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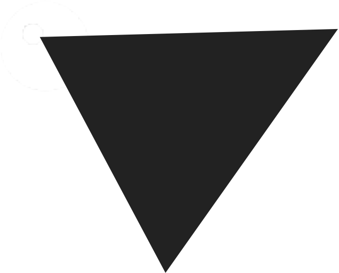
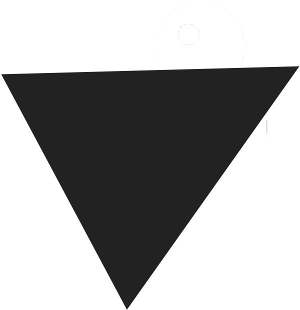
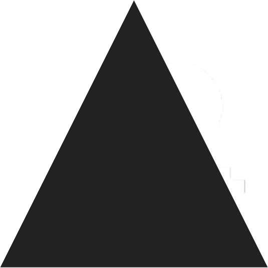
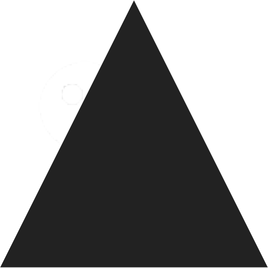








ACCESS CONTROL

SLEEP BETTER WITH CONTENT ENCRYPTION

107

Problem: What happens when Alice forgets her password?

Solution: Use cryptographic secret sharing for recovery

DATA

Alice

Justus

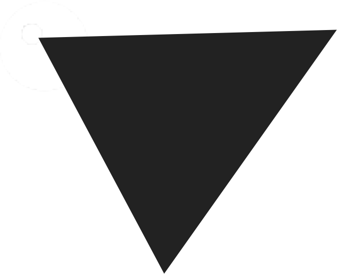
Peter

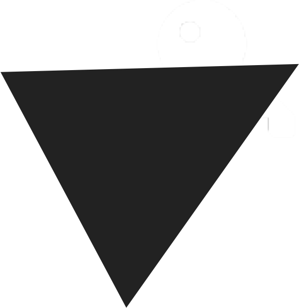
Mathilda

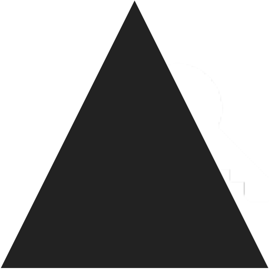
Bob

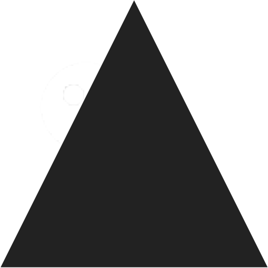
Alice will split her secret key (e.g. with Shamir) in such a way, that any three of her four trusted friends can restore the key.

Alice trusts her friends only so far. But she thinks it is very unlikely that three of them conspire together against her.









108

Problem: What happens when Alice forgets her password?

Solution: Use cryptographic secret sharing for recovery

Alice

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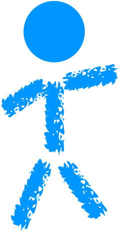

Bob

Alice will split her secret key (e.g. with Shamir) in such a way, that any three of her four trusted friends can restore the key.

such, that the secret can be restored with any t (here 3) of the n (here 4) parts.

This can be used for secret recovery

without a single point of trust (failure).

Secret sharing (“t out of n”) shares a secret