

# ABOT VIDEO SETUP DOCUMENTATION



**ENSURING QUALITY ON SCHEDULE**

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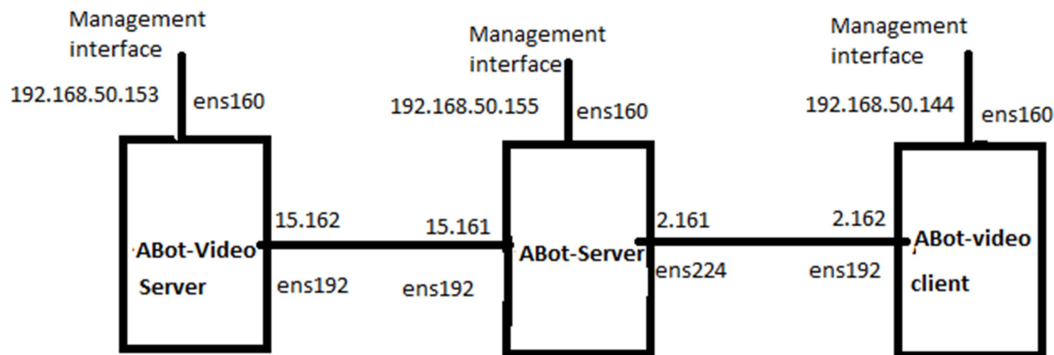
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ABot video setup, implemented with 3 ubuntu 18.04 LTS server version VM's.

1. ABot -server
2. ABot-video-server
3. ABot-video-client

## Architecture:



**Note:** While configuring network interfaces, for Management interfaces only , you have to provide gateway and DNS , Except management interfaces , other interfaces not required any dns and gateway entries.

## ABot-Server Setup:

Below steps we have to follow, to configure ABot server.

**Step 1:** Downloading below builds using wget. Using the below builds, we are going to setup ABot server.

### VOLTE

=====

```
wget -q --auth-no-challenge --header=Accept:application/octet-stream https://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:@api.github.com/repos/RebacaInc/abot/releases/assets/45555501 -O abot-volte-pro_8.39.6e555_18.04_all.tar.gz
```

### ANALYTICS

=====

```
wget -q --auth-no-challenge --header=Accept:application/octet-stream https://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:@api.github.com/repos/RebacaInc/abot/releases/assets/45555585 -O abot-analytics_3.39.6e555_18.04_all.tar.gz
```

**Step 2:** Extract the package using below command.

```
sudo tar -xvf abot-analytics_3.39.6e555_18.04_all.tar.gz
sudo tar -xvf abot-volte-pro_8.39.6e555_18.04_all.tar.gz
```

**Step 3:** Install below dependency packages for ABot setup.

```
wget https://dl.grafana.com/oss/release/grafana_7.2.1_amd64.deb
cd /var/lib; sudo curl -LO
https://github.com/prometheus/prometheus/releases/download/v2.0.0/prometheus-2.0.0.linux-
amd64.tar.gz; cd -
```

**Step 4:** Running Abot stack for single instance.

```
Sudo ./install-abot-single-instance.sh
```

**Step 5:** Checking abot license activation.

```
cat /var/log/abot/abot-license.log
```

**Step 6:** Add static route.

```
Sudo ip route add 5.5.5.5 via 192.168.15.161
```

## ABot-video-Server setup:

Please follow below steps to setup Abot-server setup.

**Step 1:** Download build to mentioned location.

```
cd /home/rebaca/
mkdir video-server
cd video-server
=====
wget -q --auth-no-challenge --header=Accept:application/octet-
stream https://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:@api.github.com/repos/RebacaInc/abot/r
eleases/assets/45360281 -O abot-video-server_1.39.ff5fc_18.04_all.tar.gz
```

**Step 2:** extracting the package.

```
tar -xvf abot-video-server_1.39.ff5fc_18.04_all.tar.gz
```

**Step3:** we have to add routes using route config file.

```
sudo vi route_conf.properties
DataServer.IP=192.168.15.162 (Abot video server IP connected to abot server)
DataServer.Alias.IP=5.5.5.5 (Abot server alias IP)
DataServer.Interface=ens192 (Abot video client interface name connected to abot server )
#DataServer.Default.GW.IP=x
#UPF.IP=x
UPF.IP.Connected.To.Server=192.168.15.161 (Abot server ip, which is connected to abot video server)
UPF.Interface.Connected.Server=ens192 (Abot server interface, which is connected abot video Server)
#DataClient.Default.GW.IP=x
DataClient.IP=192.168.2.162 (Abot client server ip which connected to abot server)
DataClient.Interface=ens192 (Abot client interface name connected to abot server)
gNodeB.IP.Connected.To.Client=192.168.2.161 (Abot server ip, which is connected to abot server)
ABot.IP=192.168.50.155 (Abot server management ip )
```

**Step4:** Run the video server initialization script.

```
sudo ./install-video-server.sh
```

## ABot-video-client Setup :

Please follow below steps to setup Abot-server setup.

**Step 1:** Download build in mentioned location.

```
cd /home/rebaca/  
mkdir video-server  
cd video-server  
=====  
wget -q --auth-no-challenge --header=Accept:application/octet-  
stream https://ghp\_4CsbSYsFnt8pGVBOTo7jDCbGB5rk91364pOB:@api.github.com/repos/RebacaInc/abot/releases/assets/45360253 -O abot-video-client_2.39.ff5fc_18.04_all.tar.gz
```

**Step 2:** extracting the package.

```
tar -xvf abot-video-client_2.39.ff5fc_18.04_all.tar.gz
```

**Step 3:** we have to add routes using route config file.

```
sudo vi route_conf.properties  
DataServer.IP=192.168.15.162      (Abot video server IP connected to abot server)  
DataServer.Alias.IP=5.5.5.5      (Abot server alias IP)  
DataServer.Interface=ens192      (Abot video client interface name connected to abot server )  
#DataServer.Default.GW.IP=x  
#UPF.IP=x  
UPF.IP.Connected.To.Server=192.168.15.161  (abot server ip, which is connected to abot server)  
UPF.Interface.Connected.Server=ens192      (Abot server interface, which is connected abot video Server)  
#DataClient.Default.GW.IP=x  
DataClient.IP=192.168.2.162      (Abot client server ip which connected to abot  
server)  
DataClient.Interface=ens192      (Abot client interface name connected to abot  
server)  
gNodeB.IP.Connected.To.Client=192.168.2.161  (abot server ip, which is connected to abot server)  
ABot.IP=192.168.50.155          (Abot server management ip )
```

**Step 4:** Run the video server initialization script.

```
sudo ./install-video-client.sh
```

**Step 5:** By default ubuntu server don't have any GUI packages, So need install GUI packages for video Setup. Please follow the below process to install GUI packages using tasksel.

```
sudo apt-get update && sudo apt-get upgrade  
sudo apt-get install tasksel  
tasksel
```

**Step 6:** We have to add CORS extension in chrome browser using the below link

<https://chrome.google.com/webstore/detail/corsunblock/lfhmikememgdcahcdlaciloanbhhjino?hl=en>

**Step 7:** We have to download and copy chrom drivers to below mentioned path.

wget [https://chromedriver.storage.googleapis.com/94.0.4606.41/chromedriver\\_linux64.zip](https://chromedriver.storage.googleapis.com/94.0.4606.41/chromedriver_linux64.zip)

path : /etc/rebaca-video-suite/conf/

Once this 3 nodes setup done, We have to make changes in abot server. For that we have to access ABot video server in in web browser. <http://192.168.50.155/>

After that we have to make changes following configuration file and Feature files.

## File 1:

<http://192.168.50.155/abot/#/config/detail/role2?path=ABotConfig.properties&fileName=ABotConfig.properties>

26.#ABOT.SUTVARS=file:abot-emulated/sut-vars/default.properties

27.ABOT.SUTVARS=file:abot-emulated/sut-vars/default5g.properties

By default, 27<sup>th</sup> in commented, 26 in uncommented, we have to change like above.

196. #video server and player config

197. UE1.SecureShell.IPAddress=192.168.2.162 (Abot video client IP connected to abot server)

198. #UE1.Video.Client.SecureShell.KeyFile=ref:ABOT.SecureShell.KeyFile

199. UE1.SecureShell.Password=abot (set username as abot)

200. UE1.SecureShell.UserName=abot (set password as abot)

201. UE1.Type=BROWSER\_BASED\_VIDEO\_PLAYER

## File 2:

<http://192.168.50.155/abot/#/config/detail/role39?path=abot-emulated%2Fnodes-4g5g.properties&fileName=nodes-4g5g.properties>

567. # Video Client and Server properties

568. Player1.DNN.Name=internet.apn.5gs.mnc030.mcc404.3gppnetwork.org

569. Player1.APN.Name=internet1.apn.epc.mnc001.mcc001.3gppnetwork.org

570. Player1.VideoServer.SecureShell.IPAddress=192.168.15.162 (Abot video server IP connected to abot server)

571. Player1.VideoServer.N6.Port=8057

572. Player1.VideoPlayer.SecureShell.IPAddress=192.168.2.162 (Abot video client IP connected to abot server)

573. Player1.VideoPlayer.Port=8058

574. Player1.Proxy.Dest.IP=5.5.5.5 (Videos server alias IP)

575. Player1.VideoPlayer.Interface=ens192 (abot video client interface name connected to abot server )

578. Player1.VideoServer.Interface=ens192 (abot video server interface name connected to abot server )

579. Player1.SecureShell.IPAddress=192.168.2.162 (Client interfaceip connected to abot server)

580. Player1.SecureShell.UserName=abot (set username as abot)

581. Player1.SecureShell.Password=abot (set password as abot)

582. Player1.SecureShell.isEnabled=true

583. Player1.Vendor.Type=all-emulated



### File3:

[http://192.168.50.155/abot/#/featureFile/detail/5GS\\_InitialReg\\_Slice\\_One\\_Video\\_One\\_Data\\_Flow.feature?path=3GPP-23502-5G%2F10\\_PDU\\_Session\\_With\\_Data%2F5GS\\_InitialReg\\_Slice\\_One\\_Video\\_One\\_Data\\_Flow.feature&fileName=5GS\\_InitialReg\\_Slice\\_One\\_Video\\_One\\_Data\\_Flow.feature](http://192.168.50.155/abot/#/featureFile/detail/5GS_InitialReg_Slice_One_Video_One_Data_Flow.feature?path=3GPP-23502-5G%2F10_PDU_Session_With_Data%2F5GS_InitialReg_Slice_One_Video_One_Data_Flow.feature&fileName=5GS_InitialReg_Slice_One_Video_One_Data_Flow.feature)

We can to run this feature file in 2 ways ,

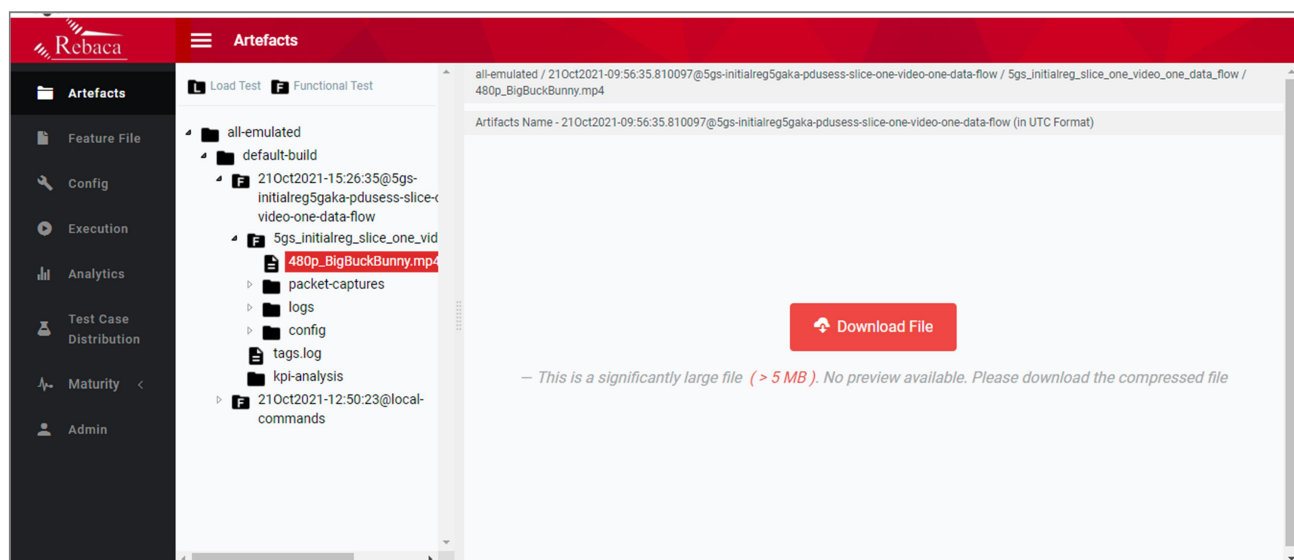
**1<sup>st</sup> way:** Run the feature file without uncommenting the below lines, in this video will play in background, after executing feature file , u can find video file in artifacts.

**2<sup>nd</sup> way:** Run the feature file uncommenting the below lines, in this case vide will play in frontend For 30 min, after excuting feature file, you can find video file in artifacts the below mentioned three lines we have to uncomment and We have to change ip to ABot video client ip is connected abot server, file name we have to change based on our video quality requirement.(we can find file\_names(Which is highlighted below ) in abot video client path → cat /var/www/html/player/index.html )

- 1470. When I start clients for 30 seconds with the following parameters:
- 1471. | parameter | value |
- 1472. | UE1 | player\_url:http://192.168.2.162/player/#;file\_name:480p\_BigBuckBunny |

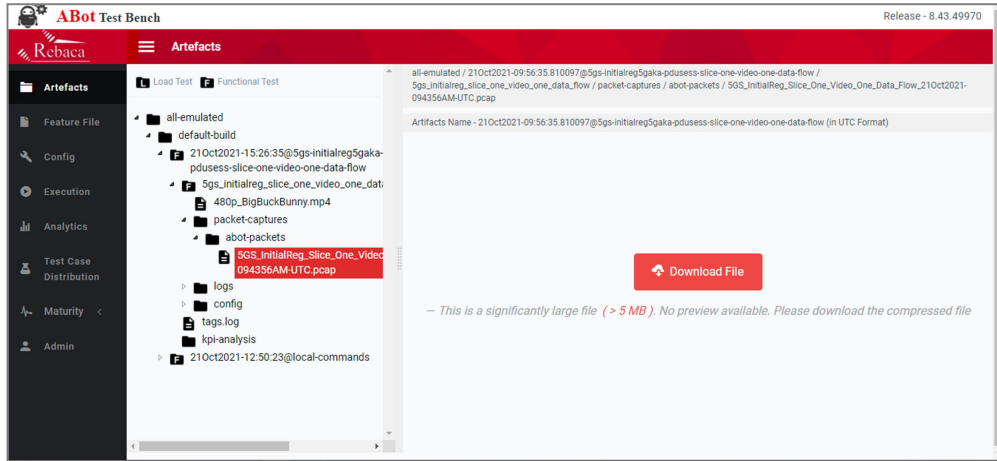
Once you have executed Feature file , You have to analyze below things have to check , whether video setup is done successfully or not.

1. You can find one downloadable video file in artifacts.



2. You can find pcap file in artifacts, you have to analyze any GTP tunnel created or not between UPF and UE. To decode GTP packets flow, you have to open pcap file using wireshark.

# ABOT VIDEO SETUP DOCUMENTATION



3. Finally you can watch video in abot video client , using below URL. <http://192.168.2.162/player/>

