

Lecture 1

MOBILE SYSTEMS SECURITY

COURSE

INTRODUCTION

What?

Mobile Systems Security

- CS-E4310, 5 cr

About us

- N. Asokan
 - Professor, Secure Systems
- Lachlan Gunn, Jordan Whitefield
 - Postdoctoral Researcher
- Hans Liljestrand, Thomas Nyman
 - Doctoral researchers

Mobile Platform Security

What do you understand by this?

- “Platform” =
 - hardware
 - OS
 - “runtime” (e.g., Java virtual machine)

My Objectives

Expose you to platform security on mobile devices

- Cover major themes
- Give hands-on experience to those who want it
- Prepare to learn about current research

What are your objectives?

How?

Class meetings

Lectures: Tuesdays 10-12

- Lecture Hall T₃, CS bldg
- Video recordings of lectures

Caveat: Video recording is best-effort; disruptions may occur. If disruptions bother you, plan on coming to the lecture hall in person.

Class meetings

Exercise sessions: Thursdays 10-12
Lecture Hall T₃, CS bldg

Office hours

Asokan

- by appointment
 - Office: CS building A 110

Exercises

Set on Tuesday

- Due a week later (23:55)
- Discussed on Thursday (after due date)
- To paraphrase Einstein:
 - Answers as short as needed but no shorter!
 - Each exercise indicates its weight
- You may be asked to explain your answer to class (Thursday sessions)

Survey presentations

- List of topics available
- Groups of two students
 - Indicate who you partner with
 - Indicate list of 3 preferred papers
before Tuesday, Jan 22
- Each group assigned one topic
 - Finalized by Jan 24

Survey

- Your survey should contain
 - Summary of the paper(s)
 - Your own synthesis:
 - Flaws? Improvements? New ideas?
 - 6-8 slides; 10-mins for presentation
- Submit by **March 5 23:55**
Presentation **Tue/Thu March 12-28**

How to submit homework?

- MyCourses:

<https://mycourses.aalto.fi/course/view.php?id=20584>

- For all written homework and survey presentation

What do you need to do?

Each participant:

- Make all submissions on time
- Submit all exercises
- Submit & present survey in class
- Be present in at least 80% of Thursday sessions
 - 6 exercise sessions (Jan 10-Feb 14)
 - +1 survey presentation (at least)

How will you be evaluated?

- Grades for weekly exercises (80%, tentative)
- Survey (20%, tentative)
- **No exam!**

Grading

- Each of the 5 exercise sets has the same weight
 - Weights for individual questions vary but indicated clearly

No late submissions!

- Tuesdays 23:55
 - deadline to remember!
- Solutions to exercises discussed on Thursdays

No late submissions!

- For circumstances beyond your control
 - Fixed extension for exercises
 - Because answers to exercises discussed on Thursdays
 - But only with permission of instructors

No plagiarism!

- More info on plagiarism:

<http://blogs.helsinki.fi/alakopsaa/for-student/?lang=en>

- Do not copy exercises!
 - Be prepared to explain your solutions to class!
- Honor system

Research in systems security?

Interested in

- internships, thesis topics?
 - In our group, at partner companies
- special assignments for credit?
 - <https://wiki.aalto.fi/display/sesy/Autumn+2018+-+Summer+2019>
Talk to course staff

Research in systems security?

MSS Challenges

- Four research challenges listed
- Roughly 1 day's work per challenge
- Does **not** count towards course grade
- **Screening** for
 - special assignments, internships, thesis topics, ...
- **Letter of achievement** for those who
 - get grade 5 in the course, and
 - complete two challenges

Supplementary text

- **“Mobile Platform Security”**
published by Morgan &
Claypool
- Available from **Aalto-Finna** (for
Aalto students)

Pledge to complete course

- Your fellow students are on waiting list
- “I may not complete the course”
 - drop out now, and let us know ASAP
 - you will be doing a favor to those on waiting list
- No notification by Jan 10 (Thursday)
 - We assume you will drop out!

Questions?