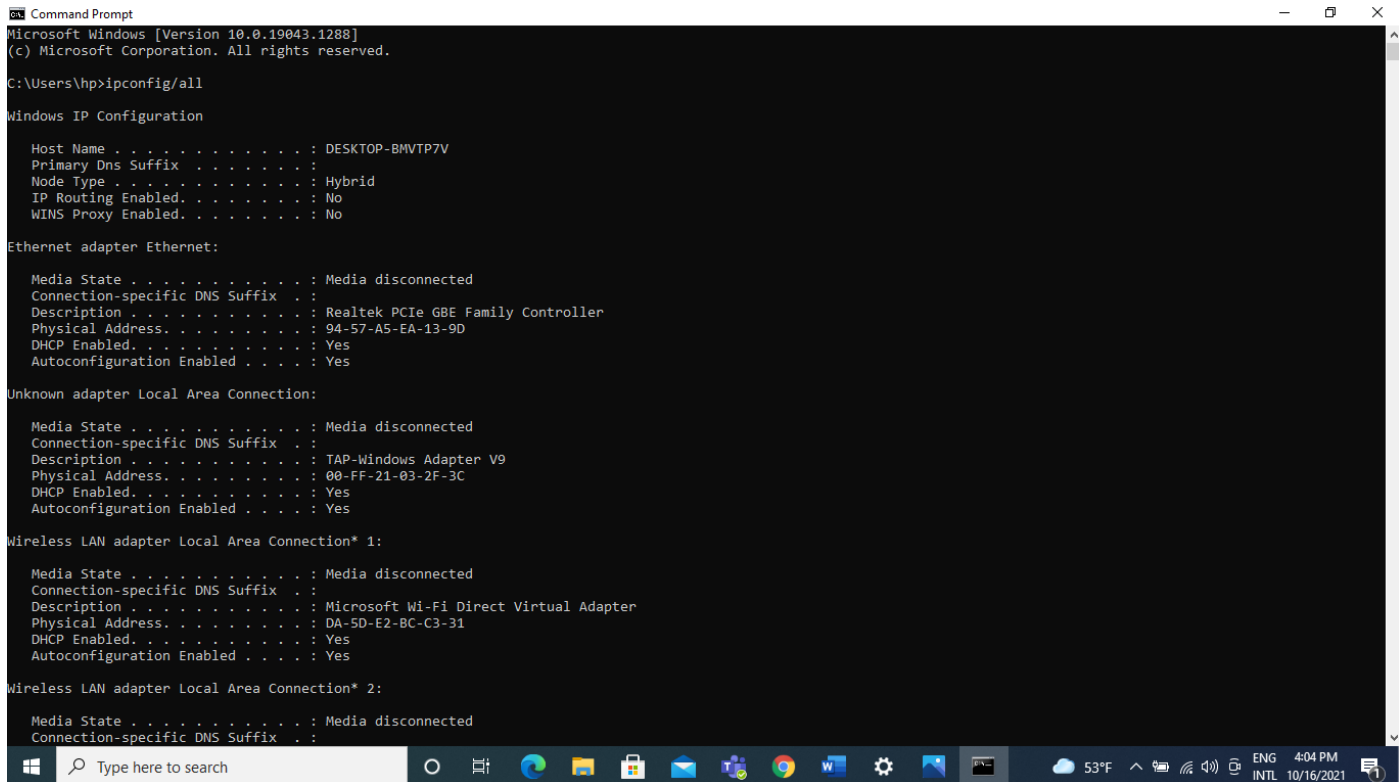
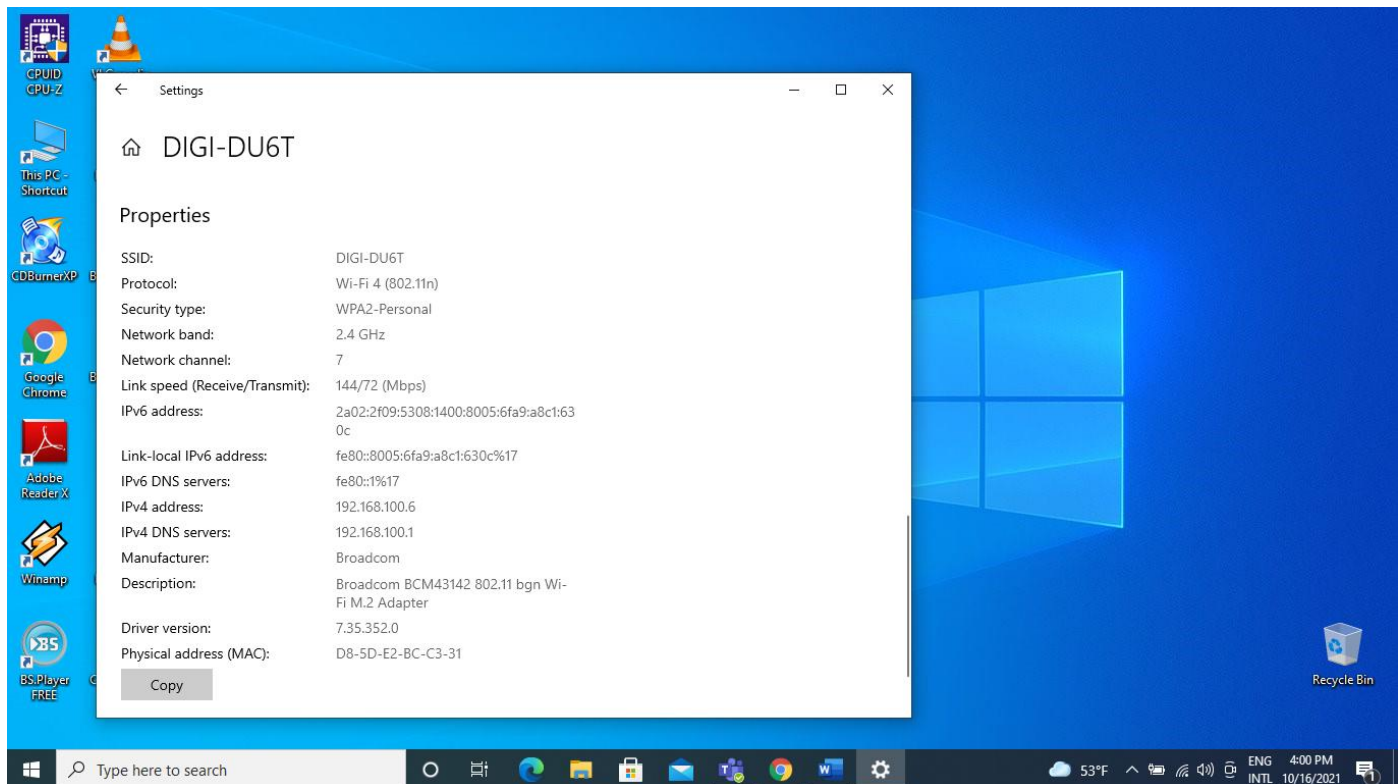


1.



```
Command Prompt

Wireless LAN adapter Local Area Connection* 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 
    Description . . . . . : Microsoft Wi-Fi Direct Virtual Adapter #2
    Physical Address. . . . . : DA-5D-E2-BC-CB-31
    DHCP Enabled. . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . : 
    Description . . . . . : Broadcom BCM43142 802.11 bgn Wi-Fi M.2 Adapter
    Physical Address. . . . . : D8-5D-E2-BC-C3-31
    DHCP Enabled. . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes
    IPv6 Address. . . . . : 2a02:2f09:5308:1400:8005:6fa9:a8c1:630c(Preferred)
    Temporary IPv6 Address. . . . . : 2a02:2f09:5308:1400:d0ef:b9bc:b26a:d201(Preferred)
    Link-local IPv6 Address . . . . . : fe80::8005:6fa9:a8c1:630c%17(Preferred)
    IPv4 Address. . . . . : 192.168.100.6(Preferred)
    Subnet Mask . . . . . : 255.255.255.0
    Lease Obtained. . . . . : Friday, October 15, 2021 9:24:12 PM
    Lease Expires . . . . . : Tuesday, October 19, 2021 3:02:01 PM
    Default Gateway . . . . . : fe80::1%17
    . . . . . : 192.168.100.1
    DHCP Server . . . . . : 192.168.100.1
    DHCPv6 IAID . . . . . : 299392482
    DHCPv6 Client DUID. . . . . : 00-01-00-01-28-CB-7B-EF-94-57-A5-EA-13-9D
    DNS Servers . . . . . : fe80::1%17
    . . . . . : 192.168.100.1
    NetBIOS over Tcpip. . . . . : Enabled

Ethernet adapter Bluetooth Network Connection:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 
    Description . . . . . : Bluetooth Device (Personal Area Network)
    Physical Address. . . . . : D8-5D-E2-BC-C3-32
    DHCP Enabled. . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes

C:\Users\hp>
```

```
Command Prompt

C:\Users\hp>tracert

Usage: tracert [-d] [-h maximum_hops] [-j host-list] [-w timeout]
              [-R] [-S srcaddr] [-4] [-6] target_name

Options:
    -d                Do not resolve addresses to hostnames.
    -h maximum_hops   Maximum number of hops to search for target.
    -j host-list       Loose source route along host-list (IPv4-only).
    -w timeout         Wait timeout milliseconds for each reply.
    -R                Trace round-trip path (IPv6-only).
    -S srcaddr         Source address to use (IPv6-only).
    -4                Force using IPv4.
    -6                Force using IPv6.

C:\Users\hp>
```

Select Command Prompt - netstat

C:\Users\hpx>netstat

Active Connections

Proto	Local Address	Foreign Address	State
TCP	127.0.0.1:49668	DESKTOP-BMVT7V:49669	ESTABLISHED
TCP	127.0.0.1:49669	DESKTOP-BMVT7V:49668	ESTABLISHED
TCP	127.0.0.1:49676	DESKTOP-BMVT7V:49677	ESTABLISHED
TCP	127.0.0.1:49677	DESKTOP-BMVT7V:49676	ESTABLISHED
TCP	127.0.0.1:50247	DESKTOP-BMVT7V:50248	ESTABLISHED
TCP	127.0.0.1:50248	DESKTOP-BMVT7V:50247	ESTABLISHED
TCP	127.0.0.1:50256	DESKTOP-BMVT7V:50257	ESTABLISHED
TCP	127.0.0.1:50257	DESKTOP-BMVT7V:50256	ESTABLISHED
TCP	127.0.0.1:55080	DESKTOP-BMVT7V:55081	ESTABLISHED
TCP	127.0.0.1:55081	DESKTOP-BMVT7V:55080	ESTABLISHED
TCP	127.0.0.1:57405	DESKTOP-BMVT7V:57406	ESTABLISHED
TCP	127.0.0.1:57406	DESKTOP-BMVT7V:57405	ESTABLISHED
TCP	192.168.100.6:51707	52.113.199.100:https	ESTABLISHED
TCP	192.168.100.6:54452	52.114.92.45:https	ESTABLISHED
TCP	192.168.100.6:54455	52.114.76.236:https	ESTABLISHED
TCP	192.168.100.6:56624	77:https	ESTABLISHED
TCP	192.168.100.6:56630	77:https	ESTABLISHED
TCP	192.168.100.6:57380	20.199.120.85:https	ESTABLISHED
TCP	192.168.100.6:59583	210:https	ESTABLISHED
TCP	192.168.100.6:60100	77:https	ESTABLISHED
TCP	192.168.100.6:60102	77:https	ESTABLISHED
TCP	192.168.100.6:60103	77:https	ESTABLISHED
TCP	192.168.100.6:60104	210:https	ESTABLISHED
TCP	192.168.100.6:61176	52.109.68.14:https	TIME_WAIT
TCP	192.168.100.6:61178	77:https	ESTABLISHED
TCP	192.168.100.6:61180	40.79.189.58:https	ESTABLISHED

Command Prompt

Microsoft Windows [Version 10.0.19043.1288]  
(c) Microsoft Corporation. All rights reserved.

C:\Users\hpx>ping

Usage: ping [-t] [-a] [-n count] [-l size] [-f] [-i TTL] [-v TOS]  
[-r count] [-s count] [[-j host-list] | [-k host-list]]  
[-w timeout] [-R] [-S srcaddr] [-c compartment] [-p]  
[-4] [-6] target\_name

Options:

-t Ping the specified host until stopped.  
To see statistics and continue - type Control-Break;  
To stop - type Control-C.  
-a Resolve addresses to hostnames.  
-n count Number of echo requests to send.  
-l size Send buffer size.  
-f Set Don't Fragment flag in packet (IPv4-only).  
-i TTL Time To Live.  
-v TOS Type Of Service (IPv4-only. This setting has been deprecated  
and has no effect on the type of service field in the IP  
Header).  
-r count Record route for count hops (IPv4-only).  
-s count Timestamp for count hops (IPv4-only).  
-j host-list Loose source route along host-list (IPv4-only).  
-k host-list Strict source route along host-list (IPv4-only).  
-w timeout Timeout in milliseconds to wait for each reply.  
-R Use routing header to test reverse route also (IPv6-only).  
Per RFC 5095 the use of this routing header has been  
deprecated. Some systems may drop echo requests if  
this header is used.  
-S srcaddr Source address to use.  
-c compartment Routing compartment identifier.  
-p Ping a Hyper-V Network Virtualization provider address.  
-4 Force using IPv4.  
-6 Force using IPv6.

C:\Users\hpx>

2.a.

Task Manager

File Options View

Processes Performance App history Startup Users Details Services

Name	Status	1% CPU	47% Memory	0% Disk	0% Network	0% GPU	GPU engine	Power usage	Power usage t...
<b>Apps (9)</b>									
Google Chrome (5)		0%	155.3 MB	0 MB/s	0 Mbps	0%		Very low	Very low
Microsoft Teams (5)		0%	294.2 MB	0 MB/s	0 Mbps	0%		Very low	Very low
Microsoft Word		0%	75.2 MB	0 MB/s	0 Mbps	0%		Very low	Very low
Photos		0%	0 MB	0 MB/s	0 Mbps	0%		Very low	Very low
Settings		0%	0 MB	0 MB/s	0 Mbps	0%		Very low	Very low
Task Manager		0.4%	21.9 MB	0 MB/s	0 Mbps	0%		Very low	Very low
Windows Command Processor		0%	1.2 MB	0 MB/s	0 Mbps	0%		Very low	Very low
Windows Explorer		0.1%	36.2 MB	0 MB/s	0 Mbps	0%		Very low	Very low
Windows Explorer		0%	8.1 MB	0 MB/s	0 Mbps	0%		Very low	Very low
<b>Background processes (74)</b>									
64-bit Synaptics Pointing Enhanc...		0%	0.1 MB	0 MB/s	0 Mbps	0%		Very low	Very low
Application Frame Host		0%	12.3 MB	0 MB/s	0 Mbps	0%		Very low	Very low
bdservicehost		0%	2.3 MB	0 MB/s	0 Mbps	0%		Very low	Very low
bdservicehost		0%	6.5 MB	0 MB/s	0 Mbps	0%		Very low	Very low
bdservicehost		0%	88.5 MB	0 MB/s	0 Mbps	0%		Very low	Very low
Bitdefender agent		0%	5.0 MB	0 MB/s	0 Mbps	0%		Very low	Very low
Bitdefender Agent (32 bit)		0%	1.3 MB	0 MB/s	0 Mbps	0%		Very low	Very low
Bitdefender Network OS Helper ...		0%	1.3 MB	0 MB/s	0 Mbps	0%		Very low	Very low

Fewer details

End task

Type here to search

53°F 4:19 PM 10/16/2021

b.

Task Manager

File Options View

Processes Performance App history Startup Users Details Services

Name	PID	Description	Status	Group
AxInstSV		ActiveX Installer (AxInstSV)	Stopped	AxInstSVGroup
AfVpnService		AfVpnService	Stopped	
AarSvc		Agent Activation Runtime	Stopped	AarSvcGroup
AarSvc_e91ae7		Agent Activation Runtime_e91ae7	Stopped	AarSvcGroup
AJRouter		AllJoyn Router Service	Stopped	LocalServiceN...
AppReadiness		App Readiness	Stopped	AppReadiness
AppIDSvc		Application Identity	Stopped	LocalServiceN...
Appinfo	7104	Application Information	Running	netsvcs
ALG		Application Layer Gateway Service	Stopped	
AppMgmt		Application Management	Stopped	netsvcs
AppXSvc	12580	AppX Deployment Service (AppXSVC)	Running	wsappx
AssignedAccessManagerSvc		AssignedAccessManager Service	Stopped	AssignedAcce...
tzautoupdate		Auto Time Zone Updater	Stopped	LocalService
BthAvctpSvc	1312	AVCTP service	Running	LocalService
BITS		Background Intelligent Transfer Service	Stopped	netsvcs
BrokerInfrastructure	508	Background Tasks Infrastructure Service	Running	DcomLaunch
BFE	3108	Base Filtering Engine	Running	LocalServiceN...
bdredline_agent	4920	Bitdefender Agent RedLine Service	Running	
BDAuxSrv	2400	Bitdefender Auxiliary Service	Running	
UPDATESRV	5352	Bitdefender Desktop Update Service	Running	
BDProtSrv	4944	Bitdefender Protected Service	Running	
bdredline	10992	Bitdefender RedLine Service	Running	
VSSERV	2108	Bitdefender Virus Shield	Running	
BDESVC		BitLocker Drive Encryption Service	Stopped	netsvcs
wbengine		Block Level Backup Engine Service	Stopped	
BTAGService	1288	Bluetooth Audio Gateway Service	Running	LocalServiceN...
BcmBtRSupport	4896	Bluetooth Driver Management Service	Running	
bthserv	1336	Bluetooth Support Service	Running	LocalService
BluetoothUserService		Bluetooth User Support Service	Stopped	BthAppGroup
BluetoothUserService_e91ae7		Bluetooth User Support Service_e91ae7	Stopped	BthAppGroup

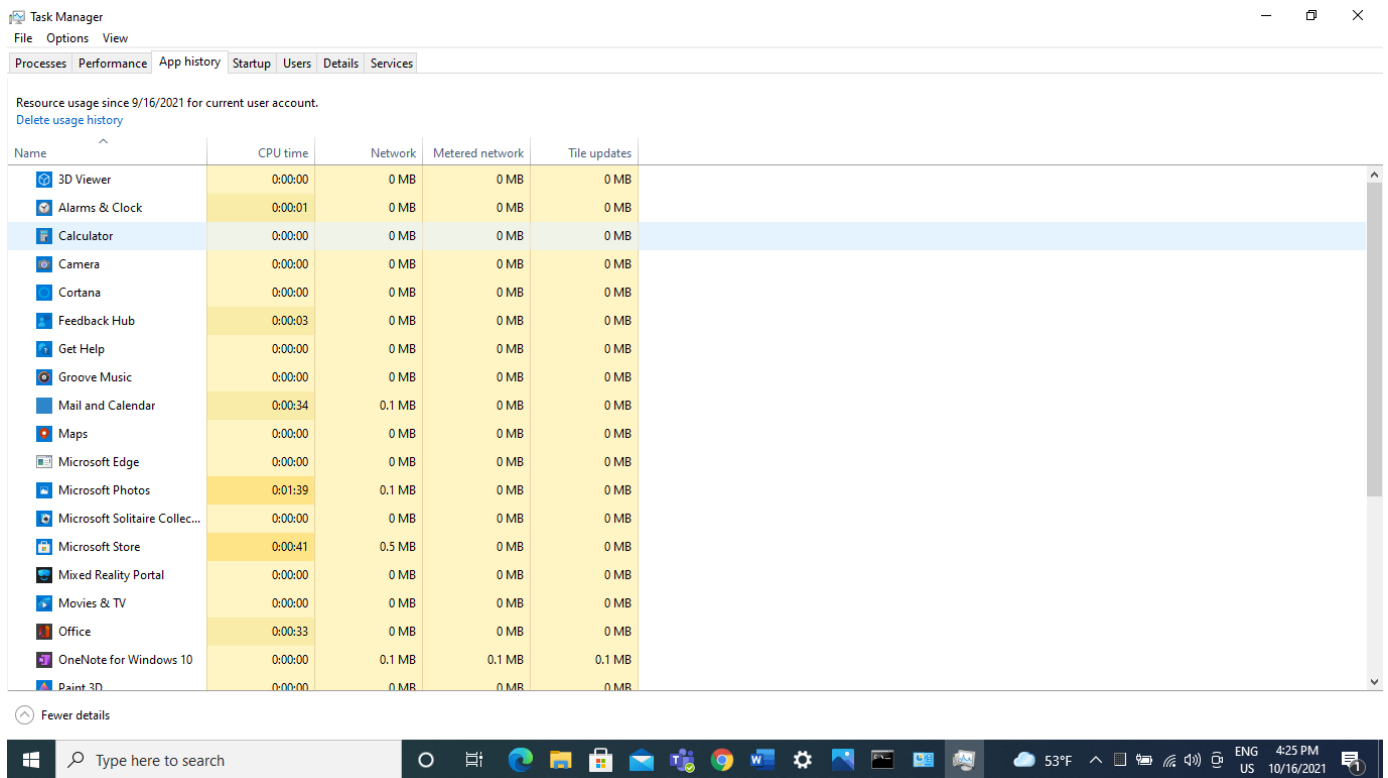
Fewer details

Open Services

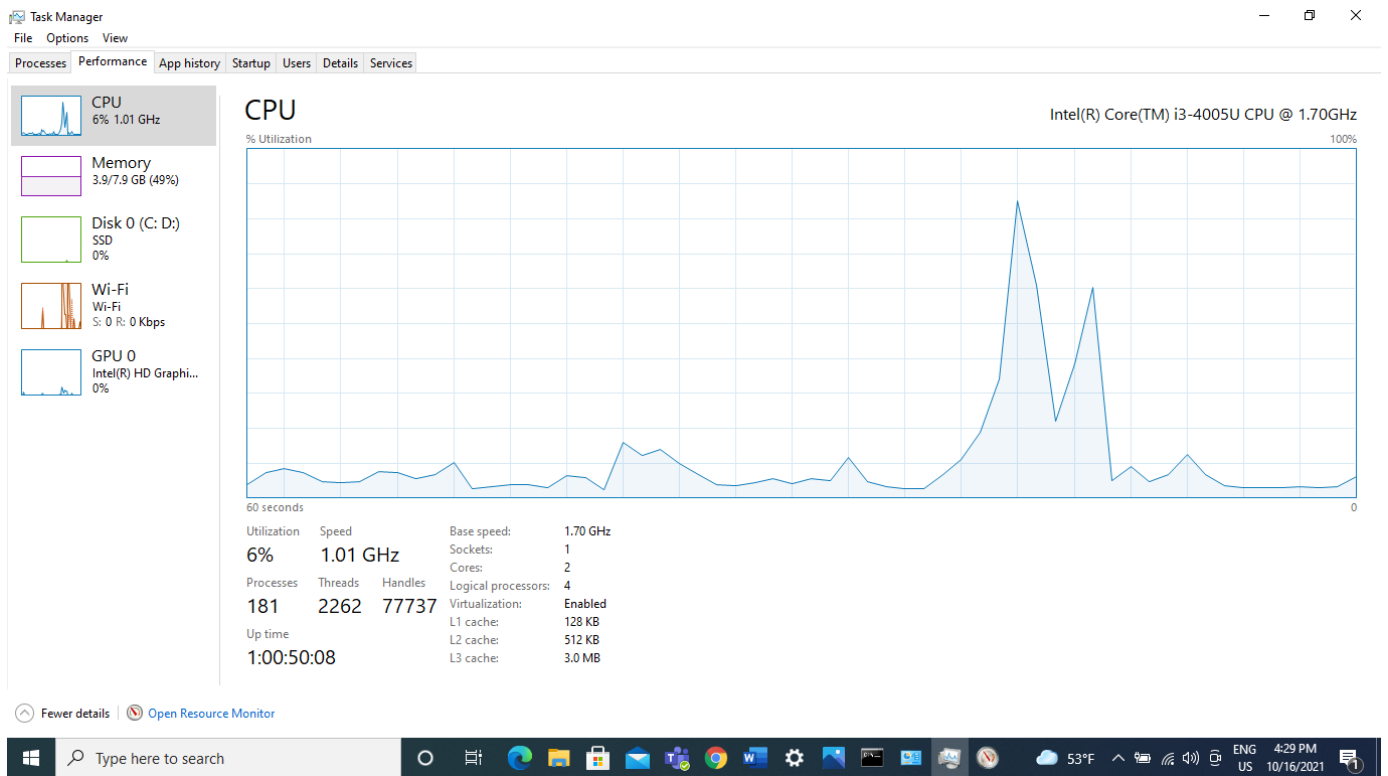
Type here to search

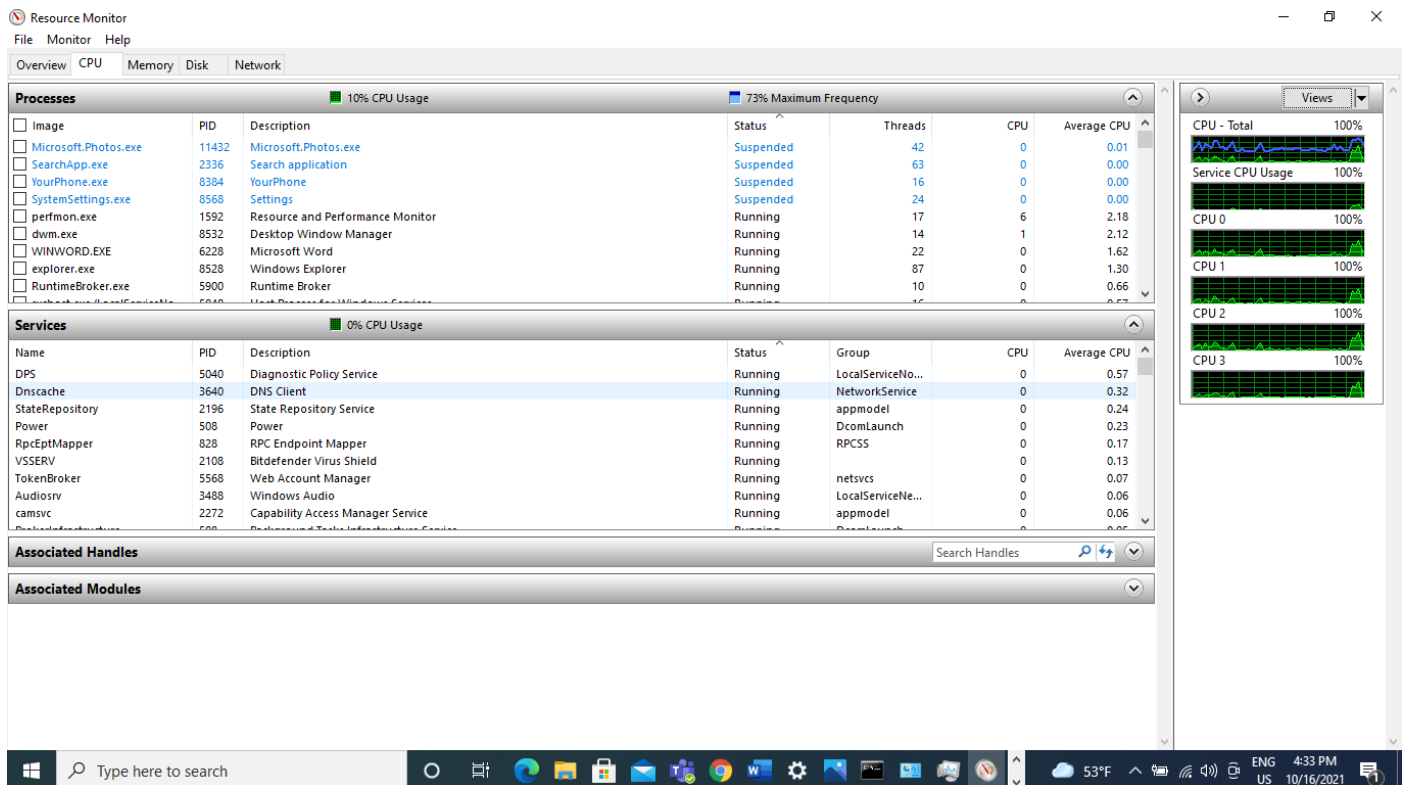
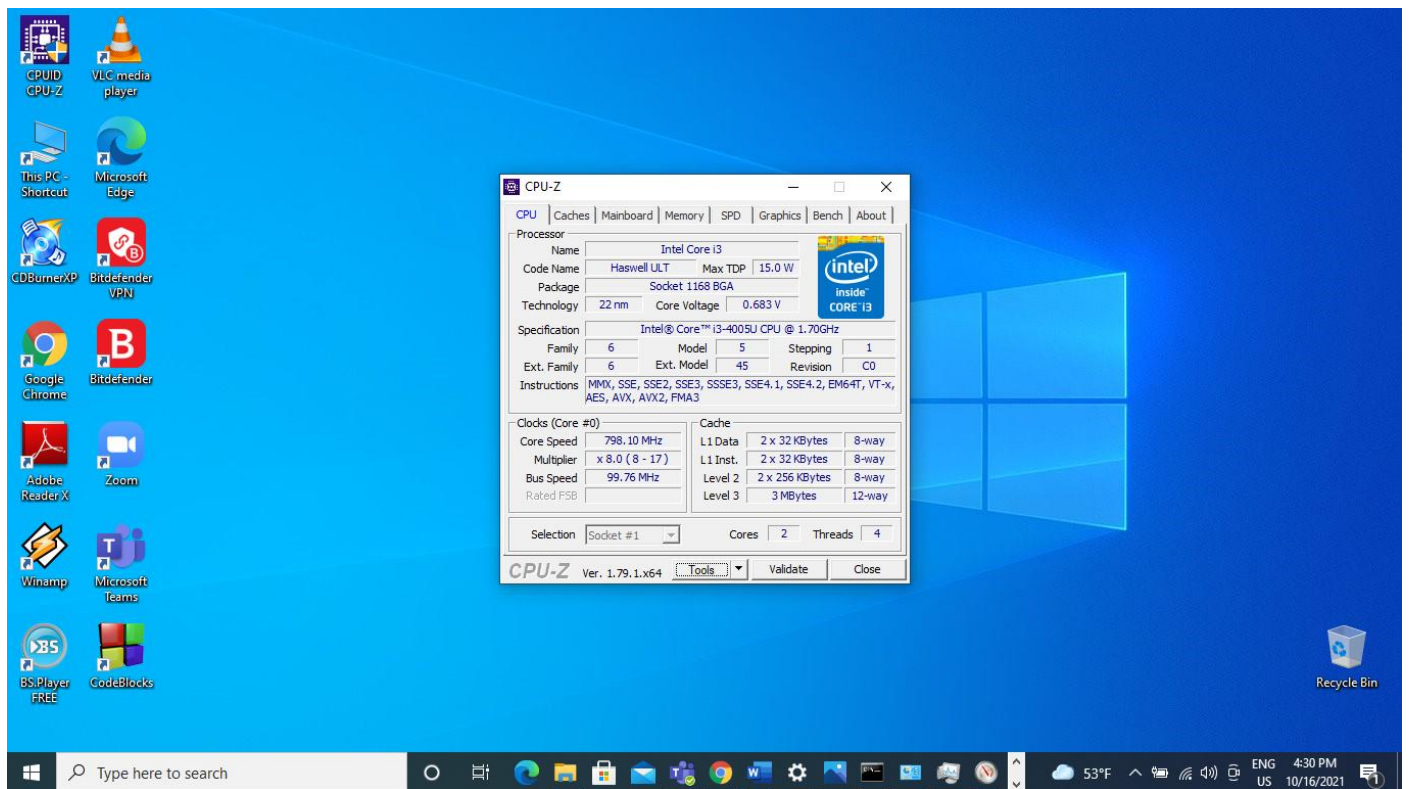
53°F 4:22 PM 10/16/2021

C.

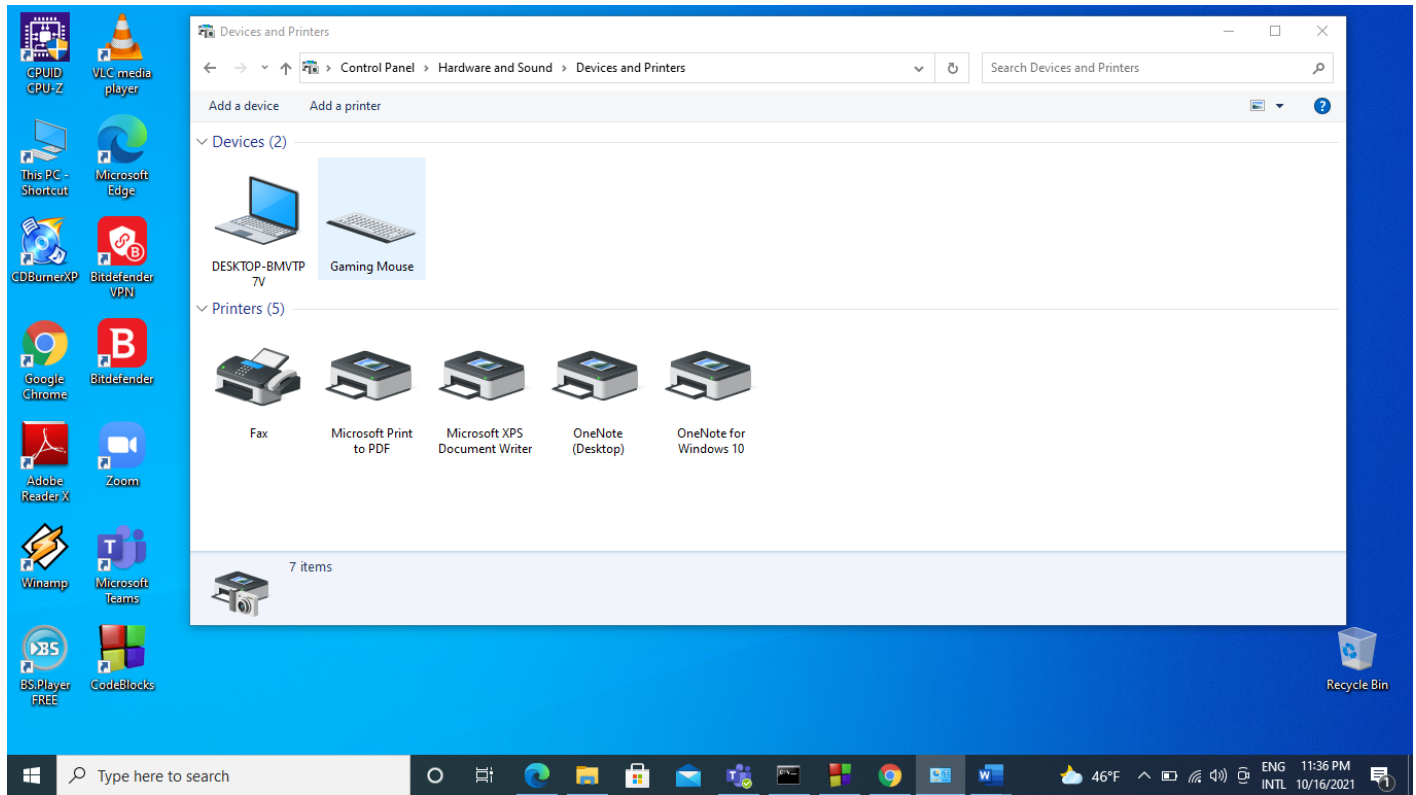


d.

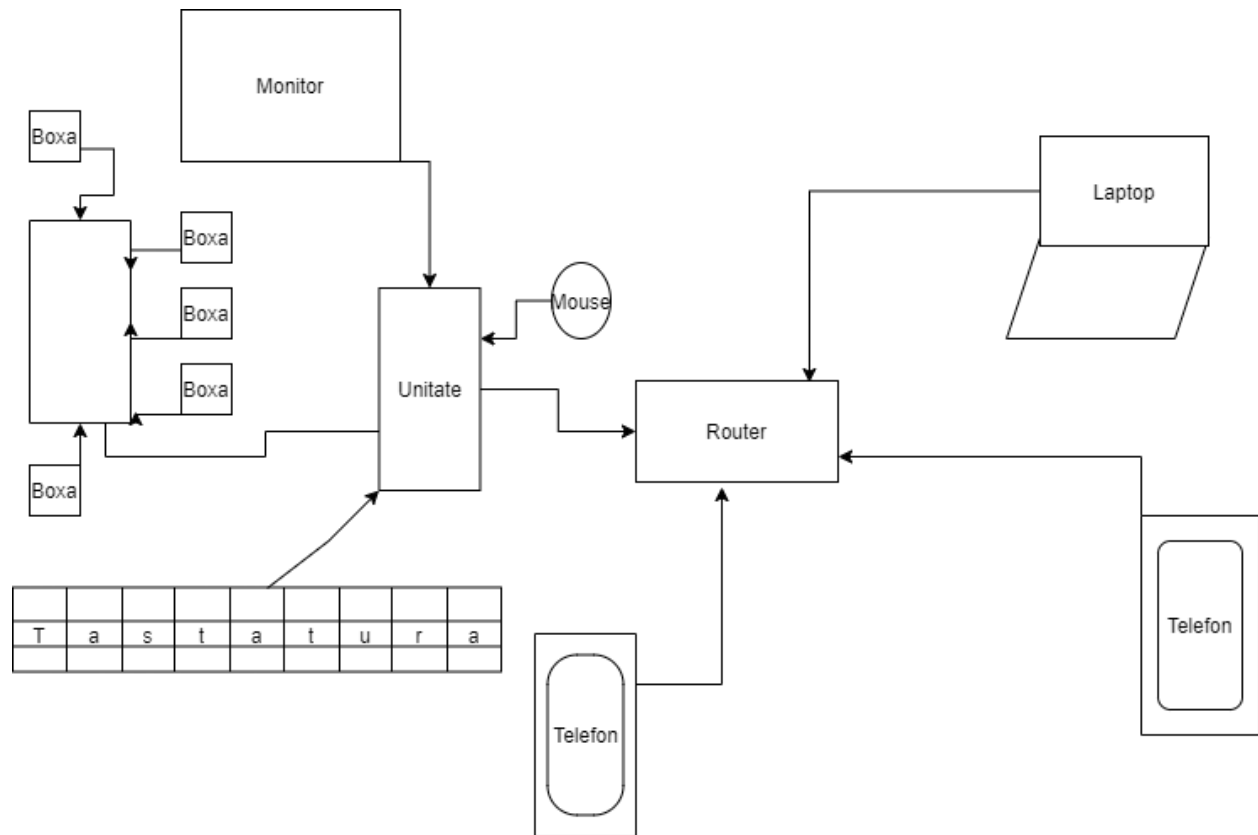




e.



3.



Routerul conectat la Unitate

Router EchoLife HG8121H GPON Terminal

POWER RATING: +12.0 V; 1.0 A

(23S)MAC:04FE8D88EFE6-F2(13)

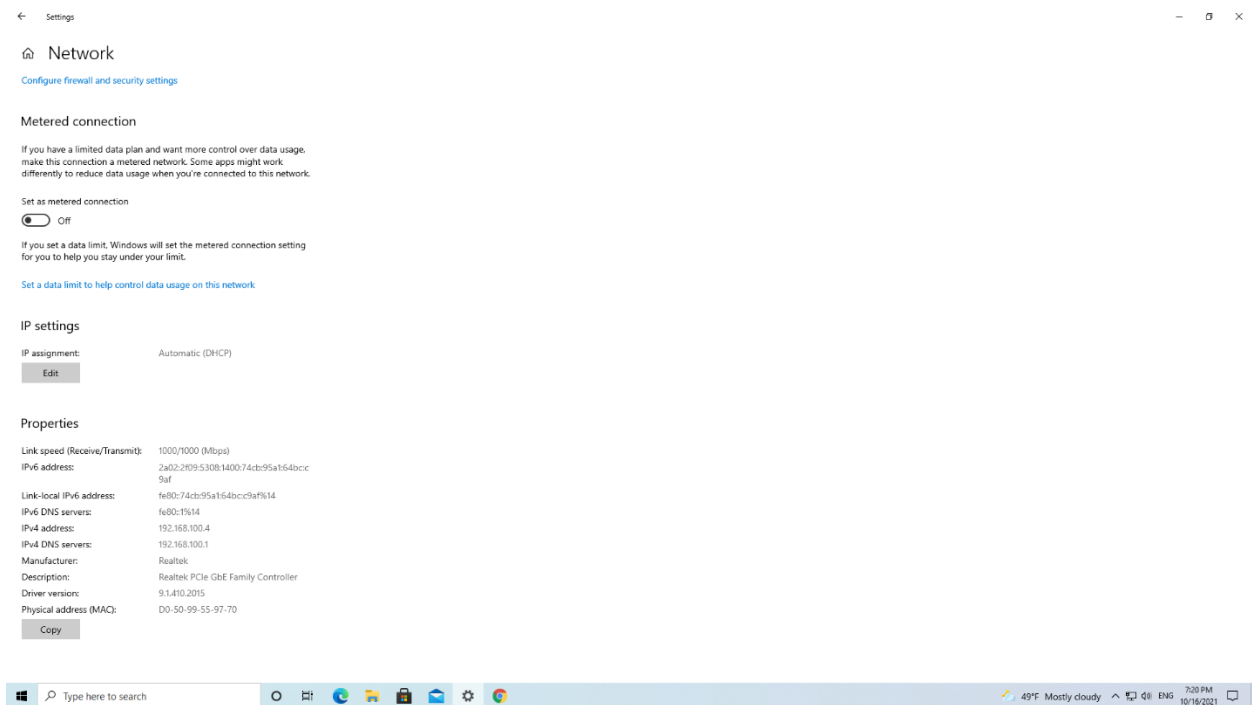
IP:192.168.100.1

Huawei EchoLife HG8121H, un echipament cu functie de router wireless ce functioneaza direct cu fibra optica.

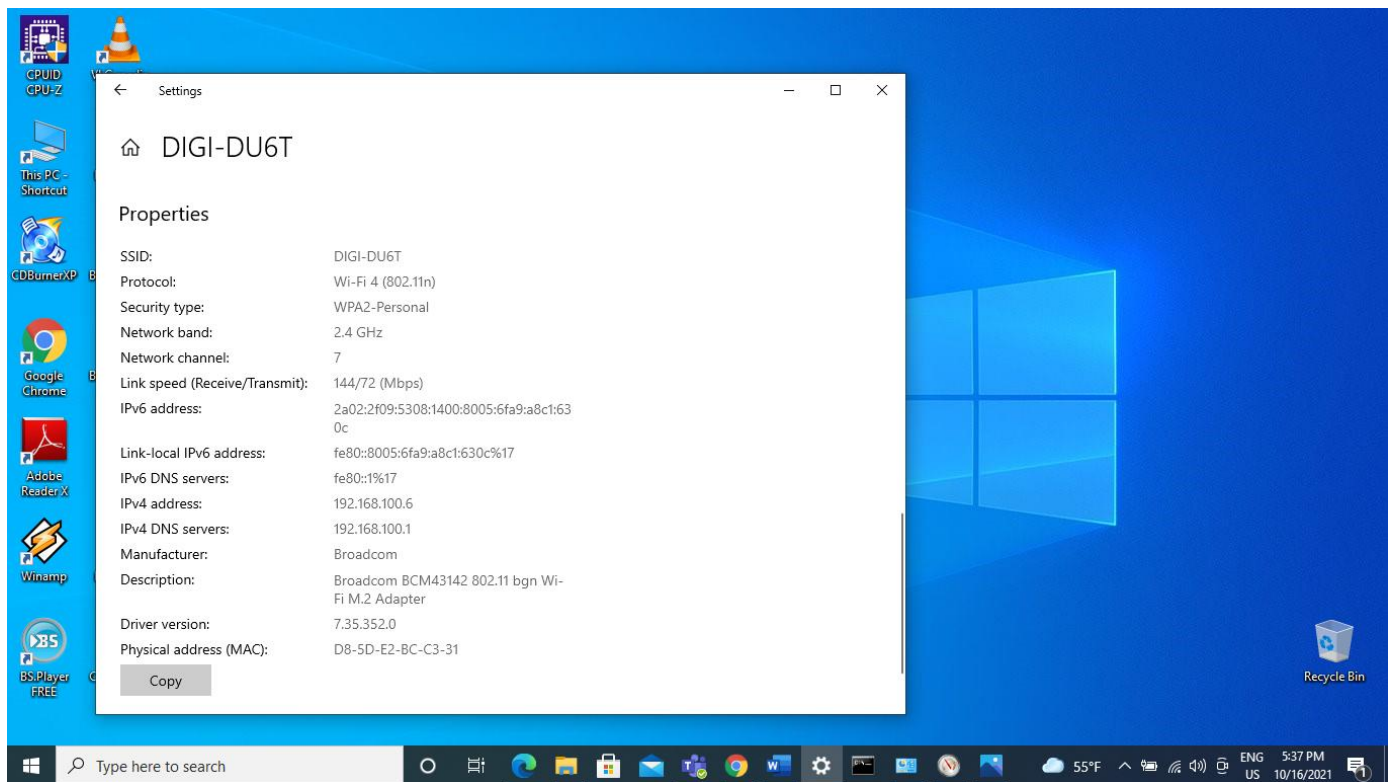
Este un ONT(Optical Network Terminal) ce isi face treaba fara prea mari probleme. El vine cu doua antene micute, in partea din spate si cu un conector de fibra ce se monteaza sub ONT. Conectorul de fibra are o parte decupata in router pentru a pozitiona mult mai usor fibra. Porturile sunt, de asemenea, pozitionate si ele tot in partea din spate iar ledurile pentru power, PON, Los, etc sunt pozitionate pe partea de sus a routerului.

WLAN

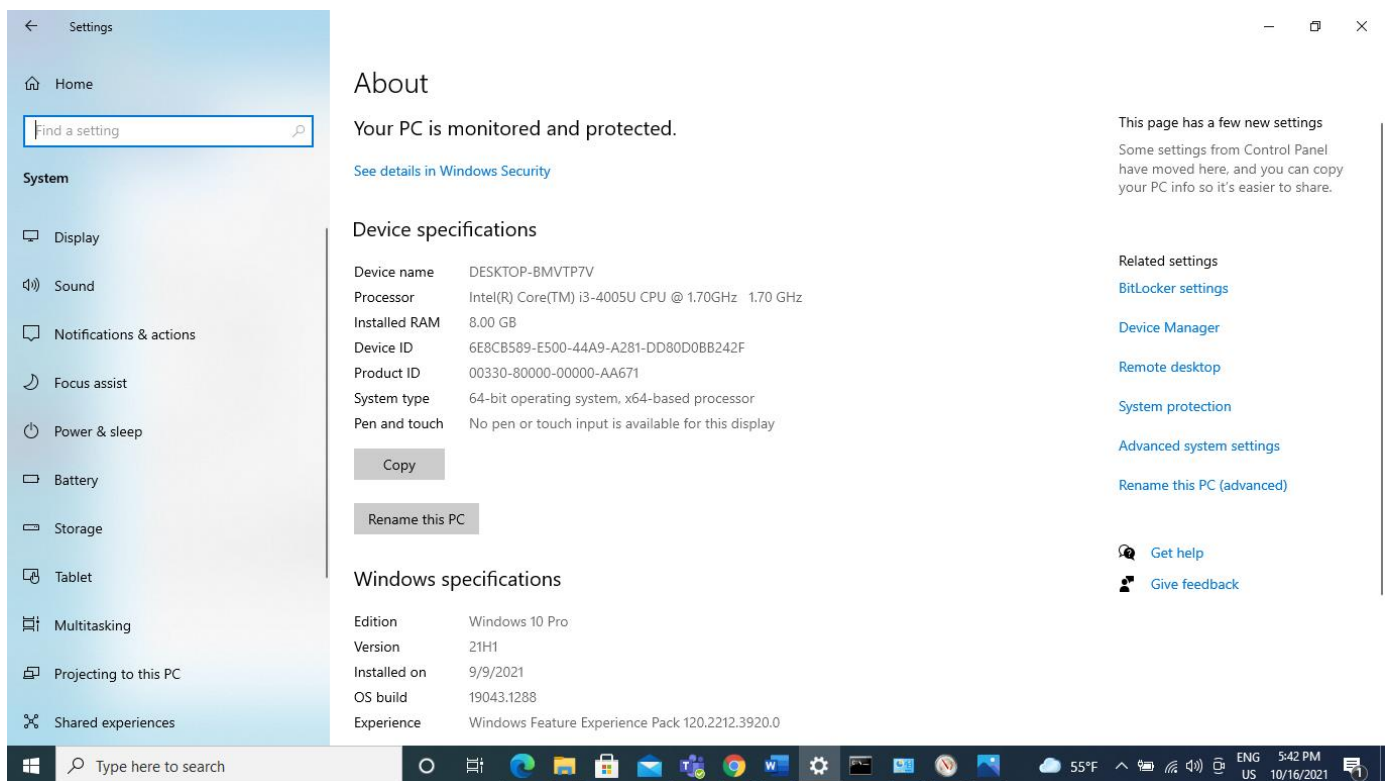




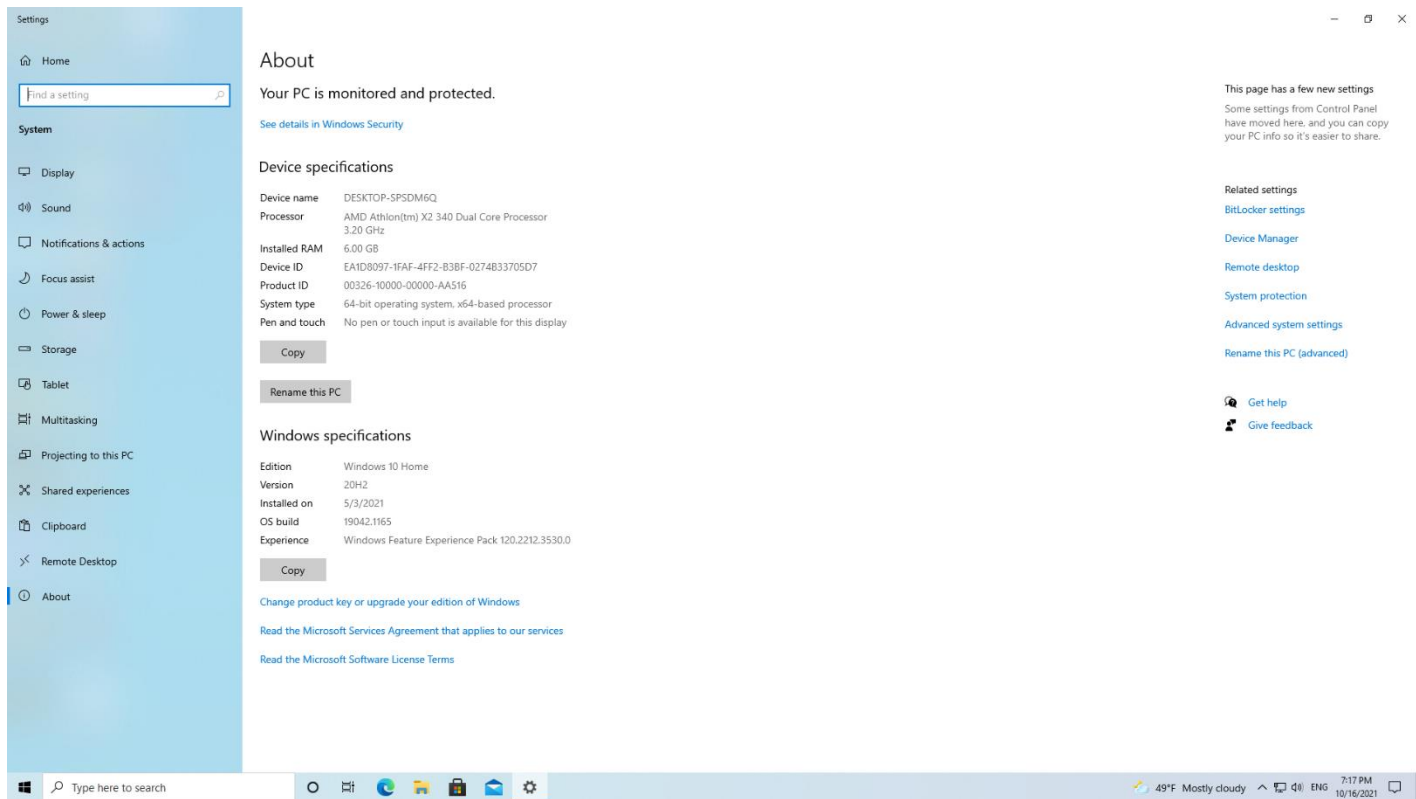
A wireless LAN (WLAN) is a wireless computer network that links two or more devices using wireless communication to form a local area network (LAN) within a limited area such as a home, school, computer laboratory, campus, or office building. This gives users the ability to move around within the area and remain connected to the network.



## Laptop



## PC



Tastatura Marvo Touch Wisdom K636

Scorpion Arachnids

USB interface

Work Voltage:5 V

Work current:300 mA

S/N:20171000472

Mouse Marvo Touch Wisdom

S/N:20170900194

600/800/1600/3200 DPI

Monitor LG 22M47D-P

Product Code:22mMP47D-PA.AEUXJPN

19V 1.2A

Serial No:506NTGY99231

Model No:22MP47D





Boxe Myria



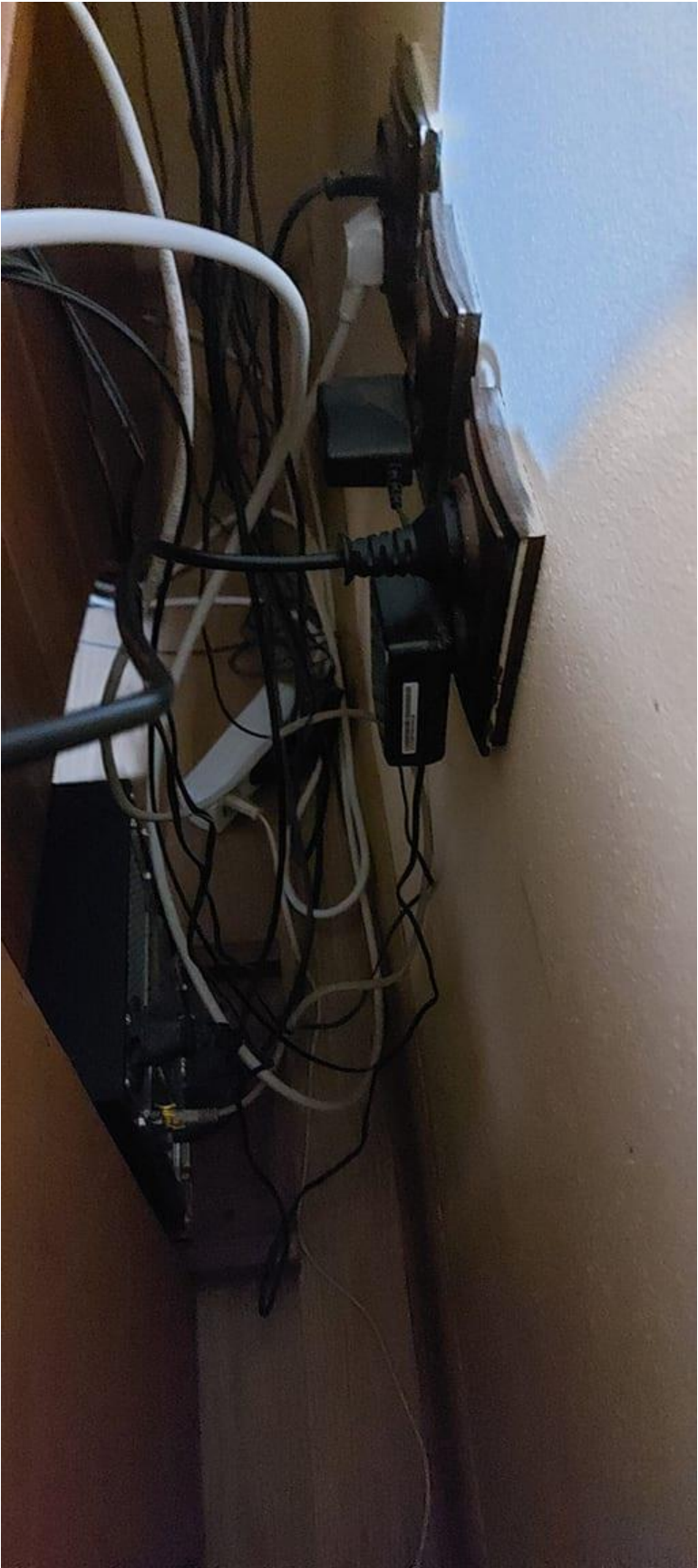




Unitate ASUS







2 telefoane Samsung Galaxy A71

17:51



# Despre telefon



## Galaxy A71

Editare

Număr telefon	Necunoscut
Nume model	Galaxy A71
Număr model	SM-A715F/DS
Număr serie	R58NB4WF5NJ
IMEI (slot 1)	350000028426399
IMEI (slot 2)	359969538426399

Informații stare

Informații juridice

Informații software

17:50



## < Informații stare

### Adresă IP

fe80::d801:c8ff:fe7f:e9ff  
192.168.100.34  
2a02:2f09:5308:1400:d801:c8ff:fe7f:e9ff  
2a02:2f09:5308:1400:cc5b:a76d:f699:cb76

### Adresă Wi-Fi MAC

### Adresă MAC Wi-Fi telefon

C0:3D:03:D2:F3:11

### Adresă Bluetooth

Indisponibil

### Adresă MAC Ethernet

Indisponibil

### Număr serie

R58NB4WF5NJ

### Timp de funcționare

286:43:44

### Stare telefon

Oficial

### Certificare FCC

FCC ID: A3LSMA715F

### Valoare nominală

DC 9 V; 2.77 A

17:50    •

  VoLTE+  

## < Informații baterie

### Stare baterie

Nu se încarcă

### Nivel baterie

9 %

### Capacitate baterie

4500 mAh (tipic)

Capacitatea tipică a fost testată de către un terț, în condițiile sale de laborator. Capacitatea tipică reprezintă o medie estimată care ia în calcul diferențele la nivelul capacității bateriei între eșantioanele de baterii testate conform standardului IEC 61960. Capacitatea nominală (minimă) este de 4370 mAh. Durata reală a bateriei poate varia în funcție de mediul de rețea, de modelele de utilizare și de alți factori.

17:50



## < Informații software

### Versiune One UI

3.1

### Versiune Android

11

### Actualizare de sistem Google Play

1 august 2021

### Versiune bandă de bază

A715FXXU6BUH1

### Versiune nucleu

4.14.190-21840848-abA715FXXU6BUH1

#1 Thu Aug 5 17:29:49 KST 2021

### Număr versiune

RP1A.200720.012.A715FXXU6BUH1

### Starea SE pentru Android

Enforcing

SEPF\_SM-A715F\_11\_0010

Thu Aug 05 17:30:32 2021

### Versiune Knox

Knox 3.7

Knox API level 33

TIMA 4.1.0

### Versiune software furnizor de servicii

SAOMC\_SM-A715F\_OXM\_ROM\_RR\_0007

ROM/ROM,ROM/ROM

### Vers. software securitate

ASKS v4.0 Release 20200806

C.

```
Command Prompt
Microsoft Windows [Version 10.0.19043.1288]
(c) Microsoft Corporation. All rights reserved.

C:\Users\hvp>ping

Usage: ping [-t] [-a] [-n count] [-l size] [-f] [-i TTL] [-v TOS]
          [-r count] [-s count] [[-j host-list] | [-k host-list]]
          [-w timeout] [-R] [-S srcaddr] [-c compartment] [-p]
          [-4] [-6] target_name

Options:
  -t          Ping the specified host until stopped.
              To see statistics and continue - type Control-Break;
              To stop - type Control-C.
  -a          Resolve addresses to hostnames.
  -n count    Number of echo requests to send.
  -l size     Send buffer size.
  -f          Set Don't Fragment flag in packet (IPv4-only).
  -i TTL     Time To Live.
  -v TOS      Type Of Service (IPv4-only. This setting has been deprecated
              and has no effect on the type of service field in the IP
              Header).
  -r count    Record route for count hops (IPv4-only).
  -s count    Timestamp for count hops (IPv4-only).
  -j host-list Loose source route along host-list (IPv4-only).
  -k host-list Strict source route along host-list (IPv4-only).
  -w timeout  Timeout in milliseconds to wait for each reply.
  -R          Use routing header to test reverse route also (IPv6-only).
              Per RFC 5095 the use of this routing header has been
              deprecated. Some systems may drop echo requests if
              this header is used.
  -S srcaddr  Source address to use.
  -c compartment Routing compartment identifier.
  -p          Ping a Hyper-V Network Virtualization provider address.
  -4          Force using IPv4.
  -6          Force using IPv6.

C:\Users\hvp>
```

4.1

$$1. \quad 1600 \times 1200 \text{ px}$$

Adicionalmente 3 bits/px.

$$R_{\text{ota}} = 56 \text{ Kbps}$$

$$1600 \cdot 1200 \cdot 3 = 15 \text{ Mbits}$$

$$R = \frac{C}{t} \Rightarrow t = \frac{C}{R} = \frac{15 \text{ Mbits}}{56 \text{ Kbps}} = \frac{15000 \text{ Kbits}}{56 \text{ Kbps}} = 267,85 \text{ s}$$

$$R = \frac{C}{t} \Rightarrow t = \frac{15 \text{ Mbits}}{10 \text{ Kbps}} = 15 \text{ s}$$

$$R = \frac{C}{t} \Rightarrow t = \frac{15 \text{ Mbits}}{10 \text{ Mbps}} = 1,5 \text{ s}$$

$$R = \frac{C}{t} \Rightarrow t = \frac{15 \text{ Mbits}}{100 \text{ Mbps}} = 0,15 \text{ s}$$

$$R = \frac{C}{t} \Rightarrow t = \frac{15 \text{ Mbits}}{6} = \frac{15 \text{ Mbits}}{10^3 \text{ Mbps}} =$$

$$\frac{15 \text{ Mbits}}{1000 \text{ Mbps}} = 0,015 \text{ s}$$

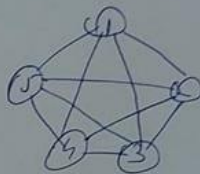


4.2 5 echip.

4 tipuri de transmisii

$t = 100 \text{ ms}$

Cote tipologie



$$C_5^2 = \frac{5!}{3!2!} = \frac{4 \cdot 5}{1 \cdot 2} = 10.$$

$$\boxed{10 \cdot 100 \text{ ms}}$$