

- 1: $p \leftarrow$ Master Password from user
- 2: $(k_A, e, l, s) \leftarrow$ Secret Key, email address, ID, salt from local storage
- 3: $p \leftarrow \text{trim}(p)$
- 4: $p \leftarrow \text{normalize}(p)$
- 5: $s \leftarrow \text{HKDF}(s, \text{version}, e, 32)$
- 6: $k_m \leftarrow \text{PBKDF2}(p, s, 100000)$
- 7: $k_A \leftarrow \text{HKDF}(k_A, \text{version}, l, \|k_m\|)$
- 8: $k_m \leftarrow k_m \oplus k_A$
- 9: $k_m \leftarrow \text{JWKify}(k_m)$