

$$A$$

$$k_{AB}, \Delta = 30s$$

$$t_A \leftarrow \text{getTime}()$$

$$T_A \leftarrow \lfloor \frac{t_a}{\Delta} \rfloor$$

$$\text{mac}_A \leftarrow \text{HMAC}(k_{AB}, T_A)$$

$$\text{otp}_A \leftarrow \text{TRUNC}(\text{mac}_A)$$

$$\xrightarrow{\text{otp}_A}$$

$$B$$

$$k_{AB}, \Delta = 30s$$

$$t_B \leftarrow \text{getTime}()$$

$$T_B \leftarrow \lfloor \frac{t_B}{\Delta} \rfloor$$

$$\text{mac}_B \leftarrow \text{HMAC}(k_{AB}, T_B)$$

$$\text{mac}'_B \leftarrow \text{HMAC}(k_{AB}, T_B - 1)$$

$$\text{If } \text{otp}_A \neq \text{TRUNC}(\text{mac}_B)$$

$$\text{and } \text{otp}_A \neq \text{TRUNC}(\text{mac}'_B)$$

$$\text{reject else accept}$$