

TrubiZone

Securing Critical Mobile Applications for Android Using ARM TrustZone

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Abstract. With the ever-growing number of connected devices world-wide, and with a more conscious and sharing society, mobile devices are becoming interesting data banks. With such an impact in our lives, mobile developers must focus on developing secure and privacy aware applications to protect users and services. Today's mobile operating systems do not offer fully secure methods to support critical applications, such as e-Health, e-voting and e-money, by not taking advantage of secure hardware technology like TrustZone. This paper proposes a new model for the development of critical mobile applications and a system based on TrustZone implementing it.

Keywords:

TrubiZone, Security, Privacy, e-Health, Mobile Devices, Android, TrustZone

1 Introduction (2/3pgs)

General description of the problem and its context, current solutions, and road map of the project.

According to Comscore's 2015 "Digital Future in Focus" whitepaper, with key statistics for the U.S. market, mobile devices, such as smart-phones and tablets, dominate digital media time over the PC, with the trend being to continue raising. This shows in the near future we maybe living in a world where mobile devices are the predominant device.

Falar da trusted computing base

2 Objectives (1pg)

Clearly explain the project objectives.

3 Related Work (17pgs)

THIS IS A CITATION[?]

The related work section will highly volatile, and will mostly depend on your kind of thesis. Talk with your supervisor in order to know how to write this part. Don't take the following bullet points as a certain truth.

- Most important part of the document. Might be divided in 2/3 subsections.
- Might be devised into related work and
- Should cite a wide range of references 30, search in google, google scholar, mendley, IEEE explorer etc..
- Summarized table of solutions.

Citations should be mostly :

- magazine articles
- conferences / workshops
- books and technical reports

And make sure that your citations follow the following criteria:

- Conferences: name and year
- workshops: name of the workshop, name of the conference, location and year
- Magazines: volume, issue (if possible article pages), publisher.
- Books: title, publisher, ISBN, year

Websites should be added as footnotes ¹

¹ www.google.com



Fig. 1. caption

4 Architecture (2/3pgs)

Your proposed architecture. Can have lots of pictures and bullet points so it is easy to understand.

5 Evaluation (1/2pgs)

Explain how you are going to show your results (statistical data, cpu performance etc). Answer the following questions:

- Why is this solution going to be better than others.
- How am I going to defend that it is better.

6 Conclusions

Wrap up what you wrote.

A Appendix

Appendix files and refs will go here. Such as your thesis work scheduling.

A.1 Work Scheduling Example

Simple work schedule is presented in Table 1. You can do something more fancy link a Gantt chart or whatever.

Table 1. Work Scheduling

Month	Work
February	Do Stuff
February	Do Stuff
March	Do Stuff
April	Do Stuff
May	Do Stuff
May	Do Stuff
June	Do Stuff
July	Do Stuff

