



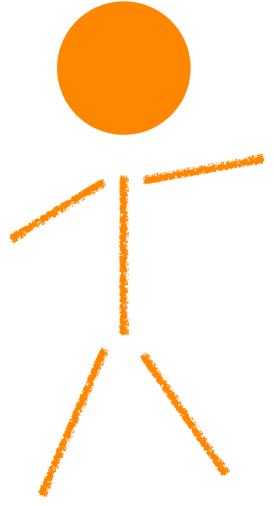
### JENS NEUHALFEN

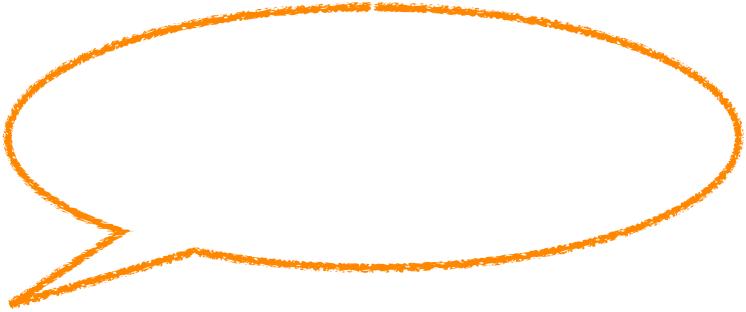
### SLEEP BETTER WITH CONTENT ENCRYPTION

File system encryption Transparent database encryption Help against stolen hard disks.

Full disk encryption

## TRANSPARENT ENCRYPTION





# is also transparent to the attacker ?!?!

What?

**Transparent encryption** 



## TRANSPARENT ENCRYPTION (ATTACKS VIA APPLICATION)





Very secure at rest, no online attack

Very secure at rest, key in RAM

Very secure at rest, data in RAM

Completely accessible

APP STARTED MASTER UNLOCKED R2 UNLOCKED

R2 UNLOCKED

\* Filesystem

## TRANSPARENT ENCRYPTION



### What?

Transparent encryption is also transparent to the attacker ?!?!



- File system encryption
- Transparent database encryption

Help against stolen hard disks.

