

Hardware Security – an Unfair Advantage

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What's in common with these brands?



WeChat Pay



TESLA



Samsung
ARTIK™



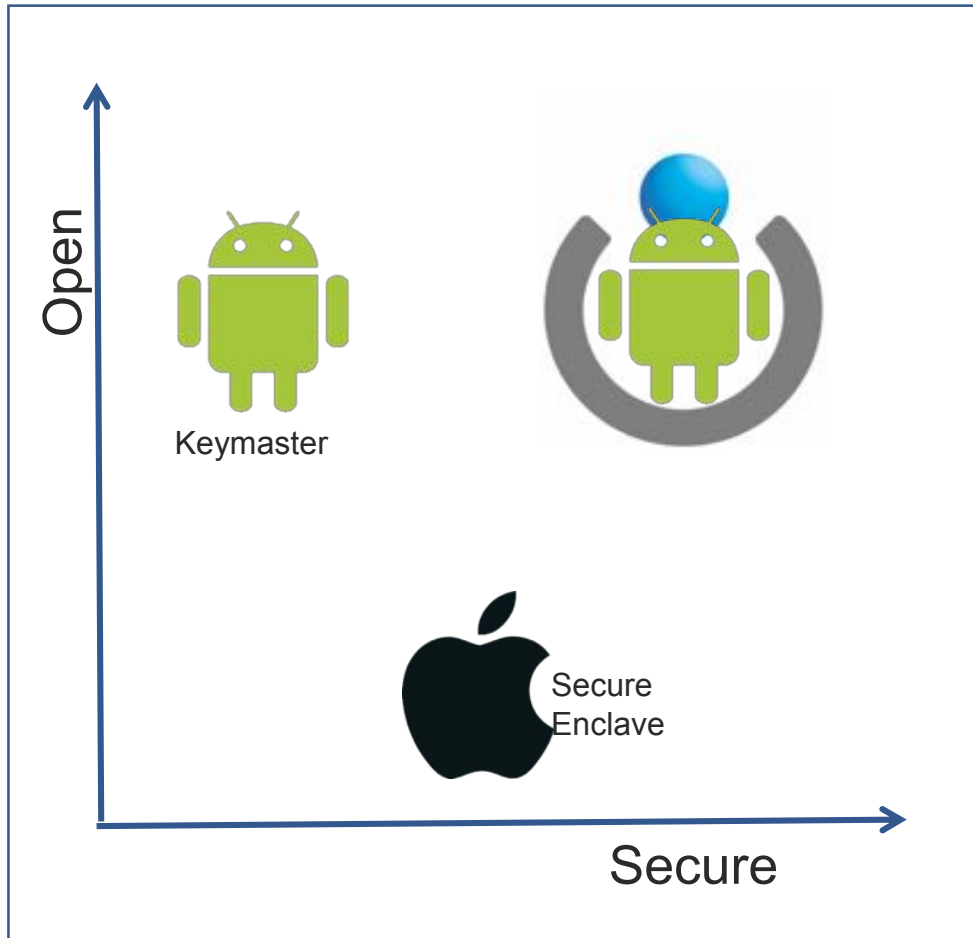
What makes the Apple security and experience special?

Apple uses hardware, software and policy to TIGHTLY CONTROL the linkage between:

- User
- Device
- Apps
- iCloud

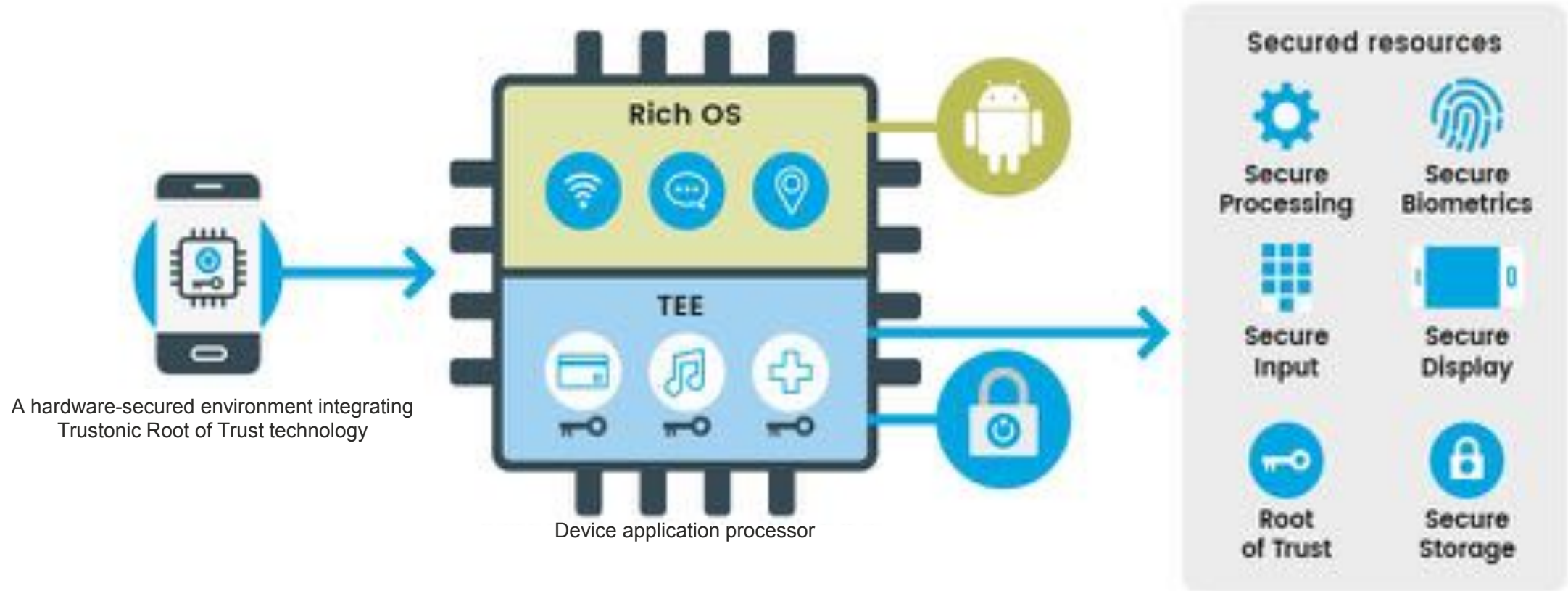


Trustonic offers an Unfair Value Proposition



- ✓ More secure & more open Than Apple
- ✓ More secure than Android + keymaster
- ✓ Provide complete & proven security
- ✓ Provide flexibility and control
- ✓ Enable innovation through security

How does Hardware Security work?



About Trustonic

World class investment

- Founded in 2012, with strategic investors ARM and Gemalto.



Trustonic has a dual mission

- To embed the best SECURITY into the world's smart devices.
- To empower app developers to deliver simpler, richer, SAFER services.

Credentials

- Trustonic protects over 1.2 billion smart devices worldwide.
- Recognized leader in application security.
GSMA 2016 Award Winner – Best mobile security solution.
- Strong, fast growing ecosystem.

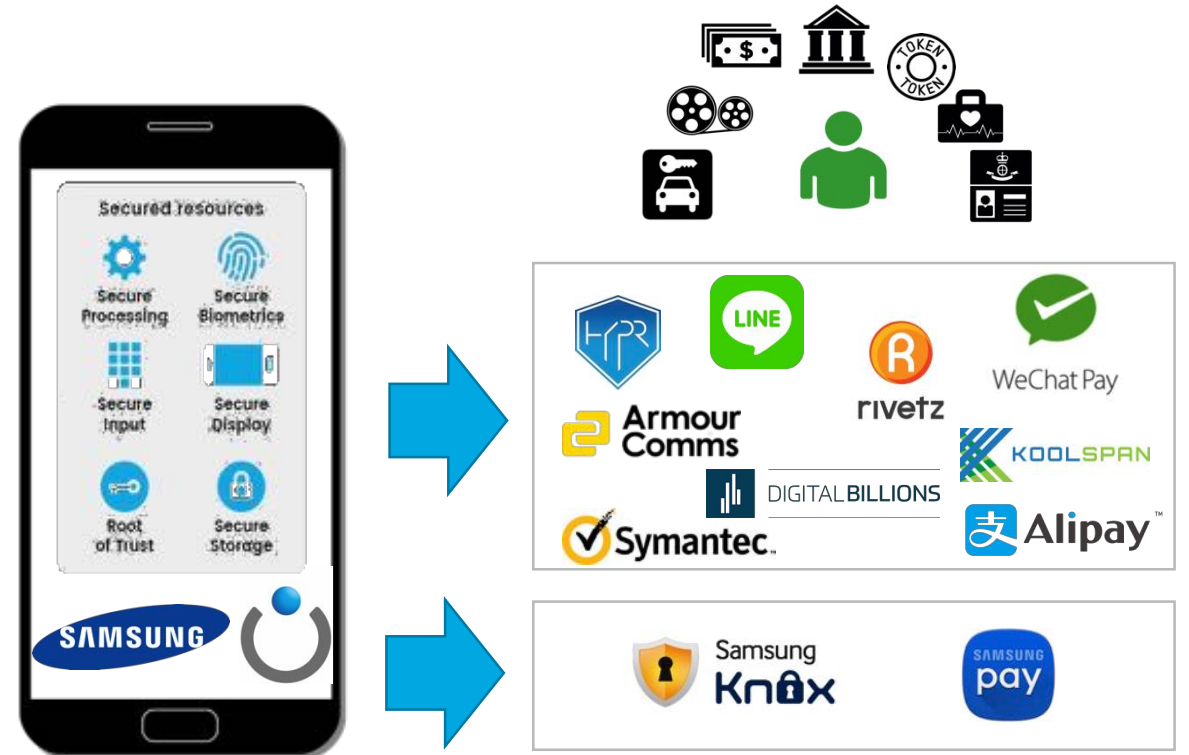


TRUSTONIC



What's unique about Trustonic

- **Open, scalable** access to the best and most innovative device security features.
- **Used by Samsung to underpin** its own services Knox, Pay etc.
- Used by **consumer** and **enterprise** service providers to deliver **simpler, richer, SAFER** services.



Good Security is HARD. We do it BEST. FASTEST.

- Trustonic has always been **first** to drive security innovations

First in the World	Main Partner / Actor	When
Secure premium content for mobile devices*	Netflix	2011
Government-based security certification**	ANSSI in France	2012
Open TEE on mobile	Symantec and Samsung	2013
GlobalPlatform compliance	GlobalPlatform	2013
Trusted user interface on mobile	Samsung Galaxy Note 4	2015
Use of TEE for mobile payment with biometry	Alipay	2015
Worlds 1 st Common Criteria Certified TEE	Common Criteria	2016



- Trustonic delivers the most innovative, **cost-effective** and **mature** device security solution
- Innovative platform features can then be used on supported devices to deliver the best user experience. Trustonic exposes these at scale in a **proven, secure way**
- A mobile secure OS is like Android: critical mass and a large ecosystem are **keys** to success

2 Pillars of Focus delivered via 1 Ecosystem

Secure the device

From Largest to the Smallest



1.2 Billion Devices. Mobile, Auto and IOT

Enhance the **experience**

Through unique, scalable App Protection



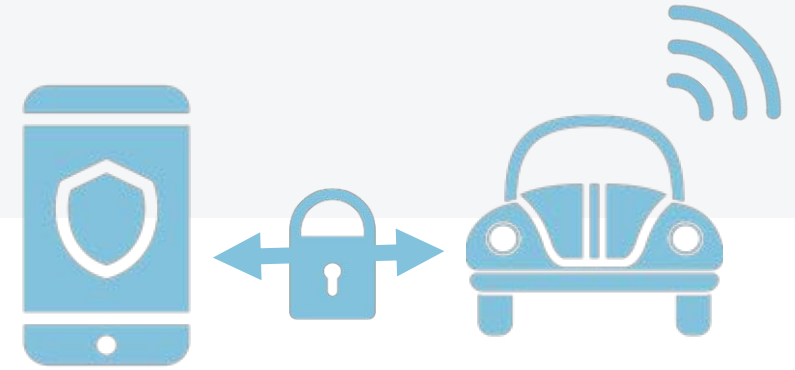
100+ Partners in Ecosystem

Use cases and market adoption



Unlock new usage models

- Today, car keys represent a weak link in securing a high value asset (\$10k → \$100k+).
- Smartphones present a more convenient, scalable and cost effective solution
- Today's problems are about “my car”, in future new usage models need to be supported



- ✓ Wireless key attack lets hackers **steal 24 different car models***
- ✓ In the US by 2020, **7%** of current car owners **will replace their car with no car**, using on demand usage (Uber, Lyft etc.) instead

Proof points: **Top Global Automaker**

- 10 Million new cars per year
- Commercial launch in 2018 of digital virtual key car on smartphones
- Other major automakers in pipeline

Enterprise opportunity in the US

- Market Place & Goods Management

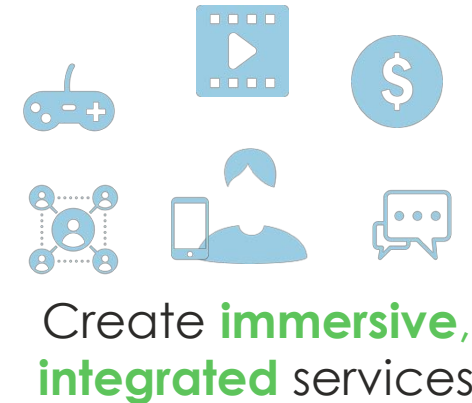


DIGITAL BILLIONS

- Trustonic Solution Partner – Digital Billions
 - Blockchain based trading platform connecting buyers, intermediaries and producers
- End customer – International Trading Conglomerate
- Requirement: Supply solution including COPE devices able to support
 - Credential Protection (storage and processing) in TEE
 - Transaction validation algorithm execution in the TEE
 - Strong device identity with TEE root of Trust.
 - Secure communication between the TEE application and remote server.
 - Secure OTA - Remote provisioning of apps/data in the TEE
- Further opportunities to address banking industry(COPE) with similar use of blockchain solution inside TEE

Create **immersive, integrated** services

- Service provider business relies on developing new, increasingly **immersive** services
- The higher the value the service, the more personal it is to the user and this makes maintaining customer **trust** and **privacy** hard



215 million daily active users
600 million registered users

Proof point: **LINE**

- Trustonic used to **protect** LINE customers & deliver a great, **integrated** user experience across their platforms;
 - Messaging (encryption, on device protection)
 - Content (enable 4k/UHD)
 - Payment (enable seamless online purchasing)

Thank you

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