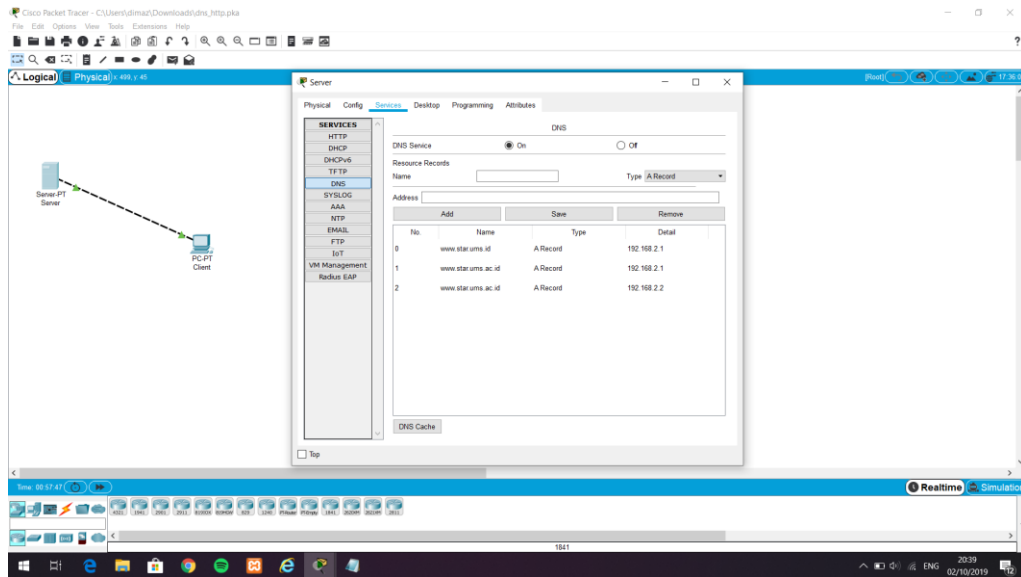


Nama : Dimas Kurniawan

NIM : L200170122

Kelas : A

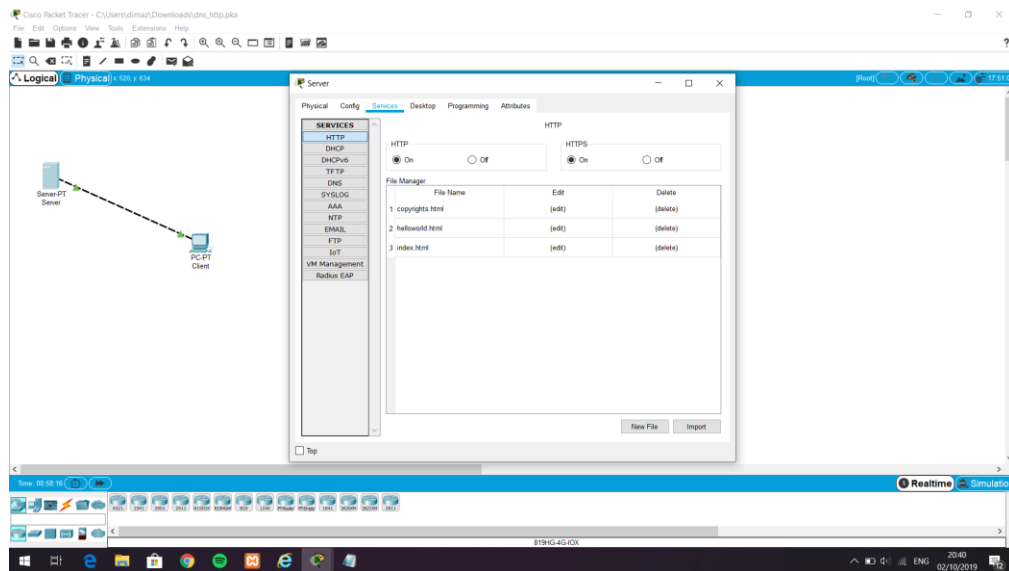
Chapter 3. Application Layer Functionally & Protocol



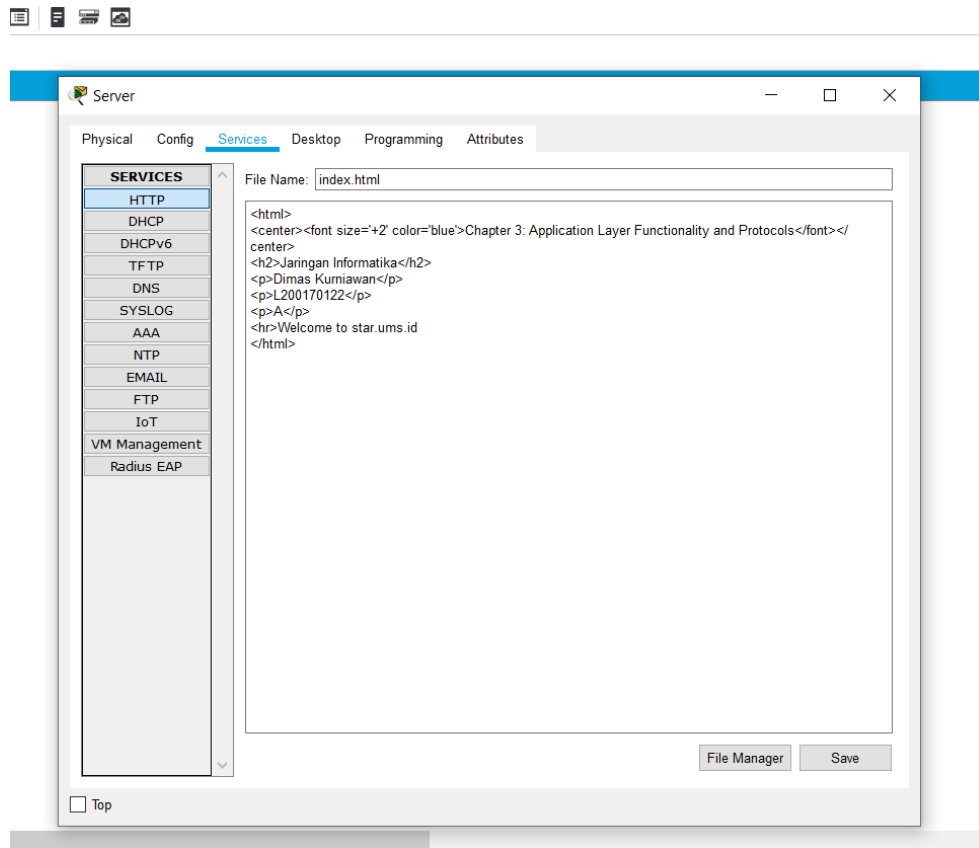
Membuat DNS pada SERVER dengan

Nama : www.star.ums.id

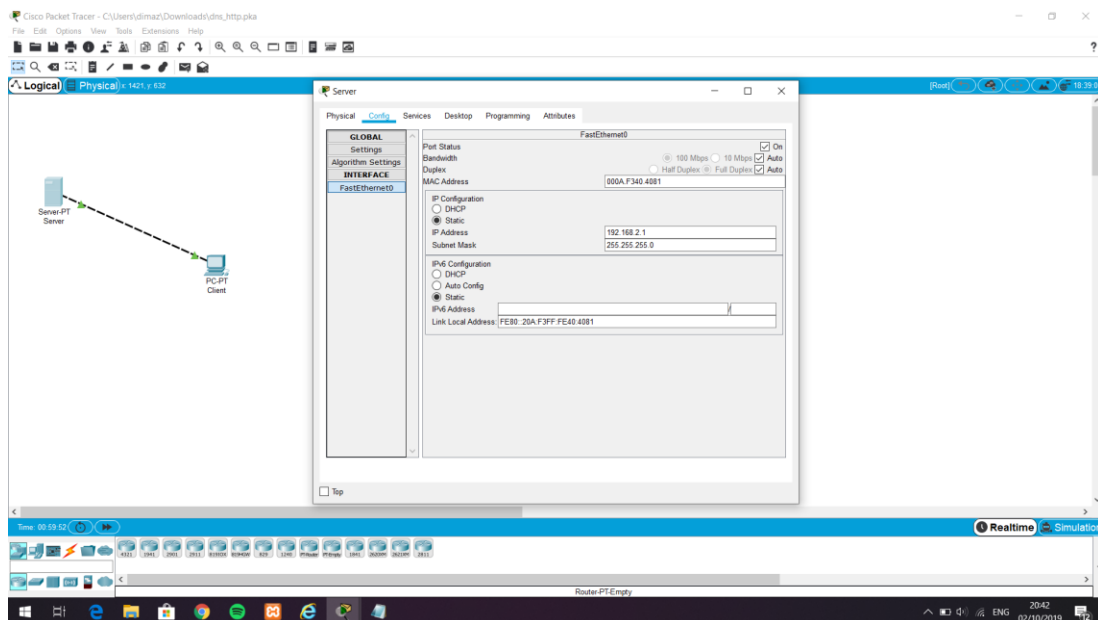
Address : 192.168.2.1



HTTP & HTTPS di ON kan

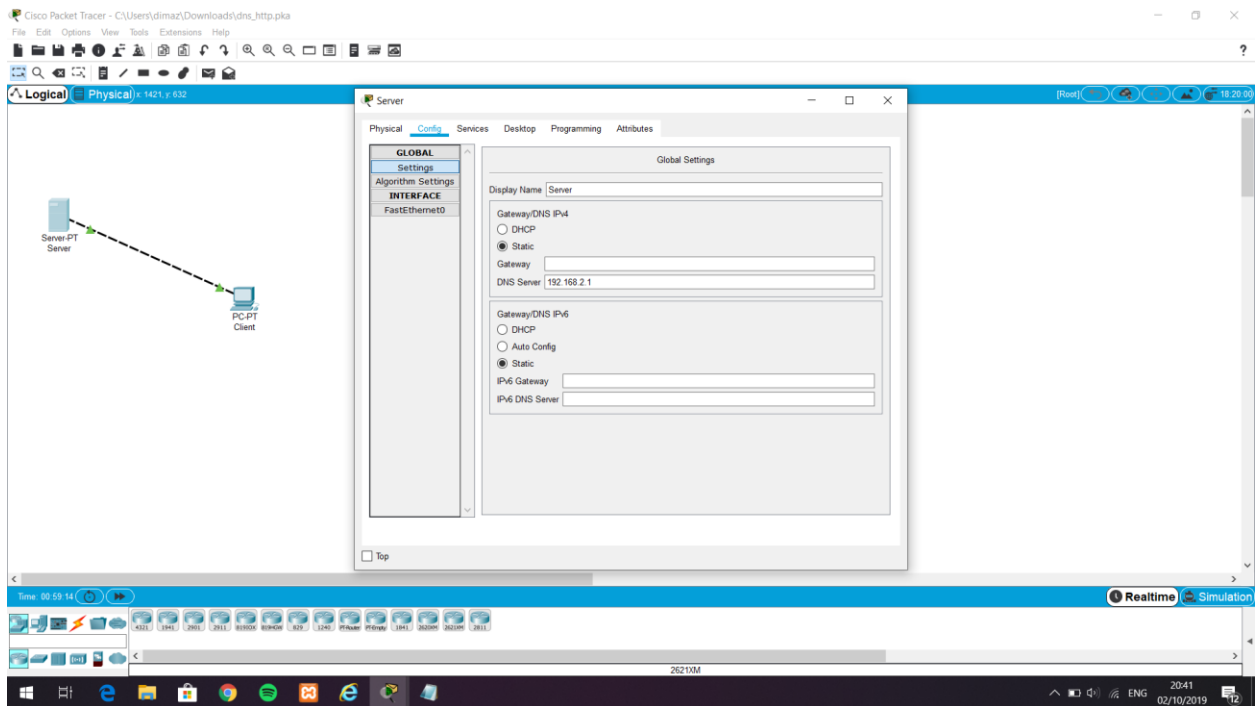


Mengedit **index.html** lalu “SAVE” dan “File Manager”

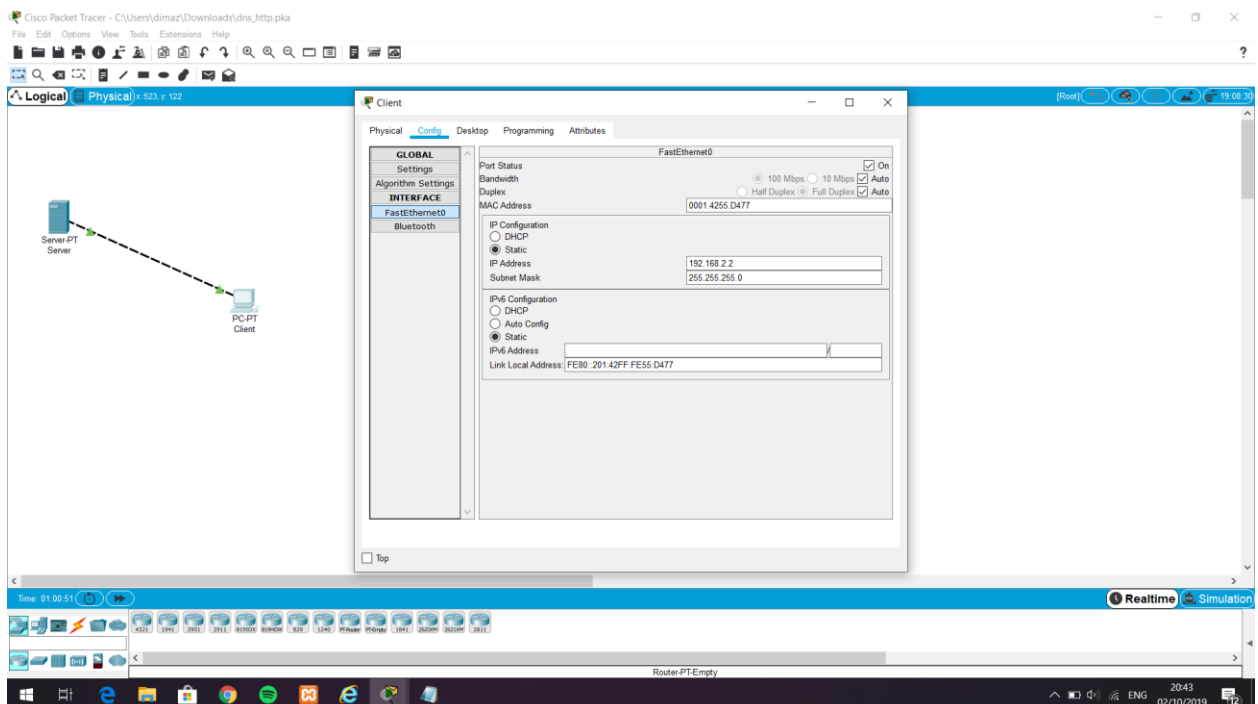


Mengubah IP address & subnet mask pada FastEthernet0 pada **SERVER**

IP Address : 192.168.2.1
Subnet Mask : 255.255.255.0

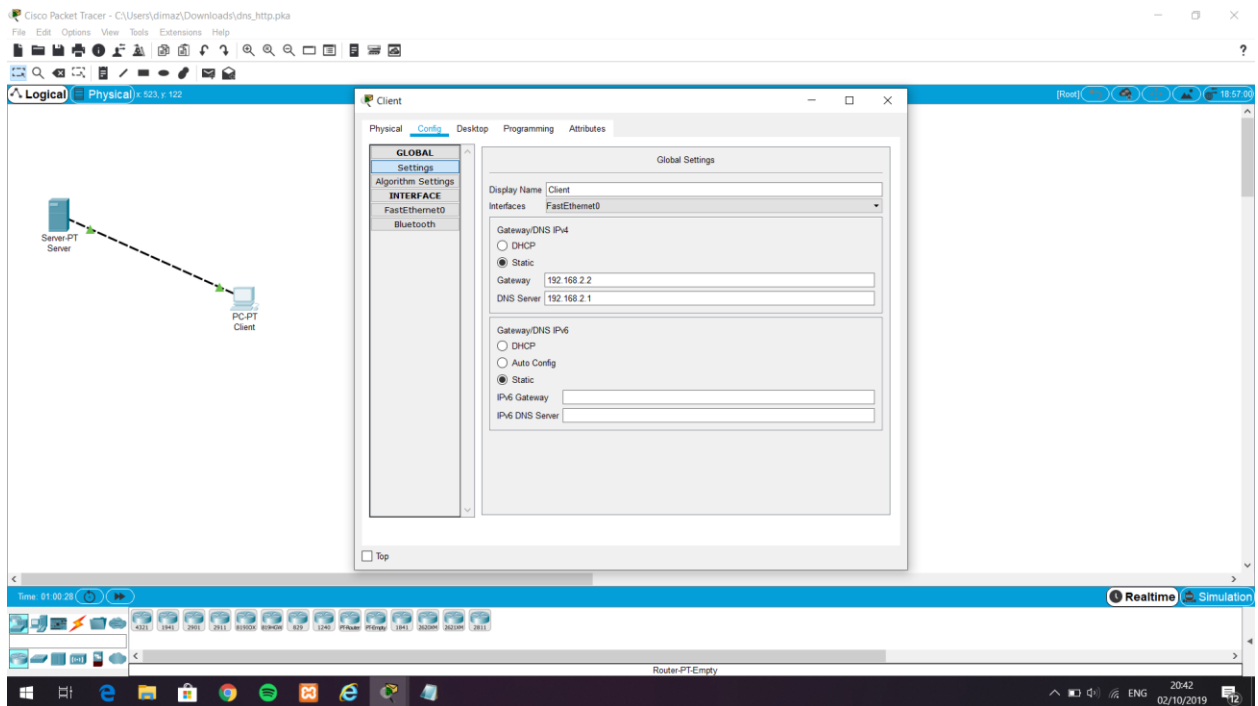


DNS Server : 192.168.2.1 (pada Settings di **SERVER**)

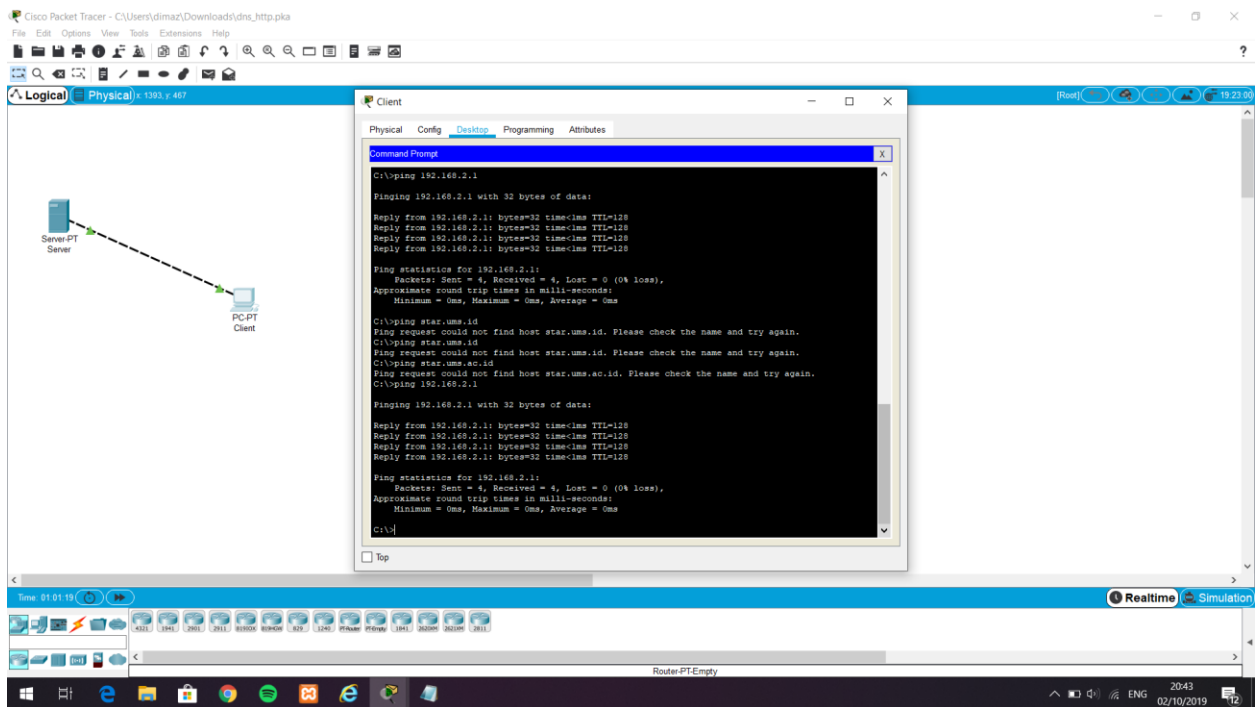


Mengubah IP address & subnet mask pada FastEthernet0 pada **Client**

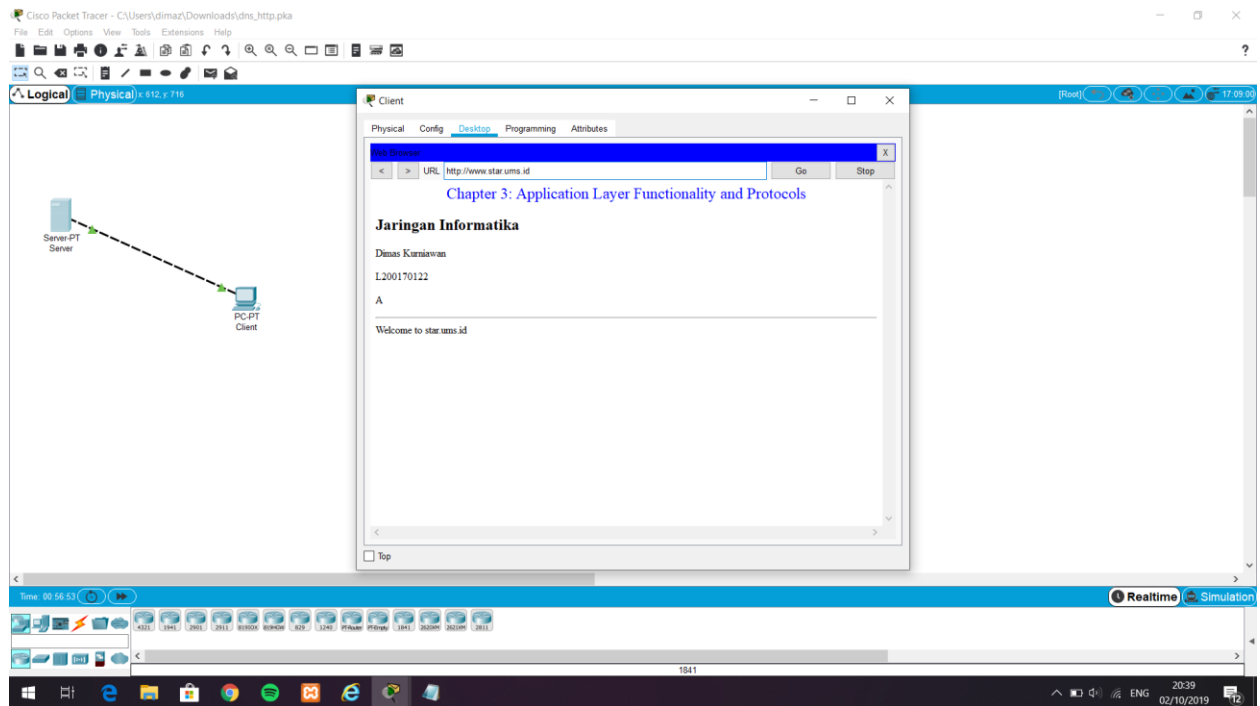
IP Address : 192.168.2.1
Subnet Mask : 255.255.255.0



DNS Server : 192.168.2.1 (pada Settings di **CLIENT**)



Cek "ping 192.168.2.1" melalui **Command Prompt**



Cek "www.star.ums.id" melalui Web Browser pada **Client**

HASIL

PDU Information at Device: Client

OSI Model

Outbound PDU Details

At Device: Client
Source: Client
Destination: 192.168.2.1

In Layers

Layer7

Layer6

Layer5

Layer4

Layer3

Layer2

Layer1

Out Layers

Layer 7: DNS

Layer6

Layer5

Layer 4: UDP Src Port: 1041, Dst Port: 53

Layer 3: IP Header Src. IP: 192.168.2.2, Dest. IP: 192.168.2.1

Layer 2: Ethernet II Header
0001.4255.D477 >> 000A.F340.4081

Layer 1: Port(s): FastEthernet0

1. The DNS client sends a DNS query to the DNS server.

UDP, Source Port: 1041, Destination port: 53

PDU Information at Device: Client

OSI Model

Outbound PDU Details

At Device: Client
Source: Client
Destination: 192.168.2.1

In Layers

Layer7

Layer6

Layer5

Layer4

Layer3

Layer2

Layer1

Out Layers

Layer 7: DNS

Layer6

Layer5

Layer 4: UDP Src Port: 1042, Dst Port: 53

Layer 3: IP Header Src. IP: 192.168.2.2, Dest. IP: 192.168.2.1

Layer 2: Ethernet II Header
0001.4255.D477 >> 000A.F340.4081

Layer 1: Port(s):

1. The DNS client sends a DNS query to the DNS server.

UDP, Source Port: 1042, Destination port: 53

PDU Information at Device: Server
×

OSI Model
Inbound PDU Details
Outbound PDU Details

At Device: Server
Source: Client
Destination: 192.168.2.1

In Layers

Layer 7: DNS
Layer6
Layer5
Layer 4: UDP Src Port: 1041, Dst Port: 53
Layer 3: IP Header Src. IP: 192.168.2.2, Dest. IP: 192.168.2.1
Layer 2: Ethernet II Header 0001.4255.D477 >> 000A.F340.4081
Layer 1: Port FastEthernet0

Out Layers

Layer 7: DNS
Layer6
Layer5
Layer 4: UDP Src Port: 53, Dst Port: 1041
Layer 3: IP Header Src. IP: 192.168.2.1, Dest. IP: 192.168.2.2
Layer 2: Ethernet II Header 000A.F340.4081 >> 0001.4255.D477
Layer 1: Port(s): FastEthernet0

1. FastEthernet0 receives the frame.
|

UDP, Source Port: 1041, Destination port: 53 (In Layer)
UDP, Destination port: 53, Source Port: 1041 (Out Layer)

PDU Information at Device: Client
×

OSI Model
Outbound PDU Details

At Device: Client
Source: Client
Destination: 192.168.2.1

In Layers

Layer7
Layer6
Layer5
Layer4
Layer3
Layer2
Layer1

Out Layers

Layer7
Layer6
Layer5
Layer4
Layer3
Layer2
Layer 1: Port(s): FastEthernet0

1. The device takes out this frame from the buffer and sends it.
2. FastEthernet0 sends out the frame.
|

PDU Information at Device: Server

OSI Model

Inbound PDU Details

Outbound PDU Details

At Device: Server

Source: Client

Destination: 192.168.2.1

In Layers

Layer 7: DNS

Layer6

Layer5

Layer 4: UDP Src Port: 1042, Dst Port: 53

Layer 3: IP Header Src. IP: 192.168.2.2, Dest. IP: 192.168.2.1

Layer 2: Ethernet II Header 0001.4255.D477 >> 000A.F340.4081

Layer 1: Port FastEthernet0

Out Layers

Layer 7: DNS

Layer6

Layer5

Layer 4: UDP Src Port: 53, Dst Port: 1042

Layer 3: IP Header Src. IP: 192.168.2.1, Dest. IP: 192.168.2.2

Layer 2: Ethernet II Header 000A.F340.4081 >> 0001.4255.D477

Layer 1: Port(s): FastEthernet0

1. FastEthernet0 receives the frame.

UDP, Source Port: 1042, Destination port: 53 (In Layer)
 UDP, Destination port: 53, Source Port: 1042 (Out Layer)

PDU Information at Device: Client

OSI Model

Inbound PDU Details

At Device: Client

Source: Client

Destination: 192.168.2.1

In Layers

Layer 7: DNS

Layer6

Layer5

Layer 4: UDP Src Port: 53, Dst Port: 1041

Layer 3: IP Header Src. IP: 192.168.2.1, Dest. IP: 192.168.2.2

Layer 2: Ethernet II Header 000A.F340.4081 >> 0001.4255.D477

Layer 1: Port FastEthernet0

Out Layers

Layer7

Layer6

Layer5

Layer4

Layer3

Layer2

Layer1

1. FastEthernet0 receives the frame.

UDP, Source Port: 53, Destination port: 1041 (In Layer)

PDU Information at Device: Client

OSI Model
Outbound PDU Details

At Device: Client
Source: Client
Destination: HTTP CLIENT

In Layers
Layer7
Layer6
Layer5
Layer4
Layer3
Layer2
Layer1

Out Layers
Layer 7:
Layer6
Layer5
Layer 4: TCP Src Port: 1031, Dst Port: 80
Layer 3: IP Header Src. IP: 192.168.2.2, Dest. IP: 192.168.2.1
Layer 2: Ethernet II Header 0001.4255.D477 >> 000A.F340.4081
Layer 1: Port(s):

1. The HTTP client sends a HTTP request to the server.
|

TCP, Source Port: 1031, Destination port: 80 (Out Layer)

PDU Information at Device: Server

OSI Model
Inbound PDU Details
Outbound PDU Details

At Device: Server
Source: Client
Destination: HTTP CLIENT

In Layers
Layer 7:
Layer6
Layer5
Layer 4: TCP Src Port: 1031, Dst Port: 80
Layer 3: IP Header Src. IP: 192.168.2.2, Dest. IP: 192.168.2.1
Layer 2: Ethernet II Header 0001.4255.D477 >> 000A.F340.4081
Layer 1: Port FastEthernet0

Out Layers
Layer 7:
Layer6
Layer5
Layer 4: TCP Src Port: 80, Dst Port: 1031
Layer 3: IP Header Src. IP: 192.168.2.1, Dest. IP: 192.168.2.2
Layer 2: Ethernet II Header 000A.F340.4081 >> 0001.4255.D477
Layer 1: Port(s): FastEthernet0

1. FastEthernet0 receives the frame.
|

TCP, Source Port: 1031, Destination port: 80 (In Layer)

TCP, Destination port: 80, Source Port: 1031 (Out Layer)

PDU Information at Device: Client



OSI Model

Inbound PDU Details

At Device: Client
Source: Client
Destination: HTTP CLIENT

In Layers

Layer 7:
Layer6
Layer5
Layer 4: TCP Src Port: 80, Dst Port: 1031
Layer 3: IP Header Src. IP: 192.168.2.1, Dest. IP: 192.168.2.2
Layer 2: Ethernet II Header 000A.F340.4081 >> 0001.4255.D477
Layer 1: Port FastEthernet0

Out Layers

Layer7
Layer6
Layer5
Layer4
Layer3
Layer2
Layer1

1. FastEthernet0 receives the frame.

TCP, Source Port: 80, Destination port: 1031 (In Layer)