



Welcome to

# 1. Overview of Computer Security

KEA Kompetence Computer Systems Security 2019

Henrik Lund Kramshøj [hlik@zencurity.com](mailto:hlik@zencurity.com) @kramse  

Slides are available as PDF, [kramse@Github](https://github.com/kramse/kramse@Github)

1-overview-computer-security.tex in the repo security-courses

# Plan for today



## Subjects

- Confidentiality, Integrity and Availability
- Cost-Benefit Analysis
- Risk Analysis
- Human Issues
- Access Control Matrix

## Exercises

- Risk Analysis
-

# Reading Summary



Bishop chapter 1: An Overview of Computer Security  
chapter 2: Access Control Matrix

# Confidentiality, Integrity and Availability



# Cost-Benefit Analysis



# Risk Assessment



[https://en.wikipedia.org/wiki/Risk\\_assessment](https://en.wikipedia.org/wiki/Risk_assessment)

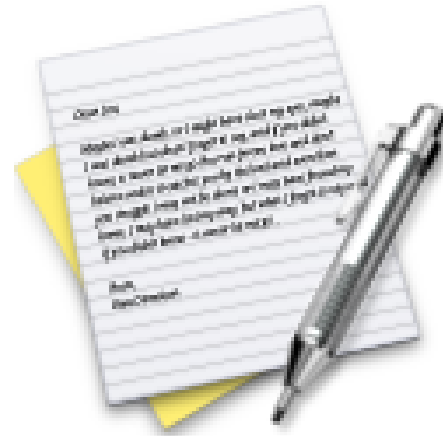
# Quantitative Risk Assessment



In quantitative risk assessment an annualized loss expectancy (ALE) may be used to justify the cost of implementing countermeasures to protect an asset. This may be calculated by multiplying the single loss expectancy (SLE), which is the loss of value based on a single security incident, with the annualized rate of occurrence (ARO), which is an estimate of how often a threat would be successful in exploiting a vulnerability.

Quote from [https://en.wikipedia.org/wiki/Risk\\_assessment](https://en.wikipedia.org/wiki/Risk_assessment)

# Exercise



Now lets do the exercise

## Risk Assessment 101

which is number 4 in the exercise PDF.



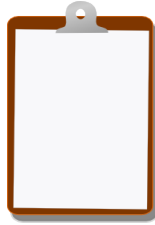
# Human Issues



# Access Control Matrix



## For Next Time



Think about the subjects from this time, write down questions

Check the plan for chapters to read in the books

Most days have less than 100 pages, but some days may have more!

Visit web sites and download papers if needed

Retry the exercises to get more confident using the tools