

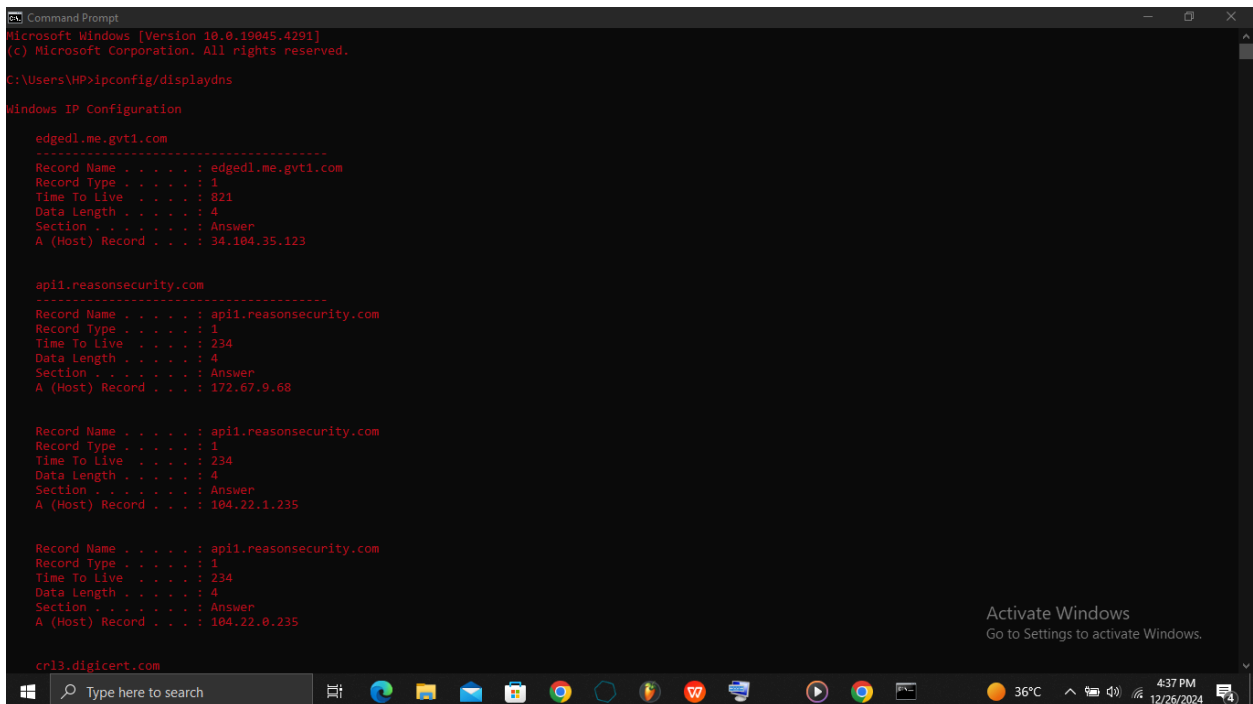
LAB 18:

USING IPCONFIG TO VIEW AND MODIFY NETWORK INFORMATION ON WINDOWS

TOOL: WINDOWS

STEP 1: We will begin by viewing the help information screen by executing the following command:

`ipconfig/displaydns`



```
Microsoft Windows [Version 10.0.19045.4291]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>ipconfig/displaydns

Windows IP Configuration

edgedl.me.gvt1.com
-----
Record Name . . . . . : edgedl.me.gvt1.com
Record Type . . . . . : 1
Time To Live . . . . . : 821
Data Length . . . . . : 4
Section . . . . . : Answer
A (Host) Record . . . . : 34.104.35.123

api1.reasonsecurity.com
-----
Record Name . . . . . : api1.reasonsecurity.com
Record Type . . . . . : 1
Time To Live . . . . . : 234
Data Length . . . . . : 4
Section . . . . . : Answer
A (Host) Record . . . . : 172.67.9.68

Record Name . . . . . : api1.reasonsecurity.com
Record Type . . . . . : 1
Time To Live . . . . . : 234
Data Length . . . . . : 4
Section . . . . . : Answer
A (Host) Record . . . . : 104.22.1.235

Record Name . . . . . : api1.reasonsecurity.com
Record Type . . . . . : 1
Time To Live . . . . . : 234
Data Length . . . . . : 4
Section . . . . . : Answer
A (Host) Record . . . . : 104.22.0.235

crl3.digicert.com
-----
```

Activate Windows
Go to Settings to activate Windows.

type “ipconfig” to view your networking information.

```
Command Prompt
Microsoft Windows [Version 10.0.19045.4291]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Ethernet adapter Ethernet 4:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::5bb2:b8cb:567c:f1dc%13
    IPv4 Address. . . . . : 192.168.56.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . :

Wireless LAN adapter Local Area Connection* 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::fd3d:9e3e:7d7:9588%4
    IPv4 Address. . . . . : 192.168.139.225
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.139.122

C:\Users\HP>
```

Step 2: To display the full TCP/IP configuration information for all network adapters, we can use the following command: `ipconfig /all`

```
Command Prompt
Microsoft Windows [Version 10.0.19045.4291]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>ipconfig /all

Windows IP Configuration

    Host Name . . . . . : SKODE
    Primary Dns Suffix . . . . . :
    Node Type . . . . . : Hybrid
    IP Routing Enabled. . . . . : No
    WINS Proxy Enabled. . . . . : No

Ethernet adapter Ethernet:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
    Description . . . . . : Intel(R) 82579LM Gigabit Network Connection
    Physical Address. . . . . : D4-C9-EF-E6-8D-76
    DHCP Enabled. . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes

Ethernet adapter Ethernet 4:

    Connection-specific DNS Suffix  . :
    Description . . . . . : VirtualBox Host-Only Ethernet Adapter
    Physical Address. . . . . : 0A-00-27-00-00-00
    DHCP Enabled. . . . . : No
    Autoconfiguration Enabled . . . . : Yes
    Link-local IPv6 Address . . . . . : fe80::5bb2:b8cb:567c:f1dc%13(Preferred)
    IPv4 Address. . . . . : 192.168.56.1(Preferred)
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . :
    DHCPv6 IAID . . . . . : 755630119
    DHCPv6 Client DUID. . . . . : 00-01-00-01-2A-D0-D7-BA-D4-C9-EF-E6-8D-76
    DNS Servers . . . . . : fec8:0:0:ffff::1%1
                           : fec8:0:0:ffff::2%1
                           : fec8:0:0:ffff::3%1
    NetBIOS over Tcpip. . . . . : Enabled

Wireless LAN adapter Local Area Connection* 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
```

Step 3: Assume that our machine has an IP address with DHCP. To release our current IPv4 or IPv6 address, we can use the following commands:

`ipconfig /release`

`ipconfig /release6`

```
Command Prompt
Microsoft Windows [Version 10.0.19045.4291]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>ipconfig /release

Windows IP Configuration

No operation can be performed on Ethernet while it has its media disconnected.
No operation can be performed on Local Area Connection* 1 while it has its media disconnected.
No operation can be performed on Local Area Connection* 2 while it has its media disconnected.

Ethernet adapter Ethernet:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Ethernet adapter Ethernet 4:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::5bb2:b8cb:567c:f1dc%13
    IPv4 Address. . . . . : 192.168.56.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . :

Wireless LAN adapter Local Area Connection* 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::fd3d:9e3e:7d7:9588%4
    Default Gateway . . . . . :

C:\Users\HP>
```

```
Command Prompt
Microsoft Windows [Version 10.0.19045.4291]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>ipconfig /release6

Windows IP Configuration

No operation can be performed on Ethernet while it has its media disconnected.
No operation can be performed on Local Area Connection* 1 while it has its media disconnected.

Ethernet adapter Ethernet:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Ethernet adapter Ethernet 4:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::5bb2:b8cb:567c:f1dc%13
    IPv4 Address. . . . . : 192.168.56.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . :

Wireless LAN adapter Local Area Connection* 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

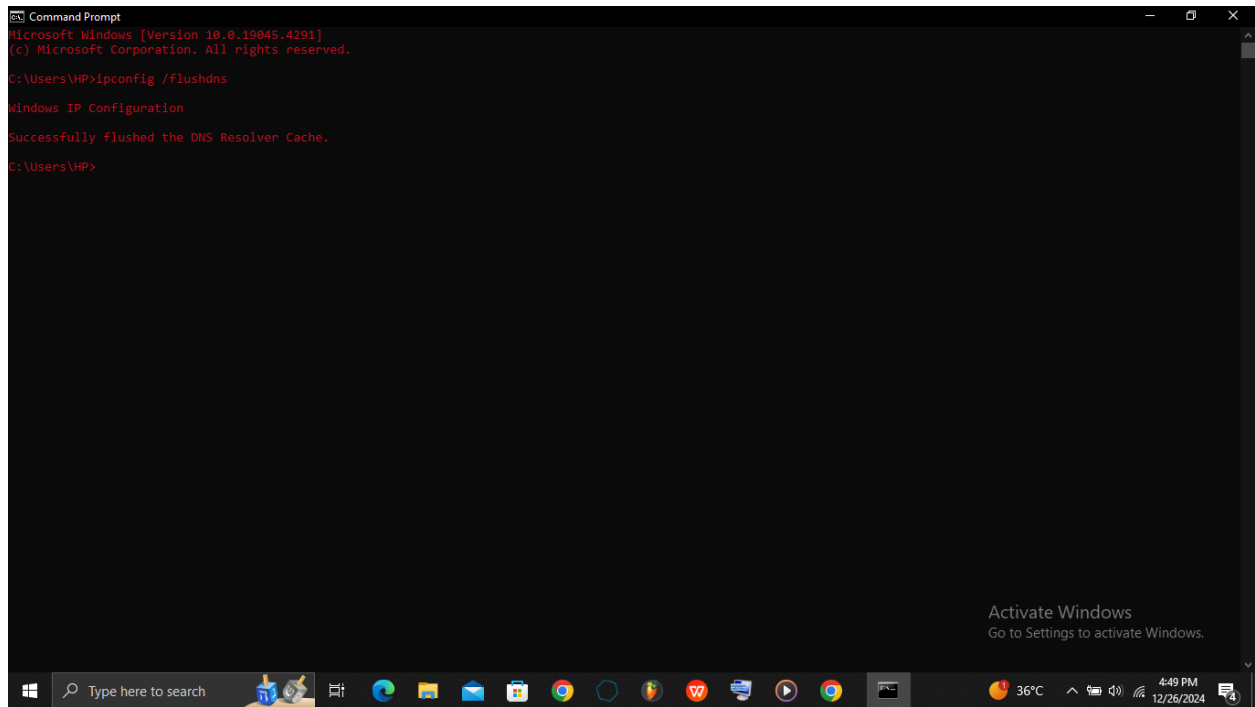
Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::fd3d:9e3e:7d7:9588%4
    IPv4 Address. . . . . : 192.168.139.225
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.139.122

C:\Users\HP>
```

Step 4: If we want to purge the DNS resolver cache, we can do that using the following command:

```
ipconfig /flushdns
```



```
Command Prompt
Microsoft Windows [Version 10.0.19045.4291]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>ipconfig /flushdns

Windows IP Configuration

Successfully flushed the DNS Resolver Cache.

C:\Users\HP>
```

The screenshot shows a Windows Command Prompt window with a black background and white text. The title bar reads "Command Prompt". The text inside the window shows the command prompt interface with the command `ipconfig /flushdns` being entered and executed. The output indicates that the DNS Resolver Cache was successfully flushed. The Windows taskbar is visible at the bottom, showing various application icons and the system tray with the date and time (4:49 PM, 12/26/2024).

Step 5: We can also refresh all DHCP leases and re-register DNS names using the following command:

```
ipconfig /registerdns
```

You will need to run command prompt as administrator to execute this command.

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.19045.4291]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>ipconfig /registerdns

Windows IP Configuration

Registration of the DNS resource records for all adapters of this computer has been initiated. Any errors will be reported in the Event Viewer in 15 minutes.

C:\Windows\system32>
C:\Windows\system32>
```

Step 6: We can display the content of the DNS Resolver Cache using the following command:

```
ipconfig /displaydns
```

```
Command Prompt
Microsoft Windows [Version 10.0.19045.4291]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>ipconfig /displaydns

Windows IP Configuration

    api1.reasonsecurity.com
    -----
    Record Name . . . . . : api1.reasonsecurity.com
    Record Type . . . . . : 1
    Time To Live . . . . . : 101
    Data Length . . . . . : 4
    Section . . . . . : Answer
    A (Host) Record . . . . : 104.22.1.235

    Record Name . . . . . : api1.reasonsecurity.com
    Record Type . . . . . : 1
    Time To Live . . . . . : 101
    Data Length . . . . . : 4
    Section . . . . . : Answer
    A (Host) Record . . . . : 104.22.0.235

    Record Name . . . . . : api1.reasonsecurity.com
    Record Type . . . . . : 1
    Time To Live . . . . . : 101
    Data Length . . . . . : 4
    Section . . . . . : Answer
    A (Host) Record . . . . : 172.67.9.68

    static-ecst.licdn.com
    -----
    Record Name . . . . . : static-ecst.licdn.com
    Record Type . . . . . : 5
    Time To Live . . . . . : 459
    Data Length . . . . . : 8
    Section . . . . . : Answer
    CNAME Record . . . . . : cs1404.wpc.epsiloncdn.net

    Record Name . . . . . : cs1404.wpc.epsiloncdn.net
    Record Type . . . . . : 5
    Time To Live . . . . . : 459
    Data Length . . . . . : 8
    Section . . . . . : Answer
    CNAME Record . . . . . : cs1404.wpc.epsiloncdn.net

Activate Windows
Go to Settings to activate Windows.

Type here to search
```