

$$\begin{array}{ccc}
 \overline{\text{Fr}(\mathbf{a})} & & \overline{\text{Fr}(\mathbf{k})} \\
 \searrow & & \swarrow \\
 \text{Fr}(\mathbf{a}) & \text{Fr}(\mathbf{k}) & \\
 \hline
 \text{St}(\mathbf{a}, \mathbf{k}) & \text{Out}(\text{enc}(\mathbf{a}, \mathbf{k})) & \text{Key}(\mathbf{k})
 \end{array}$$

$$\begin{array}{ccc}
 & & \frac{\text{K}(\mathbf{a}) \quad \text{K}(\mathbf{a})}{\text{K}(\langle \mathbf{a}, \mathbf{a} \rangle)} \\
 & \swarrow & \\
 & \frac{\text{K}(\langle \mathbf{a}, \mathbf{a} \rangle)}{\text{In}(\langle \mathbf{a}, \mathbf{a} \rangle)} [\text{K}(\langle \mathbf{a}, \mathbf{a} \rangle)] & \\
 & \swarrow & \\
 \text{St}(\mathbf{a}, \mathbf{k}) & \text{In}(\langle \mathbf{a}, \mathbf{a} \rangle) & \\
 \hline
 & [\text{Fin}(\mathbf{a}, \mathbf{k})] &
 \end{array}$$