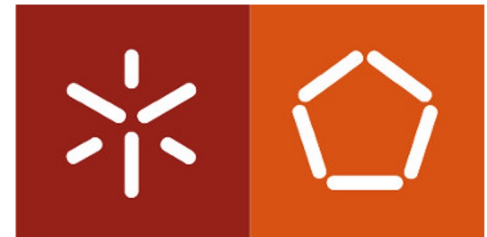


# Cloud Computing Applications and Services

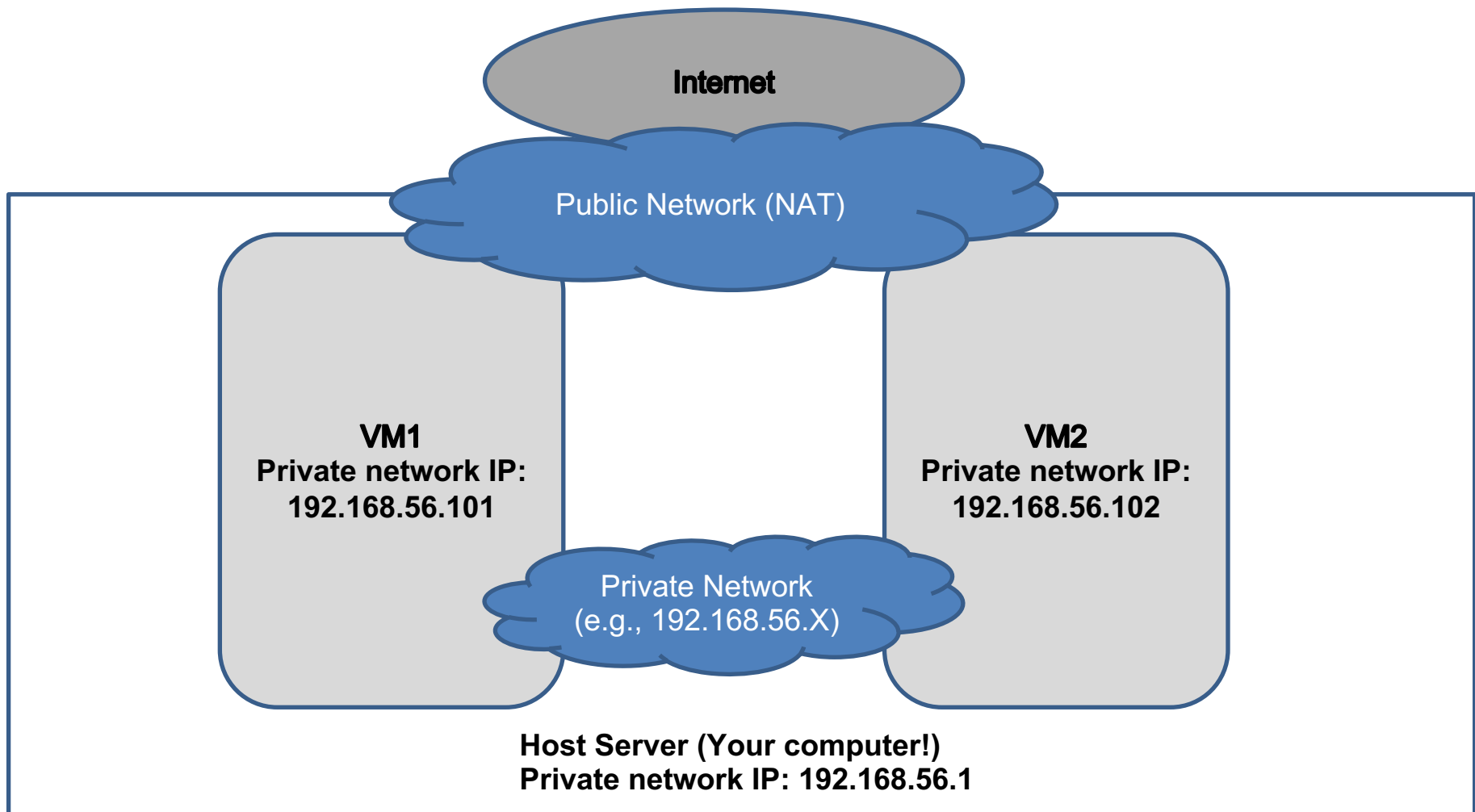
(Aplicações e Serviços de Computação em Nuvem)

## Warm-up

University of Minho  
2023/2024



# Goal



**Private Network (aka Host-only)** – Only the host and VMs can communicate with each other  
**Public Network (aka NAT)** – VMs access the internet through (masked as) the Host IP

# Troubleshooting

# Private Adapter - VirtualBox

- Configure a private network adapter at the host
  - File → Tools → Network Manager → Host-only Networks (Mac OSX)
  - **Reuse or create** a new host adapter

# Adapter Configuration (example)

The screenshot displays the Oracle VM VirtualBox Manager interface. On the left is a 'Tools' sidebar. The main window has a top bar with 'Create', 'Remove', and 'Properties' buttons. Below this is a tabbed interface with 'Host-only Networks', 'NAT Networks', and 'Cloud Networks'. The 'Host-only Networks' tab is active, showing a table with one entry: 'HostNetwork' with a mask of '255.255.255.0', a lower bound of '192.168.56.1', and an upper bound of '192.168.56.199'. Below the table, the configuration details for 'HostNetwork' are shown in a form with fields for Name, Mask, Lower Bound, and Upper Bound, each with a corresponding input field. At the bottom right are 'Reset' and 'Apply' buttons.

Oracle VM VirtualBox Manager

Tools

Create Remove Properties

Host-only Networks NAT Networks Cloud Networks

Name	Mask	Lower Bound	Upper Bound
HostNetwork	255.255.255.0	192.168.56.1	192.168.56.199

Name: HostNetwork

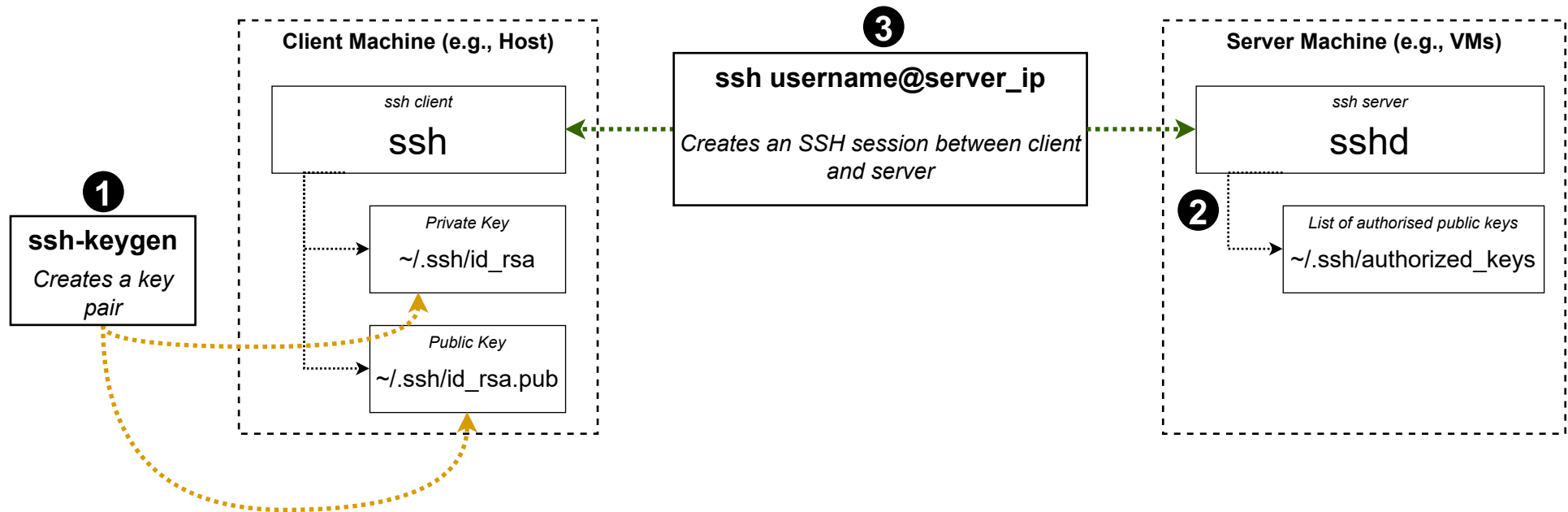
Mask: 255.255.255.0

Lower Bound: 192.168.56.1

Upper Bound: 192.168.56.199

Reset Apply

# SSH



**Note:** Step ❶ needs to be done manually. Step ❷ is specified at the Vagrantfile.

**Example:** For accessing VM1 one should run `ssh vagrant@192.168.56.101` at the host's terminal (step ❸).