HowTo- Set up a OpenVPN server on Windows system:

Step1: Download the OpenVPN GUI and install it.

The download link is http://openvpn.net/release/openvpn-2.0.9-install.exe

Step2: Configure the Server

To set up the OpenVPN service, the main job is finished in the server side. In the client, you just need to upgrade the key provided by the server.

The server will use the RSA certificate and password for the authentication of clients. Client and RSA Key is one-to-one by default. Clients will knocked off when there are multiply clients use the same key. First we need to generate the RSA key for every client.

Pre-configure in the server:

1) Modify below parts in the file C:\Program Files\OPENVPN\easy-rsa\vars.bat.sample:

   Original:

   set HOME=%ProgramFiles%\OpenVPN\easy-rsa

   set KEY_COUNTRY=US

   set KEY_PROVINCE=CA

   set KEY_CITY=SanFrancisco

   set KEY_ORG=FortFunston

   set KEY_EMAIL=mail@domain.com

   After modify

   set HOME=C:\Program Files\OPENVPN\easy-rsa

   set KEY_COUNTRY=CN #(Country)

   set KEY_PROVINCE=SHENZHEN #(State)

   set KEY_CITY= SHENZHEN #(City)

   set KEY_ORG=ATCOM #(Organize)

   set KEY_EMAIL=admin@atcom.com.cn #(email address)

Note that the content after "#" just for explanation. Don't put them in the file.

2) Enter the openvpn\easy-rsa directory in the DOS mode.

Run below commands:

init-config

vars

clean-all

note: 1)and 2) are the initial work at the first time. When you generate the RSA key in the future you just need to enter the openvpn\rsa directory and run vars.

3) Generate the certificate

Run below commands:

- **Generate root certificate:**
  - **build-ca**

Country Name (2 letter code) [CN]:

State or Province Name (full name) [SHENZHEN]:

Locality Name (eg, city) [SHENZHEN]:

Organization Name (eg, company) [ATCOM]:

Organizational Unit Name (eg, section) []:unit1 #(modify yourself)

Common Name (eg, your name or your server's hostname) []:admin #(modify yourself)

Email Address [admin@atcom.com.cn]:

  - **build-dh**

- **build server key**
  - **build-key-server server**

Country Name (2 letter code) [CN]: #(Consistent with root certificate)

State or Province Name (full name) [SHENZHEN]: #(Consistent with root certificate)

Locality Name (eg, city) [SHENZHEN]: #(Can change)

Organization Name (eg, company) [ATCOM]: #(Consistent with root certificate)

Organizational Unit Name (eg, section) []:unit1 #(Fill by yourself)

Common Name (eg, your name or your server's hostname) []:adminServer #(Fill by yourself)

Email Address [admin@atcom.com.cn]: #(Can change)

Please enter the following 'extra' attributes to be sent with your certificate request

A challenge password []:adminServer #(Fill by yourself)

An optional company name []:atcom #(Fill by yourself)

Certificate is to be certified until Nov 24 06:24:34 2018 GMT (3650 days)

Sign the certificate? [y/n]:y #(Choose y)

1 out of 1 certificate requests certified, commit? [y/n]y #(Choose y)

- **build client key**

- **build-key client**

Country Name (2 letter code) [CN]: #(Consistent with root certificate)

State or Province Name (full name) [SHENZHEN]: #(Consistent with root certificate)

Locality Name (eg, city) [SHENZHEN]: #(Can change)

Organization Name (eg, company) [ATCOM]: #(Consistent with root certificate)

Organizational Unit Name (eg, section) []:unit1 #(Fill by yourself)

Common Name (eg, your name or your server's hostname) []:client1

□(Fill by yourself□For different client to use different names, if use the same name for a client to generate new client keys)

Email Address [admin@atcomemail.com]: #(Can change)

Please enter the following 'extra' attributes to be sent with your certificate request

A challenge password []:client1 #(Fill by yourself)

An optional company name []:ATCOM #(Fill by yourself)

Certificate is to be certified until Nov 24 06:39:28 2018 GMT (3650 days)

Sign the certificate? [y/n]:y #(Choose y)

1 out of 1 certificate requests certified, commit? [y/n]y #(Choose y)

The generated keys are in the directory **openvpn\easy\rsa\keys**

4) configure the OpenVPN server

First you need to copy the files ca.crt, dh1024.pem, server.crt, server.key to the directory C:\Program Files\ OpenVPN \KEY.

ca.crt client.crt client.key are the files needed for client.

Create a file server.ovpn in the \OpenVPN\KEY directory. You can create it use the notepad. Below are the sample server.ovpn file:

```
port 1194                    #default port for openvpn, you can modify it as needed
proto udp                                    #you can choose TCP protocol also
dev                                                                    tun
ca                                                                     ca.crt
cert                                                                   server.crt
key                                                                    server.key
dh                                                                     dh1024.pem
server 10.8.0.0 255.255.255.0                          #Virtual Network Segment
ifconfig-pool-persist                                                  ipp.txt
keepalive                          10                                  120
client-to-client
comp-lzo
max-clients                                                            100
persist-key
persist-tun
status                                                                 openvpn-status.log
verb 3
```

5) Start the OpenVPN server

Right click the server.ovpn and select start openvpn on this config file.

HowTo- Configure the OpenVPN client:

AT620 are the OpenVPN clients here. To set up the link between the client and server we need to upload an archive in the web->advance->VPN page. You can use below the tools openconfig.bat, mkromfs.exe to generate the archive.

1) Put the files ca.crt client.crt client.key in the cert\config directory.
2) Create a client.opvn file in cert\config use the same method as you do for the server.ovpn

   Sample of client.ovpn:

```
client
dev tun
proto udp
remote 192.168.1.135 1194                    #Server IP and port
resolv-retry                                 infinite
nobind
persist-key
persist-tun
ca                                           ca.crt
cert                                         client.crt
key                                          client.key
comp-lzo
verb 3
```

Then we run the tool openconfig.bat, it will generate a file openvpnConfig.bin, we can upload this .bin file via the SECURITY->VPNpage. after successfully upgrade, we can see the name of certificate on the same page.

Then we need to enable the OpenVPN in the web page and and select Open VPN as your VPN mode.

When you successful connect to the OpenVPN server, the server will assign a IP to you and you can see that in the VPN IP parameters.