

Language Based Security

Summer Semester 2006

9. Homework

12 July 2006

Exercise 1:

Find an attack against the following protocol. N_a is a fresh nonce chosen by A in each session and sent to B who then acknowledges it. The goal is for A and B to agree on N_a as a common secret between them. K_a and K_b are public keys of A and B respectively.

$$\begin{aligned} A &\longrightarrow B : \{N_a\}_{K_b}, A \\ B &\longrightarrow A : \{N_a\}_{K_a} \end{aligned}$$