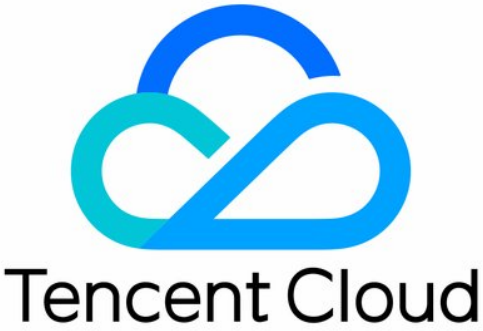
Anti-Cheat Expert

Product Introduction

Product Documentation



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Product Introduction
Overview

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Overview of the Mobile Game Market

Market size

According to a third-party statics, the global mobile gaming market reached $86.9 billion in 2020. With the rise of online games, game virtual social systems, PVP systems, and high-value gameeconomic systems become more common in mobile games, putting the mobile game industry in a huge risk.

Security risks

Currently, the mobile game market is suffering from an endless stream of cheating methods such as modifiers, speed changers, and cracked versions, which have undermined the game environment and posed the following risks to the market:

Compromised game balance

Some players may use treats or bots to their advantage, which seriously disturb the game order and balance.

Churn of game players

In gaming, normal players are put into disadvantage by the ones using cheats and bots. They will then leave the game as they find the game is not fair and secure.

Shortened game lifecycle

Various cheating methods disrupting the game environment have caused the churn of a large number of players, greatly shortening a game's lifecycle.

Reduced revenue of game companies

Bots will disorder the game's economy system and make a big dent in the revenue of game companies.

In addition, cheat bots can cause immeasurable damage to the reputation of game companies. To cater for your urgent need of dealing with mobile game security issues, Tencent Cloud launched Anti-Cheat Expert (ACE), which protects your game environment and improves the gaming experience of users.

ACE

Anti-Cheat Expert (ACE) is a professional mobile game security solution created by Tencent Cloud's mobile security team in collaboration with Tencent's game security team. With 24/7 security protection capabilities, ACE supports comprehensive multi-dimensional protection and detection and can be easily accessed by calling 2-3 APIs in a game

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client, helping mobile game providers quickly cope with game security issues such as cheating and tampering. Currently, it provides stable security services to over 700 million players of hundreds of games including Honor of Kings and Naruto Online.

Anti-cheating

The anti-cheating feature is designed to provide effective protection for mobile game security while minimizing the impact on games. With high compatibility and reliability, this feature defends against various bots such as debuggers and modifiers in real time on a case-by-case basis to ensure the security and stability of the game environment. You can integrate and verify the anti-cheating SDK easily by following the Integration Guide.

Security reinforcement

The security reinforcement feature can be customized according to the characteristics of a mobile game to set up a comprehensive functional matrix covering game code protection, anti-debugging, resource protection, and anti-dynamic unpacking. This feature ensures stability while defending against tempering and cracking for a secure gaming experience.

Strengths

Stability

ACEfeatures proprietary detection technology and comprehensive and stable policy modeling for outstanding game protection, helping nearly 100 mobile games seamlessly serve hundreds of millions of players, including blockbuster games with tens of millions DAUs such as Honor of Kings and WeChat Dash.

Multiple SDK language support

ACE provides various versions of SDKs in Java, C++ and C# for both Android and iOS.

Compatibility with multiple game engines

ACE fully supports popular game engines such as Unity 3D, Cocos 2D and Unreal Engine 4. Anti-Cheat Expert

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Features

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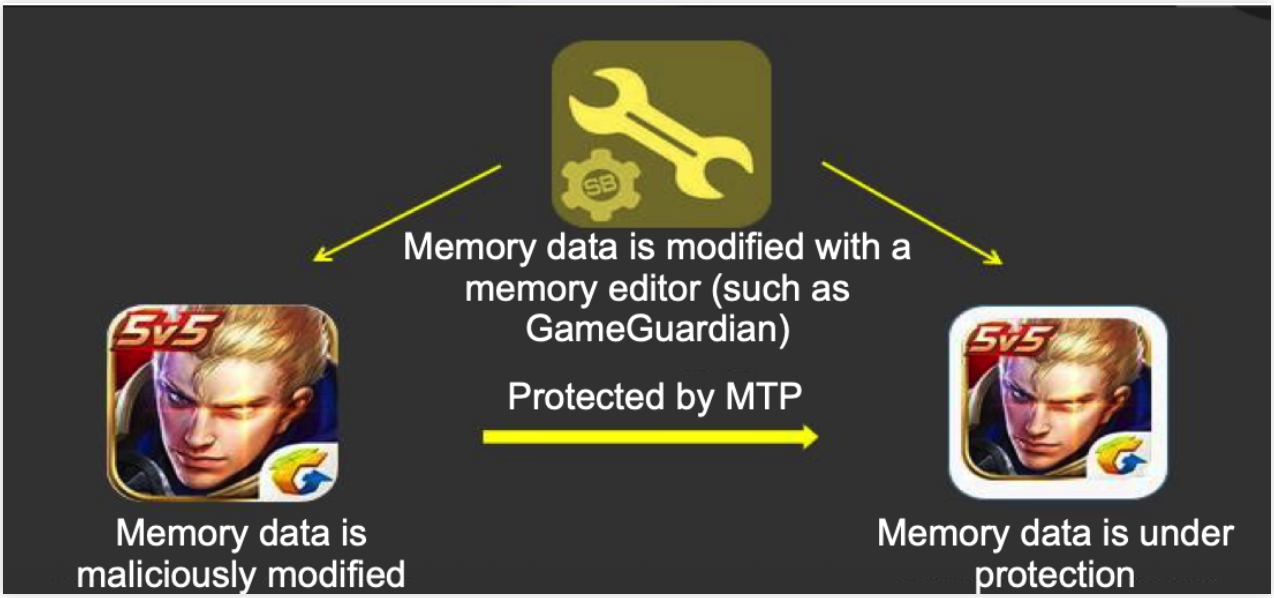
With two major features, anti-cheating and security reinforcement, Anti-Cheat Expert (ACE) makes it easy for mobile game companies to tackle common game security concerns such as cheating, tampering, and cracking.

Anti-cheating

Prevention against game modifiers
AEC prevents against mainstream game modifiers, monitors cheaters in real time and forces the game to quit as soon as they are identified. Thanks to Tencent Games' over a decade of experience in gaming, it achieves an over 99.99% accuracy rate.
Protection against speed changers
ACE prevents against acceleration and deceleration actions of various types of game speed changers and forces the game to quit as soon as they are identified.
Protection against VM bots
Covering more than 30 kinds of virtual machines and their variants such as VirtualAPP, LBE and Fenshen, ACE has established a unique three-layer three-dimensional policy model, which can identify virtual machines in multiple dimensions, dynamically update itself, strictly prevent various misjudgments and achieve strong anti-variance ability.



Security reinforcement

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Encrypted Protection of .so and .dll Files

ACE strictly encrypts .so and .dll files, preventing them from reverse analysis by tools such as IDA and effectively protecting core game modules.

Reinforced .dll Obfuscation

For Unity games, ACE encrypts the variable, function and class names of DLL modules for obfuscation, effectively raising the threshold for static analysis.

Resource file protection

ACE features the most rigorous game resource protection scheme, blocking the addition, deletion and modification of any resources and effectively preventing the game from being cracked.

Anti-debugging

ACE empowers games with the most comprehensive anti-debugging capability and controls debuggers such as IDA against dynamic debugging and cracking, effectively raising the threshold for dynamic analysis.

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