

Linux Network Connectivity



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LINUX SYSTEM ADMINISTRATOR

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Overview



Overview



Analyzing network connectivity

Overview



Analyzing network connectivity

Configuring DNS

Overview

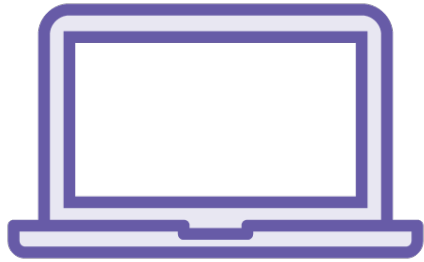


Analyzing network connectivity

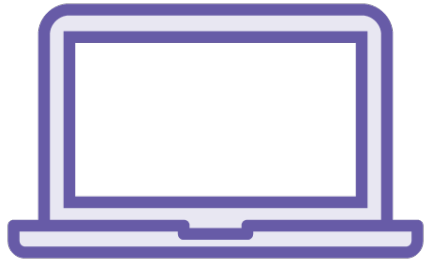
Configuring DNS

SSH remote sessions

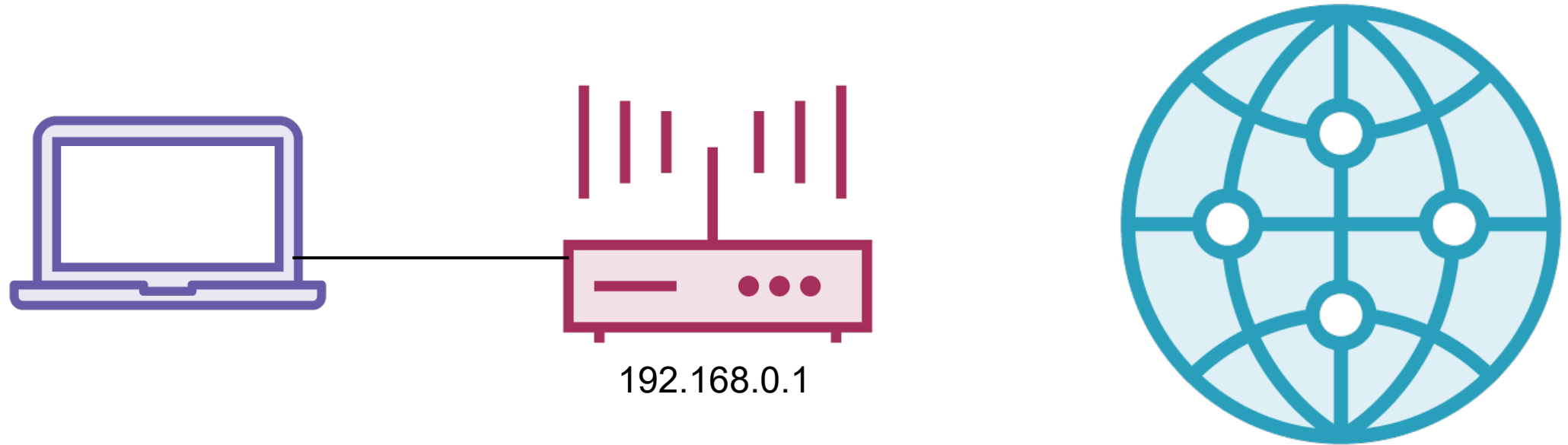
Network Connectivity



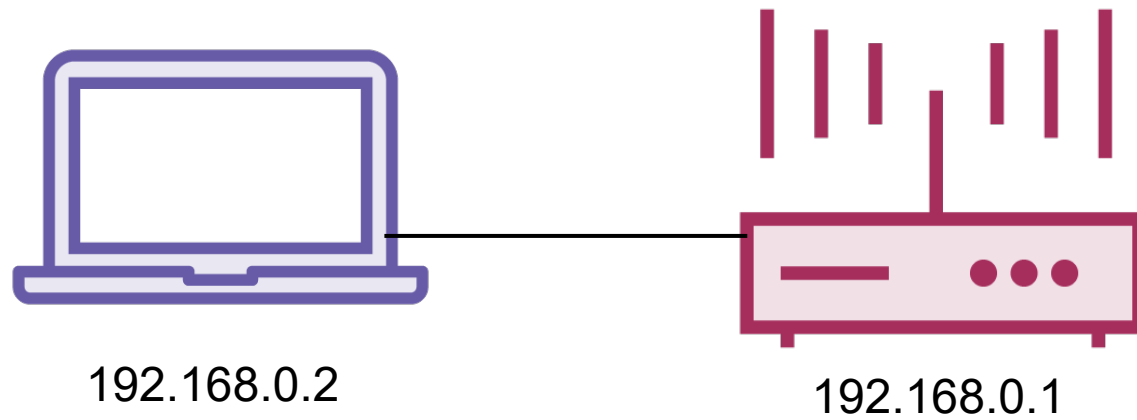
Network Connectivity



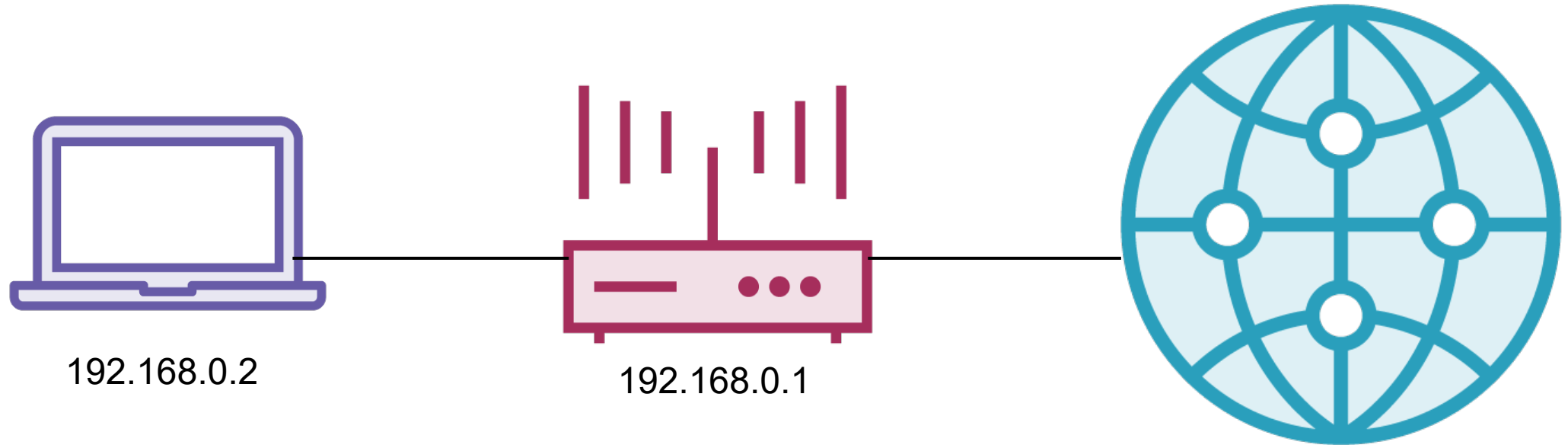
Network Connectivity



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Network Connectivity



Network Addressing



Network Addressing

IPv4

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- $256.256.256.256 = 4,294,967,296 (2^{32})$

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Network Address Translation (NAT) ranges

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- 172.16.0.0 to 172.31.255.255
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IPv6

— - - -

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IPv6

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Network Addressing

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Network Address Translation (NAT) ranges

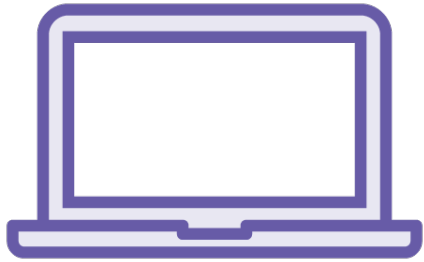
- 10.0.0.0 to 10.255.255.255
- 172.16.0.0 to 172.31.255.255
- 192.168.0.0 to 192.168.255.255

IPv6

- Example address:
fd42:7fd5:d2a7:bf0d:216:3eff:fed3:5889

Domain Name System (DNS) Configuration

DNS Mapping



52.33.197.13
5

DNS Mapping



Pluralsight.com?



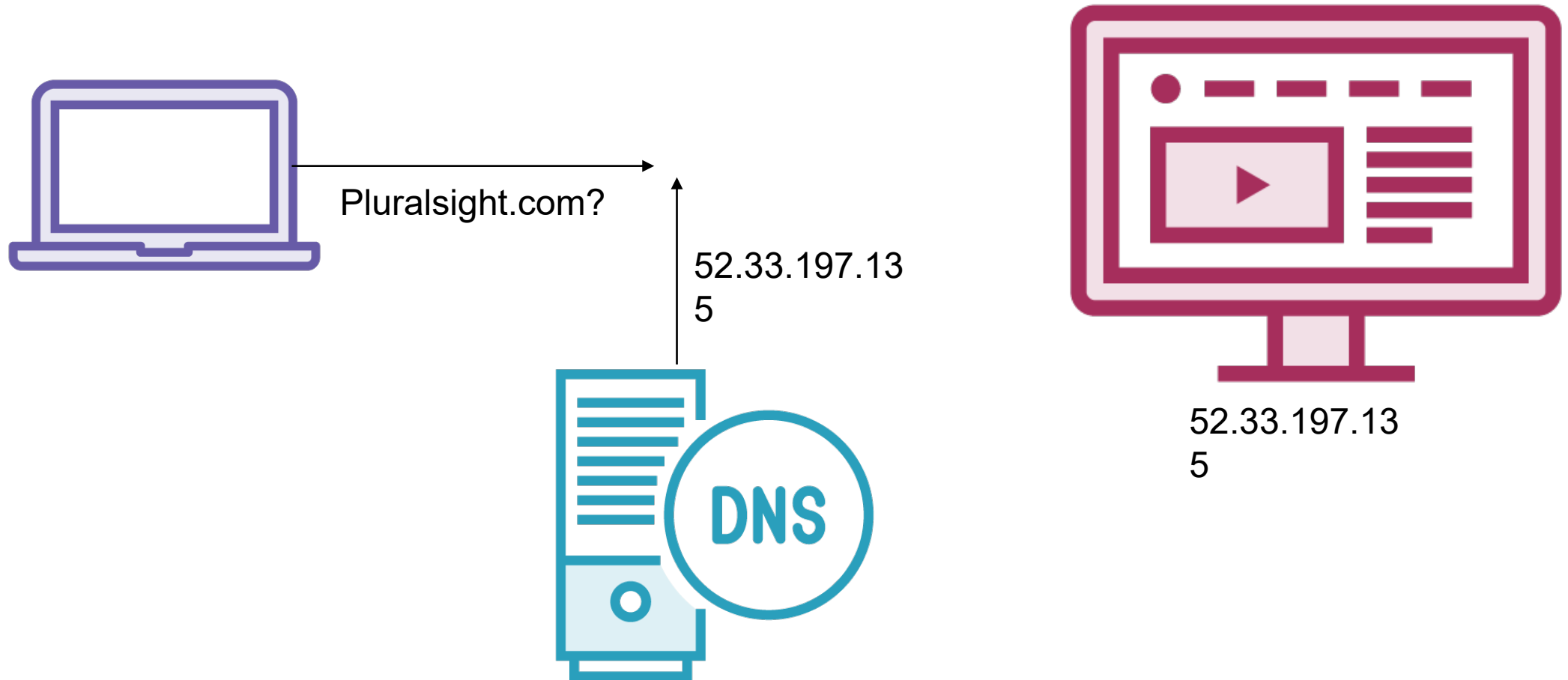
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DNS Mapping

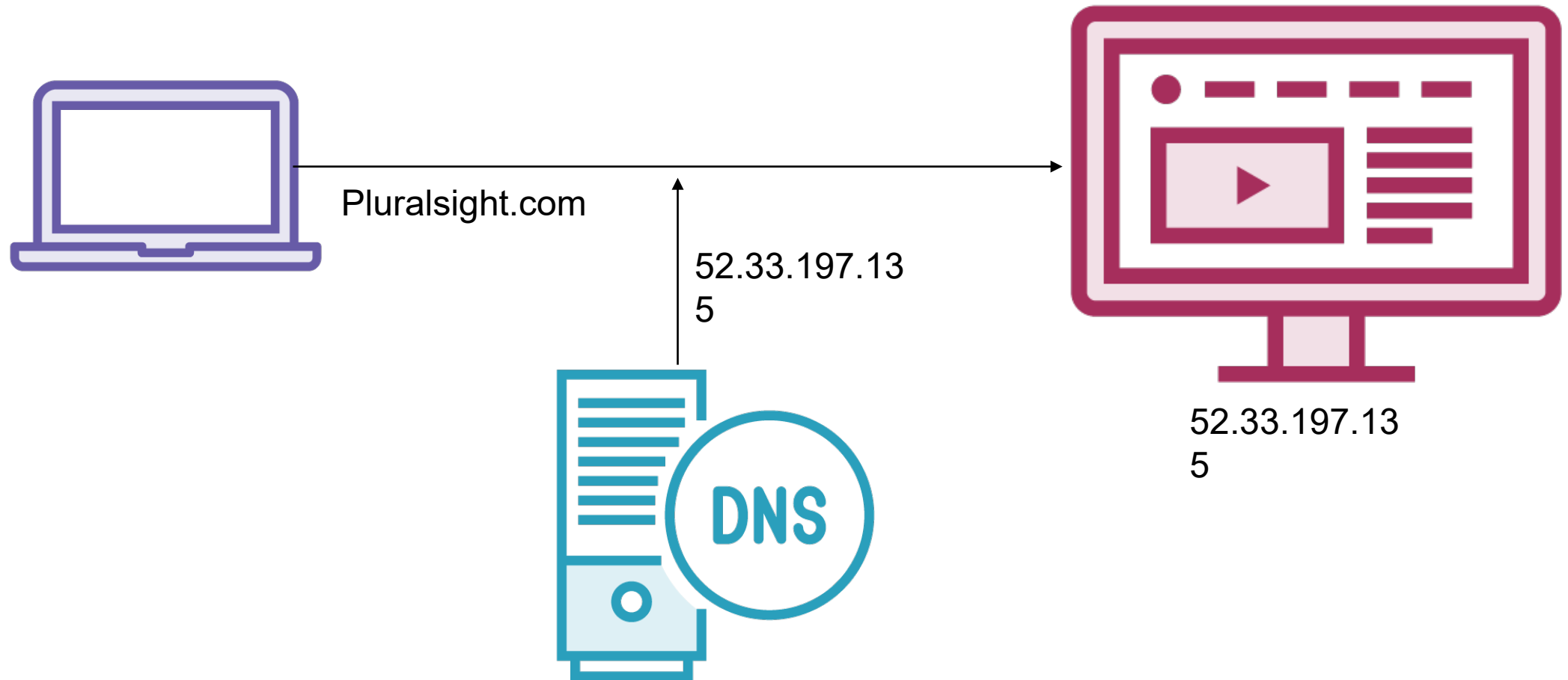


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DNS Mapping



DNS Mapping



Remote Connections and SSH

Remote Is the New Local

Remote Is the New Local

**Accessing headless
servers**

Remote Is the New Local

**Accessing headless
servers**

**Accessing virtual
machines**

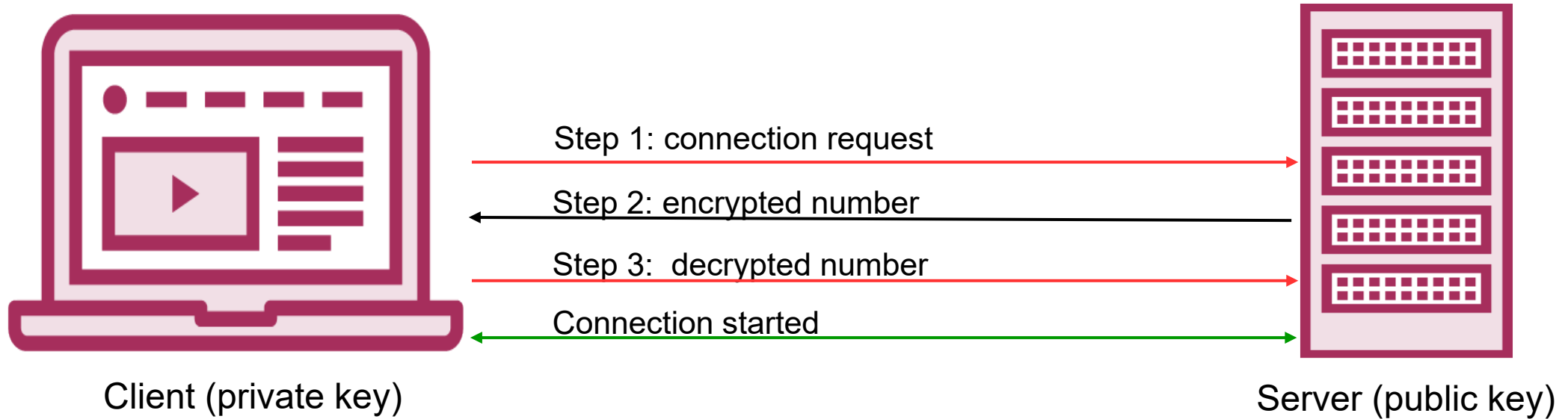
Remote Is the New Local

Accessing headless
servers

Accessing virtual
machines

Accessing
workloads on
distant servers

SSH Key Exchange



Installing OpenSSH

Installing OpenSSH

Server

```
apt install openssh-server  
or: yum install openssh-server
```

Installing OpenSSH

Server

`apt install openssh-server`
or: `yum install openssh-server`

Client

`apt install openssh-client`
or: `yum install openssh-clients`

Review



Review



ip route show

Review



ip route show

ip addr

Review



`ip route show`

`ip addr`

`netstat -l`

Review



`ip route show`

`ip addr`

`netstat -l`

`systemd-resolve --status`

Review



`ip route show`

`ip addr`

`netstat -l`

`systemd-resolve --status`

`ssh -i mykeyfile.pem ubuntu@10.0.31.131`

Review



`ip route show`

`ip addr`

`netstat -l`

`systemd-resolve --status`

`ssh -i mykeyfile.pem ubuntu@10.0.31.131`

`scp script.sh ubuntu@10.0.31.131:/home/ubuntu`