**EME**: a PRP on  $\{0,1\}^N$  for  $N \gg n$   $x[0] \qquad x[1] \qquad x[2]$   $x[2] \qquad x[2] \qquad x[3] \qquad x[4] \qquad x$ 

Let (E, D) be a secure PRP. E:  $K \times \{0,1\}^n \longrightarrow \{0,1\}^n$ 

Performance:  $y[0] \quad y[1] \quad y[2]$ 

can be 2x slower then SIV