



National e-Government Network

Network Operation Center(NOC)

Bangladesh Computer Council

01

Network Coverage: Info-Sarkar Phase-II

02

Introducing Basic Network Topology

03

Scope of Maintenance Work

04

Introducing Active & Passive Device

05

Physical Connectivity at Last Mile Office

06

Materials List at Client End

07

Basic Fault Identification & Fault Handling

08

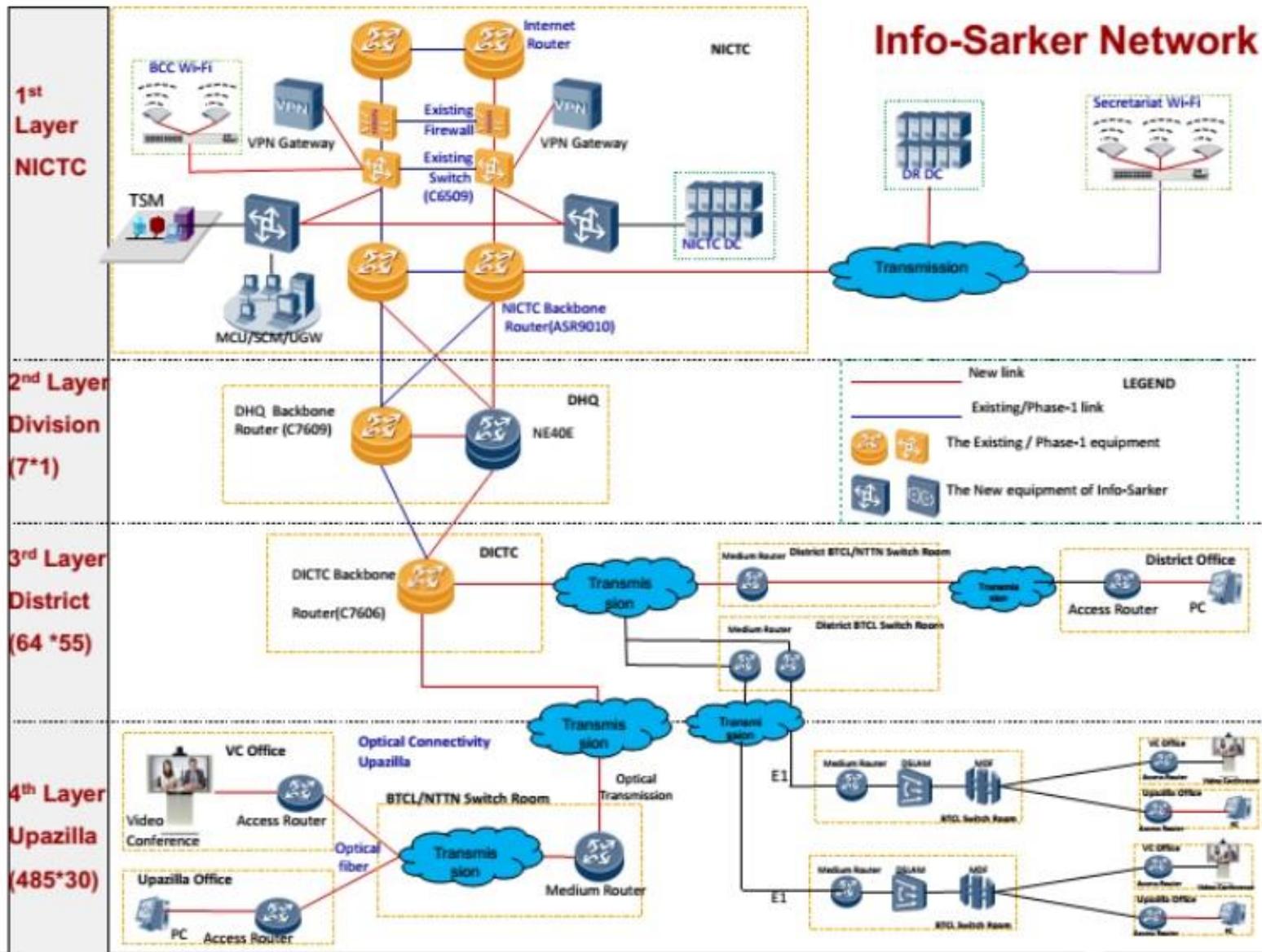
Safety and Awareness

09

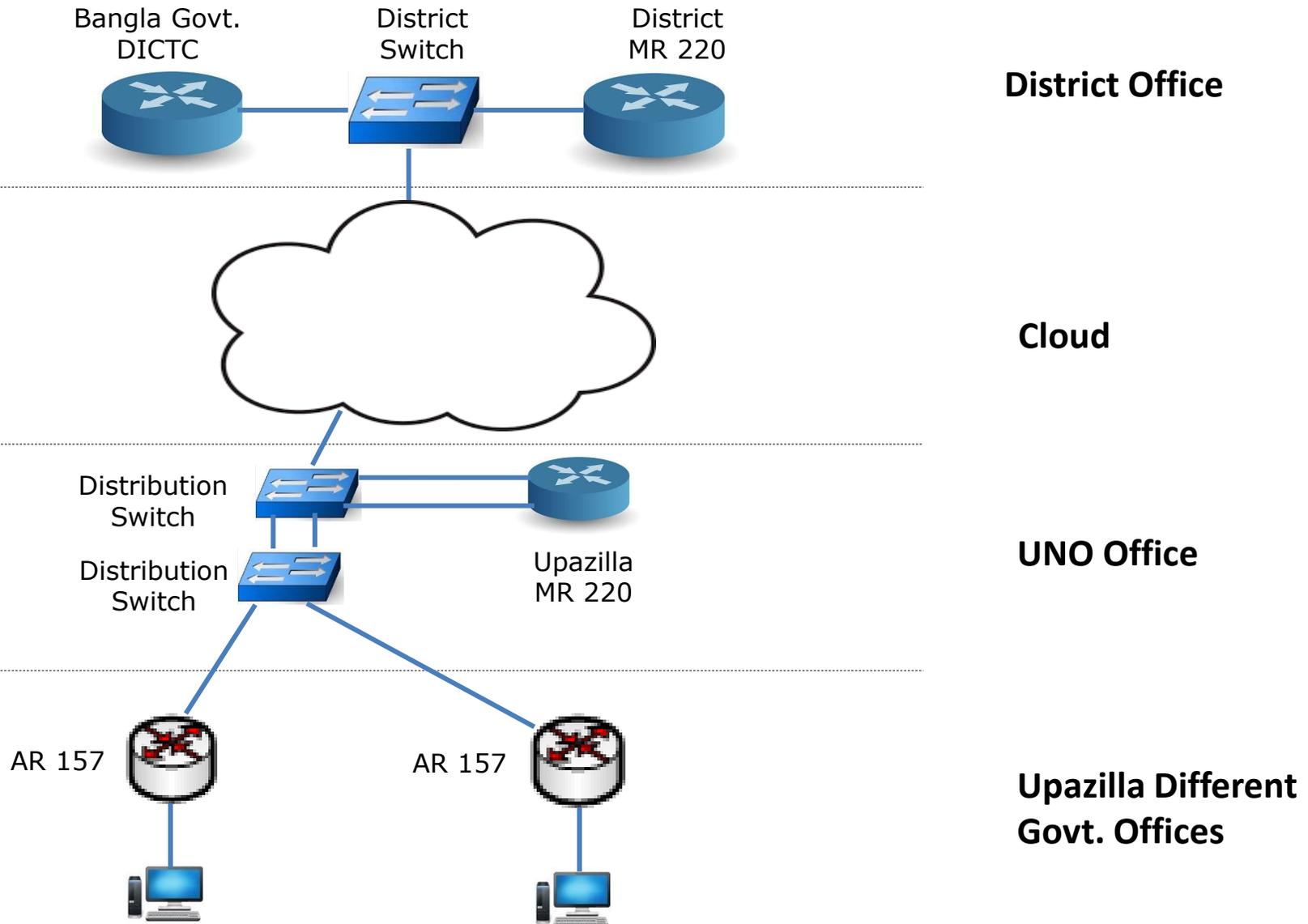
Fault Escalation & Feedback Process

10

Escalation Matrix



Introducing Basic Network Topology



Scope of Maintenance Work

NTTN SCOPE:

- Optical fiber Cable**
- Media Converter**
- UTP Cable (MC to AR)**
- TJ Box**
- Patch cord**

BCC SCOPE:

- Bangla Govt. Router(Cisco)**
- Medium Router (MR)**
- Access Router (AR)**

User Office Scope:

- LAN Cable**
- PC LAN Card**

Introducing Basic Network Devices

Huawei AR 157 Router



Front Side View



Back side View

Media Converter & patch Cord



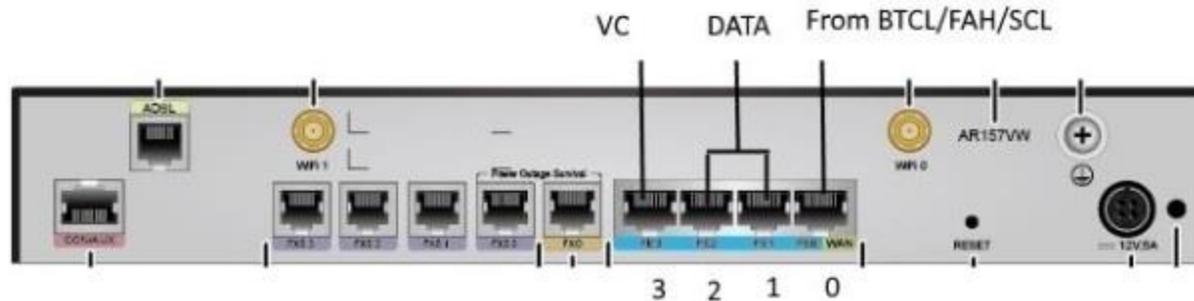
LAN Cable (CAT-5/6)



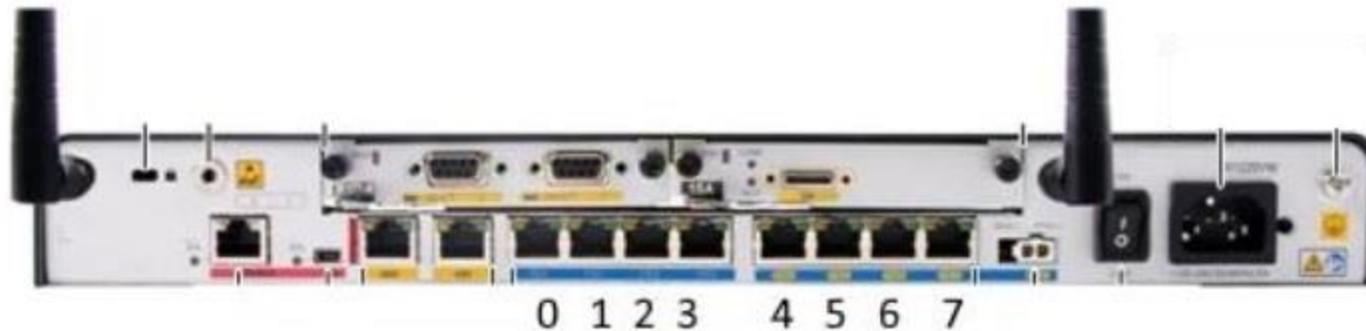
Physical Connectivity at Last Mile Office

A) Physical Connection Check:

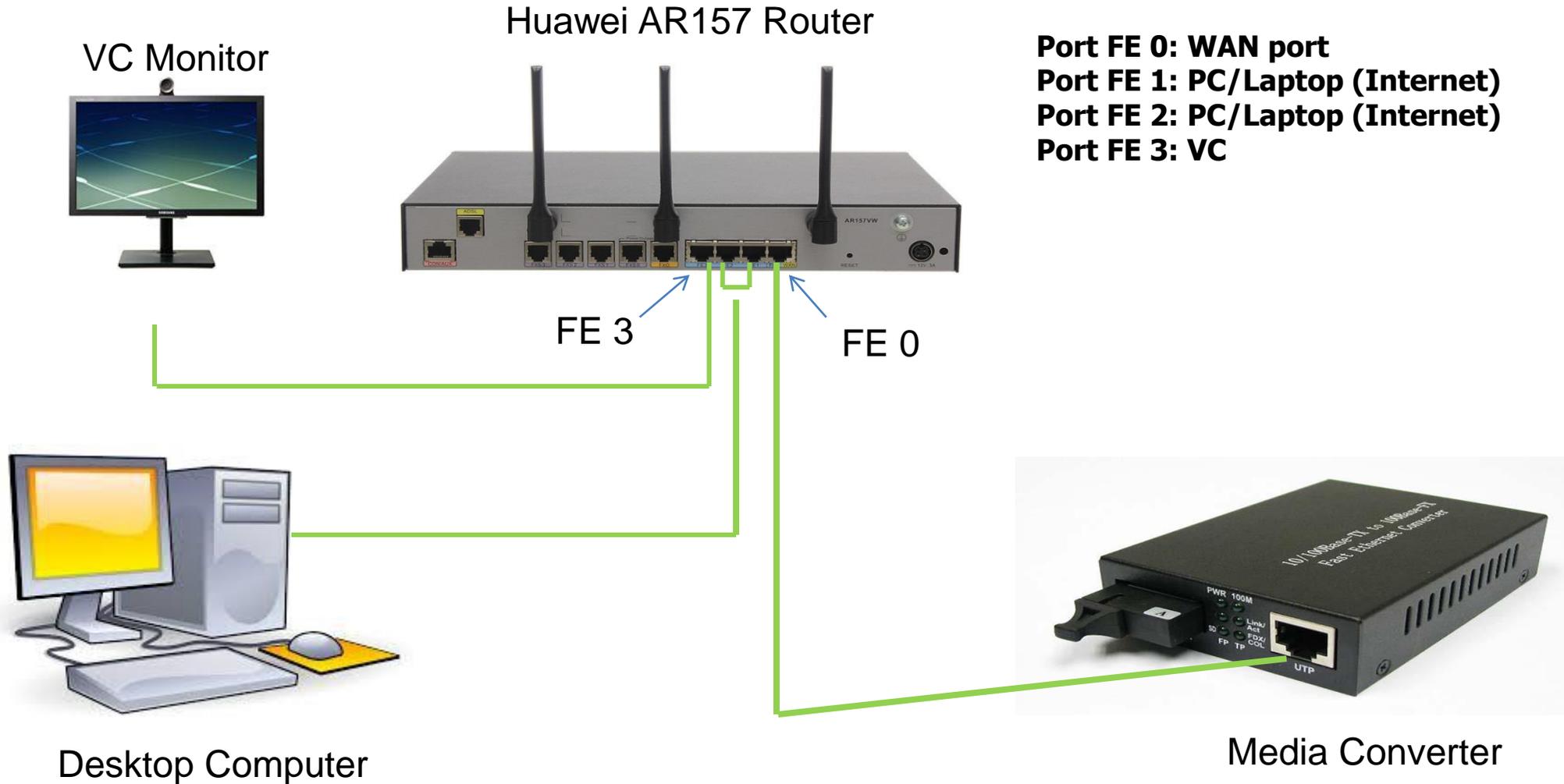
RouterAR157VW: Connect Cable with DATA Port 1 or Port 2 as Picture



RouterAR1220VW: Connect Cable End using DATA Port 0,1,2,4,5 as Picture



Physical Connectivity at Last Mile Office



Materials List at Client End

DC Office (Aggregation)

Item Name	Quantity
Backbone Router	01
MR	01
AR	01
MC (D-link / On net)	01
LAN cable	02
D-Link Switch	02/03

UNO Office (Aggregation)

Item Name	Quantity
MR	01
AR	01
MC (D-link / On net)	01
LAN cable	02
D-Link Switch	02

Last mile Office

Item Name	Quantity
AR	01
MC (D-link / On net)	01
LAN cable	02

Fault Identification & Fault Handling Process

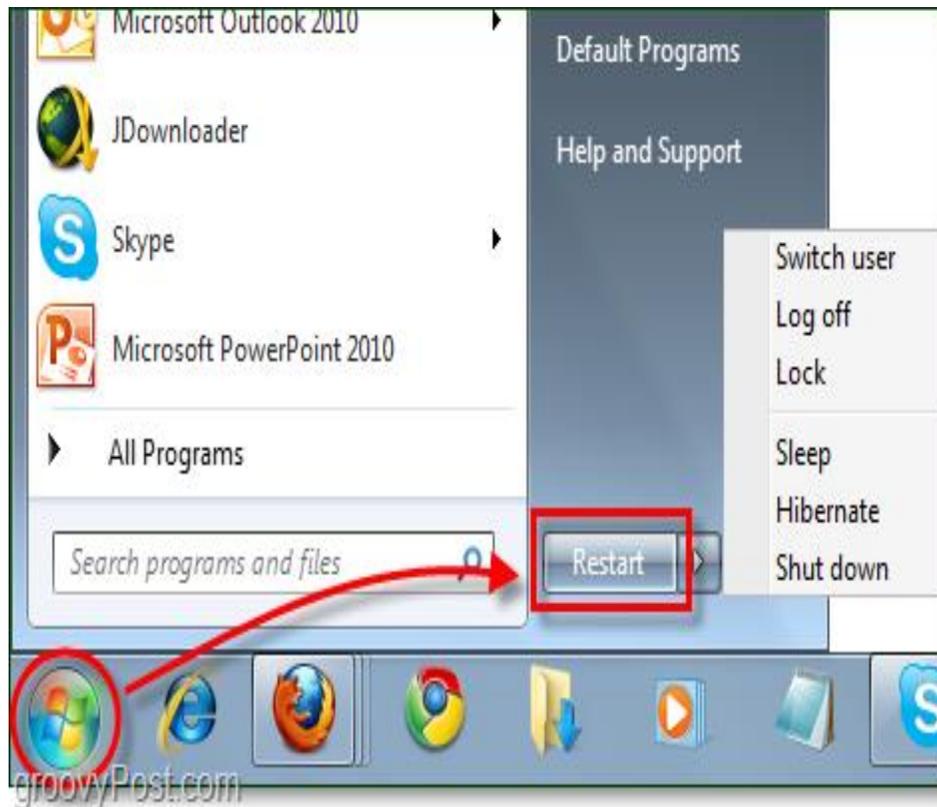
POWER SUPPLY:

- ❑ Ensure power source of device (MC & Huawei Router AR157) connection 24/7



Fault Identification & Fault Handling Process

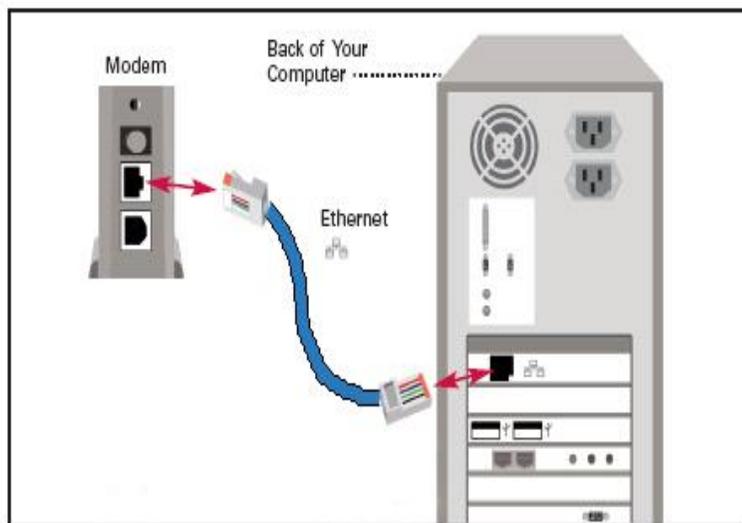
Restart Computer.....



Fault Identification & Fault Handling Process

PHYSICAL CONNECTIVITY:

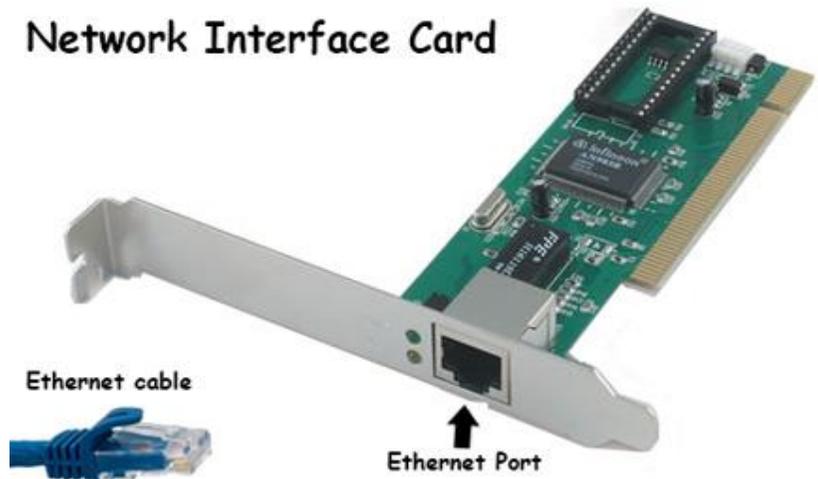
- ❑ Avoid loose connection of LAN cable
- ❑ Ensure proper connection of MC to Router



Fault Identification & Fault Handling Process

LAN CARD AND LAN DRIVER:

- ❑ Ensure presence of LAN card insert CPU
- ❑ Ensure the installation of LAN card driver on PC



Fault Identification & Fault Handling Process

AR157 Router LED Status:

System Running

PC to Router Connectivity (LAN)



Power On

WAN/ Uplink

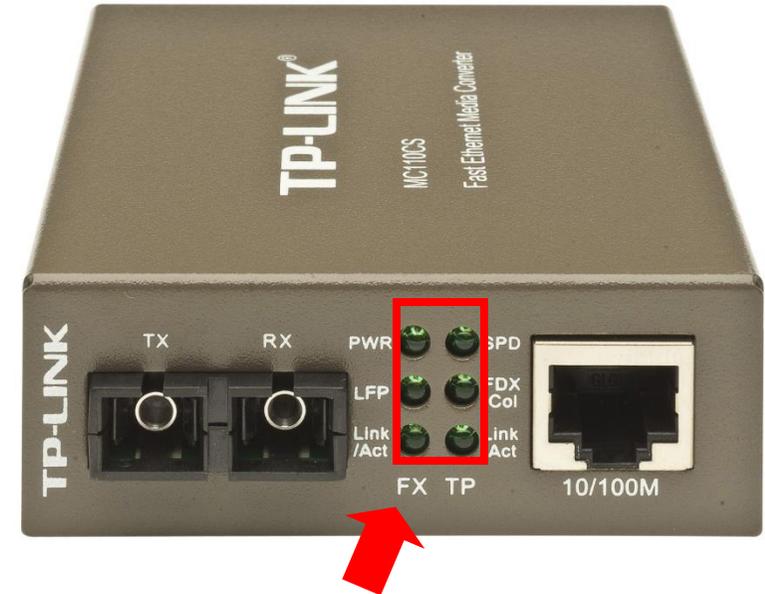


If the lights are ON at same time,
then the router should be hang

Fault Identification & Fault Handling Process

MC (Media Converter) STATUS:

- ❑ Ensure the power LED (on /off)
- ❑ Identify the MC all LED (on /off)
- ❑ Check the FX/FP LED (on/off)
- ❑ Check the TX/TP LED (on/off)



Fault Identification & Fault Handling Process

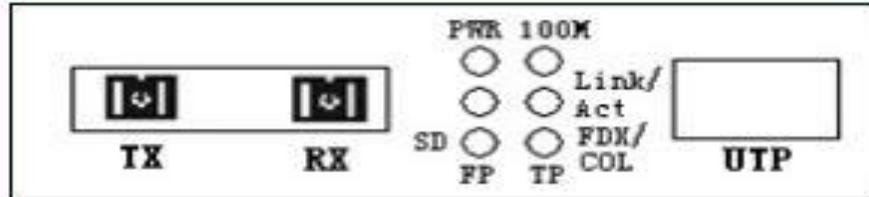


Fig. 1: Front panel for dual fiber media converter

LED	Status	Description
PWR	On	Power supply is normal
	Off	Check power supply
100M	On	TP Port Link speed is 100 Mb/s
	Off	TP Port Link speed is 10 Mb/s
TP Link/Act	On	TP Link connected
	Blink	Data transmission
	Off	TP Link fail
FP Link/Act	On	Fiber Port Link connected
	Blink	Data transmission
	Off	Fiber Port Link fail
FDX/ COL	On	TP Port works in full duplex mode
	Off	TP Port works in half duplex mode
SD	On	Fiber Port signal detected
	Off	Fiber Port signal not detected

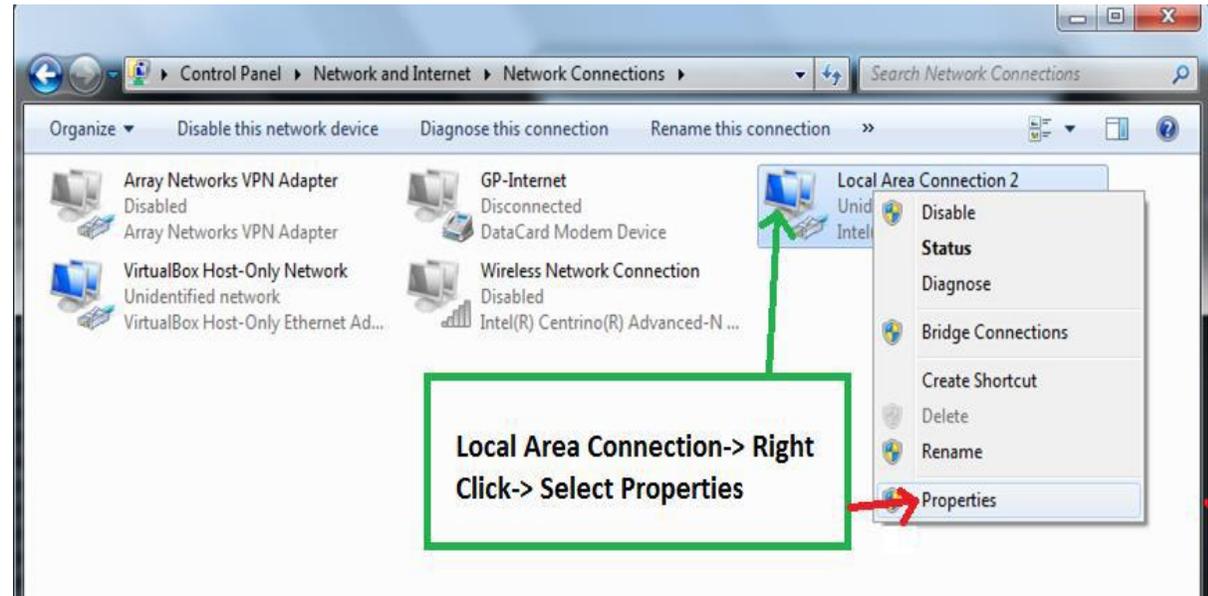
Media Converter LED Status:



Connectivity Connection Check:

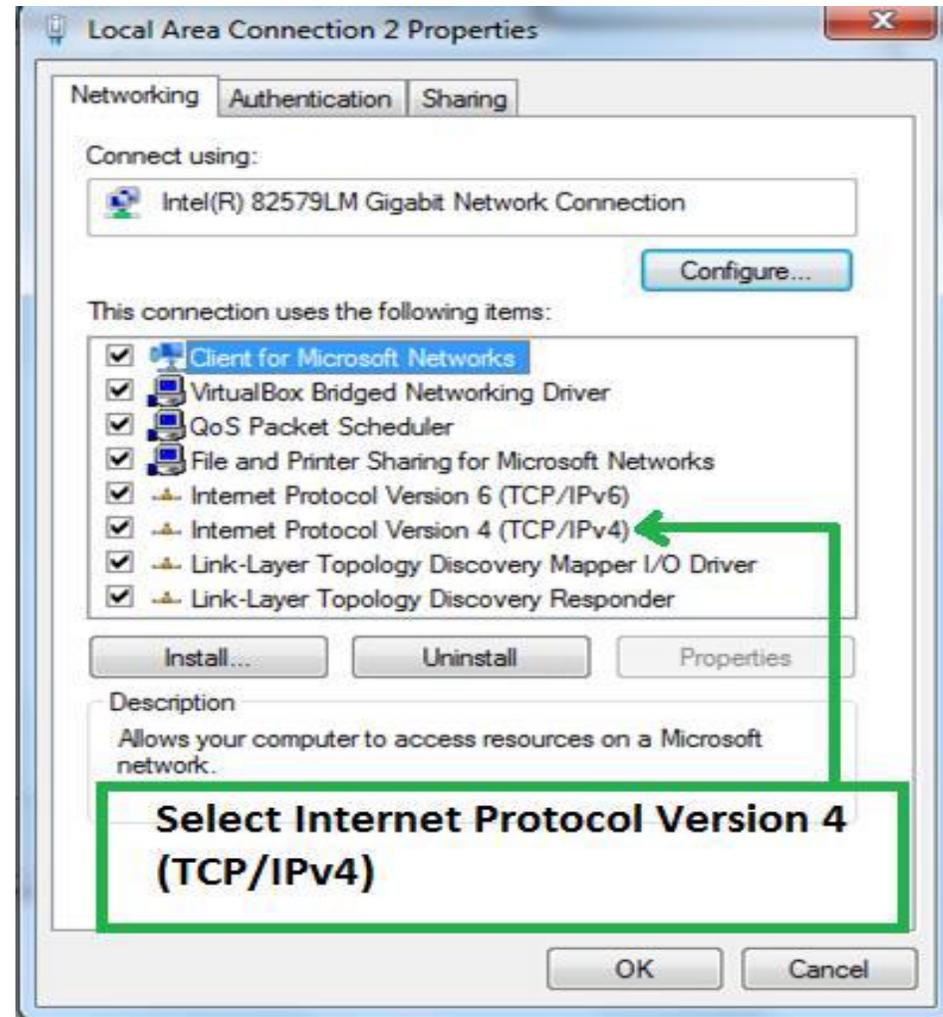
Open your Desktop/laptop
Got to Control Panel
->Network Connection

Go to LAN Connection
->properties
Local Area Connection/
Network



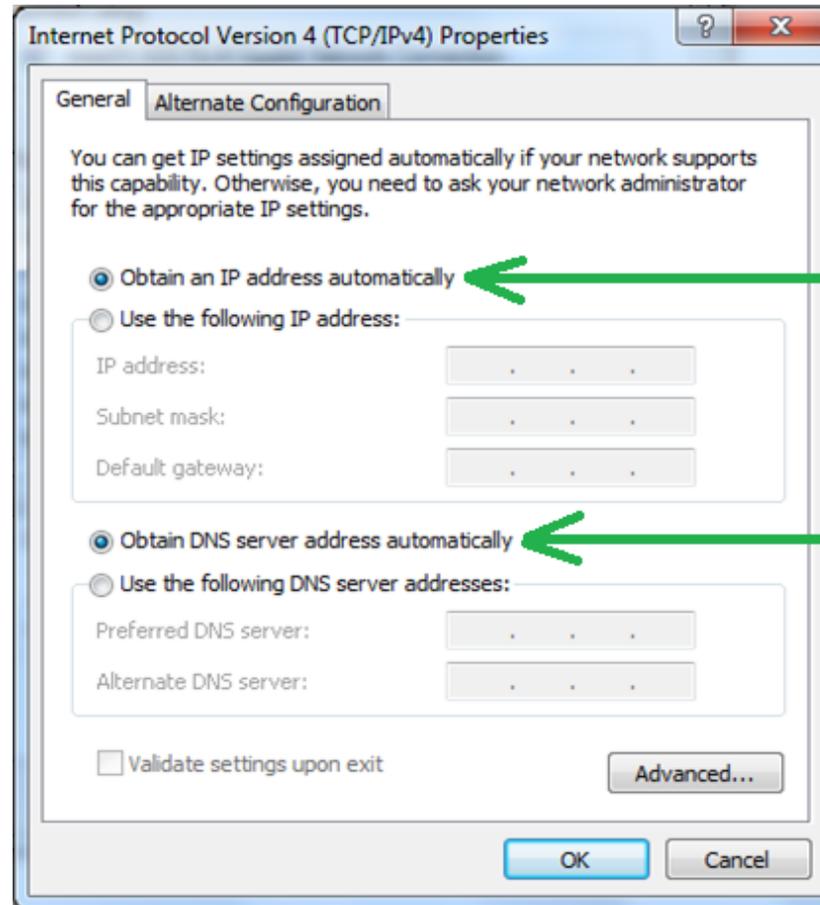
Connectivity Connection Check:

2nd Step:



Connectivity Connection Check:

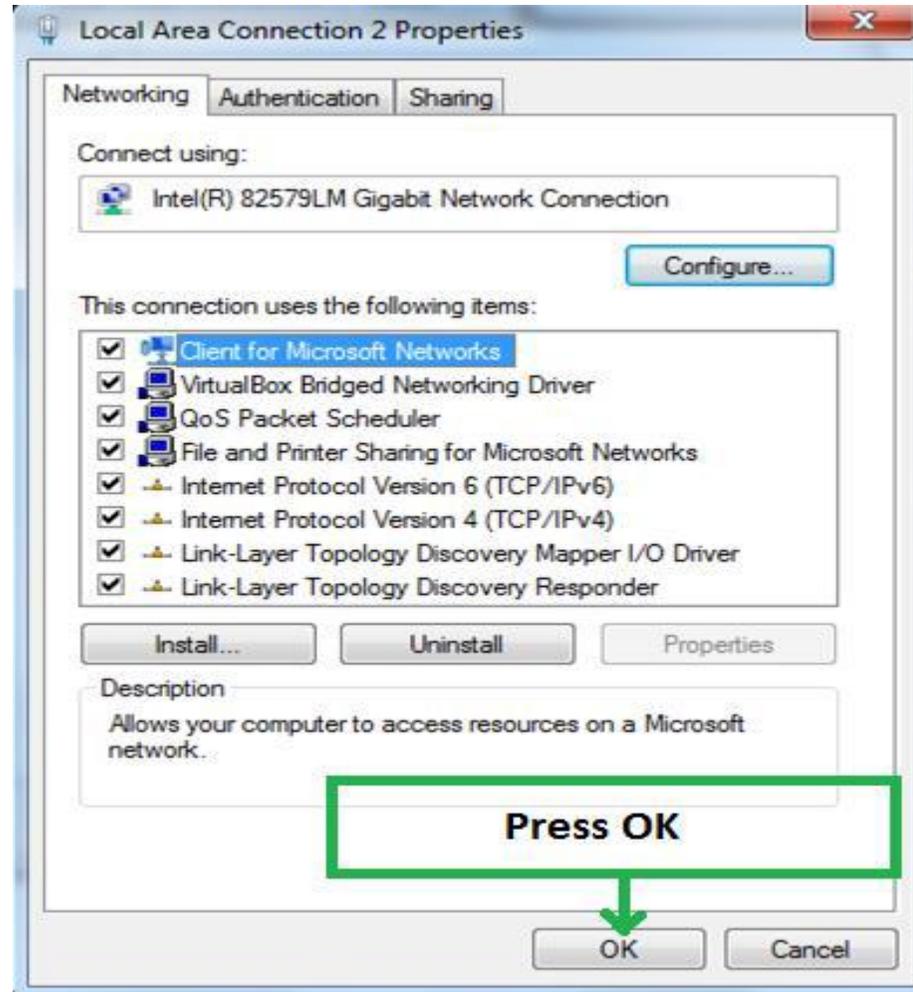
3rd Step:



Select Obtain an IP Address automatically & Obtain DNS server address automatically-> then press OK

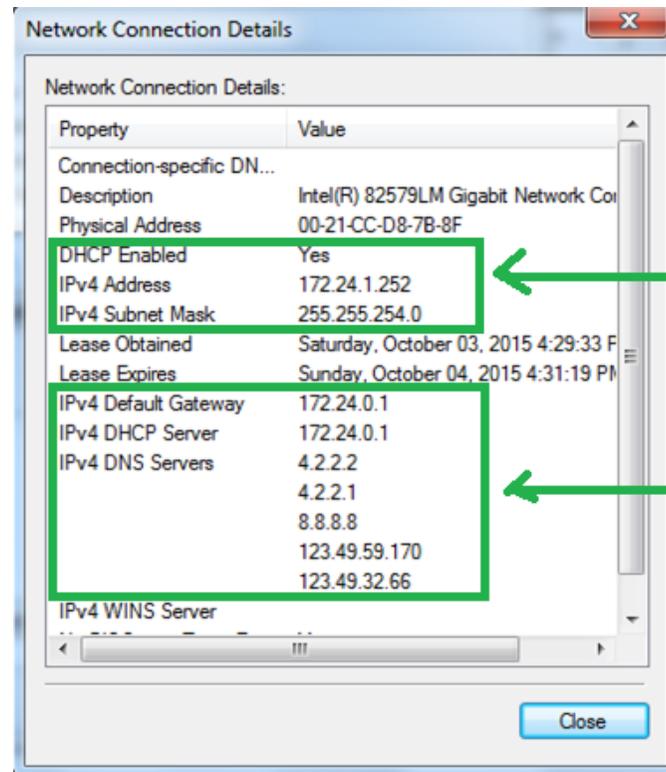
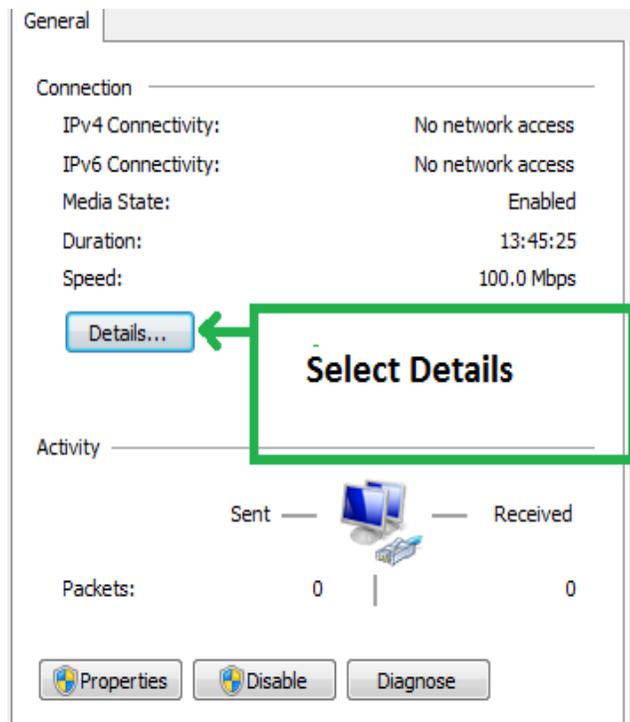
Connectivity Connection Check:

Finish this Process to Press OK



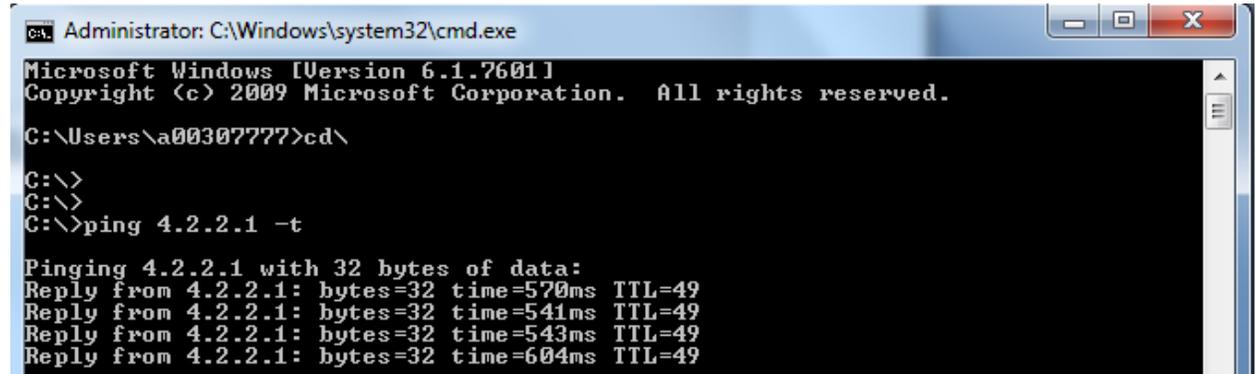
Connectivity Connection Check:

Got to Control Panel ->Network Connection Go to Local Area Connection/ Network



Connectivity Connection Check:

For open command prompt
->Ctrl + R

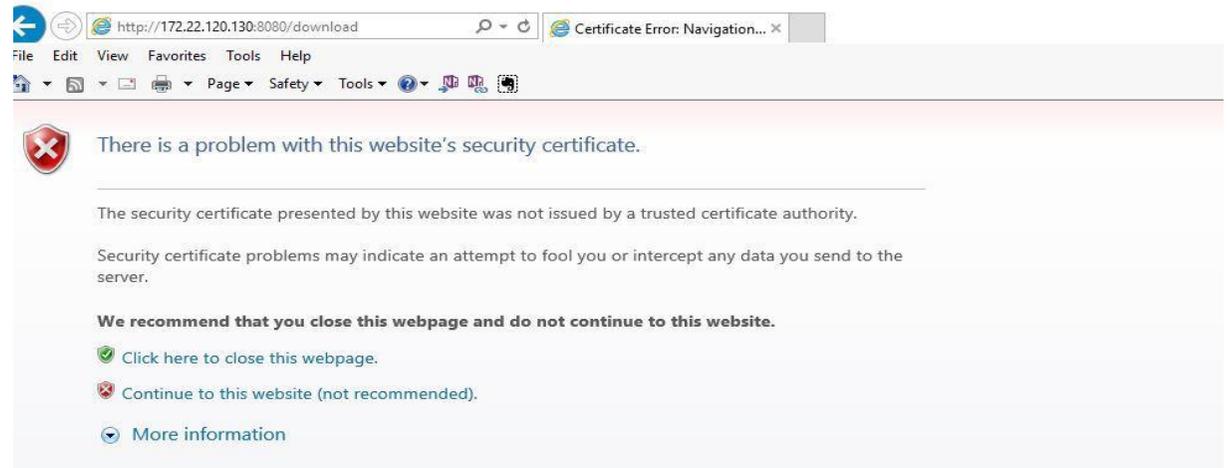


```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\A00307777>cd\

C:\>
C:\>
C:\>ping 4.2.2.1 -t

Pinging 4.2.2.1 with 32 bytes of data:
Reply from 4.2.2.1: bytes=32 time=570ms TTL=49
Reply from 4.2.2.1: bytes=32 time=541ms TTL=49
Reply from 4.2.2.1: bytes=32 time=543ms TTL=49
Reply from 4.2.2.1: bytes=32 time=604ms TTL=49
```



Fault Identification & Fault Handling Process

Terminal Security Management (TSM) NAC log-in:

- ❑ Install TSM software in your Computer.
- ❑ Put user name & password provided by BCC to log-in into NAC Agent .
- ❑ Select save password & authentication option.
- ❑ Account name is Different and Password is Common (Infosarker2)
- ❑ Put the actual server IP - (Dhaka-172.22.120.131) in advance option.

<http://infosarker.bcc.net.bd/tsm>



The screenshot shows the NAC Agent login window. The title bar reads "NAC Agent [Server not connected]". The window contains the following fields and options:

- Account type: Common account (dropdown menu)
- Account: Ufpo_Munshiganjsadar (text input)
- Password: [Redacted with dots] (password input)
- Save password: (checkbox)
- Auto authenticator: (checkbox)
- Forget password (text link)
- Buttons: Advanced>>, Login, Close



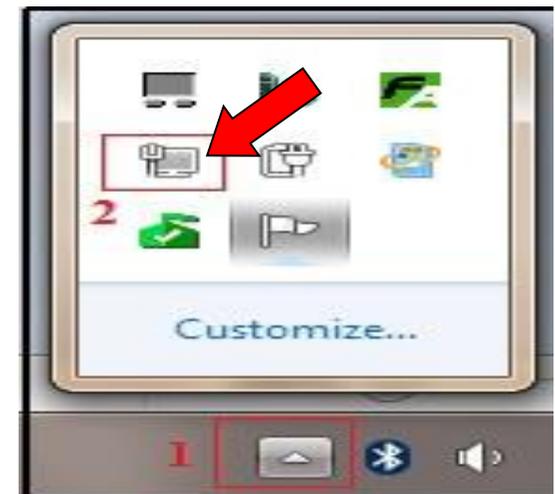
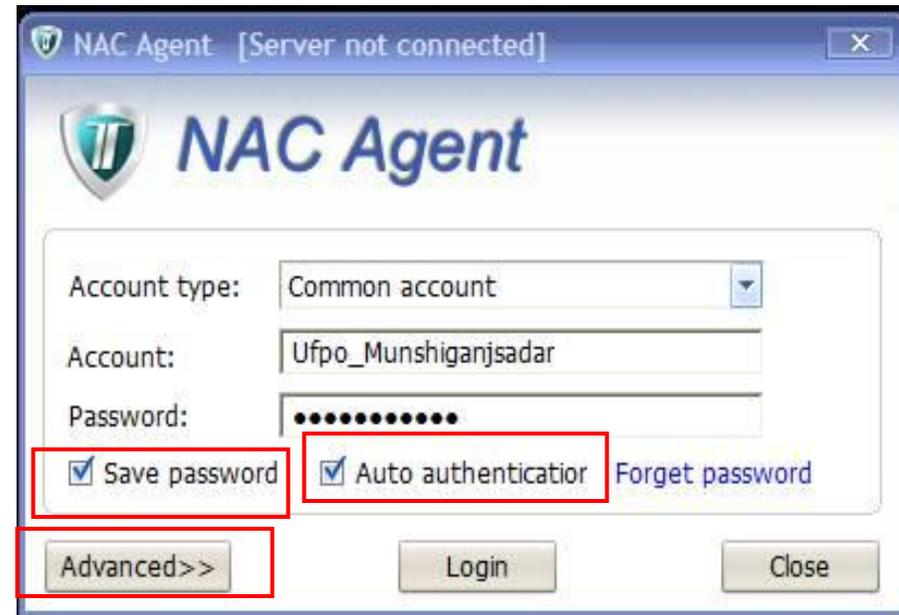
The screenshot shows the NAC Agent advanced settings window. The title bar reads "NAC Agent [Server not connected]". The window contains the following fields and options:

- Account type: Common account (dropdown menu)
- Account: Dagrio_Dhaka (text input)
- Password: [Redacted with dots] (password input)
- Save password: (checkbox)
- Auto authenticator: (checkbox)
- Forget password (text link)
- Buttons: Advanced<<, Login, Close
- Connect Setting section:
 - Server: 172.0.0.1 (dropdown menu)
 - Restore Default (text link)
 - Save (button)

Fault Identification & Fault Handling Process

TSM (NAC) log-in:

- ❑ If login okay then check the PC network icon
- ❑ If found error code- 204 please check again previous procedure



Connectivity Connection Check:



Authentication Process

Fault Identification & Fault Handling Process

Error Code:

- **Error Code 204:**
 1. The IP address of the server is incorrectly specified.
 2. The terminal host and server are un-routable.
- **Error Code 207:**

Slow Network connection resulting in authentication timeout.
- **Error Code 1106:**

Account name or password is entered incorrectly
- **Error Code 1506:**

Although it's an error, but client connectivity is okay and client can use internet.
- **Error Code 503:**

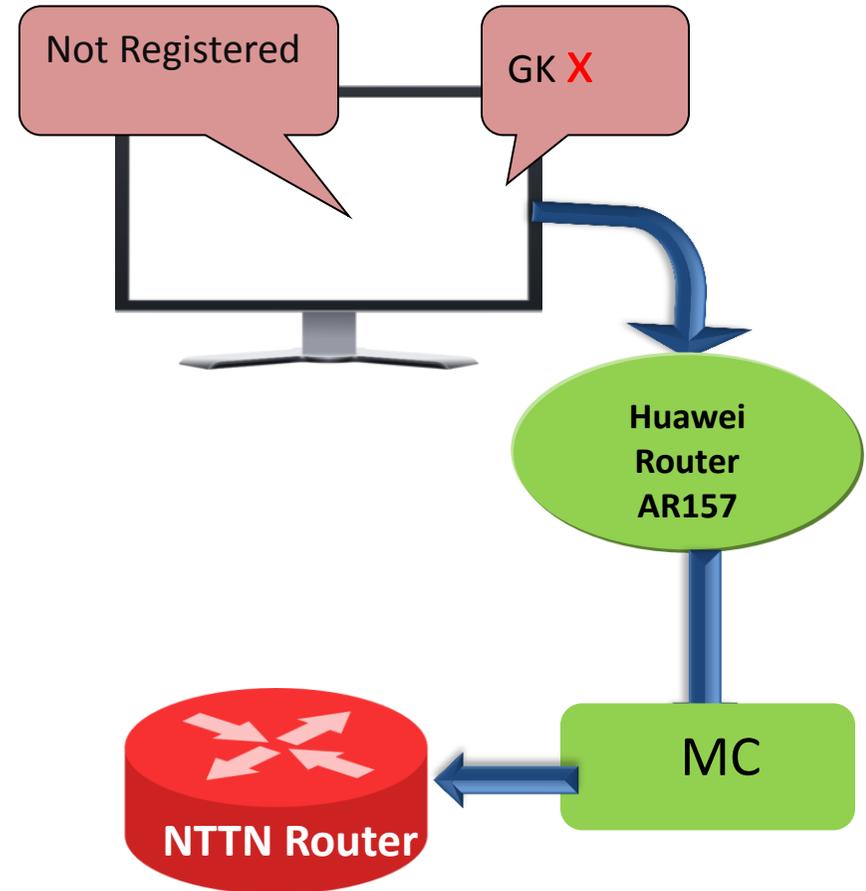
Web server is currently unable to handle the HTTP request due to a temporary overloading or maintenance of the server.

Fault Identification & Fault Handling Process

Vedio conference (VC):

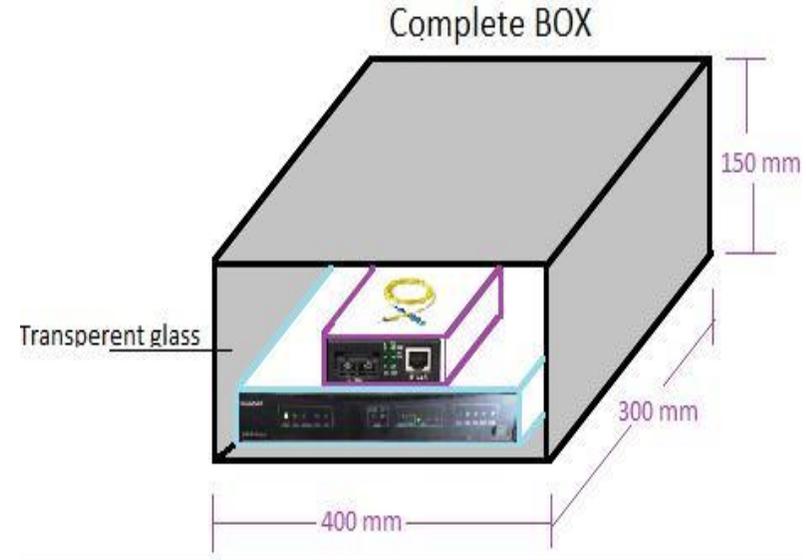
- ❑ If found (GK cross), check-
- ✓ VC monitor to Huawei router LAN cable
- ✓ MC to Huawei router

- ❑ If found Not regestered window then communicate with BCC concern

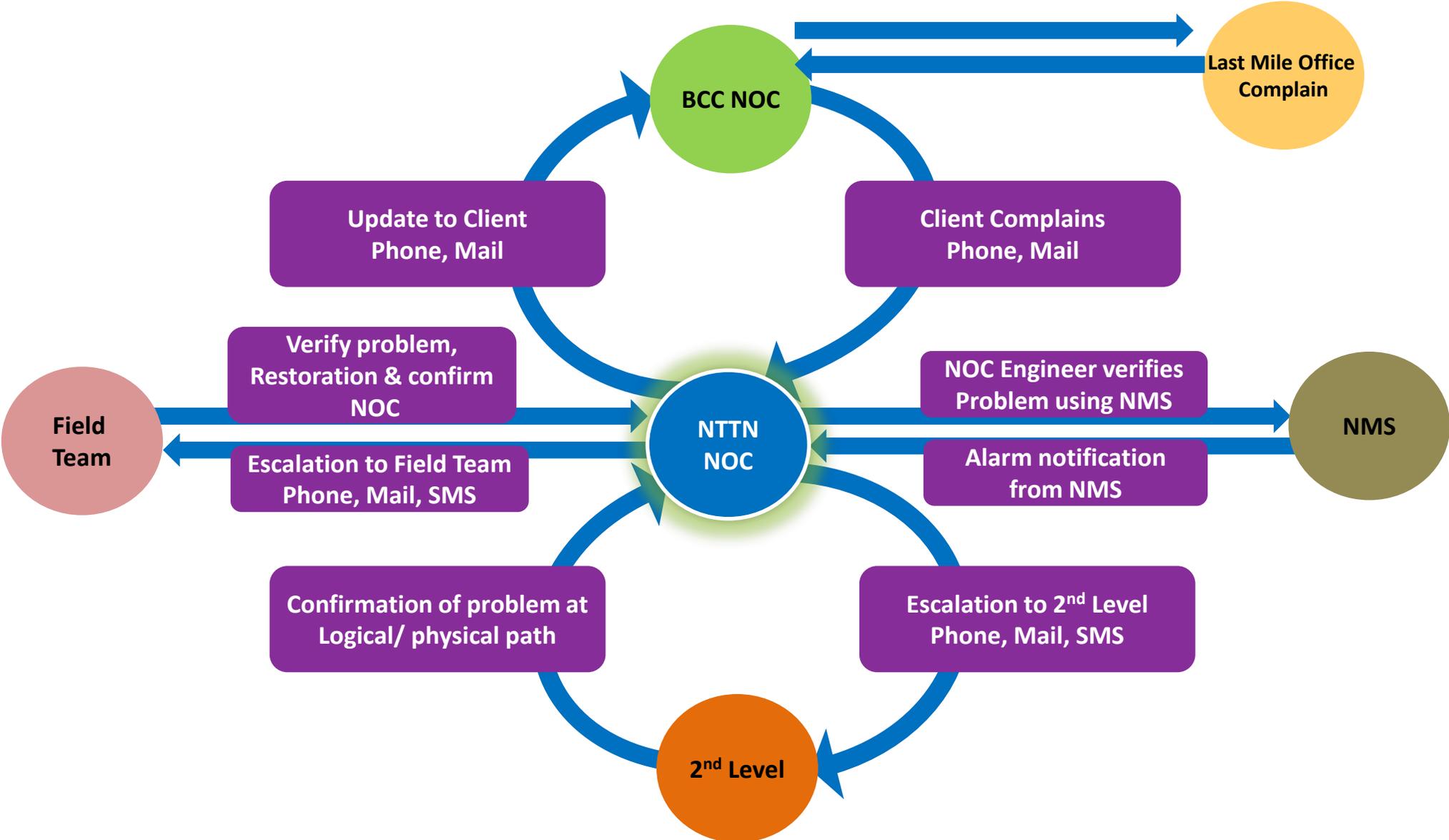


Safety and Awareness

- ❑ Keep away devices from dust & liquid.
- ❑ Keep the device in safety place.
- ❑ Keep away the LAN cable and Patch cord from the Rat.



Fault Escalation & Feedback Process



1st contact BCC NOC (For all issue)

Phone No.: +88 02 55006823 or +88 02 8181029

Email: noc@bcc.gov.bd



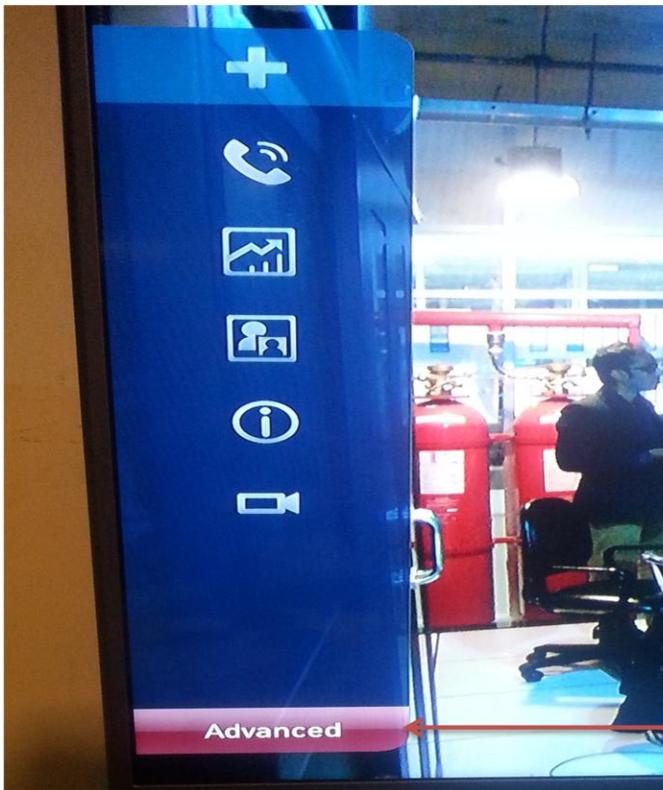
Procedure of H323 ID by Using VC Remote Control

1. VC remote physical view.



- Press home button to go at **Advanced** option (Please see next picture).

2. After pressing the Home button ; in the bottom of left side monitor **Advanced** option will appear.



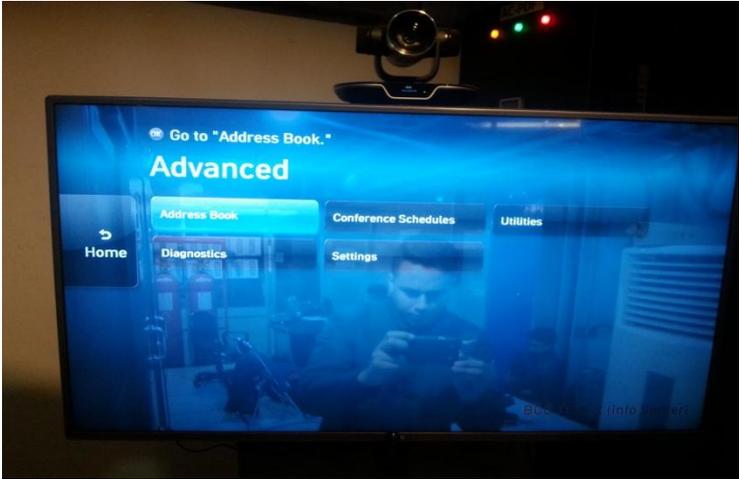
Advanced Option

➤ After appearing **Advanced** option press ok button

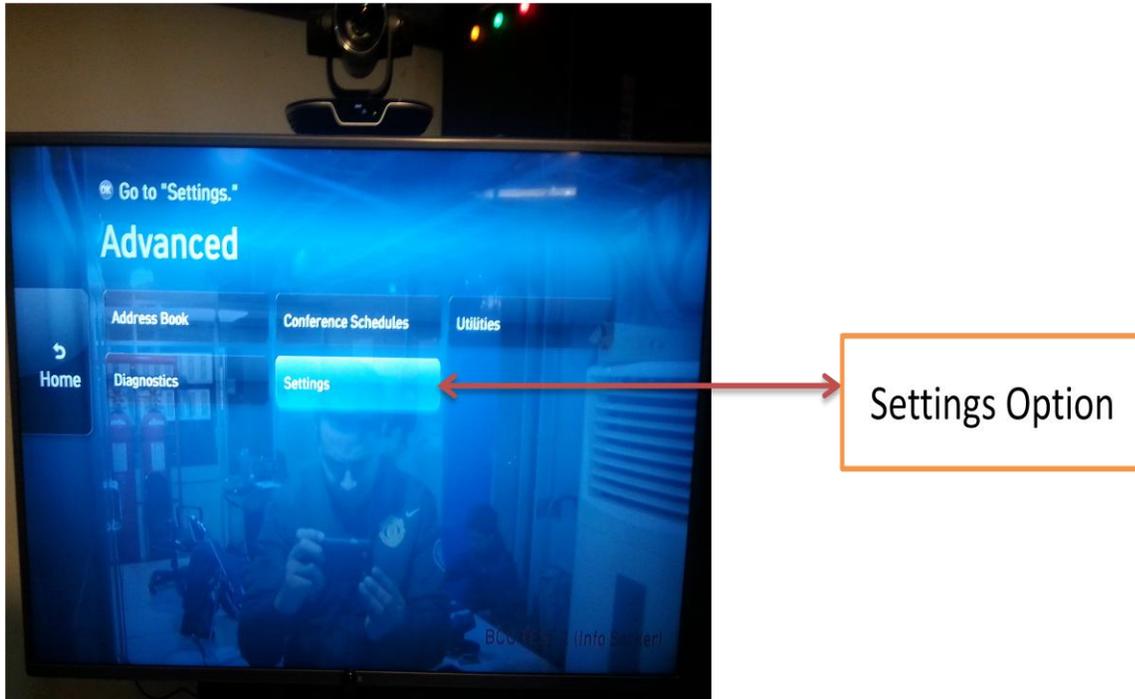


of

the VC remote and below page will appear.

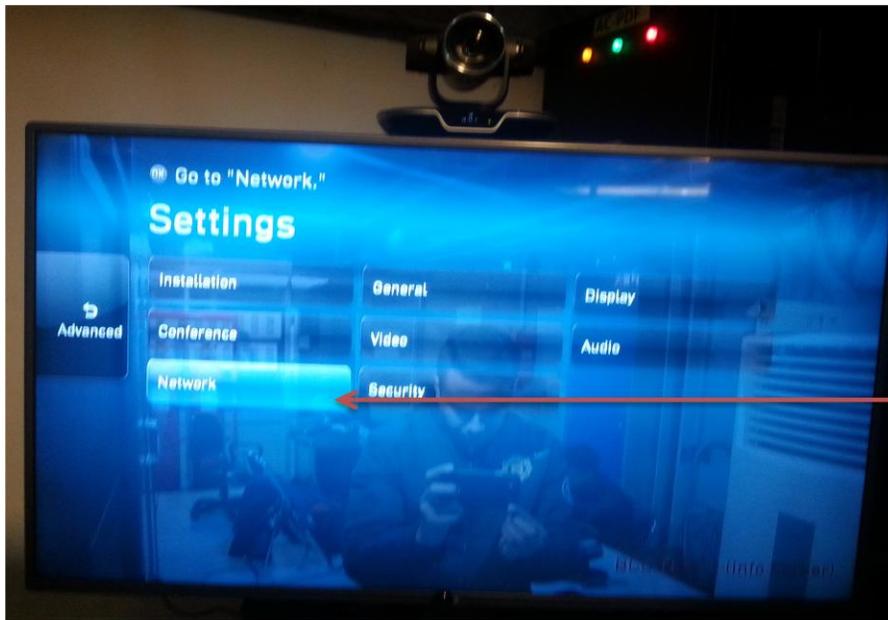


3. On that page go to **Settings** option by using VC remote left and right button  as like the below page.



- Press **OK** button  again to enter.

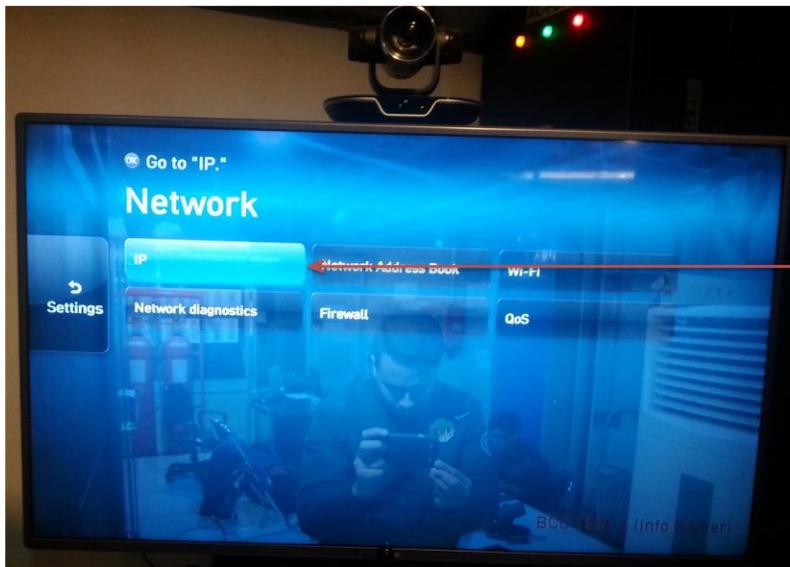
4. After entering in to **Settings** the **Network** page will appear.



Network Option

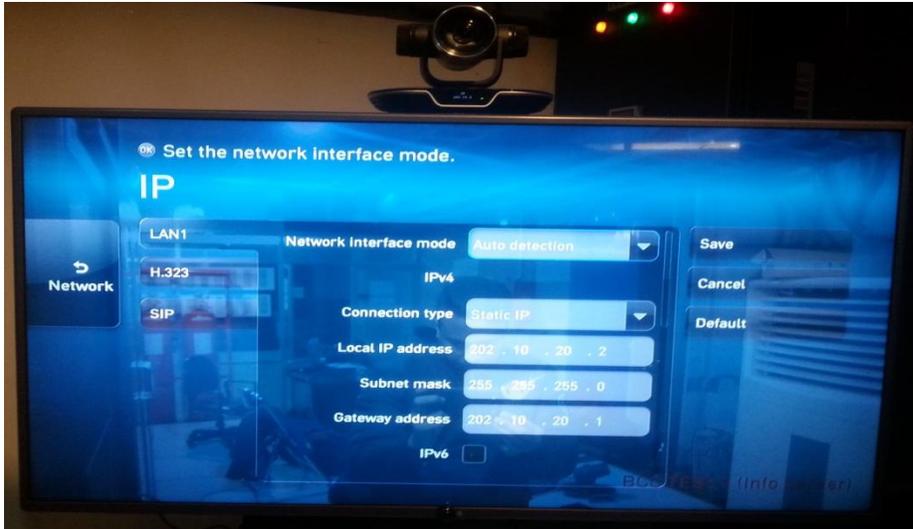
➤ Press **OK** button  again to enter.

5. After entering in to **Network** option the bellow page will appear in where we have to enter the **IP** option by clicking OK button

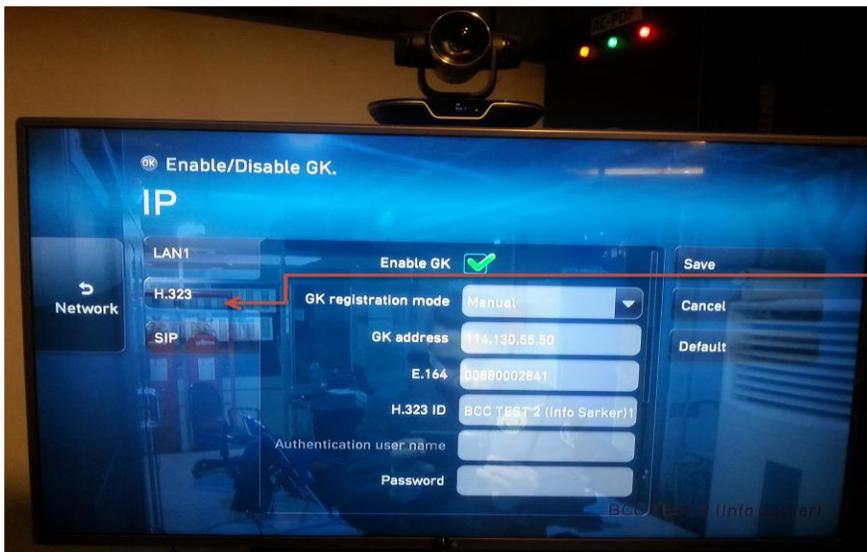


IP Option

6. After entering into **IP** option the bellow page will appear.

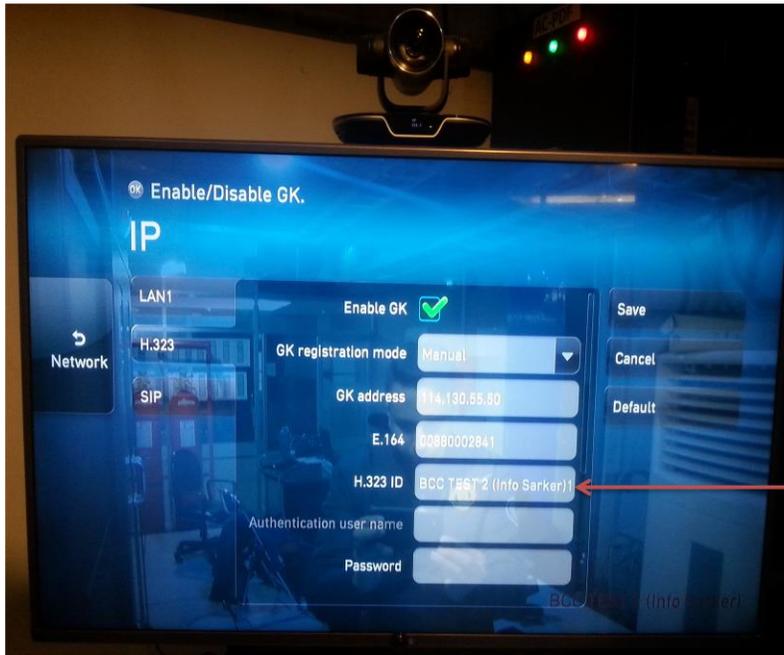


7. Please press the right arrow button  to enter the H.323 page.



H.323 Option

8. After then in the **H.323 ID** option please change the VC Site name.



Please put VC Site Name in here

9. Please modify the VC site name as far the format: **Zilla_Upazilla (Info Sarker)**



Use the marked keypad buttons to modify VC site name