Migration of Secure Enclaves

Master of Science Thesis University of Turku Faculty of Technology Huawei - HERS 2021 Vasile Adrian Bogdan Pop

Supervisors: Arto Niemi "Seppo Virtanen"

The originality of this thesis has been checked in accordance with the University of Turku quality assurance system using the Turnitin OriginalityCheck service.

UNIVERSITY OF TURKU

Faculty of Technology

VASILE ADRIAN BOGDAN POP: Migration of Secure Enclaves

Master of Science Thesis, 14 p. Huawei - HERS October 2021

Keywords: tähän, lista, avainsanoista

Contents

1	Introduction		1
	1.1	Sec 1	Ć
2	Background		10
	2.1	Security Principles	10
	2.2	Confidential Computing	10
	2.3	TCB - Trusted Computing Base	10
	2.4	TEE - Truseted Execution Environment	10
	2.5	Remote attestation	10
3	Secure Enclaves		11
	3.1	State of the Art	11
	3.2	Existing implementation details	11
	3.3	Existing problems with the actual implementations	11
4	Secure Enclave Migration		12
	4.1	Sec 1	12
5	Imp	olementation	13
	5.1	Sec 1	13
6	Cor	nclusions	1⊿

List of Figures

List of Tables

1 Introduction

write stuff because you want write stuff because you want

write stuff because you want write stuff because

you want write stuff because you want write

stuff because you want write stuff because you want

write stuff because you want write stuff because

you want write stuff because you want write

1.1 SEC 1

stuff because you want write stuff because you want

1.1 Sec 1

2 Background

- 2.1 Security Principles
- 2.2 Confidential Computing
- 2.3 TCB Trusted Computing Base
- 2.4 TEE Truseted Execution Environment
- 2.5 Remote attestation

3 Secure Enclaves

- 3.1 State of the Art
- 3.2 Existing implementation details
- 3.3 Existing problems with the actual implementations

4 Secure Enclave Migration

4.1 Sec 1

5 Implementation

5.1 Sec 1

6 Conclusions