Communication Flow	Bit Length of Message
ED$\rightarrow$ FD	$N_C \cdot 2\|n\|$
FDs $\rightarrow$ SD$_d$	$N \cdot N_C \cdot 2\|n\|$
SD$_d$ $\rightarrow$ SD$_u$	$l^2(2\kappa_1 + 2\kappa_3 + \kappa_N)$
SD$_d$ $\rightarrow$ SD$_v$	$N^2(2\kappa_1 + 2\kappa_3 + \kappa_l)$