

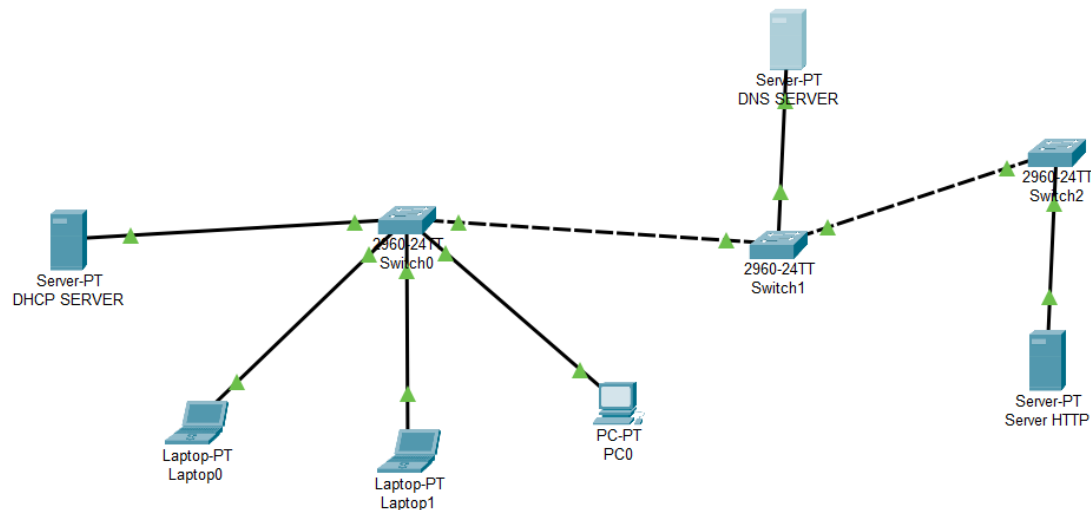
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# Packet Tracer: simulazione servizi HTTP-DHCP-DNS

## 1. Creazione della rete

Ho creato la rete come in figura e come da richiesta per l'esercitazione:



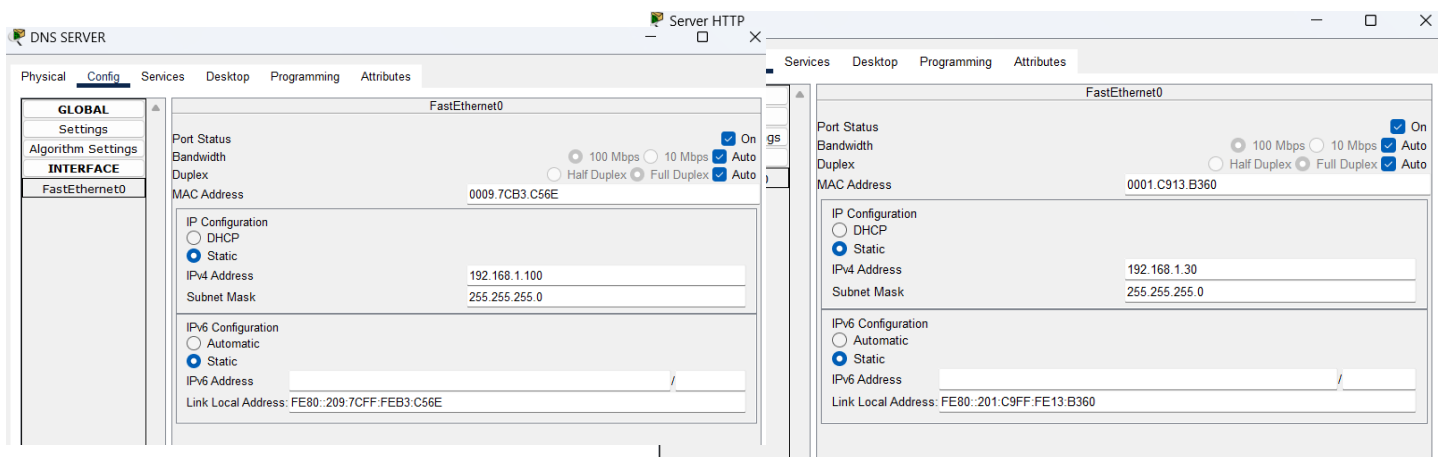
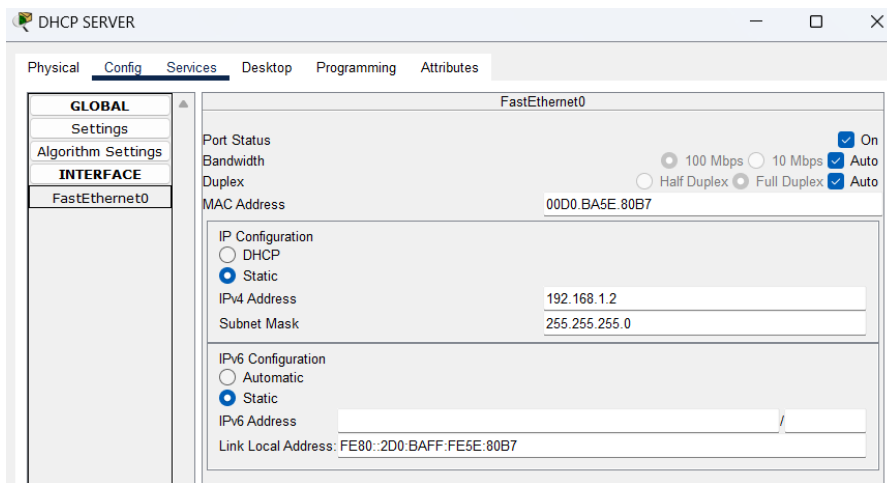
Quindi, ho configurato:

- un Servizio DHCP
- un Servizio DNS
- un servizio HTTP
- 3 Client

## 2. Assegnazione indirizzi IP

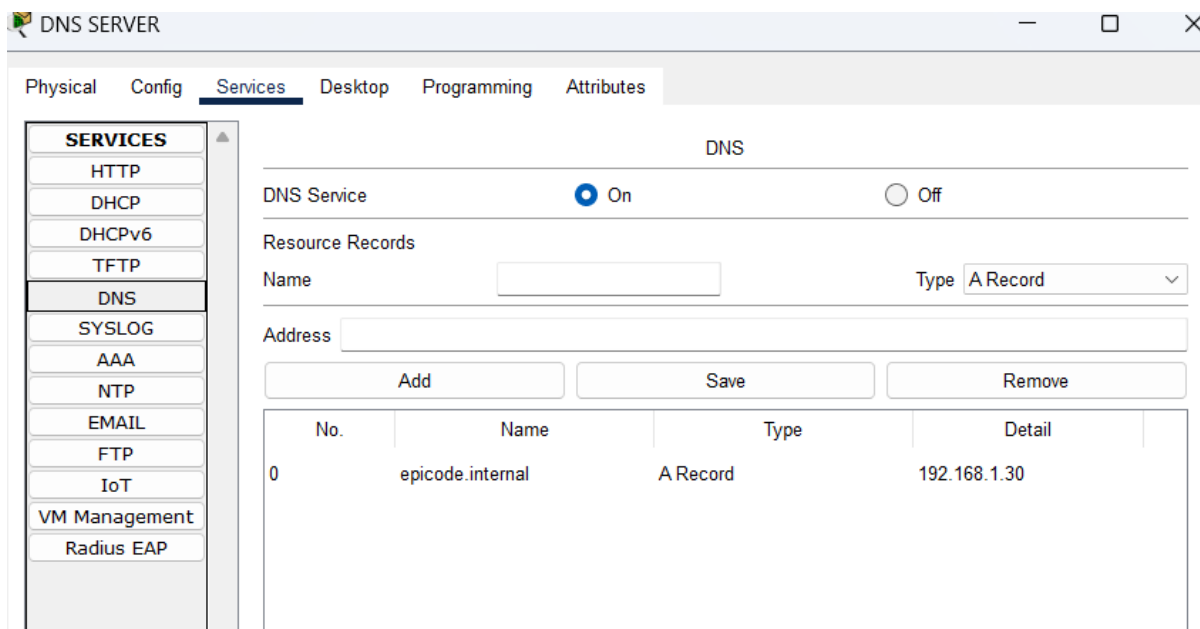
Ho provveduto ad assegnare ai server un indirizzo IP statico

- DHCP: 192.168.1.2
- DNS: 192.168.1.100
- HTTP: 192.168.1.30



### 3. Configurazione record A e associazioni

Configuro da “service” un Type A record sul server DNS e associo l’indirizzo IP del server HTTP nominandolo **epicode.internal**.



The screenshot shows the 'DNS SERVER' configuration window. The 'Services' tab is active, and 'DNS' is selected in the left-hand 'SERVICES' list. The 'DNS Service' is turned 'On'. Under 'Resource Records', a new record is being configured with 'Name' as an empty field, 'Type' as 'A Record', and 'Address' as an empty field. Below the configuration fields are 'Add', 'Save', and 'Remove' buttons. A table at the bottom displays the current records:

No.	Name	Type	Detail
0	epicode.internal	A Record	192.168.1.30

Successivamente nel server DHCP associo il DNS con la stessa operazione chiamandolo **epicode.internal.dns**.



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## 4. Verifica con ipconfig

Verifico dal prompt che i server assegnino un IP al Laptop e che i server DHCP e DNS funzionino con il comando **ipconfig /all**.

Le risposte sono positive.

```
C:\>ipconfig /all

FastEthernet0 Connection: (default port)

    Connection-specific DNS Suffix...:
    Physical Address.....: 0007.ECB7.B2DA
    Link-local IPv6 Address.....: FE80::207:ECFF:FEB7:B2DA
    IPv6 Address.....: ::
    IPv4 Address.....: 192.168.1.3
    Subnet Mask.....: 255.255.255.0
    Default Gateway.....: ::
                           0.0.0.0
    DHCP Servers.....: 192.168.1.2
    DHCPv6 IAID.....:
    DHCPv6 Client DUID.....: 00-01-00-01-73-51-1B-70-00-07-EC-B7-B2-DA
    DNS Servers.....: ::
                           192.168.1.100
```

```
C:\>ipconfig /all

FastEthernet0 Connection: (default port)

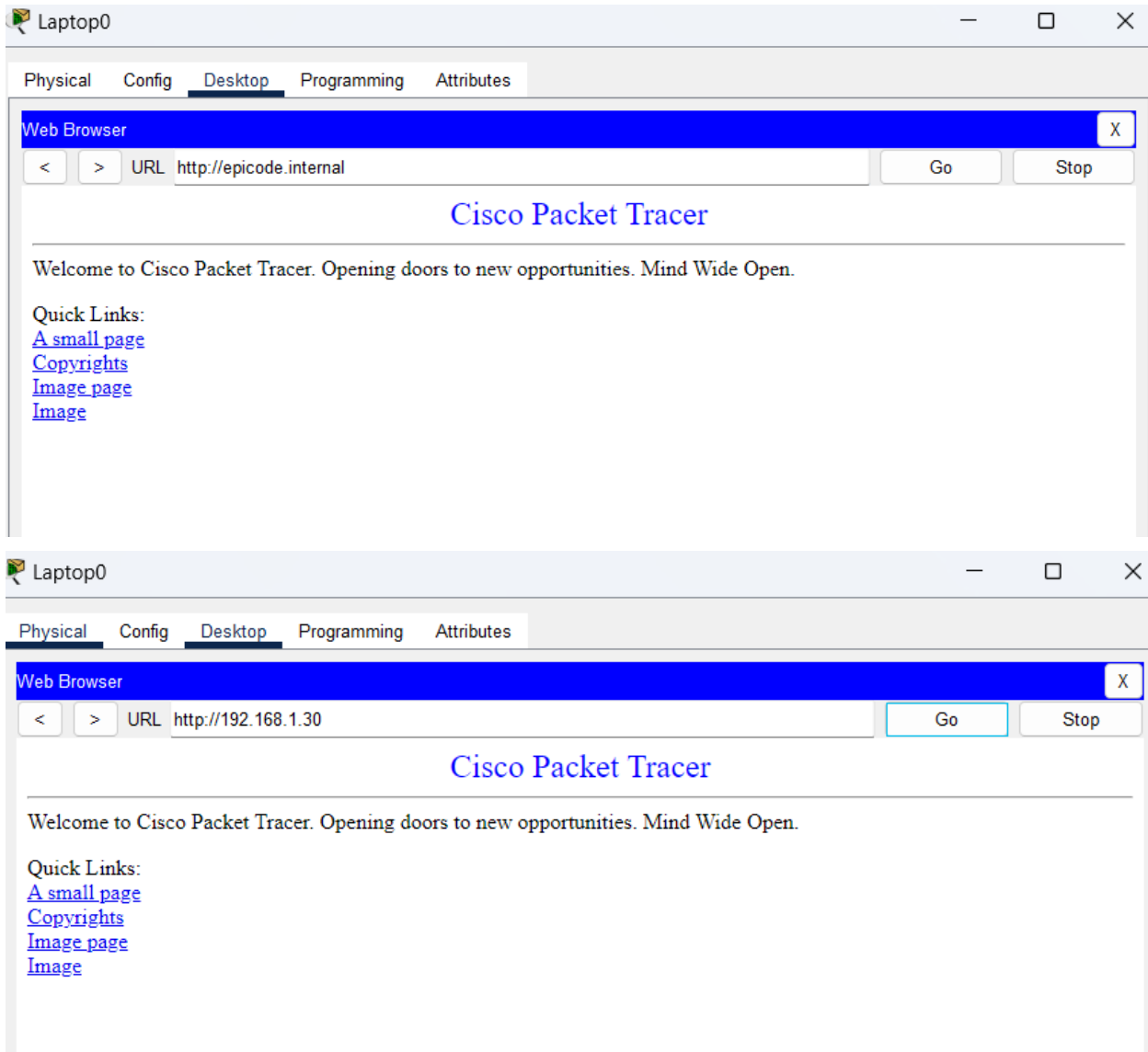
    Connection-specific DNS Suffix...:
    Physical Address.....: 000C.CF7A.BBAE
    Link-local IPv6 Address.....: FE80::20C:CFFF:FE7A:BBAE
    IPv6 Address.....: ::
    IPv4 Address.....: 192.168.1.5
    Subnet Mask.....: 255.255.255.0
    Default Gateway.....: ::
                           0.0.0.0
    DHCP Servers.....: 192.168.1.2
    DHCPv6 IAID.....:
    DHCPv6 Client DUID.....: 00-01-00-01-01-2A-9D-D0-00-0C-CF-7A-BB-AE
    DNS Servers.....: ::
                           192.168.1.100
```

```
FastEthernet0 Connection: (default port)

    Connection-specific DNS Suffix...:
    Physical Address.....: 000D.BD43.870C
    Link-local IPv6 Address.....: FE80::20D:BDFF:FE43:870C
    IPv6 Address.....: ::
    IPv4 Address.....: 192.168.1.4
    Subnet Mask.....: 255.255.255.0
    Default Gateway.....: ::
                           0.0.0.0
    DHCP Servers.....: 192.168.1.2
    DHCPv6 IAID.....:
    DHCPv6 Client DUID.....: 00-01-00-01-36-DE-A4-A3-00-0D-BD-43-87-0C
    DNS Servers.....: ::
                           192.168.1.100
```

## 5. Verifica se DNS risolve correttamente epicode.internal

Cercando nel Browser sia la ricerca con <http://epicode.internal> che [http:// 192.168.1.30](http://192.168.1.30) danno esito positivo.



La prova è stata ripetuta da un client ed è stata positiva:

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```
C:\>ping epicode.internal

Pinging 192.168.1.30 with 32 bytes of data:

Reply from 192.168.1.30: bytes=32 time<1ms TTL=128
Reply from 192.168.1.30: bytes=32 time<1ms TTL=128
Reply from 192.168.1.30: bytes=32 time<1ms TTL=128
Reply from 192.168.1.30: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.30:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```