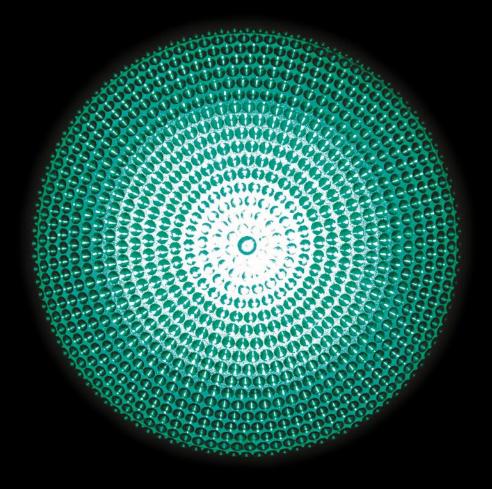
Deloitte.



Deloitte Controls Advisory

Continuous Controls Monitoring

Rise in Compliance Oversight and Challenges in Organizations

In the recent years, organizations are shifting from manual to automated controls. As technology and business environment advances, growing numbers of compliance oversight are seen in most organizations. One of Management's responsibilities is to assure high risk areas are managed, controls are appropriately placed and operating efficiently.



Massive amount of data that needs to be managed across various systems



Repetitive issues occur across organizations as corrective actions focus on selective area







Sensitive data exposure for customers, clients and employees



Lack of data accuracy as exceptions and patterns are not continuously monitored



Management has limited visibility / not informed timely on issues and fraud risk

Strengthen the Effectiveness of Internal Control

Effective internal control provides reasonable assurance and requires each of the controls to function and operate in an integrated manner. Through monitoring activities, organization evaluates and communicates the control deficiency in timely manner to responsible owners, including the Management. Continuous Control Monitoring ("CCM") is one of the tools to strengthen the effectiveness of internal control.

COSO Framework

Control Environment



Control Activities



Risk Assessment



Information & Communication



Monitoring Activities

How CCM Helps in Monitoring Activities •



Enables Management to continually review the business process and control segments to the intended levels of performance and efficiency



Increasing productivity of compliance and internal audit teams. Problems detected before they occur as tracking is done continuously, and the team can focus on high-value task



Providing immediate access to evidence of the organization's ability to mitigate risk, protect valuable assets, and meet legal obligations



Connect and synthesize risk from multiple platforms across the Organization.
Centralized dashboard and data collaboration to identify patterns of issues, customer behaviors, trends



Reducing remediation costs by identifying and correcting control faults before escalation

Continuous Controls Monitoring and the Future of Controls

What is Continuous Controls Monitoring?

A technology-based automated processes to minimize business losses and to help organization to increase operations effectiveness

The Future of Controls in Organization

Deloitte's integrated controls advisory platform is designed to help an organization change its approach to compliance, moving it from hindsight-intensive to foresight-leaning, where executives can truly understand the state of their controls, drive insights, spot trends, change behavior, and identify weaknesses.



Controls
Transformation Services

Applies tech-enabled solutions to an organization's controls for a smarter, faster, and more efficient end-to-end controls methodology.



Digital Testing and Controls Automation

Drives control testing efficiencies, helps organizations manage their risk profile, and provides valuable insights.



Digital Program Management

Helps organizations understand, govern, and address the increasing risks associated with their rapidly growing use of digital tools, such as those related to algorithms, AI, and cognitive intelligence.



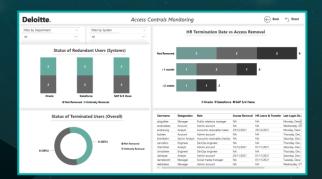
Assurance by Design Services

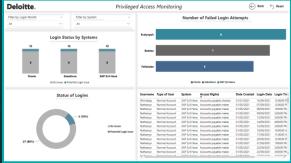
Assurance by Design looks at the design and implementation of future-state controls while leveraging digital controls and other leading practices to improve controls resilience.

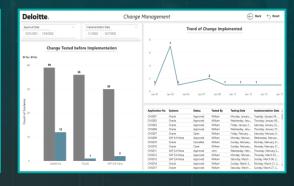
Automation and Digitization

We help our clients identify opportunities for analytics and automation. Where possible, data will be used to drive insights and achieve the below stated outcomes through the application of digital testing and controls automation.

Sample IT CCM Areas:









Example of analysis:



Access Controls

- Unauthorized access for staffs who have resigned or transferred department.
- Untimely removal of access rights for staffs who have left or transferred.
- Misalignment of role-based access rights.
- Inactive accounts for a stipulated time frame. (e.g. 90 days)



Privileged Activities

- Repeated failed login attempts within a stipulated time frame. (e.g. 5 min)
- Login during out-of-office hours. (10pm-6am or weekends)
- Excessive logins for specific accounts (e.g. admin accounts) during office hours.



Change Management

- Appropriate approval of change based on approval matrix and type of change request.
- Appropriate segregation of duties for change request.
- Changes implemented must be tested beforehand.
- All changes implemented must be tracked in the logs.



Configuration Review

Misconfigurations against selected policy requirements (e.g. password configurations, timeout configurations etc.)

Product / Services Description

Category of Services	Description
Product – Single Analytics Report	Single Individual Power BI Analytics Report with underlying Python scripts and SOP
Product – Management Dashboard	Management Dashboard comprising of all KPIs/requirements from the Individual Dashboard
Professional Services – Scripting	Data Study, Transformation and Customization of Python Scripts and Power BI Dashboards
Professional Services – Controls Assessment	Controls Transformation Advisory - Review controls SOP and identify opportunities for enhancement - Develop new SOP with automation and analytics embedded - 1 time "audit"
Professional Services – Reporting and Finetuning	Analytics as a Service - Run the analysis on a periodic basis - Send report and customized Power BI Dashboards



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