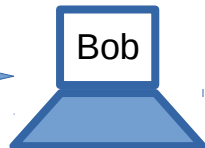




Alice

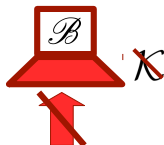
$IV \leftarrow \{0, 1\}^n$   
 $\mathcal{C} \leftarrow \mathcal{E} = (\mathcal{K}, \mathcal{M}, IV)$

$(\mathcal{C}, IV)$



Bob

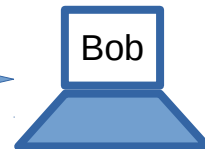
$\mathcal{M} \leftarrow \mathcal{D} = (\mathcal{K}, \mathcal{C}, IV)$



Alice

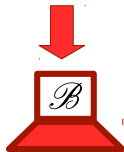
$\ell \leftarrow [1..k]$   
 $IV \leftarrow E(\tilde{K}, K, \ell)$   
 $\mathcal{C} \leftarrow \mathcal{E} = (\mathcal{K}, \mathcal{M}, IV)$

$(\mathcal{C}, IV)$



Bob

$\mathcal{M} \leftarrow \mathcal{D} = (\mathcal{K}, \mathcal{C}, IV)$



$K[\ell] \leftarrow E^{-1}(\tilde{K}, IV)$   
 $\mathcal{M} \leftarrow \mathcal{D} = (\mathcal{K}, \mathcal{C}, IV)$