

The Needham-Schroeder public-key protocol for mutual authentication

Assumptions and Goals

Assumptions

- 4 principals : **A**lice, **B**ob, **M**allory and a Public-Key **S**erver
- Alice, Bob, Mallory and the Server have generated their own public/private key pair
- Alice, Bob and Mallory know the Server's public key **K_{ps}**
- **A**, **B**, **M** and **S** talk to each other using the same protocol

Goals

When two parties want to engage in the communication, they want to make sure that they talk to the right person (authentication)