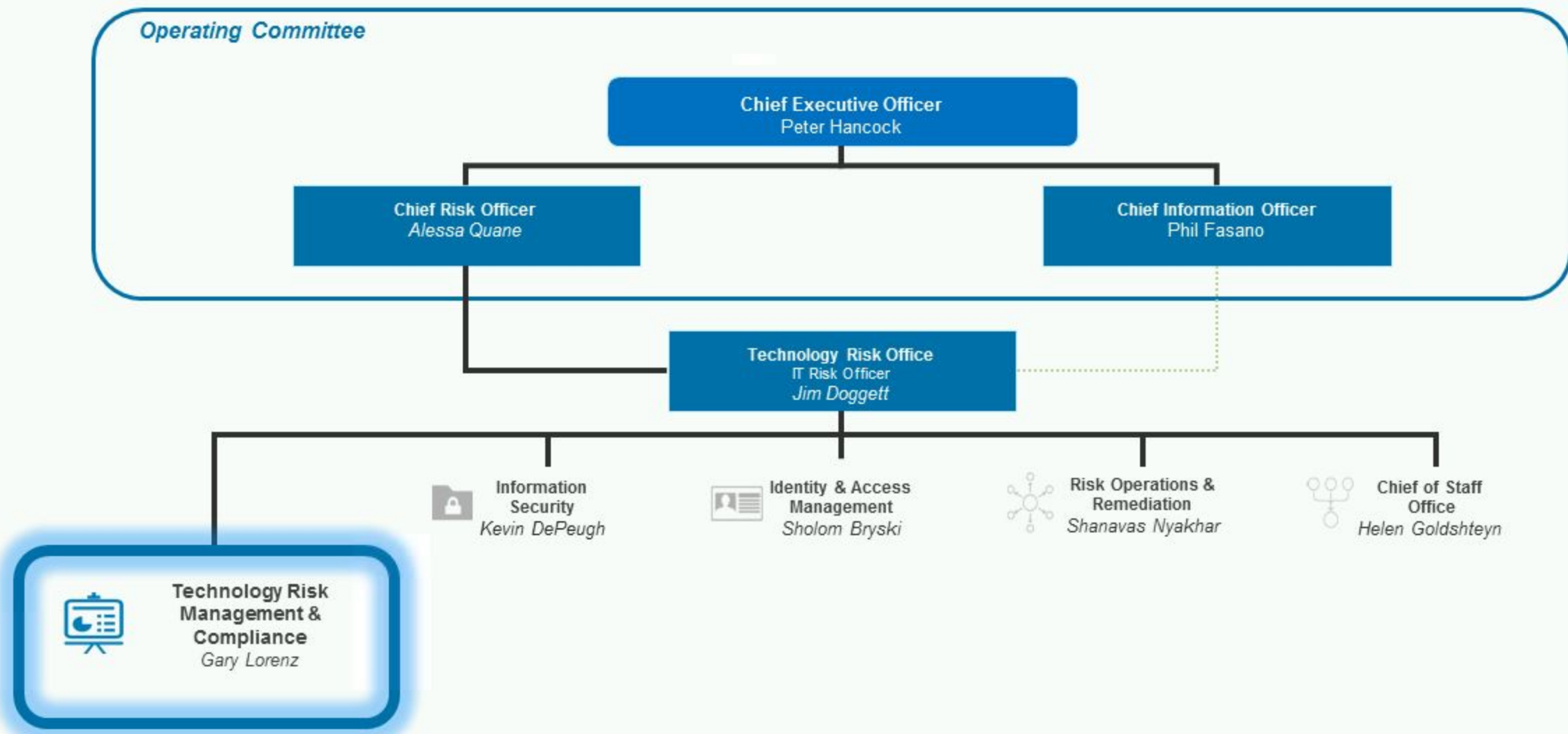
Gary Lorenz

# Agenda

- Introduction to TRM – Gary Lorenz
- Govern – Lissa Edmondson
- Evaluate – Stephen Jarrett
- Act – Russell Lewis
- GRID – Amit Shrimavle / Vamshi Muppidi

# How do we fit in?

The following diagram provides a high-level organizational structure of TRO, emphasizing TRM's position



## Four levers drive 2016 priorities

Automate	+	Eliminate	+	Consolidate	+	Simplify	=	2016 Priorities
Give our clients automated options for improved and cost-efficient access.		Eliminate outdated or unnecessary procedures.		Consolidate duplicate roles and processes.		Simplify how we work and clarify decision rights.		Rationalized, consolidated technology risk management.

# TRM goals

## 1 Govern

- Simplify and consolidate committee structure, integrate with ERM governance
- Improve exception management process

## 2 Evaluate

- Simplify and automate 3<sup>rd</sup> party workflow for profiling / assessment processes
- Eliminate low-value risk assessments

## 3 Act

- Consolidate IT risk register / flows into ERM RR
- Enhance risk treatment oversight (remediation)
  - Reduce extensions for:
    - Open audit items
    - ExReq
- Reduce risk through oversight of Data Security Program



# Governance Overview

- **Background**

- Many financial services organizations have been broadening the scope of risk governance and management to include technology
- This awareness is growing in the wake of highly publicized identity theft incidents and other security breaches, as well as legislation aimed at managing financial, market, and operational risk exposures
- Technology Risk Management (TRM) is actively forming a cohesive risk-focused organization to monitor these incidents, while adding value to the business and working closely with the rest of ERM and IT

- **Components of TRM's governance to highlight today include:**

- 1 **Committee Governance**
- 2 **Policies & Standards**
- 3 **Coordination with Operational Risk Management**

- **Other components to be discussed at a later date include:**

- Regulatory guidance
- Assessments

- **Upcoming initiatives include:**

## Committee Governance

- Establishing a **clear governance structures**

## Policies & Standards

- Providing **clear accountability** between the business, ERM and IT for technology risk management
  - Updating the IT Risk and Compliance Policies and Standards
  - Refining the process for exceptions to IT policies and standards
  - Clarifying and augmenting risk treatment options for issues, better enabling the business to make informed, risk-based decisions and drive compliance with regulatory requirements

## ORM

- Continue **partnering with ORM** on key programs

# Committee Governance: Overview

- **Background**

- The IT Risk Committee (ITRC) was a legacy Committee established to manage IT risk management activities across AIG under the delegated authority of the Operational Risk Committee (ORC)
- As a result, both committees were responsible for managing and overseeing technology risk at AIG

- **Approach**

- Reduce the number of committees to establish a single committee that manages technology and operational risk to streamline processes and gain efficiencies, tentatively called the **Technology, Operational Risk & Control Committee (TORCC)**
- Establish a global working group feeding into this committee, the **Technology Risk Steering group (TRS)**, which will meet a minimum of quarterly to facilitate discussion and issue resolution at a level below a committee
- Partner with ORM and Legal to ensure the structure follows the precedents set by the current committee rationalization and Integrated Risk and Control Framework

- **Key Contributors**

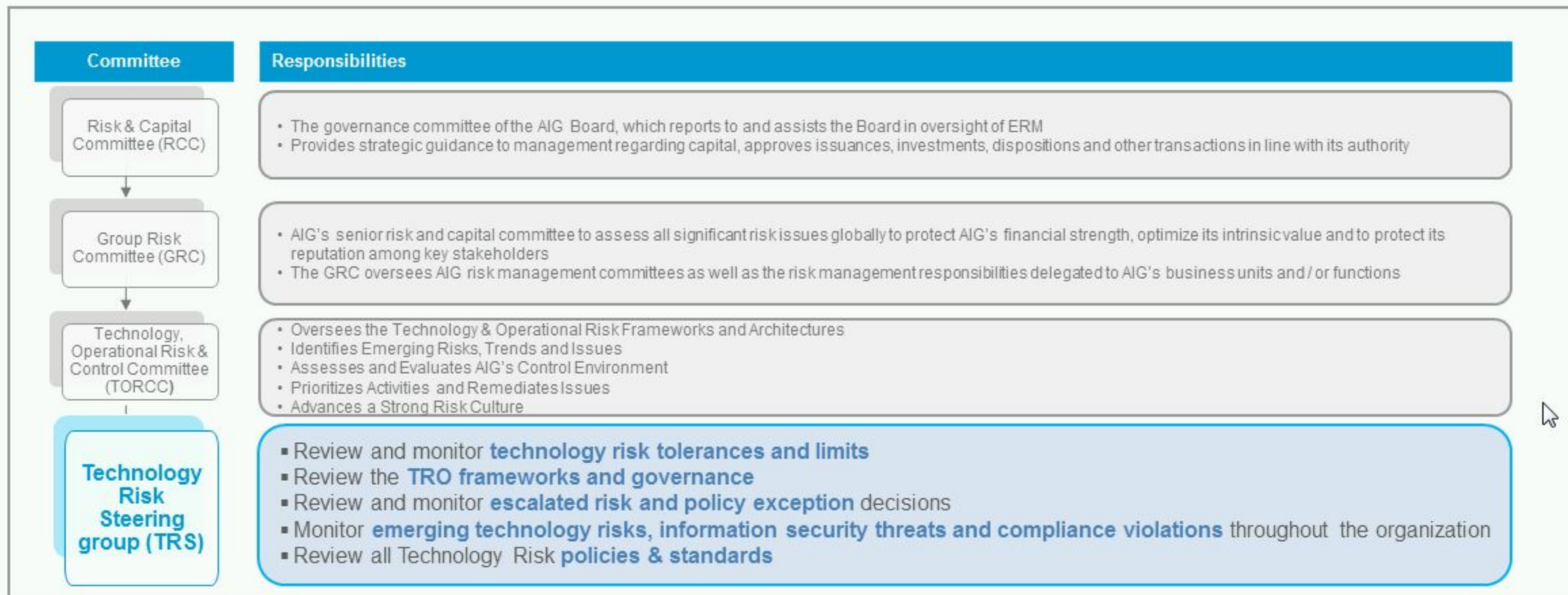
- Members / Contributors for the TORCC and the TRS are still being vetted
- Members and key contributors for both groups will include participants from the businesses, IT, ORM, TRO, and Compliance as well as other groups





# Committee Governance: Technology Risk Steering Group (TRS) Overview

- **Governance**
  - TRS receives authority from the Technology, Operational Risk & Control Committee (TORCC) and is intended to be the central working group for all of TRO
  - This group will be composed of senior management from TRO, ORM, IT, and the BUs
- The diagram below outlines TRS' place in AIG's overall governance structure

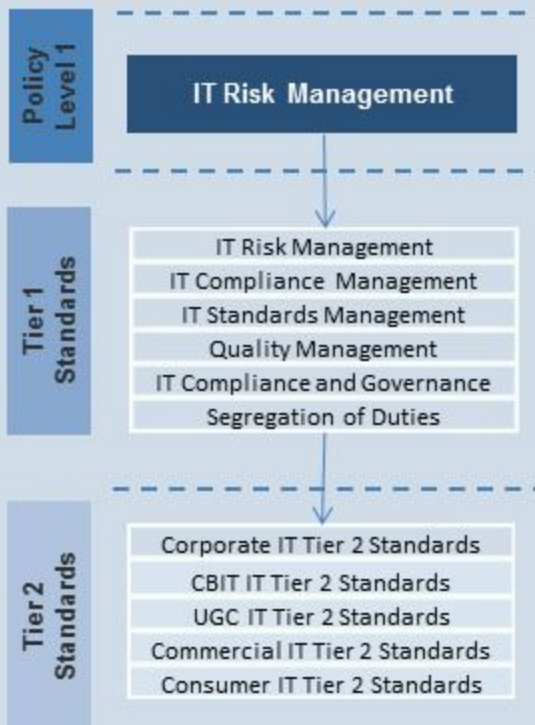




# Policies and Standards

## Current State

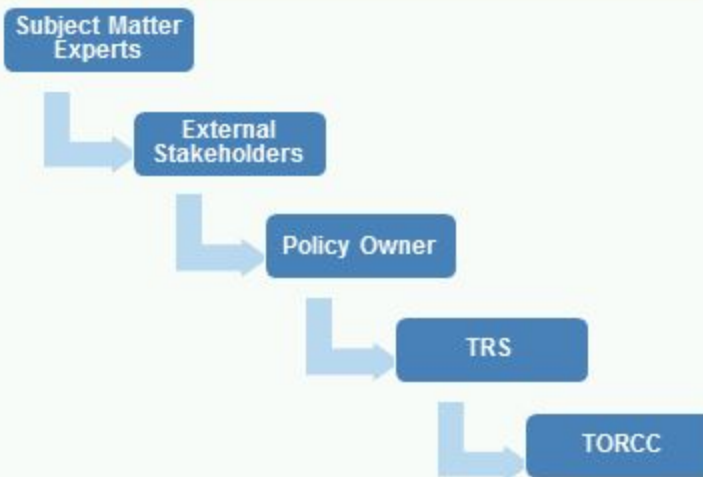
### IT Risk & Compliance Policies and Standards



## Rationalization

- Simplify the structure
- Drive global adoption
- Eliminate Tier 2 Standards
- Align with Process Risk and Control (PRC) framework

## Approval

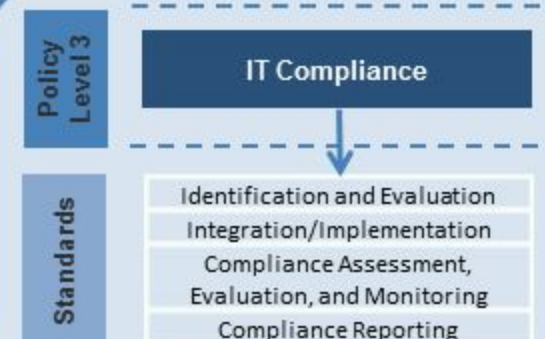


## Future State

### Risk Policy and Standards



### Compliance Policy and Standards



# Policy & Standards: Exceptions

- **Background**

- If Business Units or Corporate Functions do not expect to comply with TRO policies or standards, they must request an exception
- Exceptions are approved for a specified duration of time, with a maximum of one year to remediate the underlying issue

- **Key Issues**

- The existing request process for exception requests is inefficient, has no consistent criteria to risk rate and approve an exception, and results in a high number of exceptions
- Exception requests are often poorly documented, missing critical information to determine the risk
- This process has traditionally relied on one person as the final reviewer, with no backup in the case of an emergency
- Further, the business rarely is asked to approve the exceptions

- **Proposal to Address Issues**

- Add new reviewers so that there are at least two people responsible for each initial / final reviewer role
- Establish crisp guidelines for when an exception should and should not be created
- Provide guidance on exception submission requirements
- Establish clear and consistent risk review criteria for both rating & approving each exception across all BUs / functions
- Establish closer relationships with the business to facilitate their approval



# Coordination with ORM

- **Background**

- Technology risk is a subset of overall operational risk management
- **Operational Risk** (*Solvency II*) is the risk of a change in value caused by the fact that actual losses, incurred for inadequate or failed internal processes, people and **systems**, or from external events (including legal risk), differ from the expected losses

- The table below outlines ORM's company wide programs, and where TRM fits into the bigger picture

#	ORM Initiatives	Description	TRM Responsibilities
1	Risk Events	Materialization of operational risk leading to financial or non-financial impacts including unintended economic losses or gains, reputational harm due to negative publicity, censure from supervisory agencies, operational and business disruptions, and / or damage to customer relationships	Review, analyze and monitor IT risk events
2	Risk & Control Self-Assessment (RCSA)	RCSA is a risk assessment program conducted across AIG that provides Management with a framework to identify, assess, mitigate and escalate operational risk exposures consistently across the organization.	Oversight of IT RCSA
3	Fraud Assessment	Overall assessment of the fraud risks that the firm is exposed and how well these risks are identified, assessed and managed by the business and the different control functions involved in the overall Fraud Risk Framework of AIG	Data Theft
4	Top Risks	ORM reporting on key risks across AIG	Reports on IT risks distributed to operational risk quarterly as part of the DCCF reporting process
5	Scenario Analysis	An organized approach for employing expert opinion to calculate the level of risk for a particular type of event	Analyze 3 scenarios: Japan, Consumer Americas, and Cyber Security
6	Integrated Risk & Control Framework	Clarify the control framework for AIG, including the role of business and control functions, and to increase efficiencies and reduce unnecessary touch points with the business	Plan and communicate assessments and other activities to be aligned with other control functions, ultimately working to a goal to "assess once, use many"



# Evaluate

Stephen Jarrett











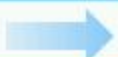

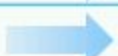



# Refine the approach to risk assessment

Opportunities exist to drive risk-based assessments, consistent with 'AIG levers for change'.

For example, retaining and consolidating existing IT Assessment activities in TRM

- Align and simplify disparate assessment activities across IT
- Consolidate coverage of internal and external stakeholder requirements
- Eliminate testing duplication, i.e. 'test-once, use-many'
- Automation of assessments and reporting (where practicable)
- Ensure alignment with enterprise programs and leverage of enterprise enablers
- Consolidate results for determining residual risk - prioritize/rationalize remediation investments
- Reduce impact of assessment activities on IT and business

Stakeholders	Example Assessment Activities
Regulators* 	 IT Regulatory Inspections – assessment requirements and responses
Investors 	 IT General Control Testing for 420+ IT SOX Applications globally
Customers, Vendors, and Business Partners   	 Coordinate Customer Assessments of AIG IT (e.g. SSAE16s, AT101s)  Execute 1800+ AIG Vendor/Business Partner assessments/year globally  Monitoring of annual PCI (Shared Infrastructure) Attestation Results
Management 	 Global coordination of 65+ IT RCSAs (7000+ controls) annually
Audit 	 QA/Testing of IT control remediation for IAD issues/actions

# TRO portfolio

## Identity and Access Management (Bryski)

- Identity Access Management Global Program
  - myAIGaccess Birthright
  - myAIGaccess Portal
  - myAIGaccess Fulfillment
  - myAIGaccess Certification
  - myAIGaccess Administration
  - myAIGaccess Privileged Access
  - Foundational Activities

## Information Security (DePeugh)

- Logging and Monitoring /GCDC Program
  - Application Logging and Monitoring (Re Plan)
  - global Cyber Risk Defense Center
  - Database Logging & Monitoring
  - Next Generation SIEM
- Threat Counter Measures & Defenses Program
- Threat Intelligence Integration
- IT Security Capabilities Maturity Assessment
- Microsoft Compromise Assessment

## Risk Management (Lorenz)

- Data Security Program
  - Data Loss Prevention Tactical Program (DLP)
  - Global Network DLP Prevent Implementation
- Application Risk Assessment Transformation

## IT Compliance (Lorenz)

- TRO Policy and Standards Enhancement
- IT Compliance Future State Operating Model
- Third Party Risk Phase2

## Risk Operations & Remediation (Nyakhar)

- ROAR Phase 1A: GRID Development & Configuration

## Other

- Active Directory
  - Active Directory Consolidation
  - Active Directory Security




## Thematic Data Security Issues:

- Inconsistency in Data Loss Prevention (DLP) technology platforms and coverage
- Lack of a defined DLP strategy
- Ineffective DLP governance, management and operational processes (including investigation)
- Ineffective DLP exception management (including high number of open exceptions)
- Open access to sensitive data across file shares


### - Program Inputs -

Address Federal Reserve Bank of New York (FRBNY)




- Implement data loss prevention (DLP) solutions that addresses the themes documented in the letter

Internal Audits



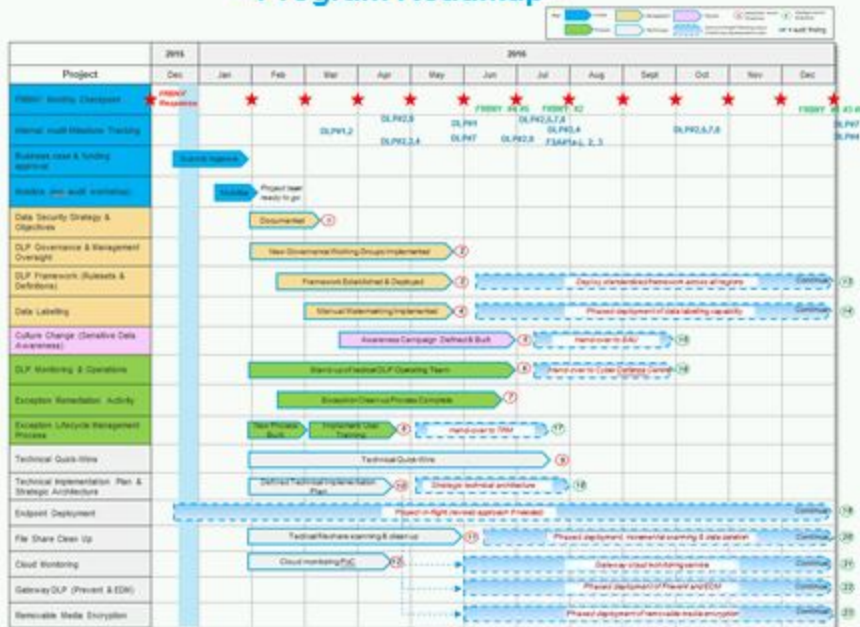
- Implement DLP solutions that address open findings identified during the 2015 DLP Internal Audit
- Address findings from the File Share audit

Mature capabilities based on data security assessment results



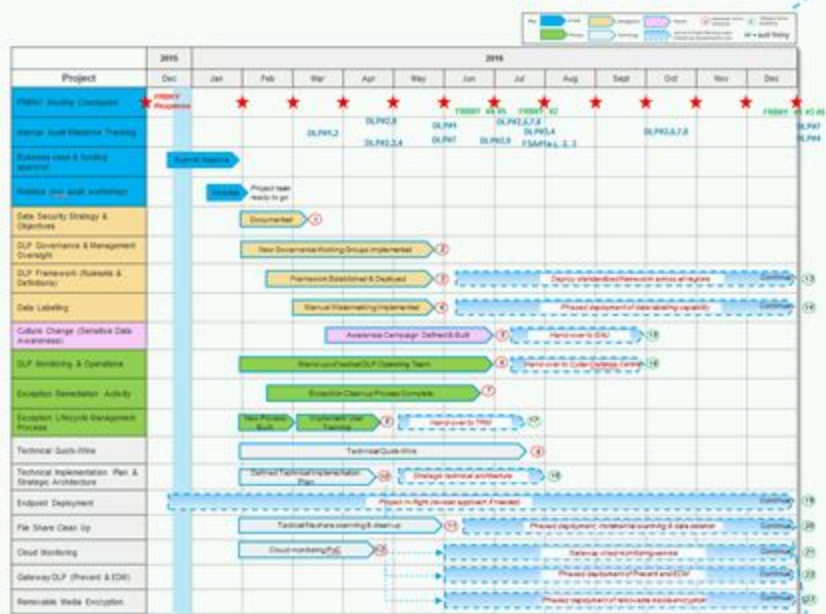
- In addition to compliance driven activities, build data security solutions that manage risk to the environment and enhance the maturity of the data security program

### - Program Roadmap -



# Program roadmap & project summary

## - Program Roadmap -



Rapid mobilization of 12 immediate projects. These projects begin to address specific audit findings, consolidating current in-flight tactical remediation activities and build the foundation for the subsequent wave of strategic projects.

A secondary wave of strategic projects build on the immediate actions, expanding scale and enhancing capability across AIG's global estate.

## - Project Structure -

### Management

#### Objective

To define and communicate AIG's data security strategy and objectives and to implement the supporting governance structure.

#### Projects

- #1 Data Security Strategy & Objectives
- #2 DLP Governance & Management Oversight
- #3 DLP Framework (Rulesets & Definitions)
- #4 Data Labeling

### People

#### Objective

To build and enhance user awareness of the importance of protecting AIG sensitive information.

#### Project

- #5 Sensitive Data Awareness

### Process

#### Objective

To re-engineer and enhance the DLP monitoring and operating procedures and integrate DLP operations with the newly defined governance structure.

#### Projects

- #6 DLP Monitoring & Operations
- #7 Exception Remediation Activity
- #8 Exception Lifecycle Management Process

### Technology

#### Objective

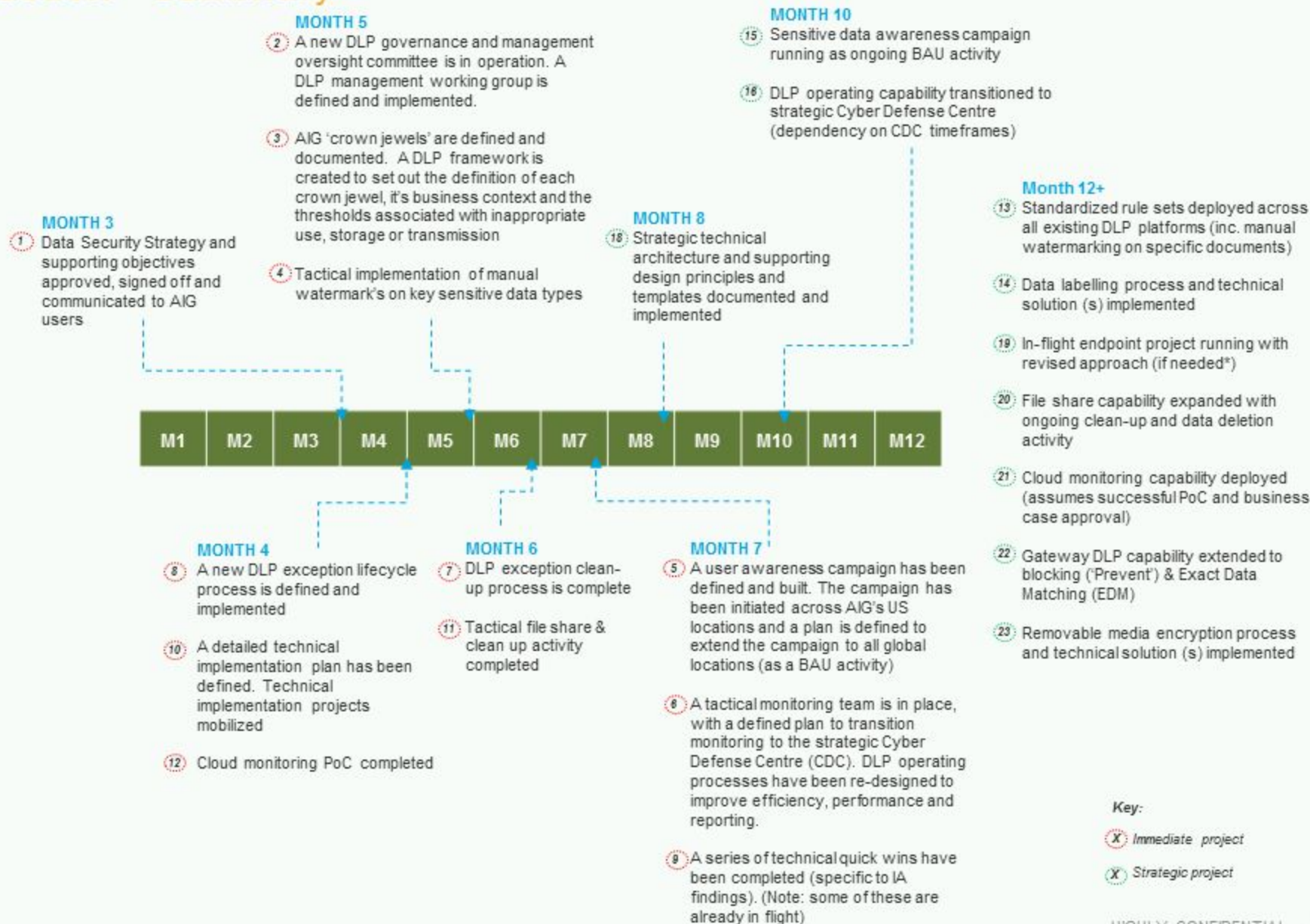
Enhance and implement expanded DLP technology to enable AIG to monitor, detect and reduce the occurrence of sensitive data loss.

#### Projects

- #9 Technical Quick-Wins
- #10 Technical Implementation Plan & Strategic Architecture
- #11 File Share Clean Up
- #12 Cloud Monitoring



# Monthly risk reduction - summary





# Act















Russell Lewis

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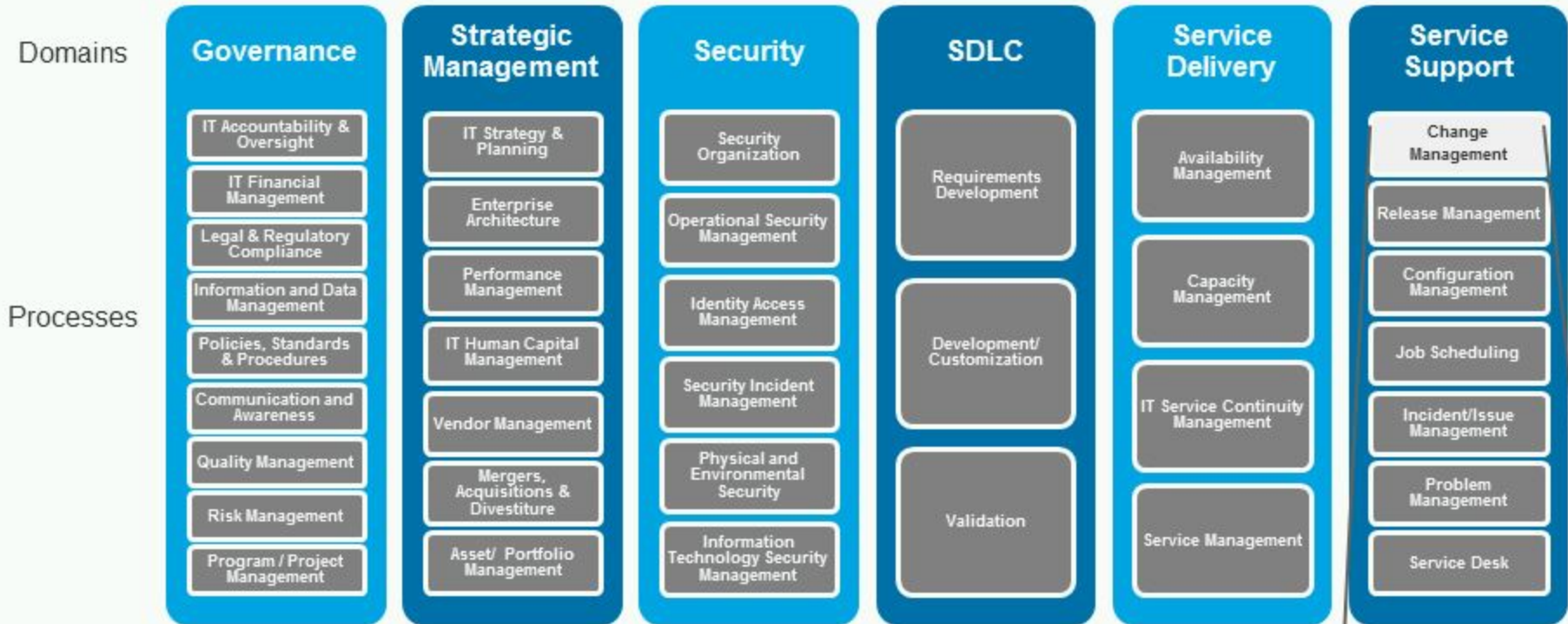
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# IT Process, Risk and Control Framework Coverage

Shown below is a conceptual model of the domains and technology processes within the PRC framework.



This framework's hierarchical structure facilitates roll-up reporting by logically grouping risk and controls according to their associated IT processes and helps drive accountability

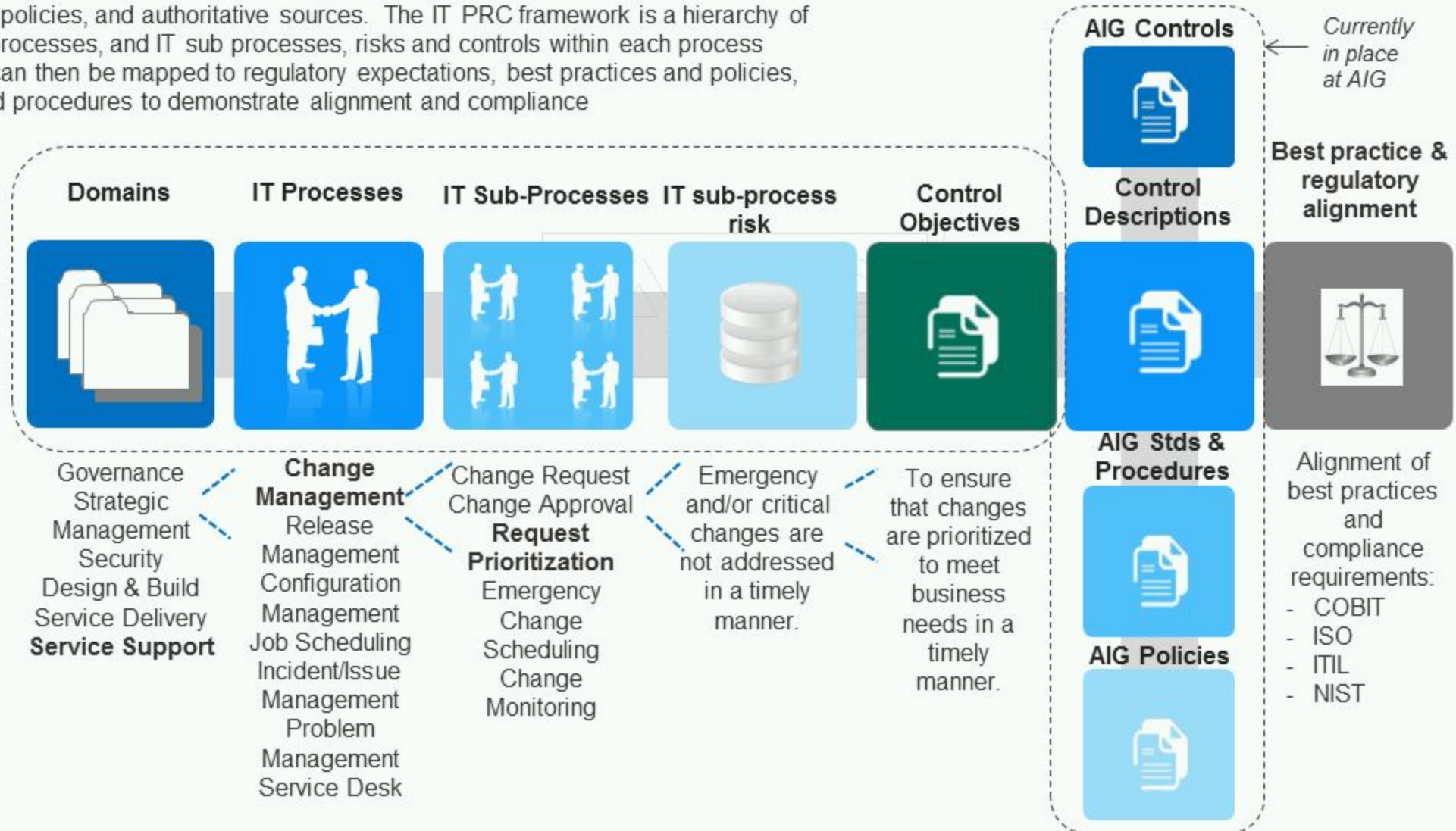
Each process has associated sub-processes

Change Request	Emergency Change Scheduling
Change Approval	Change Monitoring
Request Prioritization	

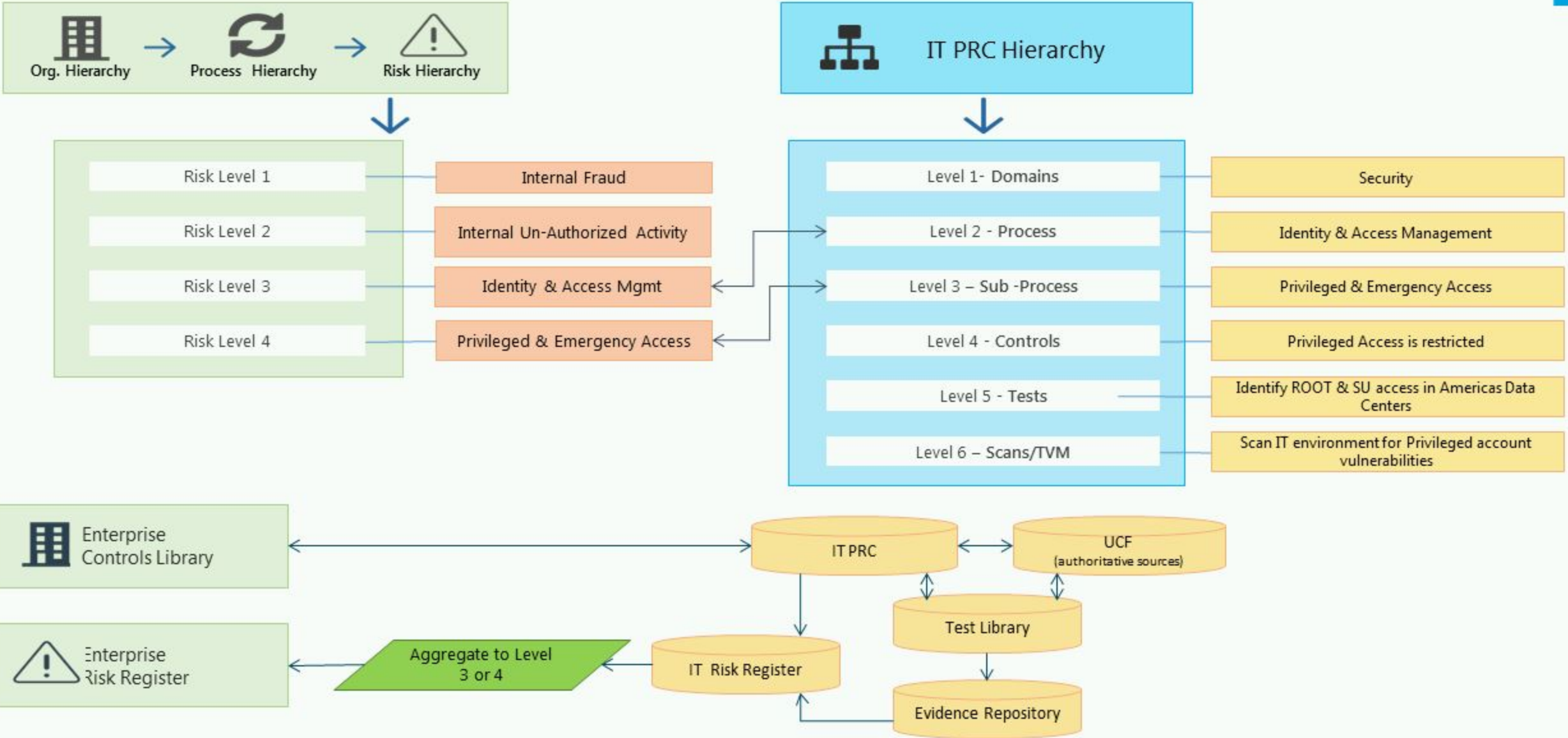


# IT PRC alignment to internal controls, policies, and authoritative sources

This below demonstrates the conceptual alignment between the IT PRC framework and AIG controls, policies, and authoritative sources. The IT PRC framework is a hierarchy of domains, IT processes, and IT sub processes, risks and controls within each process area. These can then be mapped to regulatory expectations, best practices and policies, standards and procedures to demonstrate alignment and compliance



# Example integration with Enterprise Program and GRC



## Third party risk model – information security

With the enhanced TRO Third Party Risk Model, we can effectively evaluate Information Security and Business Continuity inherent risk(s), enabling AIG to focus its assessment efforts on the highest risk relationships.

The Information Security risk level depends on the classification of the data 3<sup>rd</sup> Party has access to and how that data is accessed.

>2000 Records		Type of Data					
Access to Data		Firm Confidential	Sensitive Personal Information	Personal Information	Restricted	Publicly Accessible	N/A - No Access to AIG data
None OR Third Party on AIG premises or remote using AIG equipment only (e.g. Staff augmentation, professional services)							
Third Party using non-AIG equipment to access AIG data (onsite at AIG or remote)							
Third Party only provides physical transport services and/or storage of physical media (e.g. data storage, archiving or destruction)							

**Legend**

- High Information Security Risk
- Elevated Information Security Risk
- Medium Information Security Risk
- Low Information Security Risk

*Physical Security assessment performed on relationships meeting the criteria within the black box.*

Note: Given the limited impact to AIG, if <2000 records are held by the Third Party, the scope of the required IS control assessment will be adjusted and a physical security assessment will not be necessary.



# Third party risk model – business continuity

The Business Continuity review depends on when a major disruption at the Third Party may begin to adversely impact AIG and the level of adverse impact experienced as defined by the ORM Matrix.

	Impact Level (based on ORM Matrix)			
Timing of Adverse Impact	Low	Moderate	Elevated	High
0 – 3 Days	Low	Medium	Elevated	High
3 – 7 Days	Low	Medium	Elevated	High
7 – 30 Days	Low	Low	Medium	Elevated
Greater than 30 Days	Low	Low	Low	Medium
No Adverse Impact	Low	Low	Low	Low

**Note:** Relationships with High Business Continuity Risk will be considered for the “Enterprise Critical” designation.

## Assumptions:

- High and Medium Business Continuity Risk levels will trigger a full BCM assessment.
- For Medium Business Continuity Risk, BCM assessment need will be considered during scoping. Generally, a separate BCM assessment should not be required.
- A BCM assessment is not required for Low Business Continuity Risk.

## Legend

High	High Business Continuity Risk
Elevated	Elevated Business Continuity Risk
Medium	Medium Business Continuity Risk
Low	Low Business Continuity Risk

# Frequency and depth of assessments

A risk-based approach will be used to drive the depth and frequency of the third party assessment cycle.

	Remote Assessments			
	Information Security			
	High	Elevated	Medium	Low
Frequency	1 year	3 years	5 years	N/A
	Business Continuity			
	High	Elevated	Medium	Low
Frequency	1 year	1 year	N/A	N/A

Legend	
	High
	Elevated
	Medium
	Low

Onsite Assessments		
Information Security	High	
Business Continuity	High	Elevated
Frequency	1 year	1 year

## Risk Based Onsite Approach

- Critical relationships (High Business Continuity Risk ) are assessed annually via an on-site visit.
- Onsite reviews are conducted every other review cycle for relationships that are high for Information Security AND elevated for Business Continuity. In years where an onsite review is not completed a remote review will be conducted.

# Global Risk Intelligence Database (GRID): An Overview

GRID (Global Risk Intelligence Data warehouse) is a platform that enables users / stakeholders to rapidly create applications, manage workflows and process data through a centralized management platform. GRID provides users with a single source for risk reporting, metrics and automates the 'gathering', refreshing of multiple sources of IT risk metrics and data to improve efficiency ensure analysis and reporting is accurate. It aims to provide a comprehensive end-to-end risk analysis by business, product, platform and geography, where possible.

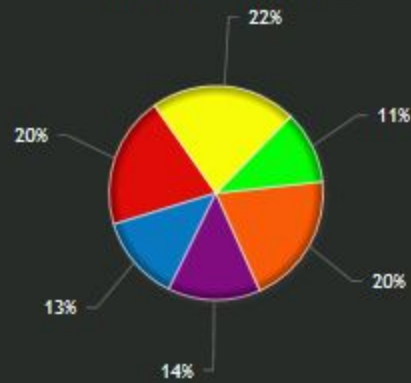




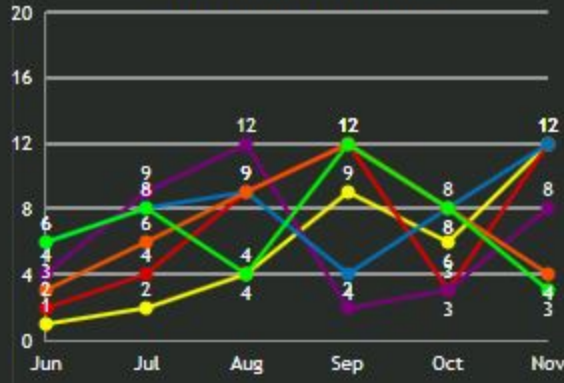
- HOME
- RISK REGISTER
- HR REPORTS
- ISSUE MANAGEMENT
- EXECUTIVE DASHBOARD
- INFRA REPORTS
- CUSTOM WORKFLOW
- CUSTOM REPORTING
- INFORMATION SECURITY

OVERALL RISK

CONTROL CATEGORIES

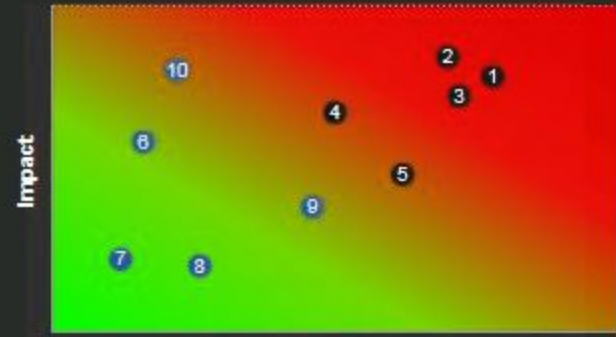


RISK TREND BY DOMAIN



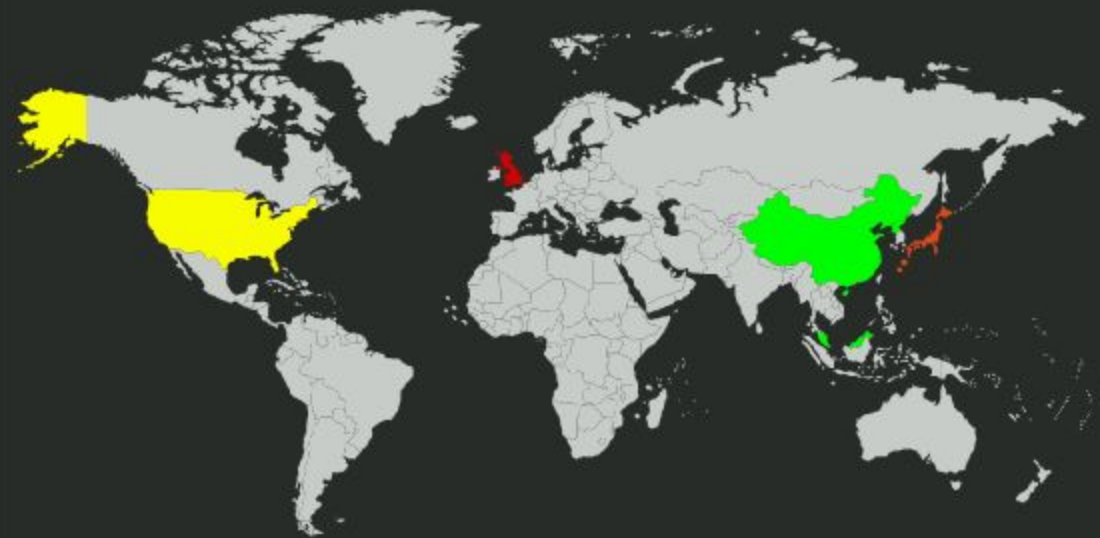
RISK HEAT MAP

RISK HEAT MAP



- 1 Elevated Access
- 2 3rd Party Security
- 3 AD Consolidation
- 4 Data Loss Prevention
- 5 Endpoint Device Security
- 6 Cyber Security
- 7 Infrastructure Availability
- 8 Threat and Vulnerability
- 9 External Application Security
- 10 Legacy Environment

GLOBAL RISK TREND

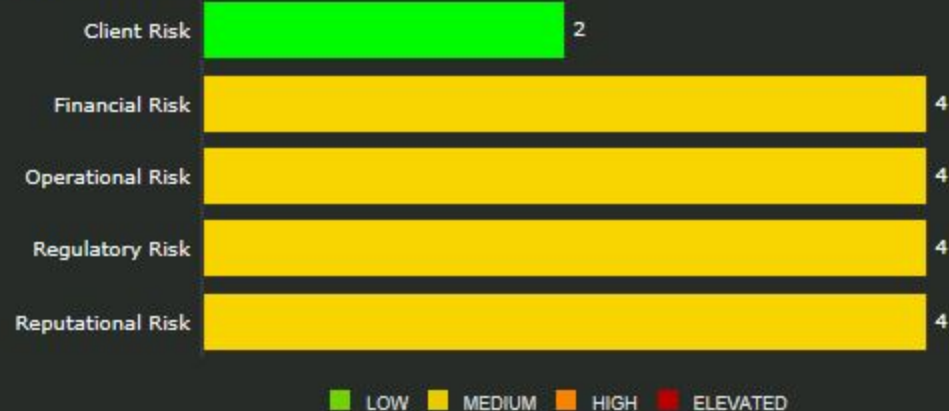


EXTREME RISK HIGH RISK MEDIUM RISK LOW RISK NO DATA

## RISK HEAT MAP

Elevated Access ▾

### RISK SCORE BY KEY PILLARS



### ELEVATED ACCESS USER (RISK TREND)

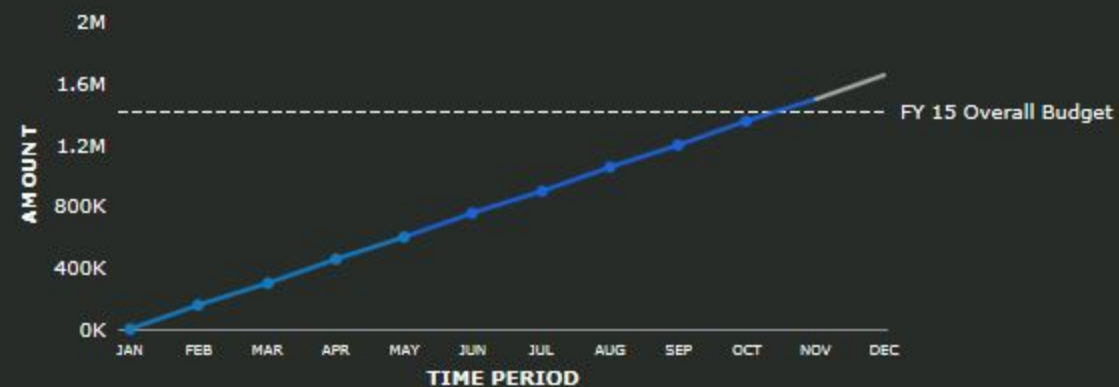


### PERFORMANCE MEASUREMENT



### PROGRAM COST

Year to date remediation effort / project cost



## RISK HEAT MAP

Elevated Access ▾

### RISK SCORE BY KEY PILLARS



Client Risk



#### HELP INFO



Financial Risk



Operational Risk



Regulatory Risk



Reputational Risk



NAME

DESCRIPTION

DATA SOURCE

LAST UPDATED

DATA FEED STATUS

RISK SCORE BY KEY PILLARS

This report displays calculated Risk Score (Severity X Frequency) across each key risk pillar based on elevated access impact and likelihood of inappropriate access for current month. This widget is intended to display risk score for Top 10 IT metrics based on the KRI calculated score outcome ( Range ( 1 to 16 ) ) Calculation Logic: KRI ( Key Risk Indicator) is calculated across key risk pillars by considering multiply factor of severity & frequency value that ranges from 1 to 4.

\*\*( Low-1 ,Med-2,High-3, Elevated-4)

GEAR,SERVICE NOW, SCCM

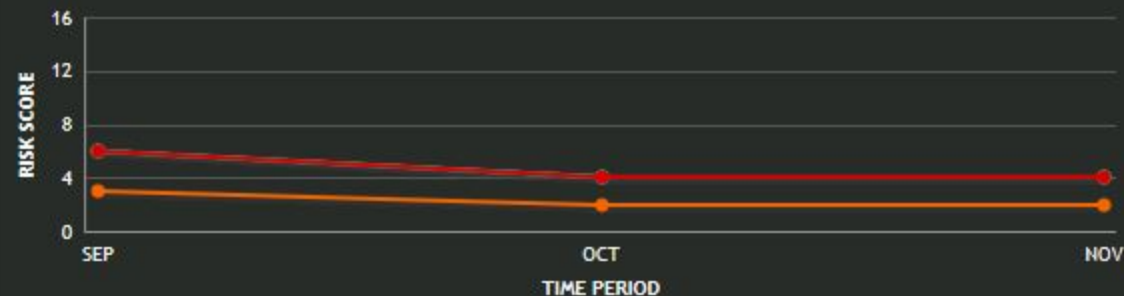
Nov 30, 2015

Active

### PERFORMANCE MEASUREMENT



### ELEVATED ACCESS USER (RISK TREND)



CLIENT RISK FINANCIAL RISK OPERATIONAL RISK REGULATORY RISK REPUTATIONAL RISK

### PROGRAM COST



Year to date remediation effort / project cost





- HOME
- RISK REGISTER
- HR REPORTS
- ISSUE MANAGEMENT
- EXECUTIVE DASHBOARD
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- INFORMATION SECURITY

Home > Risk Heat Map > Elevated Access > Client Risk

RISK HEAT MAP Infrastructure Availability Client Risk

ELEVATED ACCESS USERS BY LAYERS

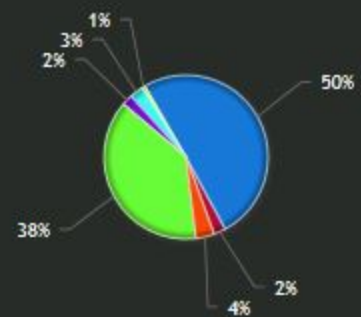
BY APPLICATION



BY DATABASE



BY HOST

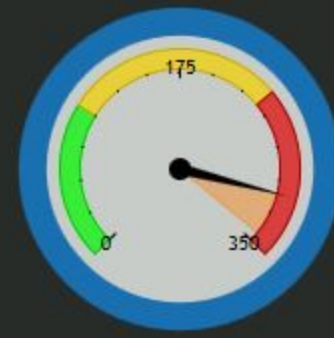


ELEVATED ACCESS USERS COUNT BY REMEDIATION STATUS

APPLICATION



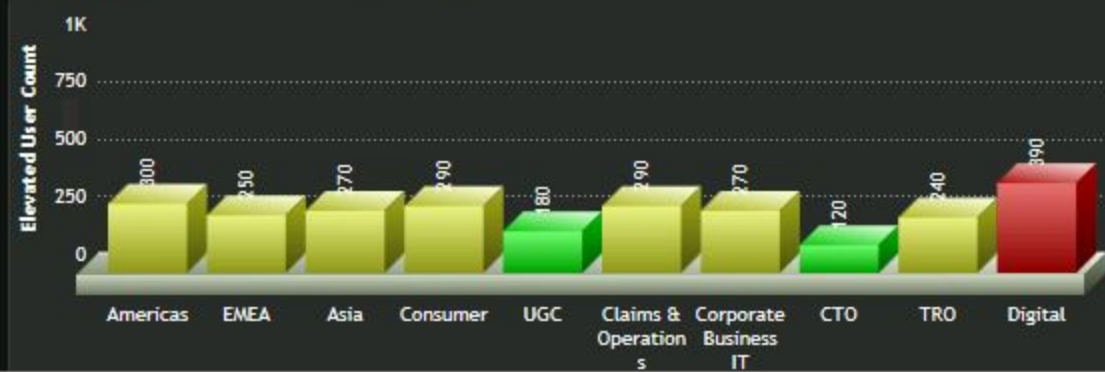
HOST



DATABASE



ELEVATED ACCESS USERS BY BIO



ELEVATED ACCESS USERS BY REGION



