

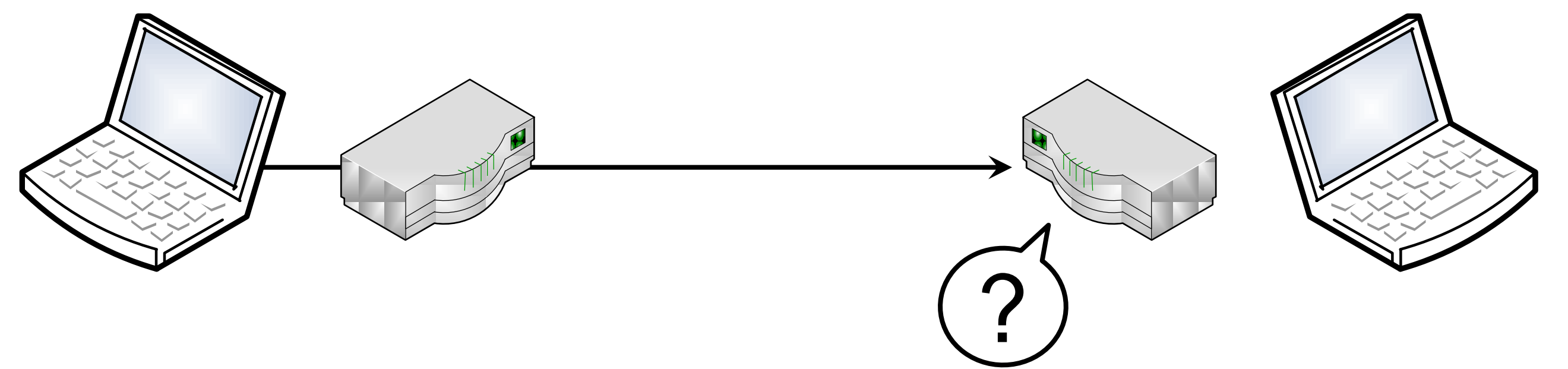
NTALG – TCP NAT Traversal with Application-Level Gateways

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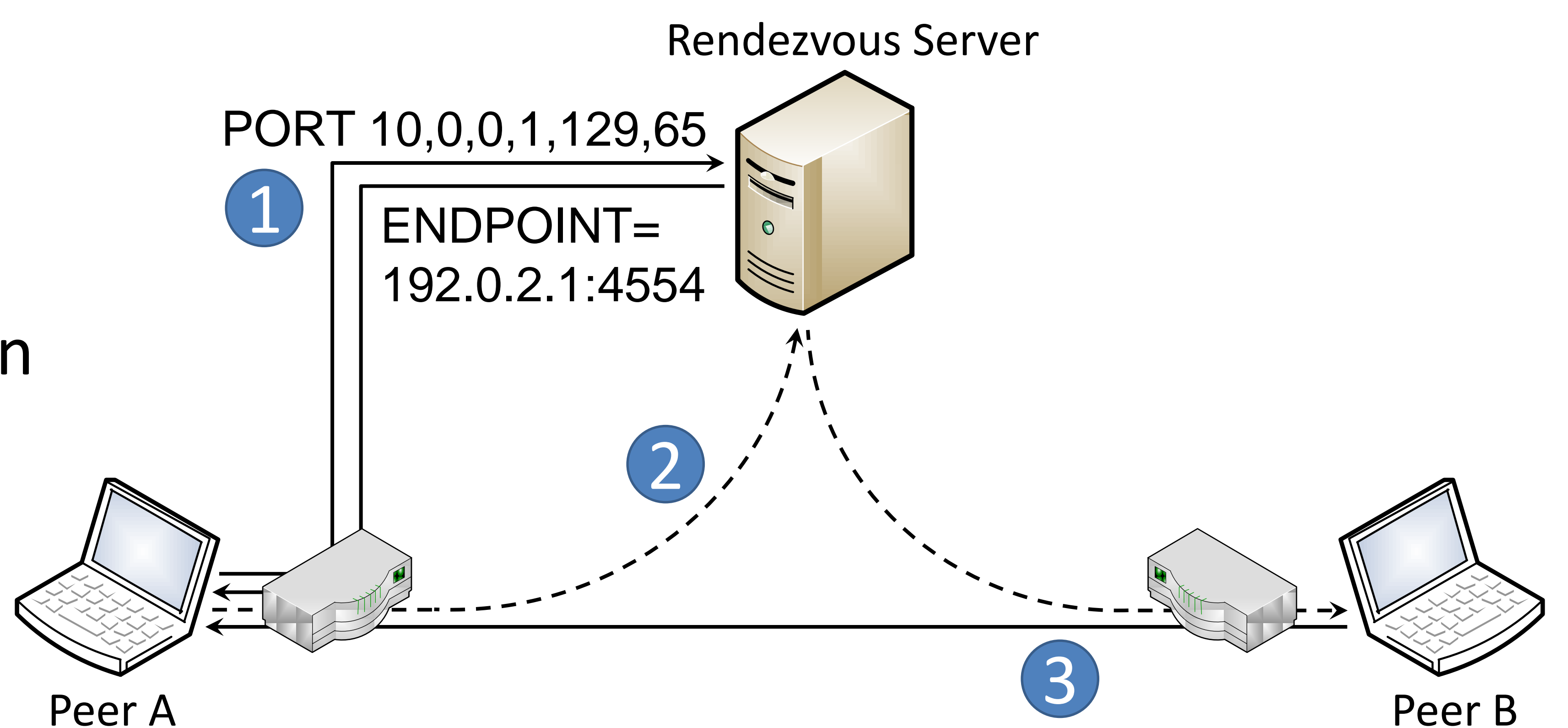
Scenario

- Home users with Network Address Translation
- **TCP**-based P2P or VoIP application
- Avoid manual configuration
- UPnP signaling not always available



Approach

- Use capabilities of existing Application-Level Gateways
- Plain TCP sockets
- 1 Imitate **FTP** (or IRC) session with rendezvous server
- 2 Relay connection request to peer
- 3 Connect



Demo

- NTALG framework with visualization
- Connection types: Direct, FTP ALG, IRC ALG
- Lab setup with 15 home NAT routers
- 80% success probability (with **reversal**)

