$A \longrightarrow B$

$A_0 = A$, $A_1 = A'$
$B_0 = B$, $B_1 = B'$

$\boxed{A_1 \mid \text{message}} \longrightarrow$ Bob

$B \longrightarrow A$

$B_0 = B$, $B_1 = B'$
$A_0 = A$, $A_1 = A'$

$\boxed{B_1 \mid \text{message}} \longrightarrow$ Alice

If Bob used A' then $A_1 = A'$ and $A_2 = \text{new } A'$
else if Bob used A then $A_0 = A$ and $A_1 = A'$

$A \rightarrow B$

$A_0 = A$, $A_1 = A'$

$B_0 = B$, $B_1 = B'$

$A \longrightarrow B$

$A_0 = A$, $A_1 = A'$, $A_2 = \text{new } A'$

$B_0 = B$, $B_1 = B'$

$B \longrightarrow A$

$A_0 = A$, $A_1 = A'$, $A_2 = \text{new } A'$

$B_0 = B$, $B_1 = B'$, $B_2 = A_1$

$B \rightarrow A$

$A_0 = A$, $A_1 = A'$, $A_2 = \text{new } A'$

$B_0 = B$, $B_1 = B'$, $B_2 = A_1$