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1. $\mathbf{A} \rightarrow \mathbf{TC}: \{\mathbf{TC}, \mathbf{AppKey}, \mathbf{B}\}_{KA}$
 2. $\mathbf{TC} \rightarrow \mathbf{A}: \{\mathbf{A}, \mathbf{AppMK}, \mathbf{B}, \mathbf{TRUE}, \mathbf{MK}\}_{KA}$
 3. $\mathbf{TC} \rightarrow \mathbf{B}: \{\mathbf{B}, \mathbf{AppMK}, \mathbf{A}, \mathbf{FALSE}, \mathbf{MK}\}_{KB}$
 4. $\mathbf{A} \rightarrow \mathbf{B}: \{\mathbf{B}, \mathbf{FALSE}, \mathbf{Zero}, \mathbf{SKKE}\}_{MK}$
 5. $\mathbf{B} \rightarrow \mathbf{A}: \{\mathbf{A}, \mathbf{TRUE}\}_{MK}$
 6. $\mathbf{A} \rightarrow \mathbf{B}: \{\mathbf{NA}\}_{MK}$
 7. $\mathbf{B} \rightarrow \mathbf{A}: \{\mathbf{NB}\}_{MK}$
 8. $\mathbf{A} \rightarrow \mathbf{B}: \mathbf{MAC}\{3, \mathbf{A}, \mathbf{B}, \mathbf{NA}, \mathbf{NB}\}_{H(\mathbf{MAC}\{\mathbf{A}, \mathbf{B}, \mathbf{NA}, \mathbf{NB}\}_{MK}, 1)}$
 9. $\mathbf{B} \rightarrow \mathbf{A}: \mathbf{MAC}\{2, \mathbf{B}, \mathbf{A}, \mathbf{NB}, \mathbf{NA}\}_{H(\mathbf{MAC}\{\mathbf{A}, \mathbf{B}, \mathbf{NA}, \mathbf{NB}\}_{MK}, 1)}$
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- 1'. $\mathbf{A} \rightarrow \mathbf{TC}: \{\mathbf{TC}, \mathbf{AppKey}, \mathbf{B}\}_{KA}$
 - 2'. $\mathbf{M}(\mathbf{TC}) \rightarrow \mathbf{A}: \{\mathbf{A}, \mathbf{AppMK}, \mathbf{B}, \mathbf{TRUE}, \mathbf{MK}\}_{KA}$
 - 3'. $\mathbf{M}(\mathbf{TC}) \rightarrow \mathbf{B}: \{\mathbf{B}, \mathbf{AppMK}, \mathbf{A}, \mathbf{FALSE}, \mathbf{MK}\}_{KB}$
 - 4'. $\mathbf{A} \rightarrow \mathbf{B}: \{\mathbf{B}, \mathbf{FALSE}, \mathbf{Zero}, \mathbf{SKKE}\}_{MK}$
 - 5'. $\mathbf{B} \rightarrow \mathbf{A}: \{\mathbf{A}, \mathbf{TRUE}\}_{MK}$
 - 6'. $\mathbf{A} \rightarrow \mathbf{B}: \{\mathbf{NA}'\}_{MK}$
 - 7'. $\mathbf{B} \rightarrow \mathbf{A}: \{\mathbf{NB}'\}_{MK}$
 - 8'. $\mathbf{A} \rightarrow \mathbf{B}: \mathbf{MAC}\{3, \mathbf{A}, \mathbf{B}, \mathbf{NA}', \mathbf{NB}'\}_{H(\mathbf{MAC}\{\mathbf{A}, \mathbf{B}, \mathbf{NA}', \mathbf{NB}'\}_{MK}, 1)}$
 - 9'. $\mathbf{B} \rightarrow \mathbf{A}: \mathbf{MAC}\{2, \mathbf{B}, \mathbf{A}, \mathbf{NB}', \mathbf{NA}'\}_{H(\mathbf{MAC}\{\mathbf{A}, \mathbf{B}, \mathbf{NA}', \mathbf{NB}'\}_{MK}, 1)}$
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