

KEA Competence Communication and Network Security hand-in assignments

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Note: exercises marked with **▲** are considered important. These contain subjects that are essential for the course and curriculum. Even if you don't work through the exercise, you are expected to know the subjects covered by these.

Exercises marked with **❶** are considered optional. These contain subjects that are related to the course and curriculum. You may want to browse these and if interested work through them. They may require more time than we have available during the course.

Hand-in 1: Dump a HTTP connection with password

Assignment:

Find a device that provides a web administration interface over HTTP - not HTTPS.

Preferably one with a simple username and password admin/admin.

Capture a HTTP session, hint: using tcpdump or wireshark might be the easiest.

Create a report about how the password is sent, in clear text, or perhaps as base 64 and why this is insecure.

Include screenshot.

Create a report, inspiration for report template below.

I suggest the report should include the following sections at least:

- Title, Table of contents, formal report template thanks
- Executive summary – big companies always want this
- Information about the network dump done, what was it
- Review of password security when running HTTP
- Argue why HTTPS would be better, and if you like show similar dump with HTTPS
- Conclusion – may be more technical
- Appendices – various information, Whois info about subnets and prefixes

You are very much welcome to run multiple tools!

Must be handed in as PDF by Fronter and latest on May 19, 2022 23:59 . Teams up to two are allowed. Make sure to list team members in the report.

Expect PDF as A4, portrait mode up to 5-10 pages with illustrations as needed. Double if team.

Expected time usage, 10-20 hours at most.

Help:

Think about what you would like to receive if you were management about to approve a security policy disallowing HTTP based logins.