JENS NEUHALFEN

User	Salary	Checksum*
Alice		0x4711...
Eve		0xabcd...
...	...	...

3,141€

2,718 €

SLEEP BETTER WITH CONTENT ENCRYPTION

DATA INTEGRITY & ASSOCIATION

EVE GETS AN INSTANT PROMOTION

Problem: Protected data can be "replayed".

0x4711…

DATA INTEGRITY & ASSOCIATION

`0X123456...` ✓

Problem: Protected data can be "replayed".
Solution: Cryptographically bind data to context.

User	Salary	Checksum*
Alice	3,141€	0xabcd...
Eve	2,718€	0x9876...
...	...	...

* including the username in the hash/hmac

DATA INTEGRITY & ASSOCIATION

0X123456… ✓

Problem: Protected data can be "replayed".

User	Salary	Checksum*
Alice	3,141€	0x4711…
Eve	3,141€	0x4711…
…	**EVE GETS AN INSTANT PROMOTION**	…