

Alice

Byron

query for $ct_1 := [\text{KNOWN ENCRYPTED}] \ c$

$$m := \mathbf{Decrypt}(ct_1)$$

$$r = \begin{cases} \text{"nice flag!"} & \text{if } \mathbf{Verify}(m) \\ \text{"too bad..."} & \text{otherwise} \end{cases}$$

respond with $ct_2 := \mathbf{AES-CTR}(r)$

$$m := \mathbf{Decrypt}(ct_2)$$

$$r = \begin{cases} \text{" :)"} & \text{if } \mathbf{Verify}(m) \\ \text{"what happened?"} & \text{otherwise} \end{cases}$$

respond with $ct_3 := \mathbf{AES-CTR}(r)$

$$sz := \mathbf{SIZE}(ct_3)$$

$$pad_i = \begin{cases} c & \text{if } sz = 2 \\ \text{Try another} & \text{otherwise} \end{cases}$$