JENS NEUHALFEN

SLEEP BETTER WITH CONTENT ENCRYPTION

66


User
Algorithm
Hash
SCOTT
MD5(
3959dc9...
PURE HASH CONSIDERED HARMFUL

Even consumer grade graphic cards calculates giga-hashes (2^30) per second.

HASHES – EVEN SALTED – OFFER NO PROTECTION AGAINST OFFLINE ATTACKS

SWITCH TO BRUTE-FORCE PROOF (== SLOWER) ALGORITHMS

- https://www.troyhunt.com/our-password-hashing-has-no-clothes/
- https://gist.github.com/epixoip/a83d38f412b4737e99bbef804a270c40
- http://cynosureprime.blogspot.de/2017/08/320-million-hashes-exposed.html
- https://www.owasp.org/index.php/Password_Storage_Cheat_Sheet
- https://en.wikipedia.org/wiki/Pepper_(cryptography)

INCREASE THE ENTROPY BY USING A PEPPER

User	Algorithm	Hash
SCOTT	MD5(PWD)	3959dc9...
...	PURE HASH CONSIDERED HARMFUL	...

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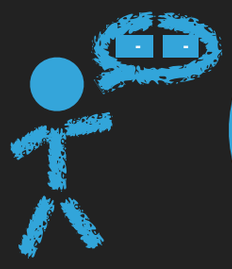
USER LOGIN: MIGRATE PASSWORDS



LOGIN

USER
PASSWORD

- Online migration of passwords to a new hashing scheme

Already migrated?