



JENS NEUHALFEN

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

3,141€

2,718 €

GOOD CRYPTOGRAPHY

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".

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

DATA INTEGRITY & ASSOCIATION

0X123456...

Problem: Protected data can be "replayed".

Solution: Cryptographically bind data to context.

User	Salary	MAC*
Alice	3,141€	0xabcd
Eve	2,718€	0x9876
···· fincluding the usernam	o in the hack/hmae	• • •