HOW **APPKNOX** SECURES OVER 200 MOBILE BANKING APPLICATIONS ACROSS ASIA AND MIDDLE EAST.

appknox

WE SECURE MOBILE APPS

200+ Mobile Apps Scanned

**10** high & **4** critical issues in every 10 app uploads

60% average reduction in testing time using SAST, DAST & API testing

KEY HIGHLIGHTS

Banking and financial industry must perform at its best in this digital world and build and release innovative applications frequently. On average, banks have a 15-day cycle to create a new updated application and ensure a timely release. Needless to mention, security has to be an integral part of the development lifecycle.

Today, more than 20 banks globally rely on Appknox's automated mobile application security testing suite to detect vulnerabilities before any possible misuse or exploit.
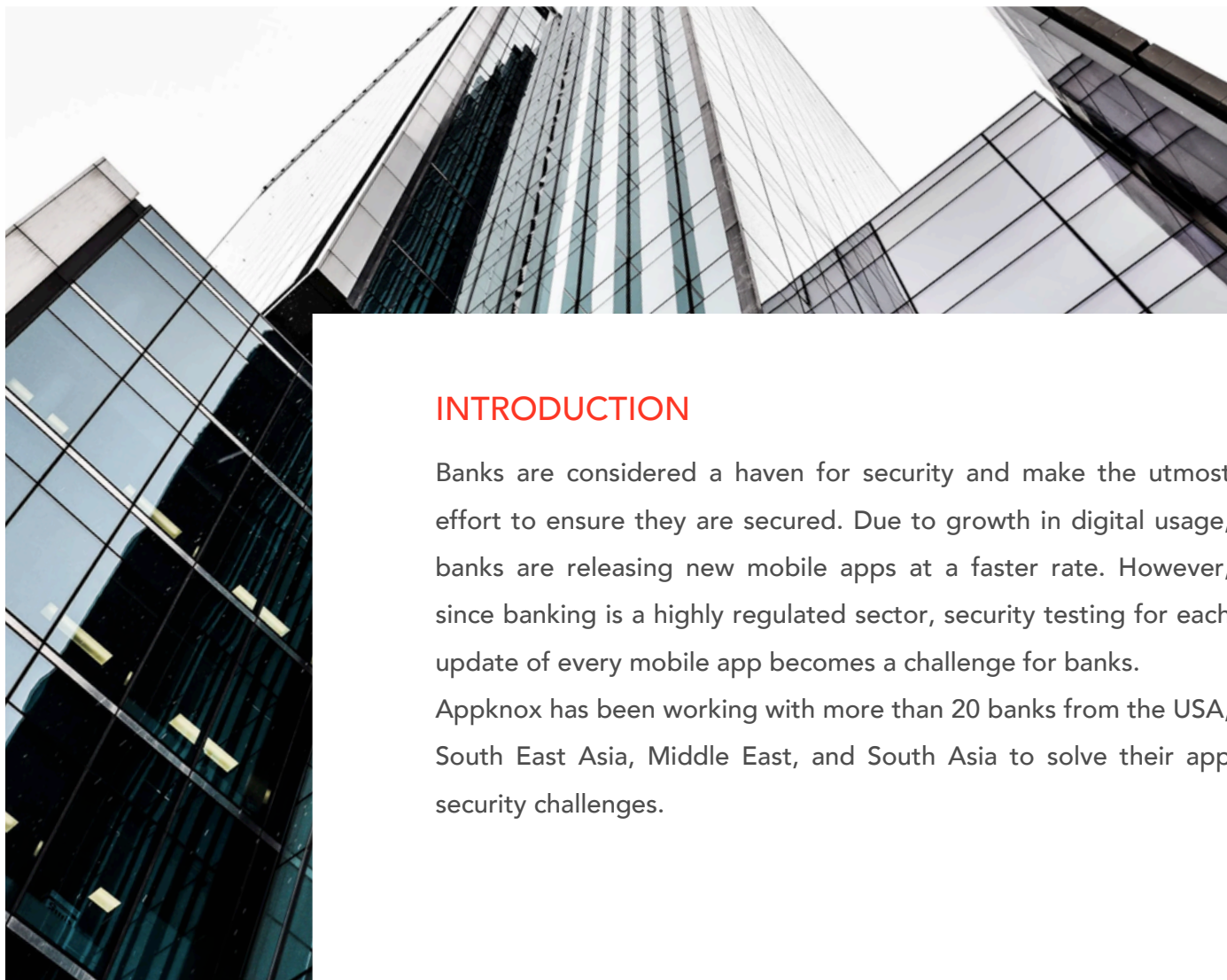
INTRODUCTION

Banks are considered a haven for security and make the utmost effort to ensure they are secured. Due to growth in digital usage, banks are releasing new mobile apps at a faster rate. However, since banking is a highly regulated sector, security testing for each update of every mobile app becomes a challenge for banks.

Appknox has been working with more than 20 banks from the USA, South East Asia, Middle East, and South Asia to solve their app security challenges.

CHALLENGES

Most of the banks have an update release cycle of 15 days for mobile applications. Every bank has an average of 25 apps, including internally used and customer-facing apps. Banks also support e-commerce and other vendors with payment infrastructures requiring additional security processes.

Generally, banks have an internal application security team comprising 10 to 25 members. They test over 80 mobile apps annually with regular vulnerability assessment and penetration (VAPT). The team is considered a road blocker for agile development in the BFSI segment. It is because testing generally takes 8-10 working days, and by the time initial app scan results arrive, a new app is ready to be rolled out already.

> **"Perfect tool for security testing mobile apps."**
>
> Appknox offers a perfect tool for security testing mobile applications and mobile APIs. It scans the whole application for security vulnerabilities.
>
> — *QA LEAD in the Services Industry*

WHY MOBILE APPLICATION SECURITY FOR THE BANKING INDUSTRY IS A SERIOUS CONCERN?

According to a report published by a cybersecurity analyst Alissa Knight on the vulnerability epidemic on financial apps, 97 % of the apps tested suffered from a lack of binary protection, which makes it possible to decompile the apps and review the source code.

SOME OF THE TOP FINDINGS WE HAVE DETECTED IN THESE SECTORS INCLUDE ISSUES LIKE:

REPLAY ATTACKS:

The application server should have proper validation on the requests. Timestamps should be verified so that a customer can send a request only once and the server should deny replays.

Scenario:
We test and replay transaction requests and recharge our wallet in one of the banking applications without having to withdraw money from the source account. Hackers can misuse this and can perform a big scale of targeted attack if the issue exists in a banking application.

ONE TIME PASSWORD BYPASS:

It involves entering OTP while using critical functions like transferring money, adding beneficiary, and modifying account details to enhance the security of a banking application. However, the OTP generated should be random so that it cannot be guessed. It should be validated on the server-side and not leak the request/response of the application.

Scenario:
Our team identified issues using the OTP interception technique for mobile applications in Banking. We have detected this issue in several apps where either server-side validation was not done properly. OTP Authentication bypass can be misused to get access to users accounts with personal & critical information.

BIOMETRIC AUTHENTICATION:

Voice-based and other authentication ease life for bank users. However, there is a high probability of security misuse associated with it.

Scenario:
We ensure the safety of PII, which can be misused in case leaked. Besides, these data change with time, and hence adapting and building a compliant platform is critical. Otherwise, the primary objective of using biometric authentication itself fails.

HOW APPKNOX HELPED

Appknox helped enable agility by completing 70% of security testing within 90 minutes

AUTOMATED TEST WITHIN 90 MINUTES

For minor releases, the automated test authenticates security testing. Reporting of detected issues happens with proper categorization. It is based on globally followed standards like PCI-DSS for application security and OWASP. Each issue is rated using CVSS 3.0 methodology.

KEEP A CHECK ON ANY NEW SECURITY LOOPHOLE IN YOUR APP

Many banks have realized that even after fixing security issues, subsequent product updates have newer vulnerabilities that Appknox continues to detect.

WE ENSURE YOU ARE SAFE AGAINST ZERO-DAYS.

We keep adding newer security issues depending on zero-days and OS-level updates. Appknox has more than 190 test cases covering client-side and server-side security issues for mobile applications

75% Reduction in Scanning Time with mDevSecOps of Appknox

> 50 % Security Resource Utilization

CISO dashboard Highlighting Organization Security Posture

RESULTS AND RETURN ON INVESTMENT

There was a reduction in security testing time by 60%. Also, further manual testing iteration was reduced by 50% for every release using Appknox automated scan.

We believe in the expert mobile security approach and have the best of security researchers focused on mobile app security only. Appknox ensures false positives less than 1 % compared to the mobile application security industry benchmark of 5 %.

There have been 3,494 cyberattacks against financial institutions. In recent times, Capital One Bank is a clear example of how even a small issue like misconfiguration can lead hackers to steal details of millions of users. (Source - The New York Times)

"Awesome and simple-to-use product with great integration capabilities"

— *Satish Kumar Dwibhashi*
Vice President & CISO , WIBMO- A Leading B2B
Payments Suite Rating on Gartner Peer Insights.

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You deploy while we secure world-class apps at scale, leave your mobile devsecops to us.

TALK TO OUR SECURITY EXPERTS