De-risking Remote Governance in BFSI: Combining AI-based Analytics with Augmented and Virtual Reality

Abstract

Prior to the pandemic, the idea of a remote working model did not take root at large financial institutions, including banks, due to security and regulatory concerns. However, the ongoing pandemic has upended traditional ways of doing business, coercing financial services companies to adopt a hybrid work model to ensure business continuity.

A year into the pandemic, industry players are looking to thoughtfully leverage remote working to ensure seamless operations well into the future, without compromising security or compliance.

This paper showcases digital-first solutions such as image and video proctoring, underpinned by artificial intelligence (AI) based analytics, that are poised to disrupt remote governance in the financial services industry.

Hybrid Work Environment: Addressing the Need for Effective Governance and Monitoring

So far, the results of the transition to a hybrid work model in the aftermath of the pandemic have been a mixed bag. While some organizations have claimed significant improvement in productivity, others are yet to achieve their business metrics. As businesses increasingly embrace the paradigm shift to remote work, ensuring business continuity management, risk management and building resilient workplace cultures becomes pivotal to success in the new normal. The current disruptions are anything which would put a wrench to the existing model – 'work from home' due to bandwidth issues, logistical snags, regulatory and/or policy constraints. Changes in laws in domestic or in the market where we work out of would derail the present work environment. Loss of workforce or login time due to any technical issues would reflect poorly on the service provider and cripple the banking sector to some extent. The BFSI industry has traditionally been a conservative space where hybrid or work-from-home model did not exist for the larger population as compared to the other sectors. The pandemic provided an opportunity for BFSI firms to assess the possibility of exploring new operating models, which would ensure maximum risk containment. The BFSI industry has found a solution of resilience for all the typical contingency situations like bad weather, traffic snarls, strikes, and so on, to name a few. It is not easy for the BFSI industry to adopt a new change, however, with this change being adopted and proven by more than a year, it is now hard to shake the faith and bring people back to the office spaces at a cost.

The BFSI industry is a wealth of data, with each employee effectively being a part of a larger picture, which works to meet financial goals of the customer, and it is a known fact that data security is the biggest challenge the industry faces. This means, as a first step, the industry must pivot to meet the growing demands around ensuring effective remote governance, by deploying digital transformation solutions and products that simplify tasks for distributed workforce and ensure security by design.

Investing in upskilling, training, and development in new policies and procedures around information security is a vital next step. Establishing a sustainable work-from-home schedule could mean attention to various aspects of the organization, including coaching, internal and external communications and productive collaboration[1].

Technologies and Strategies to Bolster Remote Governance

With a significant number of employees continuing to work remotely due to the ongoing pandemic, there is an urgent need for financial institutions to future-proof their operations. Automating remote governance is an essential first step in this direction. This might entail de-prioritization of large-scale digital transformation projects in favor of critical short-term projects that ensure a secure work-from-home environment. Here's a look at some technology solutions that can help achieve this objective.

Video analytics: Deploy monitoring software combined with video to track and record all activities of the agents working from home. Apply AI based video analytics to identify and issue alerts for any suspicious activity, enabling incident monitoring teams to follow up quickly and efficiently. The technology-led solutions can track, monitor and govern every keystroke and eyeball movement of an associate, replicating the safety and security of an office environment.

Live authentication: The authentication to each of the application logged into should have a feature which provides unique authorization codes. Each of the application should also have an auto logoff feature, which logs off the system if not touched for a certain period of time.

Automatic proctoring: The work environment should be monitored for sounds, motions and change in system settings. For instance, if there are multiple copy-pastes done by an agent that are too quick for the required activity, unusual toggling of screens, and so on.

Record and view proctoring: Video captured during an agent's work hours can be recorded and retrieved by the supervisor to oversee and complete spot checks on the video for anomalies.

Live proctoring: Agents can be live proctored during work hours by the supervisor, to monitor any irregularities and ensure that there are no infractions.

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[1]   Pwc.com; Financial services firms look to a future that balances remote and in-office work;
      https://www.pwc.com/us/en/industries/financial-services/library/balancing-remote-and-in-office-work.html;
      Accessed Jan 24, 2021

Figure 1 illustrates the conceptual framework of a proctoring solution which will provide supervisors a clear view and voice of associates engaged in transaction processing. Along with offering a 360-degree view of the room, such a solution will also alert the supervisor in case there is more than one person on the workstation and will record unusual gestures such as an eyeroll. Moreover, the video and audio recordings can be stored for future use.
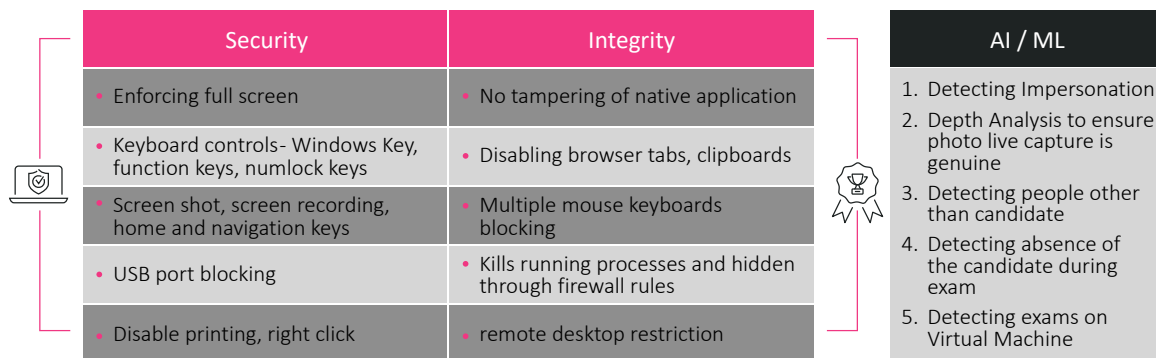
Security	Integrity	AI / ML
• Enforcing full screen	• No tampering of native application	1. Detecting Impersonation
• Keyboard controls- Windows Key, function keys, numlock keys	• Disabling browser tabs, clipboards	2. Depth Analysis to ensure photo live capture is genuine
• Screen shot, screen recording, home and navigation keys	• Multiple mouse keyboards blocking	3. Detecting people other than candidate
• USB port blocking	• Kills running processes and hidden through firewall rules	4. Detecting absence of the candidate during exam
• Disable printing, right click	• remote desktop restriction	5. Detecting exams on Virtual Machine

Figure 1: A proctoring solution to monitor transaction processing

Virtual reality office: Create a virtual reality (VR) office in the comfort of home, wherein employees don their VR gears and log into office systems. This approach eliminates unauthorized screen capture through photography. We are using augmented and virtual reality to improve the experience of the customers. Significant progress is recorded for making virtual payments, where banks have tied up with Mastercard and Visa with wearable solutions to shop and make payments.

Turning Remote Work Model into a Competitive Advantage

Remote work is here to stay. A recent Gartner survey on remote working trends reveals that 82% of company leaders plan to let their employees work remotely some of the time[2]. This new way of working presents an opportunity

for financial institutions to innovate and deploy a secure governance framework with necessary protocols to ensure seamless work allocation, monitoring and reporting in a hybrid work environment. Industry players that embrace the shift to digitalization and the integration of high-tech solutions to ensure secure ways of remote working will outperform in the post-COVID reality.

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[2] Gartner; Gartner Survey Reveals 82% of Company Leaders Plan to Allow Employees to Work Remotely Some of the Time; Jul 14, 2020; https://www.gartner.com/en/newsroom/press-releases/2020-07-14-gartner-survey-reveals-82-percent-of-company-leaders-plan-to-allow-employees-to-work-remotely-some-of-the-time; Accessed Jan 27, 2021

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Shyam Sundar is the Delivery Head for Banking and Cards at TCS Business Process Services Unit. Shyam has over 19 years of experience in the Commercial & Retail Banking domain. His areas of expertise include Transformation & Innovation, Business Development, Process re-engineering, and risk mitigation in banking operations. Shyam has been involved in leading multiple complex transformation and migration projects. He has managed complex processes such as global mass payments, Worldlink Operations, financial messaging, SWIFTNet process, and Credit Dispute Operations. Sundar has a Bachelor's degree in Physics from Loyola College, and a Master's degree in Computer Applications (MCA) from Madras University.

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