



## Client Overview

- Game Developer producing a collection of skill based mobile games
- The application under test is an E-sports game platform for users to play mobile games and win real cash



## Business Requirements

- The game app engages users with monetary options like tokens, referrals bonus and top scores which can be cashed out instantly
- Identify and report vulnerability targets for various functional modules of the application – user authentication, benefits encashment fraud and a comprehensive list of security protocols



## Our Solutions

- Indium adopted OWASP and MASVS (Mobile Application Security Verification Standards) to perform extensive vulnerability and penetration tests
- Phased approach to Testing to cover vulnerabilities at two levels –  
- **Most common security vulnerabilities in Game Apps**  
- **Data Security and Tampering in Game Apps**
- Code Review / Reverse Engineering to verify code quality, inspect code misconfigurations, server related threats, insecure data storage etc.
- Conducted VAPT across vulnerable dimensions : Injection Attacks, Variable manipulation /Response manipulation, secure data storage
- Reported Data Tampering weak links and User Authentication best practices
- Verified and reported poor coding practices and standards that have probabilities of inviting security threats



## Tools

- Andorguard
- APK Tools
- Androbugs
- D2J
- JD-GUI



## Business Impact

- Consulting and Exploratory approach to Security QA by deploying a judicious mix of Standards (OWASP and MASVS) and Manual Inspection (in-house SME)
- Reported issues with severity classification and recommended actions to mitigate security risks
- Bug Severity and # bugs reported :

<b>HIGH</b>	<b>23</b>
<b>MEDIUM</b>	<b>07</b>
<b>LOW</b>	<b>10</b>



**INDIA**  
Chennai | Bengaluru | Mumbai  
Toll-free: 1800-123-1191

**USA**  
Cupertino | Princeton | Boston  
Toll-free: +1-888-207-5969

**UK**  
London

**SINGAPORE**  
  
+65 9630 7959

**MALAYSIA**  
Kuala Lumpur  
+60 (3) 2298 8465