

## (1) Each client making a connection with the server

```
> SSH session to mininet@DESKTOP-79T83E0
• Direct SSH : ✓
• SSH compression : ✓
• SSH-browser : ✓
• X11-forwarding : ✓ (remote display is forwarded through SSH)

> For more info, ctrl+click on help or visit our website.

Welcome to Ubuntu 16.04.6 LTS (GNU/Linux 4.4.0-142-generic i686)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:       https://ubuntu.com/advantage
New release '18.04.6 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Sun May 29 01:51:17 2022 from 10.0.2.2
mininet@mininet-vm:~$ python3 client.py
```

2. localhost (mininet)

```
> SSH session to mininet@DESKTOP-79T83E0
• Direct SSH : ✓
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6. localhost (mininet)

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• X11-forwarding : ✓ (remote display is forwarded through SSH)

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Last login: Sat May 28 18:06:59 2022 from 10.0.2.2
mininet@mininet-vm:~$ python3 server.py
The server is ready to receive 2 connections...

Accepted first connection, calling it client X
```

5. localhost (mininet)

## (2) Each client making a connection with the server

```
• Direct SSH : ✓
• SSH compression : ✓
• SSH-browser : ✓
• X11-forwarding : ✓ (remote display is forwarded through SSH)
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Last login: Sun May 29 01:51:17 2022 from 10.0.2.2
mininet@mininet-vm:~$ python3 client.py
From Server: Client X connected
Enter message to send to server:

2. localhost (mininet)
```

```
• SSH compression : ✓
• SSH-browser : ✓
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Last login: Sun May 29 01:51:22 2022 from 10.0.2.2
mininet@mininet-vm:~$ python3 client.py
From Server: Client Y connected
Enter message to send to server:

6. localhost (mininet)
```

```
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mininet@mininet-vm:~$ python3 server.py
The server is ready to receive 2 connections....

Accepted first connection, calling it client X
Accepted second connection, calling it client Y

Waiting to receive message from client X and client Y....

5. localhost (mininet)
```

## Client X and Client Y sending messages

### (1) Client X sends first:

```
• SSH compression : ✓
• SSH-browser      : ✓
• X11-forwarding   : ✓ (remote display is forwarded through SSH)

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Last login: Sun May 29 02:11:01 2022 from 10.0.2.2
mininet@mininet-vm:~$ python3 client.py
From Server: Client X connected
Enter message to send to server:First Message

```

```
• SSH compression : ✓
• SSH-browser      : ✓
• X11-forwarding   : ✓ (remote display is forwarded through SSH)

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Last login: Sun May 29 02:07:45 2022 from 10.0.2.2
mininet@mininet-vm:~$ python3 client.py
From Server: Client Y connected
Enter message to send to server:

```

```
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Last login: Sun May 29 02:11:06 2022 from 10.0.2.2
mininet@mininet-vm:~$ python3 server.py
The server is ready to receive 2 connections....

Accepted first connection, calling it client X
Accepted second connection, calling it client Y

Waiting to receive message from client X and client Y....

Client X sent message 1: First Message

```

## (2) Client X sends first:

```

• SSH-browser : ✓
• X11-forwarding : ✓ (remote display is forwarded through SSH)
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Run 'do-release-upgrade' to upgrade to it.

Last login: Sun May 29 02:11:01 2022 from 10.0.2.2
mininet@mininet-vm:~$ python3 client.py
From Server: Client X connected
Enter message to send to server:First Message
From Server: X: First Message received before Y: Second Message
mininet@mininet-vm:~$

```

2. localhost (mininet)

```

• X11-forwarding : ✓ (remote display is forwarded through SSH)
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mininet@mininet-vm:~$ python3 client.py
From Server: Client Y connected
Enter message to send to server:Second Message
From Server: X: First Message received before Y: Second Message
mininet@mininet-vm:~$

```

6. localhost (mininet)

```

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mininet@mininet-vm:~$ python3 server.py
The server is ready to receive 2 connections....

Accepted first connection, calling it client X
Accepted second connection, calling it client Y

Waiting to receive message from client X and client Y....

Client X sent message 1: First Message
Client Y sent message 2: Second Message

Waiting a bit for clients to close their connections
Done.
mininet@mininet-vm:~$

```

5. localhost (mininet)

## (1) Client Y sends first:

```

• SSH-browser      : ✓
• X11-forwarding   : ✓ (remote display is forwarded through SSH)
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Last login: Sun May 29 02:07:40 2022 from 10.0.2.2
mininet@mininet-vm:~$ python3 client.py
From Server: Client Y connected
Enter message to send to server:First Message

```

6. localhost (mininet)

```

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• SSH compression : ✓
• SSH-browser      : ✓
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Last login: Sun May 29 02:07:35 2022 from 10.0.2.2
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From Server: Client X connected
Enter message to send to server:

```

2. localhost (mininet)

```

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Last login: Sun May 29 01:51:28 2022 from 10.0.2.2
mininet@mininet-vm:~$ python3 server.py
The server is ready to receive 2 connections....

Accepted first connection, calling it client X
Accepted second connection, calling it client Y

Waiting to receive message from client X and client Y....

Client Y sent message 1: First Message

```

5. localhost (mininet)

## (2) Client Y sends first:

```

• X11-forwarding : ✓ (remote display is forwarded through SSH)
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Run 'do-release-upgrade' to upgrade to it.

Last login: Sun May 29 02:07:40 2022 from 10.0.2.2
mininet@mininet-vm:~$ python3 client.py
From Server: Client Y connected
Enter message to send to server:First Message
From Server: Y: First Message received before X: Second Message
mininet@mininet-vm:~$

```

6. localhost (mininet)

```

• SSH-browser : ✓
• X11-forwarding : ✓ (remote display is forwarded through SSH)
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Accepted second connection, calling it client Y

Waiting to receive message from client X and client Y....

Client Y sent message 1: First Message
Client X sent message 2: Second Message

Waiting a bit for clients to close their connections
Done.
mininet@mininet-vm:~$

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