

User certificate

K_{Alice}^+
U: 0010011100
$\text{sig}(\text{O}, \{\text{U}, K_{\text{Alice}}^+\})$

(a)

Replica certificate

K_{Repl}^+
R: 1100011100
$\text{sig}(\text{O}, \{\text{R}, K_{\text{Repl}}^+\})$

(b)

Administrative certificate

K_{Adm}^+
R: 1101111100
U: 0110011111
D: 1
$\text{sig}(\text{O}, \{\text{R}, \text{U}, \text{D}, K_{\text{Adm}}^+\})$

(c)