



JENS NEUHALFEN



FROM PASSWORD TO KEY

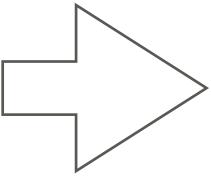
SLEEP BETTER WITH CONTENT ENCRYPTION

128 bit key





password





- A random password has
 - ~ 6 bits per character (*)
- A 128 bit key needs >= 21 character passwords

(*) a-zA-Z0-9 \rightarrow ~64 different values per character (2^6). A 128 bit passwords must be \Rightarrow 21 characters long (128/6)

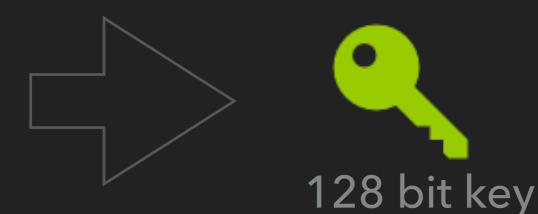
Secure passwords are very long

FROM PASSWORD TO KEY





password

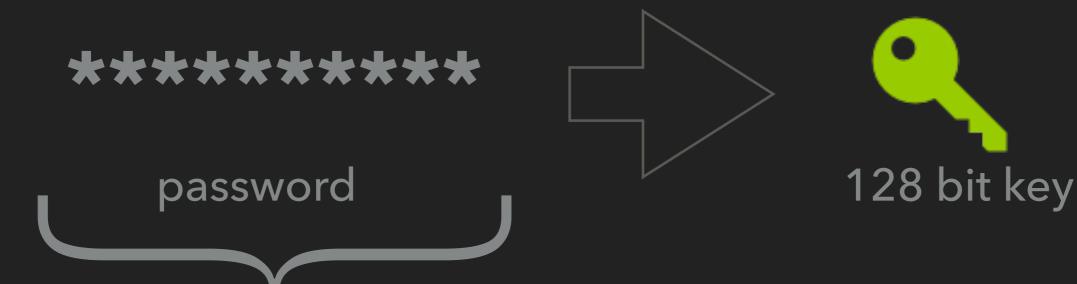


- A random password has
 - ~ 6 bits per character (*)
- ► A 128 bit key needs >= 21 character passwords

Secure passwords are very long

FROM PASSWORD TO KEY





aw92SDAVglkqusabvgw38



- ▶ 128 bit
- > 3o8uGsdA
 - 8 chars, 48 bit (cracked in hours to days)