



### JENS NEUHALFEN

User	Salary	• • •
Alice		• • •
Eve		• • •
• • •	• • •	• • •



2,718 €

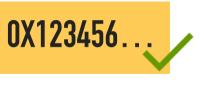
## DATA INTEGRITY & ASSOCIATION

### SLEEP BETTER WITH CONTENT ENCRYPTION





## EVE GETS AN INSTANT PROMOTION



3,141€

# Problem: Sensitive data can be manipulated.

## DATA INTEGRITY & ASSOCIATION

OX123456..

Problem: Sensitive data can be manipulated.



### DATA INTEGRITY & ASSOCIATION

0X123456...

Problem: Sensitive data can be manipulated.

Solution: Use cryptographic checksums with a secret.

User	Salary	MAC*
Alice	3,141€	0x4711
Eve	2,718 €	0xabcd
•••	• • •	•••

<sup>\*</sup> Checksum with a secret: hmac, AEAD, public key signatures