



Welcome to

4. Integrity and Availability Policies

KEA Kompetence Computer Systems Security 2019

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Slides are available as PDF, kramse@Github
4-integrity-availability-policies.tex in the repo security-courses

Plan for today



Subjects

- Accuracy vs disclosure
- The Biba Model
- Clark-Wilson Integrity Model
- Trust models
- Deadlocks
- Availability and flooding attacks
- Protection against TCP Synfloods

Exercises

- Databases - discussion about Relational Database Management System RDBMS Model and NoSQL
- SYN flooding exercise

Reading Summary



Bishop chapter 6: Integrity Policies

Bishop chapter 7: Availability Policies

TCP Synfloods - an old yet current problem, and improving pf's response to it, Henning Brauer, BSDCan 2017

Accuracy vs disclosure



The Biba Model



Clark-Wilson Integrity Model



Trust models



Deadlocks



Exercise



Now lets do the exercise

Database Security

which is number **8** in the exercise PDF.

Availability and flooding attacks



Exercise



Now lets do the exercise

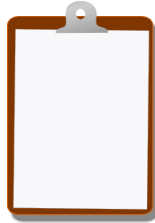
SYN flooding 101

which is number **9** in the exercise PDF.

Protection against TCP Synfloods



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