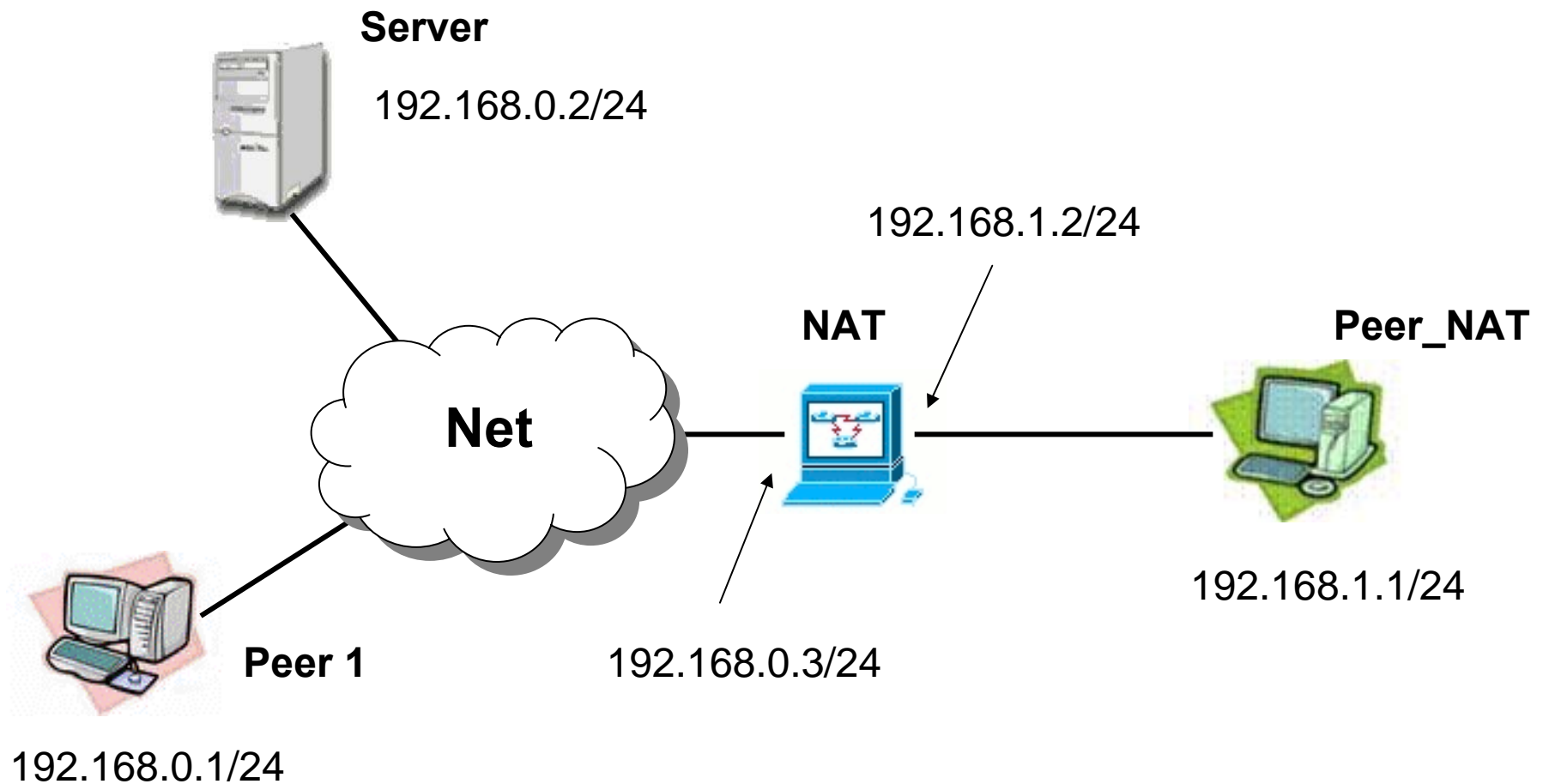
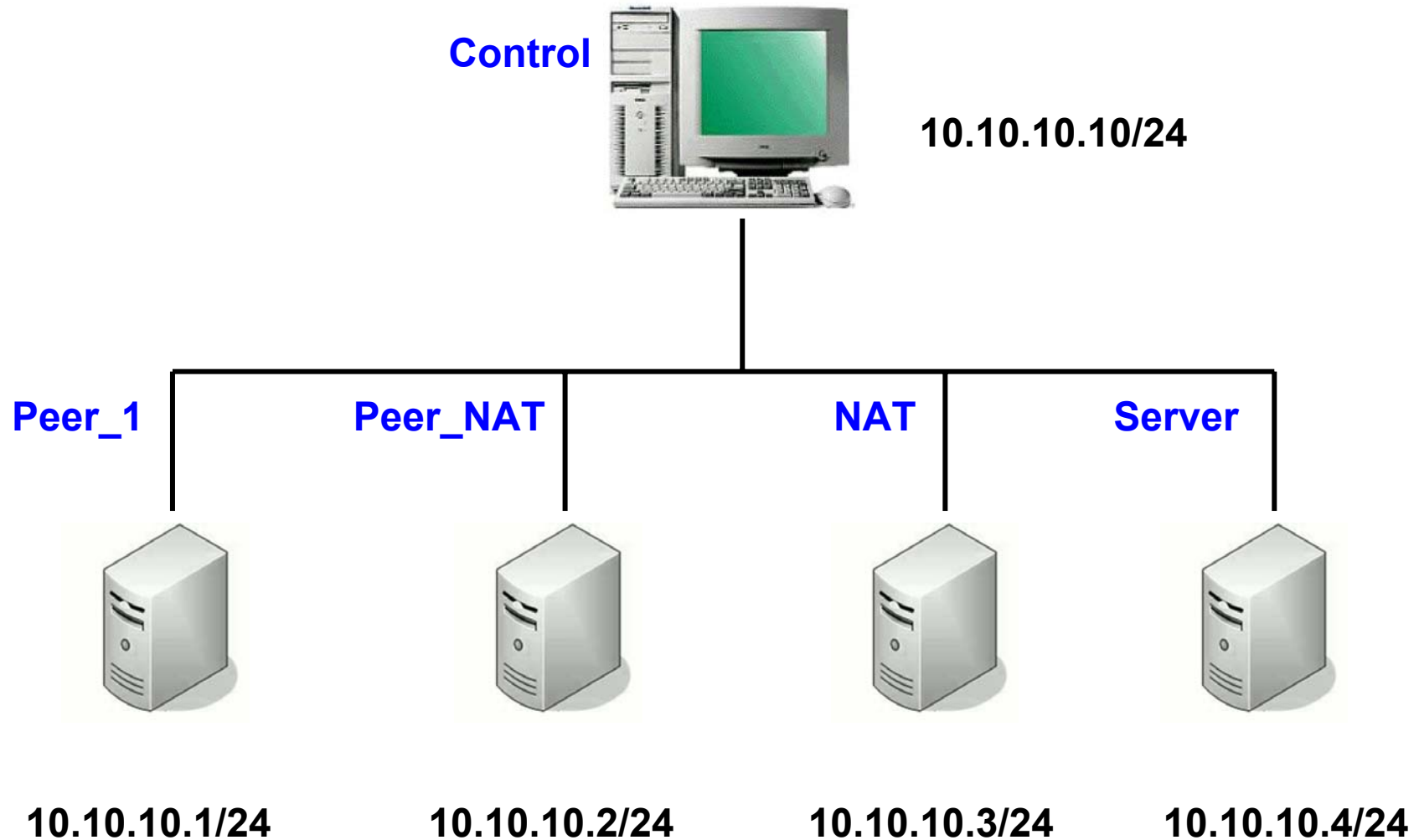


# PPETP NAT-Traversal Testbed

## STRUCTURE: Logic



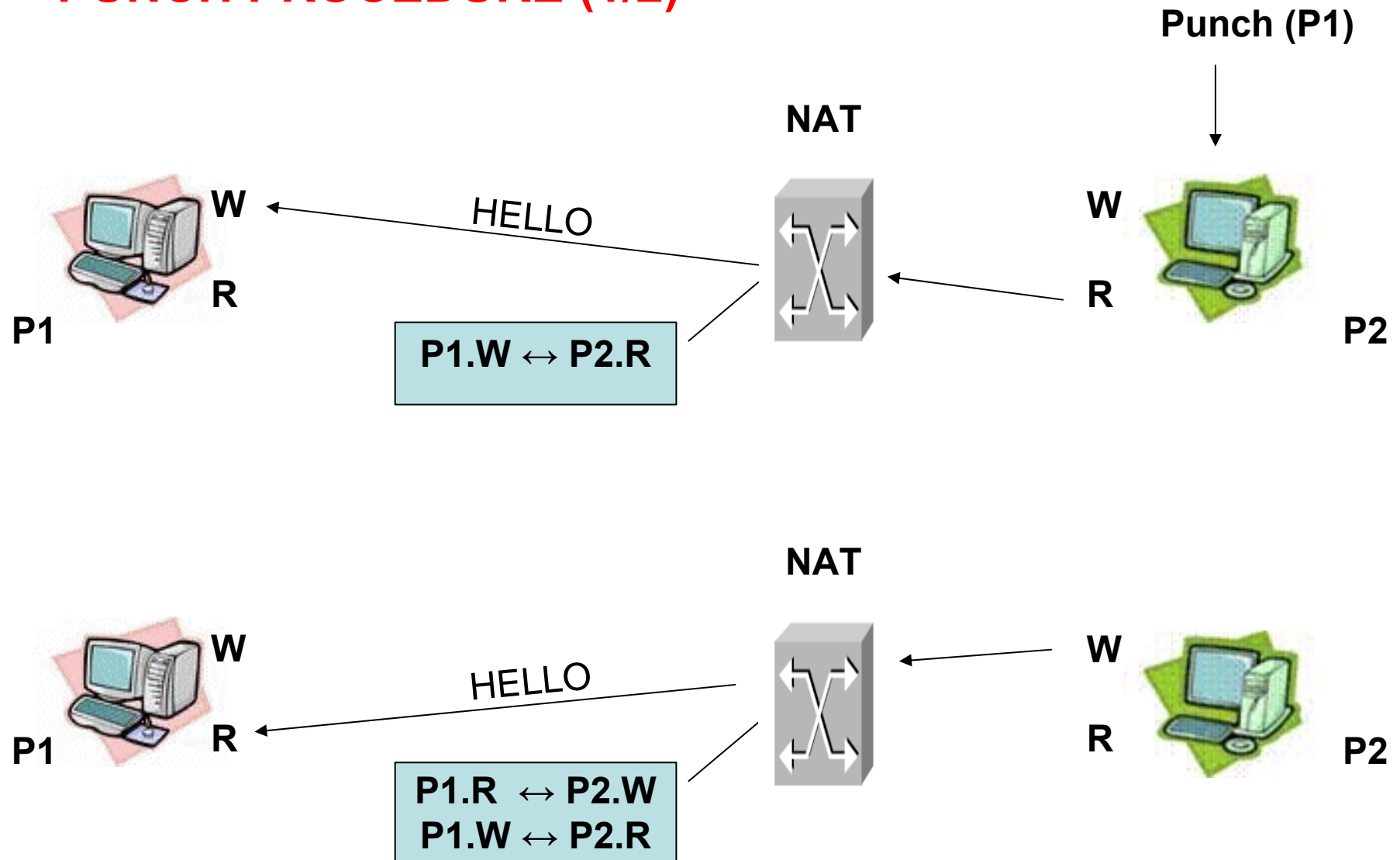
## STRUCTURE: Control network



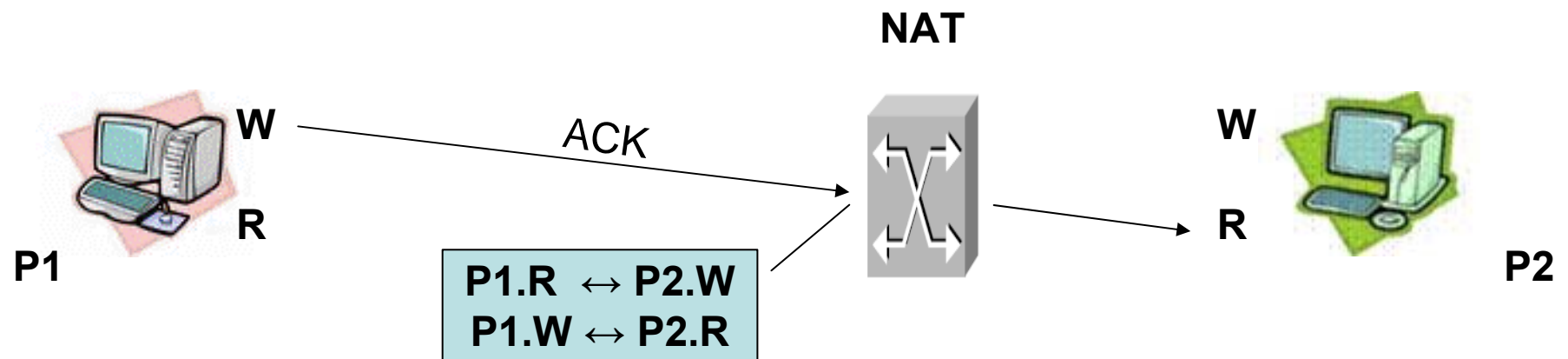
## STRUCTURE: Addresses

VM_NAME	CNT_NET	NET_PUB	NET_PRIV
<b>control</b>	10.10.10. <b>10</b> /24 (eth0)		
<b>peer_1</b>	10.10.10. <b>1</b> /24 (eth0)	192.168. <b>0.1</b> /24 (eth2)	
<b>peer_NAT</b>	10.10.10. <b>2</b> /24 (eth0)		192.168. <b>1.1</b> /24 (eth2)
<b>NAT</b>	10.10.10. <b>3</b> /24 (eth0)	192.168. <b>0.3</b> /24 (eth3)	192.168. <b>1.2</b> /24 (eth2)
<b>server</b>	10.10.10. <b>4</b> /24 (eth0)	192.168. <b>0.2</b> /24 (eth2)	

## PUNCH PROCEDURE (1/2)



## PUNCH PROCEDURE (2/2)



# SOFTWARE

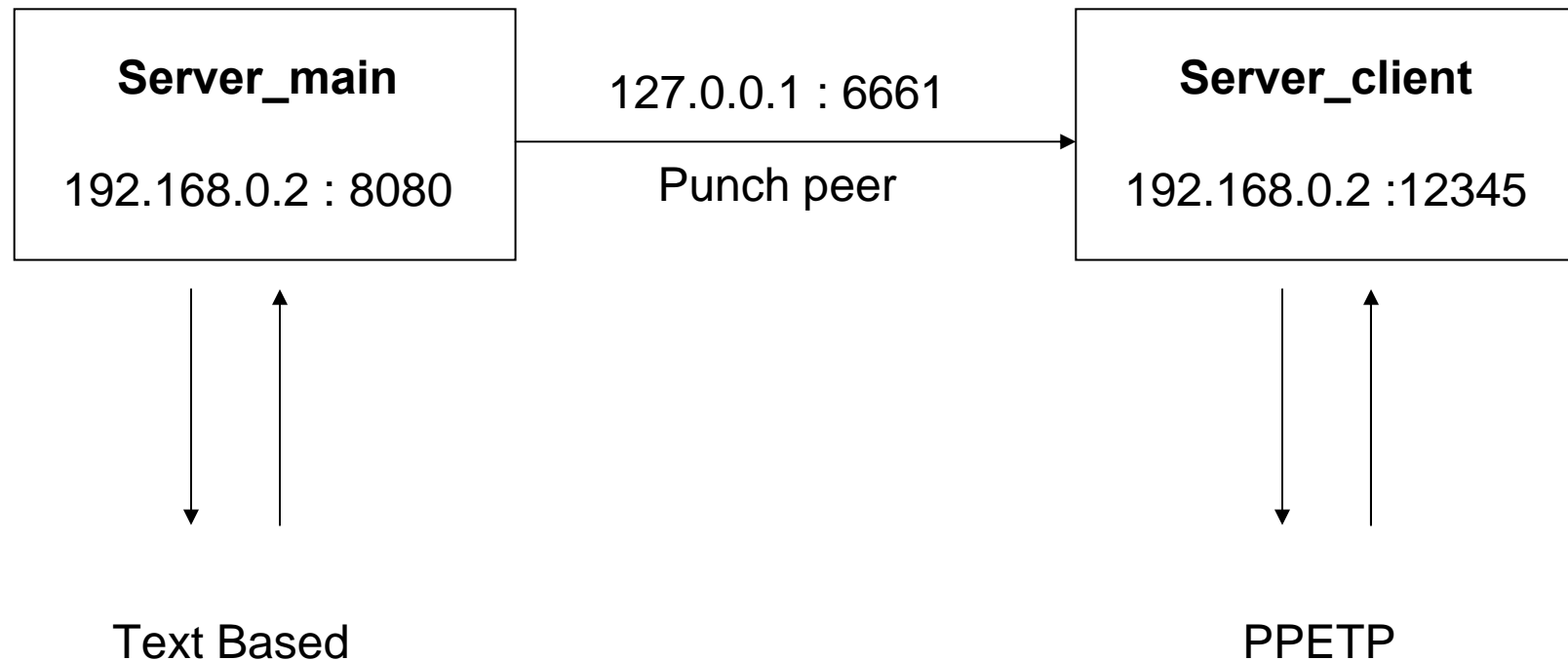
- Host OS:
  - Linux Ubuntu Server 8.10
- Virtualization Software
  - VirtualBox 2.1.4
- Guest OS:
  - Damn Small Linux 2.1

# Files

	Peer_1	Peer_NAT	Server	NAT	Control
nat_traversing_simulation.sh					✓
client	✓	✓	✓		
server_main			✓		
server_config.xml			✓		
execute_server.sh			✓		
execute_client.sh		✓			
execute_client_test.sh	✓				
nat_config.sh				✓	

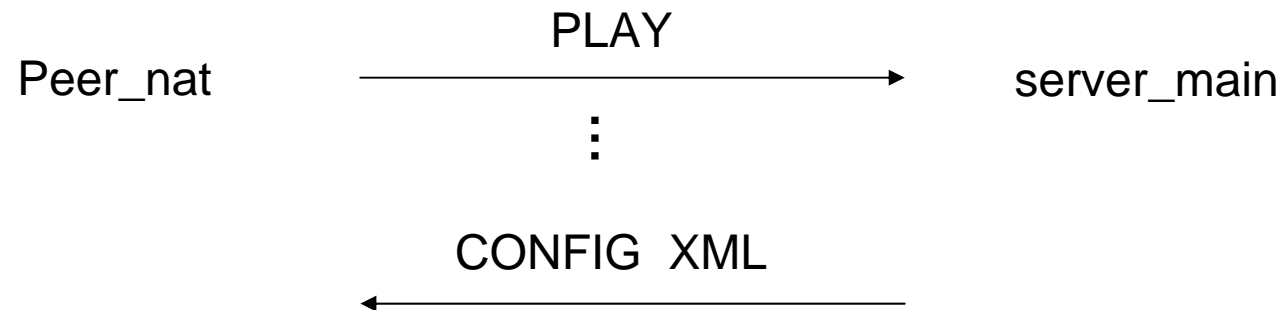


# Server Structure

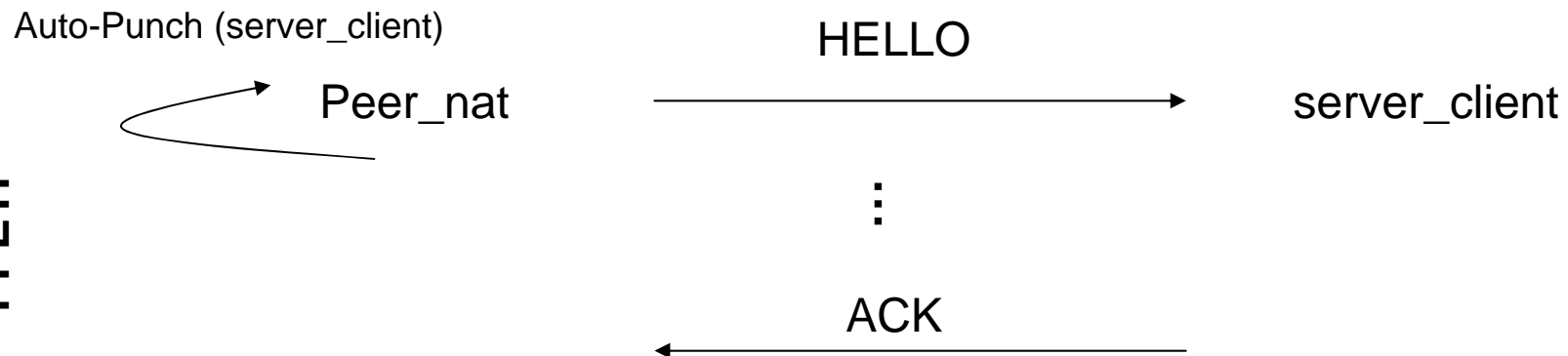


## SEQUENCE: Peer\_NAT

TEXT BASED

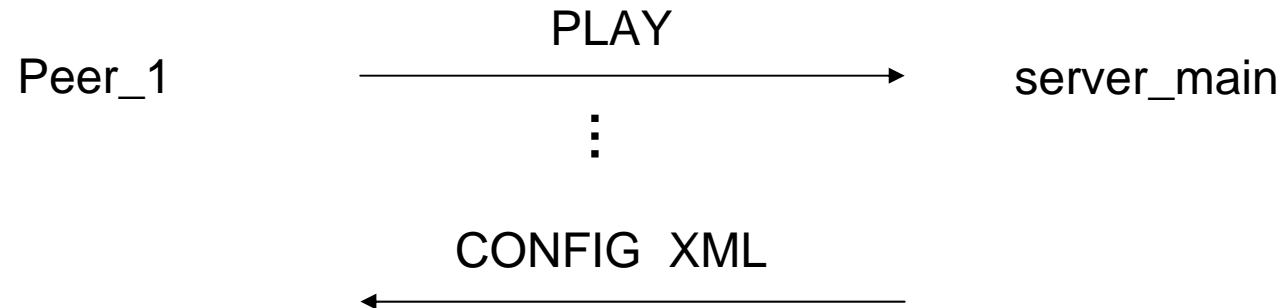


PPETP

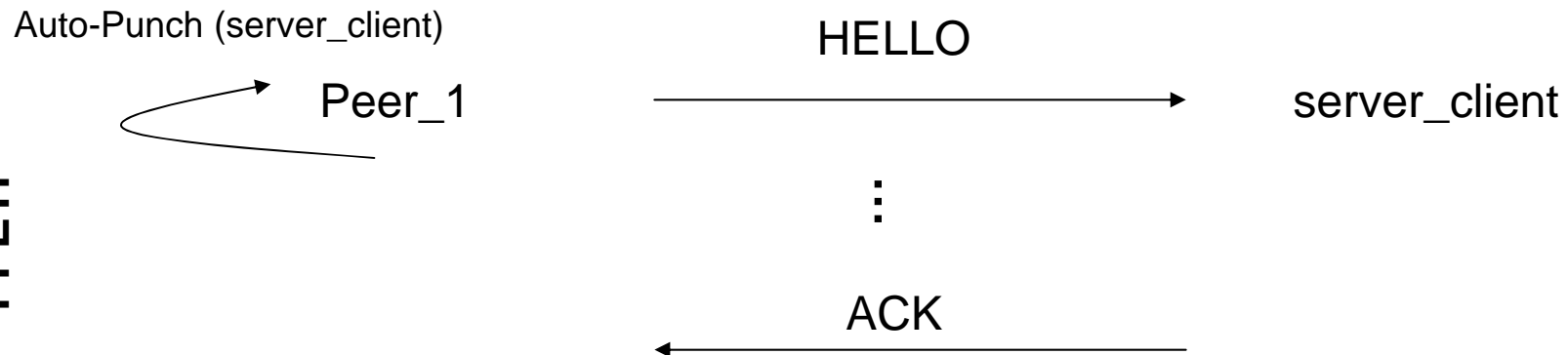


## SEQUENCE: Peer\_1 (1/2)

TEXT BASED

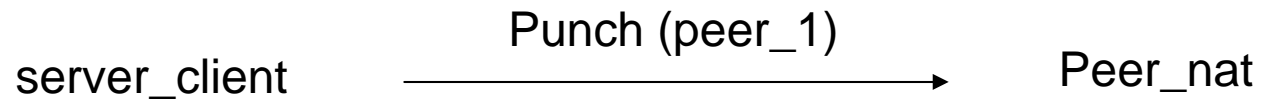


PPETP

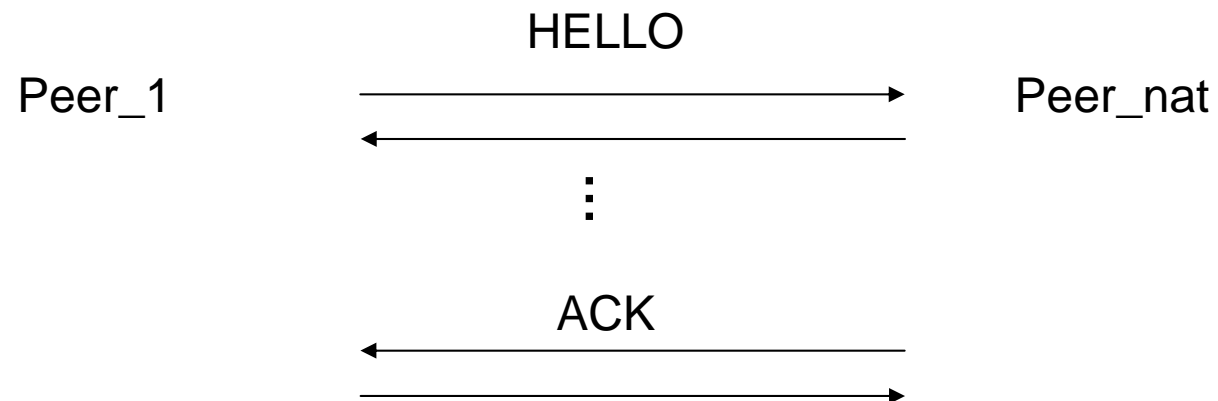


## SEQUENCE: Peer\_1 (2/2)

PPETP



PPETP



**More...**

## Simulation Phases

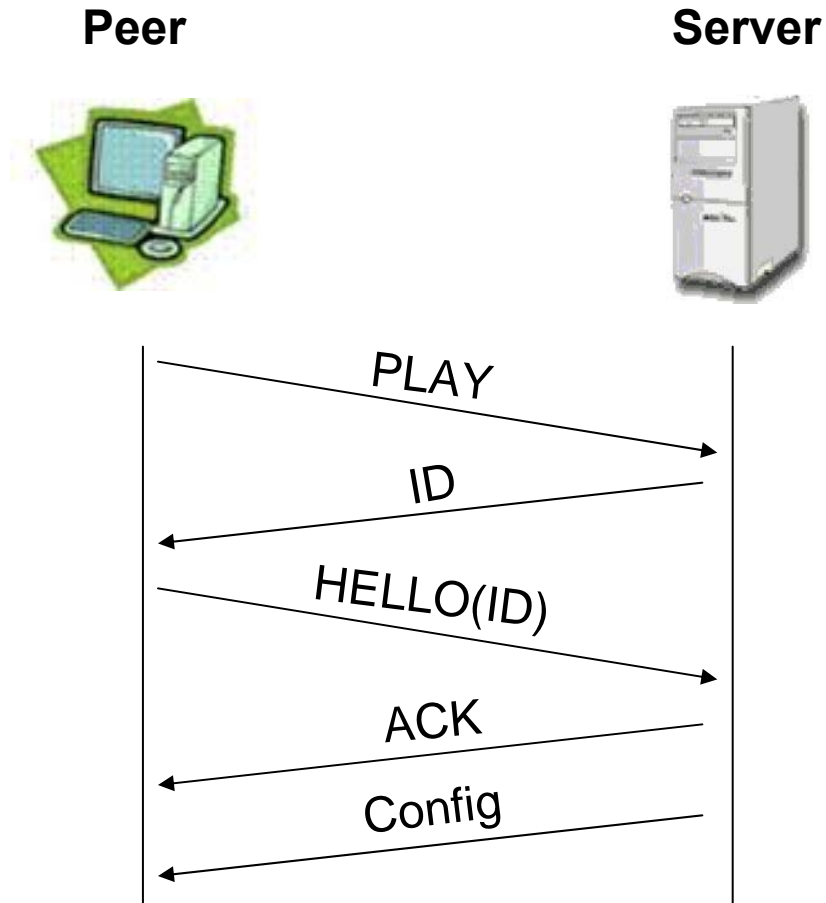
- Peer\_NAT

- Text based phase (Peer\_NAT – Server\_main)
- NAT traversing (Peer\_NAT – Server\_client)

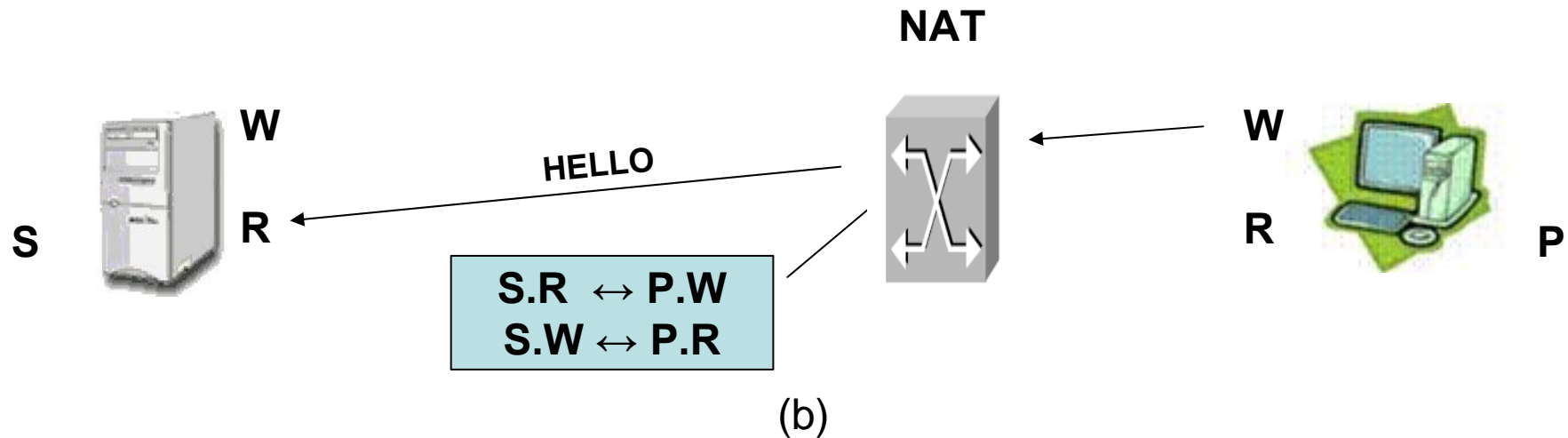
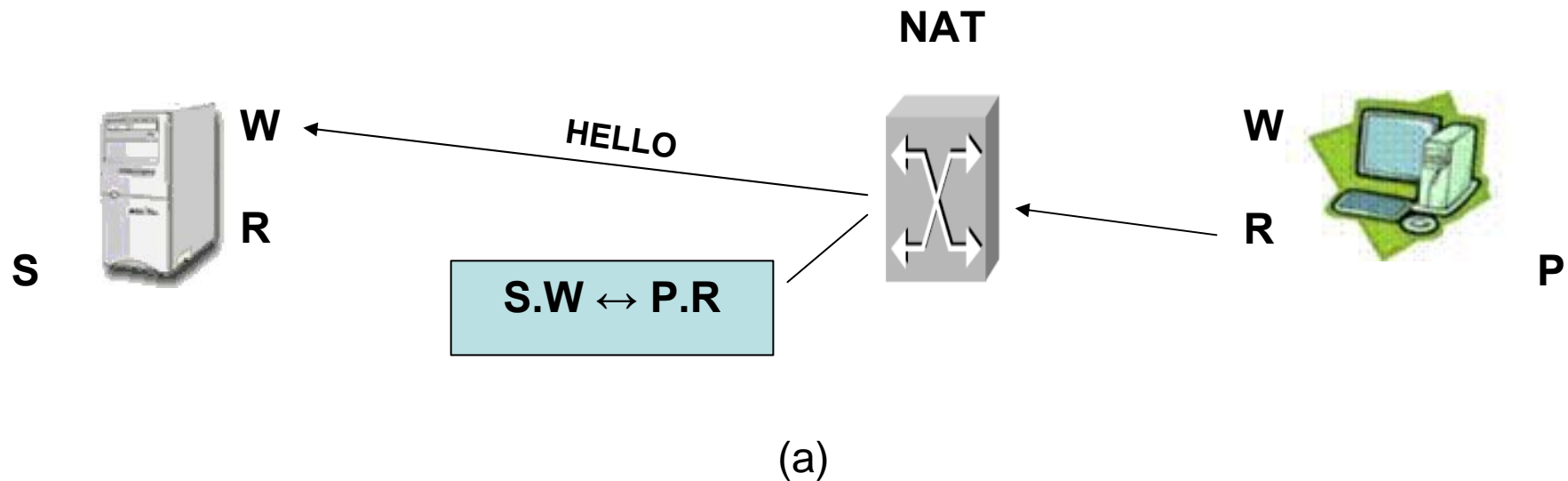
- Peer\_1

- Text based phase (Peer\_1 – Server\_main)
- NAT traversing (Peer\_1 – Server\_client)
- Punch (Server – Peer\_NAT)
- NAT traversing (Peer\_1 – Peer\_NAT)

# Text Based

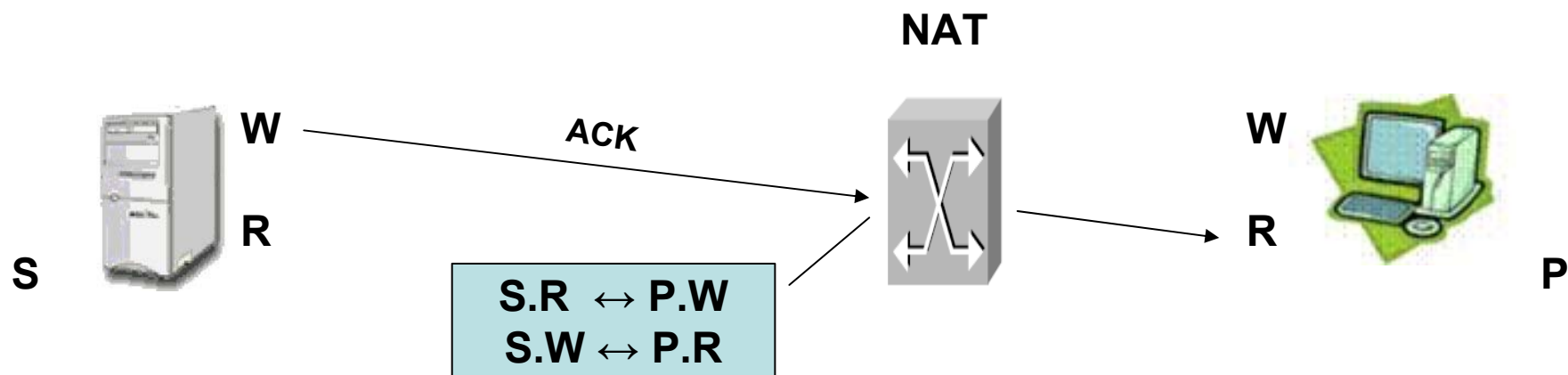


## First Phase NAT-Traversing (peer-server) (1/2)



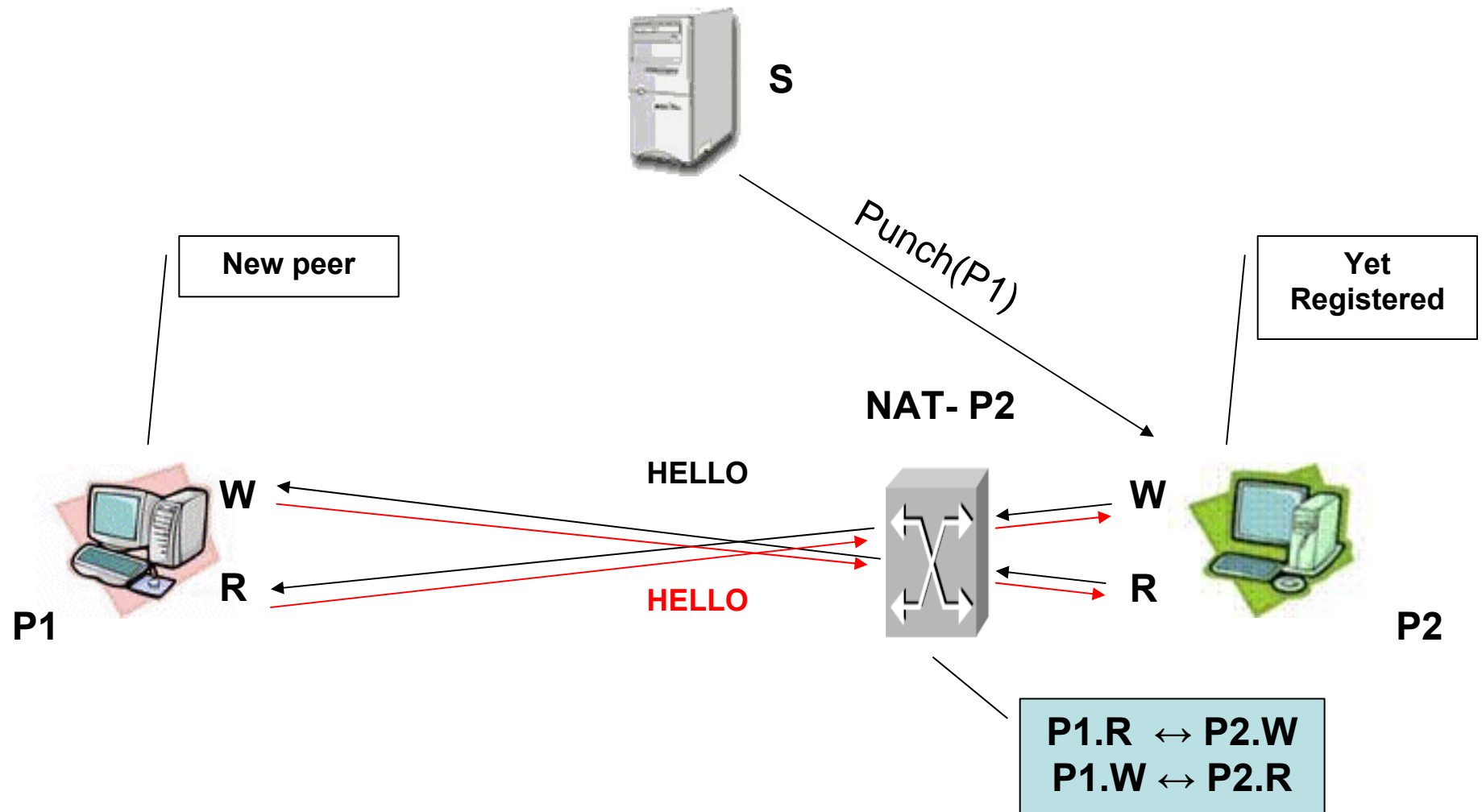


## First Phase NAT-Traversing (peer-server) (2/2)



(b)

## Second Phase NAT-Traversing (peer-peer) (1/2)



## Second Phase NAT-Traversing (peer-peer) (2/2)

