

# How to use OpenVPN Server/Client on TW-EAV510/EAV510 AC

**Note:** Please make sure that both LAN side networks are in different subnet.

## Enable OpenVPN Server Function

Go to **Advanced Setup -> VPN -> OpenVPN -> OpenVPN Server**, make “**Enable OpenVPN Server**” checkbox checked. And you will see the page as below:

## OpenVPN Server

☒ Enabled OpenVPN Server

Protocol:

TCP ▾

Port Number:

443

Tunnel Subnet:

10.8.0.0

Tunnel Mask:

255.255.255.0

Cipher Encryption:

BF-CBC ▾

HMAC Authentication:

SHA1 ▾

☒ Enabled LZO data compression

Apply/Save

## CA

-----BEGIN CERTIFICATE-----  
MIIDvDCCAYWgAwIBAgIJANeF5nRrRo8HMA0GCSqGSIb3DQEBBQUAMIGbMQswCQYD  
VQQGEwJGSTEIEMAKGA1UECBMCRkxkCzAJBGNVBAcTAK5BMRkwFwYDVQQKEwB3d3cu  
dGVsZXdlbGwuy29tMRkwFwYDVQLExB3d3cudGVsZXdlbGwuy29tMRwwGgYDVQQD  
ExN3d3cudGVsZXdlbGwuy29tIENBMR4wHAYJKoZIhvcNAQkBFg9jYUB0Zw1d2Vs  
bC5jb2w0HhCNMTAxMDAwMTAxMDAwMDE2WmcNMTEkxMjMwMDAwMDE2WjCmZ2ELMAKGA1UE  
BhMCRkxkCzAJBGNVBAcTAKZJMQswCQYDVQGEwJQOQTEZMBCGA1UECHMQd3d3LnRl  
bGV3ZlwxLnMvNvTEZMBCGA1UECMQd3d3LnRlbnV3ZlwxLnMvNvTEcMB0GA1UEAAMT  
d3d3LnRlbnV3ZlwxLnMvNvSBDOQTEeMBwGCSqGSIb3DQEQJARYPY2FADGv5ZXdlbGwuy  
29tMIGfMA0GCSqGSIb3DQEBAQUAA4GNADCBiQKBggQIDR0UyAkw7pgYDD1ADf1BL  
tyXvTeKc+veKRuNkfiW9HEExBx8ZFMDDKz3nUKPUjbpH5SwC3Z1v1A3J6ZyytXb/xbj  
YnBgFjTLVegKHqI1k7jZ6sb1W0XGx8Jq7knGpwU23ez9ov1MIDfUsN0YfKb3DM27/  
EHDod+veXbuP/5Ir4qfASwIDAQABo4IBDDCCAQAwHQYDVRO0BBYEFGS+yI1V1gT6  
o1Jm7pgCf2TJCx3AMIHQBGMVHSMEEgcgwgcwAFGS+yI1V1gT6o1Jm7pgCf2TJCx3A  
oYghpIGeMIGbMQswCQYDVQGEwJGSTEIEMAKGA1UECBMCRkxkCzAJBGNVBAcTAK5B  
MRkwFwYDVQQKEwB3d3cudGVsZXdlbGwuy29tMRkwFwYDVQLExB3d3cudGVsZXdl  
bGwuy29tMRwwGgYDVQDEExN3d3cudGVsZXdlbGwuy29tIENBMR4wHAYJKoZIhvcNAQ  
AQBKFg9jYUB0Zw1d2VsYbC5jb2Z2CQDRIOZ0a6EFBzAMBGMVHSMEEBTDAAQH/MA0G  
CSqGSIb3DQEBBQUAA4GBAG+j8ysMUZSA3Z8Rc3k5ioHhTnMvdti8seap4c8XT5S1  
A2yqLyBaQqVvzUJZ/rIYIPEs7yx0uyoZC1ukTtLRWnR4kyXyjqFouxZGbnCyGvX

**Enabled OpenVPN Server:** Make it checked to enable OpenVPN Server function.

**Protocol:** Select the protocol for OpenVPN. It can be TCP or UDP.

**Port Number:** Enter the port number for OpenVPN, default is 443.

**Tunnel Subnet:** The IP subnet for tunnel interface, the system will generate the IP for clients automatically.

**Tunnel Mask:** The subnet mask for tunnel interface.

**Cipher Encryption:** Select the encryption method.

**HMAC Authentication:** Select the authentication way.

**Enabled LSO data compression:** Make it checked to enable data compression.

**Certificate Authority (CA):** You can click **Generate CA** button to generate the CA, all clients must use this CA for OpenVPN connection.

**Send CA to E-mail:** Fill in the E-Mail address and click **Send** button. The system will send the generated CA to the address. You can just copy and paste to your OpenVPN client once you get it via mail.

**Note:** All clients must use the CA that generated from TW-EAV510/AC, otherwise the connection cannot be established.

## Setup OpenVPN account for OpenVPN Server

Go to **Advanced Setup** -> **VPN** -> **Account**.

### Account

Maximum entries: 4

Name	Enable	Username	Connection Type	Peer IP	Peer Netmask	Remove	Edit
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Add

Remove

Click **Add** button to add new user. Totally support up to 4 users for both PPTP, L2TP and OpenVPN.

## Configure Account

Name:	<input type="text" value="test1"/>
<input checked="" type="checkbox"/> Enable	
Username:	<input type="text" value="test1"/>
Password:	<input type="password" value="....."/>
Connection Type:	<input type="radio"/> Remote Access <input checked="" type="radio"/> LAN TO LAN
Peer IP:	<input type="text" value="192.168.20.0"/>
Peer Netmask:	<input type="text" value="255.255.255.0"/>

**Name:** The name for user profile.

**Enable:** Enable/Disable this account.

**Username:** The name will be used for authentication.

**Password:** The password will be used for authentication.

**Connection Type:** Setup connection to Remote Access or LAN to LAN.

**Remote Access** - Limited your remote OpenVPN Client as one of clients at local network. The remote client can have full access to local network, but any clients at local network cannot access to remote client's network.

**LAN to LAN** - The clients at both local/remote network can access each other.

**Peer IP:** Enter the remote network's IP address.

**Peer Netmask:** Enter the remote network's netmask.

## Remove/Edit user

### Account

Maximum entries: 4

Name	Enable	Username	Connection Type	Peer IP	Peer Netmask	Remove	Edit
test1	Enable	test1	LAN TO LAN	192.168.20.0	255.255.255.0	<input type="checkbox"/>	<input type="button" value="Edit"/>

Make Remove checkbox checked and click **Remove** button to remove user or click **Edit** button to edit the details of user.

# Setup OpenVPN Client

Go to **Advanced Setup -> VPN -> OpenVPN -> Trusted CA**

## Trusted CA (Certificate Authority) Certificates

Add, View or Remove certificates from this page. CA certificates are used by you to verify peers' certificates.  
Maximum entries: 4

Name	Subject	Type	Action
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Import Certificate

Click **Import Certificate** button. The content of Certificate can be got from Server side or your mailbox if you did use function **Send CA to E-mail** on TW-EAV510/AC OpenVPN setting page. Click **Apply** button to save your CA. The TW-EAV510/AC can support multiple CAs.

### Import CA certificate

Enter certificate name and paste certificate content.

Certificate Name:

Test

Certificate:

V00GEwJGSTE<sup>l</sup>MAkGA1UECBMCRkxkCzA3BgNVBAC<sup>t</sup>AK5BMRkwFwYDVQOKE<sup>x</sup>B3d3cu

dGVsZXdlbGwuY29tMRkwFwYDVQOKE<sup>x</sup>B3d3cu

dGVsZXdlbGwuY29tMRwwGgYDVQOQ<sup>E</sup>

ExN3d3cu

dGVsZXdlbGwuY29tIENBMR4wHAYJKoZIhvc<sup>N</sup>

NAQkBFg9jYUB0Z<sup>W</sup>ld2Vs

bC5jb20wHhcNMTAwMTAxMDA0NTI4WhcNMTkxMjMwMDA0NTI4WjCBmzELMAkGA1UE

BhMCRkxkCzA3BgNVBAG<sup>t</sup>AKZJM0swCQYDVQOHEwJ0OTEZMBcGA1UECHM0d3d3LnRl

bGV3ZWxsLmNvbTEZMBcGA1UEC<sup>x</sup>MQd3d3LnRl

bGV3ZWxsLmNvbTEcMB0GA1UEAxMT

d3d3LnRl

bGV3ZWxsLmNvbSBDO<sup>T</sup>EeMBwGC5qGS<sup>I</sup>b3DOEJARYPY2FAdGVsZXdlbGwu

Y29tMIGfMA0GCSqGSI<sup>b</sup>3DOEBAQUAA4GNADCBiQKBgQDuiy<sup>k</sup>s4JYC9cymymC<sup>x</sup>gK1P

At211mafmycN/hwi6B<sup>I</sup>kjJOKqNqv/5dJ<sup>s</sup>X6Jdh/v1N<sup>x</sup>VE10yx+xGCC<sup>K</sup>oXtzv<sup>b</sup>4Tv

kHQ7mCuJ4czH0p<sup>L</sup>RYLUk4c6HCKTMDbt8wQGFc5+gGpQ0kyj3vV2TNQrEzATDnyQd

GE4Gq8Jcs2XUuKV37u1H9wIDAQABo4IBBDCCAQA<sup>w</sup>HQYDVR00BBYEFBukFzFvXIGI

x67bes5c2AB8PvbqMIHOBgNVHSM<sup>E</sup>gcgwgclwAFBukFzFvXIGIx67bes5c2AB8Pvbq

oYGhpIGeMIGbMQswCQYDVQOGEwJGSTE<sup>l</sup>MAkGA1UECBMCRkxkCzA3BgNVBAC<sup>t</sup>AK5B

MRkwFwYDVQOKE<sup>x</sup>B3d3cu

dGVsZXdlbGwuY29tMRkwFwYDVQOKE<sup>x</sup>B3d3cu

dGVsZXdlbGwuY29tMRwwGgYDVQOQ<sup>E</sup>ExN3d3cu

dGVsZXdlbGwuY29tIENBMR4wHAYJKoZIhvc<sup>N</sup>

AQkBFg9jYUB0Z<sup>W</sup>ld2Vs

bC5jb22CCOC0ag1gnOshGzAMBgNVHRMEBTADAQH/MA0G

CSqGSI<sup>b</sup>3DOEBBQUAA4GBAE0W<sup>i</sup>4aUJT0VwMQV<sup>k</sup>qJqFYhe6BfvHtf/R6w97B41hq6G

/F/SAA17Hz7aR9HSLNn9Rihr6k+Q7NMxUrsF1fWqf2p1dRK75w2IwNbUXfeuxerL

aEyIhwgQwxjqThqz14v1FjZUJ0773ZtMabTgeUoM7qcTFAbvJa+CYTxwk1NtRpEd

-----END CERTIFICATE-----

Apply

Once it is done, you can see the settings as below. You can also click **View** button to check imported CA or **Remove** button to remove the CA.

## Trusted CA (Certificate Authority) Certificates

Add, View or Remove certificates from this page. CA certificates are used by you to verify peers' certificates.  
Maximum entries: 4

Name	Subject	Type	Action
Test	C=FI/ST=FI/L=NA/O=www.telewell.fi/OU=www.telewell.fi/CN=www.telewell.fi CA/emailAddress=ca@telewell.fi	ca	<div>ViewRemove</div>

Import Certificate

## Go to **Advanced Setup -> VPN -> OpenVPN -> OpenVPN Client**

### OpenVPN Client

Maximum entries: 4

Name	Local Gateway Interface	Remote Gateway	Username	Protocol	Port Number	Cipher Encryption	HMAC Authentication	LZO	CA Profile	Enable	Remove	Edit
<input type="button" value="Add"/>	<input type="button" value="Enable"/>	<input type="button" value="Remove"/>										

Click **Add** button to add a new OpenVPN Client connection.

### OpenVPN Client

Name:	<input type="text" value="Office"/>
<input checked="" type="checkbox"/> Enable	
Local Gateway Interface:	<input type="text" value="ipoe_eth2/eth2.1"/>
Remote Gateway:	<input type="text" value="10.0.0.254"/>
Username:	<input type="text" value="test1"/>
Password:	<input type="password" value="....."/>
Protocol:	<input type="text" value="TCP"/>
Port Number:	<input type="text" value="443"/>
Cipher Encryption:	<input type="text" value="BF-CBC"/>
HMAC Authentication:	<input type="text" value="SHA1"/>
<input checked="" type="checkbox"/> Enabled LZO data compression	
CA Profile:	<input type="text" value="Test"/>
<input type="button" value="Apply/Save"/>	

**Name:** The name for OpenVPN Client profile.

**Enable:** Enable/Disable this profile.

**Local Gateway Interface:** Select the correct WAN interface that will be used to access to remote network.

**Remote Gateway:** Enter the IP/Domain address of remote OpenVPN Server.

**Username:** The name will be used for authentication.

**Password:** The password will be used for authentication.

**Protocol:** Select the protocol for OpenVPN. It can be TCP or UDP.

**Port Number:** Enter the port number for OpenVPN, default is 443.

**Cipher Encryption:** Select the encryption method.

**HMAC Authentication:** Select the authentication way.

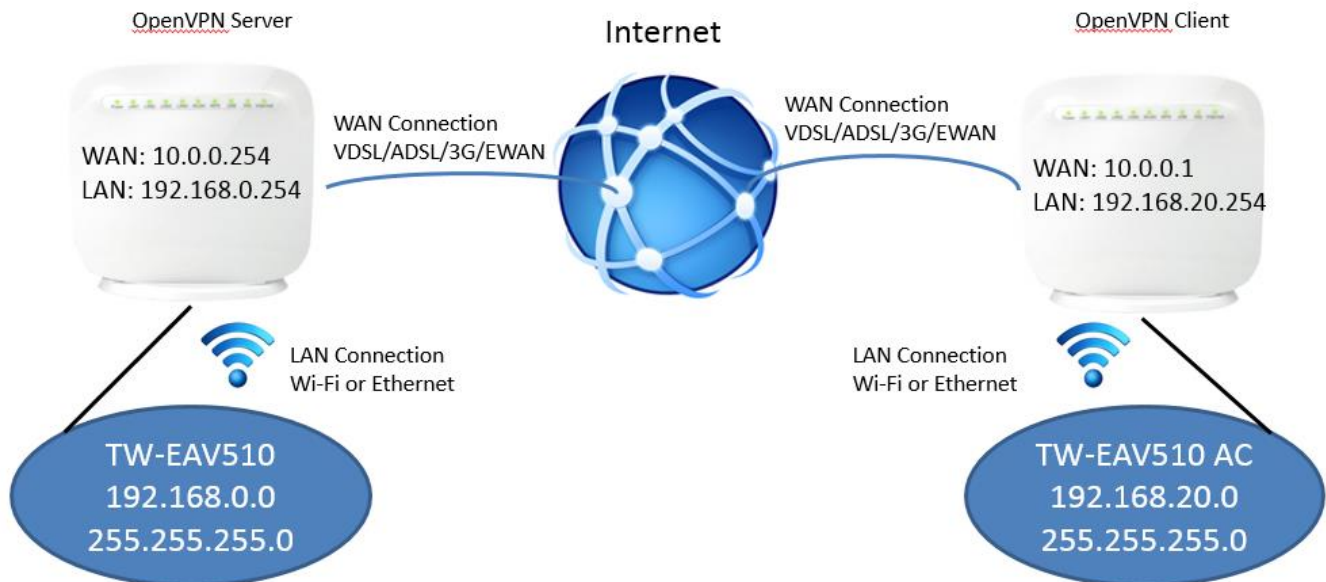
**Enabled LSO data compression:** Make it checked to enable data compression.

**CA Profile:** Select one of imported CA for OpenVPN connection.

**Note:** All clients must use the CA that generated from TW-EAV510/AC, otherwise the connection cannot be established.

# Example 1

TW-EAV510 is activated as OpenVPN Server and TW-EAV510 AC is activated as OpenVPN Client.



## Remote Access

### TW-EAV510 (OpenVPN Server)

1. Go to **Advanced Setup -> VPN -> OpenVPN -> OpenVPN Server**, enable the OpenVPN Server and do the settings as below. Click **Apply/Save** button to save changes.

## OpenVPN Server

☒ Enabled OpenVPN Server

Protocol:

TCP ▾

Port Number:

443

Tunnel Subnet:

10.8.0.0

Tunnel Mask:

255.255.255.0

Cipher Encryption:

BF-CBC ▾

HMAC Authentication:

SHA1 ▾

☒ Enabled LZO data compression

Apply/Save

## CA

-----BEGIN CERTIFICATE-----  
MIIDvDCCAYwGAwIBAgIJALRqDWCc6yEbMA0GCSqGSIb3DQEBBQUAMIGbMQswCQYD  
VQQGEwJGSTEIMAKGA1UECBMCRkxkCzA3BgNVBACIAk5BMRkwFwYDVQQKEwB3d3cu  
dGVsZXdlbGwuY29tMRkwFwYDVQQLEwB3d3cudGVsZXdlbGwuY29tMRwwGgYDVQQD  
ExN3d3cudGVsZXdlbGwuY29tIENBMR4wHAYJKoZIhvcNAQkBFg9jYUB0ZWxld2Vs  
bC5jb20wHhcNMTAwMTAxMDA0NTI4WhcNMTkxMjMwMDA0NTI4WjCBmzELMAKGA1UE  
BhMCRkxkCzA3BgNVBAGTAkZJMQswCQYDVQQHEwJJOQTEZMBcGA1UEChMQd3d3LnRl  
bGV3ZWxsLmNvbTEZMBcGA1UECXMqQd3d3LnRlRbGV3ZWxsLmNvbTEcMBoGA1UEAxMT  
d3d3LnRlRbGV3ZWxsLmNvbSB0QTEeMBwGCSqGSIb3DQEJARYPY2FAdGVsZXdlbGwu  
Y29tMIGfMA0GCSqGSIb3DQEBAQUAA4GNADCBiQKBgQDuiyks4JYC9cymymCxxGK1P  
At211mafmycn/hwi6BIkjJQKqNqv/5dJ5X6Jdh/v1NxE10yx+xGCCOKAtzvb4Tv  
kHQ7mcUj4czH0p1RYLUk4c6HCKTMDbt8wQGFc5+qGpQ0kjy3vV2TNQrEzATDnyOd  
GE4Qg8Jcs2XUuKV37u1H9wIDAQABo4IBBDCCAQAwwHQYDVDR0BBYEFBukFzFvXIGI  
x67bes5c2AB8PvbqMIHQBgNVHSMGcgwgwcwAFBukFzFvXIGIx67bes5c2AB8Pvbq  
oYGHpIGeMIGbMQswCQYDVQQGEwJGSTEIMAKGA1UECBMCRkxkCzA3BgNVBACIAk5B  
MRkwFwYDVQQKEwB3d3cudGVsZXdlbGwuY29tMRkwFwYDVQQLEwB3d3cudGVsZXdl  
bGwuY29tMRwwGgYDVQQDEwN3d3cudGVsZXdlbGwuY29tIENBMR4wHAYJKoZIhvcNAQ  
kBFg9jYUB0ZWxld2VsY29tMRwwGgYDVQQDEwN3d3cudGVsZXdlbGwuY29tMRwwGgYDV  
CSqGSIb3DQEBBQUAA4GBAE0Wi4aUJTOVwMQVqkqJqFYhe6BfvHtf/R6w97B4ihq6g  
/F/SAAl7Hz7aR9HSLNn9Rjhr6k+Q7NMxUrsF1fWqf2p1dRK75w2IwNbUXfeuXerL

2. Go to **Advanced Setup -> VPN -> Account**, add a new user for login.

## Configure Account

Name:	<input type="text" value="test"/>
<input checked="" type="checkbox"/> Enable	
Username:	<input type="text" value="test"/>
Password:	<input type="password" value="••••"/>
Connection Type:	<input checked="" type="radio"/> Remote Access <input type="radio"/> LAN TO LAN
<input type="button" value="Apply/Save"/>	



Click **Apply/Save** button to save changes.

## Account

Maximum entries: 4

Name	Enable	Username	Connection Type	Peer IP	Peer Netmask	Remove	Edit
test	Enable	test	Remote Access			<input type="checkbox"/>	<input type="button" value="Edit"/>

Add

Remove

## TW-EAV510 AC (OpenVPN Client)

1. Go to **Advanced Setup -> VPN -> OpenVPN -> Trusted CA**, click Import Certificate button to add a new CA.

### Trusted CA (Certificate Authority) Certificates

Add, View or Remove certificates from this page. CA certificates are used by you to verify peers' certificates.

Maximum entries: 4

Name	Subject	Type	Action
------	---------	------	--------

Import Certificate

2. Setup a name for importing certificate and paste the CA to **Certificate** field. Click **Apply** button to save your CA.

## Import CA certificate

Enter certificate name and paste certificate content.

Certificate Name:

Test CA

Certificate:

```
-----BEGIN CERTIFICATE-----
MIIDrjCCAxegAwIBAgIJAmdMDBeBCqzKMA0GC5q6S1b3DQEBBQUAMIGXMQswCQYD
VQQGEwU3GSTEIMakGA1UECBMCRkxkCzA3BGNVBAcTAk5BMRgwGfYDVQQKEwU93d3cu
dGV5ZXdlbGwuzmkxGDAWBgNVBAsTD3d3dy50ZWxld2VsbC5maTEbMBkGA1UEAxMz
d3d3LnRlbGV3ZWxzLmZpIENBMR0wGwYJKoZIhvcNAQkBFg5jYUB0ZWxld2VsbC5m
aTAeFw0xMDAxMDExMDI0MTA4TDAwOjE0TEYwMDI0MTA4MThMGXMQswCQYDVQVGEwJG
STEIMakGA1UECBMCRkxkCzA3BGNVBAcTAk5BMRgwGfYDVQQKEwU93d3cudGV5ZXdl
bGwuzmkxGDAWBgNVBAsTD3d3dy50ZWxld2VsbC5maTEbMBkGA1UEAxMzZ3d3LnRl
bGV3ZWxzLmZpIENBMR0wGwYJKoZIhvcNAQkBFg5jYUB0ZWxld2VsbC5maTCBnzAN
BgkqhkiG9w0BAQEEFAAOBjQAwGykKgYEAuKHu5YpduQhD+SL33d9MS21MVX8ezOf
EiPt8qhvhvcsUsv+MlpKIIXcQolzf+kQw36iDRcgIyZdzQPtnjfevFuniBQpXW03W
yHam+dxuj1Scqseg+y3oMBth344H8VRC1pLf1faNTUowxAWc0dkJmNu346cpUnz
0tUa2QX0SLkCAwEAABw/cB/DADBgNVHQ4IFgQUFQAENB1UC986ZLSy5J8j1N1P
q34wgwGA1UdIwS8wDCBwYAUFIQaeNB1UC986ZLSy38j1N1Pq36hgZ2kgZowgZcx
CzA3BGNVBAYTAkZJMQswCQYDVQOIEwJGSTEIMakGA1UEBxMCTkExGDAWBgNVBAoT
D3d3dy50ZWxld2VsbC5maTEYMBYGA1UECwMPD3d3LnRlbGV3ZWxzLmZpMRswGQYD
VQOQExj3d3cudGV5ZXdlbGwuzmkxGQ0ExHTAbBgkqhkiG9w0BCQEWdmNhQHRlbGV3
ZWxzLmZpZggkAx0wMF45KHQeUdAYDVR0TBAUwAwEB/zANBgkqhkiG9w0BAQUFAAOB
gQA7njkt+gODMRF3SYHgm2eD8y+Uz6VWruVnSiFzCcQvvalE9X7v3JpdqQNTido
5Cc54Amwrr/DX+vYzW7n7sS+vgHfQZatVRra+oSBcvPAjsWFMHS/xTnG+JkXs1m0
```

Apply

**Note:** The CA contents must between wording “-----BEGIN CERTIFICATE-----” and “-----END CERTIFICATE-----”



----“, they cannot be deleted.

3. Once the CA import successfully, you will see the page as below.

#### Trusted CA (Certificate Authority) Certificates

Add, View or Remove certificates from this page. CA certificates are used by you to verify peers' certificates.  
Maximum entries: 4

Name	Subject	Type	Action
Test_CA	C=FI/ST=FI/L=NA/O=www.telewell.fi/OU=www.telewell.fi/CN=www.telewell.fi CA/emailAddress=ca@telewell.fi	ca	<button>View</button> <button>Remove</button>

Import Certificate

4. Go to **Advanced Setup -> VPN -> OpenVPN -> OpenVPN Client**, click **Add** button to add a new OpenVPN connection.

#### OpenVPN Client

Name:

☒ Enable

Local Gateway Interface:

Remote Gateway:

Username:

Password:

Protocol:

Port Number:

Cipher Encryption:

HMAC Authentication:

☒ Enabled LZO data compression

CA Profile:

Apply/Save

Click **Apply/Save** button to save account settings.

#### OpenVPN Client

Maximum entries: 4

Name	Local Gateway Interface	Remote Gateway	Username	Protocol	Port Number	Cipher Encryption	HMAC Authentication	LZO	CA Profile	Enable	Remove	Edit
OpenVPN-Test	eth4.1	10.0.0.254	test	TCP	443	BF-CBC	SHA1	Enable	Test_CA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<button>Edit</button>

Add Enable Remove

5. Go to **Device Info -> VPN -> Client Info** to check connection status. You can also click **Disconnect** button to disconnect the OpenVPN connection.

#### Device Info -- Client Info

Name	Type	Enable	Status	Connection Type	Remote Gateway	Peer IP	Client IP	Action
OpenVPN-Test	OpenVPN	Enabled	Connected		10.0.0.254	10.8.0.1	10.8.0.6	<button>Disconnect</button>

When **Status** shows **Connected**, you can now access to remote network.

Below is Server Info for reference.

#### Device Info -- Server Info

Name	Type	Enable	Status	Connection Type	Peer IP	Connected By	Action
test	OpenVPN	Enabled	Connected	Remote Access		10.8.0.6	

# LAN to LAN

## TW-EAV510 (OpenVPN Server)

1. Go to **Advanced Setup** -> **VPN** -> **OpenVPN** -> **OpenVPN Server**, enable the OpenVPN Server and do the settings as below. Click **Apply/Save** button to save changes.

## OpenVPN Server

☒ Enabled OpenVPN Server

Protocol:

TCP ▾

Port Number:

443

Tunnel Subnet:

10.8.0.0

Tunnel Mask:

255.255.255.0

Cipher Encryption:

BF-CBC ▾

HMAC Authentication:

SHA1 ▾

☒ Enabled LZO data compression

Apply/Save

## CA

-----BEGIN CERTIFICATE-----  
MIIDvDCCAYwIwAgAwIJBALRqDWCc6yEbMA0GCsGqSIB3DQEBBQUAMIGbMQswCQYD  
VQQGEwJGSTEMLAKGA1UECBMCRkkxCzAJBgNVBACtAK5BRkwFwYDVQQKEwB3d3cu  
dGVsZXdlbGwuY29tMRkwFwYDVQQLEwB3d3cudGVsZXdlbGwuY29tMRwwGgYDVQQD  
ExN3d3cudGVsZXdlbGwuY29tIENBMR4wHAYJKoZIhvcNAQkBFg9jYUB0ZWxlid2Vs  
bC5jb20wHhcNMTAwMTAxMDA0NTI4WncNMTkxMjMwMDA0NTI4WjCBmzELMAKGA1UE  
BhMCRkkxCzAJBgNVBAGTAKZJMQswCQYDVQQHEwJ0QTEZMBcGA1UEChMQd3d3LnRl  
bGV3ZWxsLmNvbTEZMBcGA1UECXMqd3d3LnRlbGV3ZWxsLmNvbTEuMB0GA1UEAxMT  
d3d3LnRlbGV3ZWxsLmNvbSBDQTEeMBwGCSqGSIb3DQEJARYPY2FAdGVsZXdlbGwu  
Y29tMIGfMA0GCsGqSIB3DQEBQUAA4GNADCBiQKBgQDuiyks4JYC9cymymCxxGK1P  
At211mafmycHn/hwi6BIkjjQKqNqv/5dJsX6Jdh/v1NxE10yx+xGCKCoXtzb4Tv  
kHQ7mCuJ4czCH01RYLUk4c6HCKTMDbt8wQGFc5+qGpQ0kyj3vV2TNQrEzATDnyOd  
GE4Gq8Jcs2XUuKv37u1H9wIDAQAB04IBBDCCAQAwwHQYDVOR00BBYEFBukFzFvXIGI  
x67bes5c2AB8PvbqMIHQBgNVHSMGcgwgclWAFBukFzFvXIGIx67bes5c2AB8Pvbq  
oYGHpIGeMIGbMQswCQYDVQQGEwJGSTEMLAKGA1UECBMCRkkxCzAJBgNVBACtAK5B  
MRkwFwYDVQQKEwB3d3cudGVsZXdlbGwuY29tMRkwFwYDVQQLEwB3d3cudGVsZXdl  
bGwuY29tMRwwGgYDVQQDEwN3d3cudGVsZXdlbGwuY29tIENBMR4wHAYJKoZIhvcN  
AQkBFg9jYUB0ZWxlid2VsbC5jb22CCQC0ag1gnOshGzAMBgNVHRMEBTADAQH/MA0G  
CSqGSIb3DQEBBQUAA4GBAE0Wi4aUJT0VwMQVqkqJqFYhe6BfvHtF/R6w97B4ihq6g  
/F/SAA17Hz7aR9HSLNn9Rjhr6k+Q7NMxUrsF1fwqf2p1dRK75w2IwNBUXfeuXerL

2. Go to **Advanced Setup** -> **VPN** -> **Account**, add a new user for login. The different with Remote Access is you need to enter peer network information.

## Configure Account

Name:

☒ Enable

Username:

Password:

Connection Type: ☐ Remote Access ☒ LAN TO LAN

Peer IP:

Peer Netmask:

Click **Apply/Save** button to save changes.

## Account

Maximum entries: 4

Name	Enable	Username	Connection Type	Peer IP	Peer Netmask	Remove	Edit
test	Enable	test	LAN TO LAN	192.168.20.0	255.255.255.0	<input type="checkbox"/>	<input type="button" value="Edit"/>

## TW-EAV510 AC (OpenVPN Client)

- Go to **Advanced Setup -> VPN -> OpenVPN -> Trusted CA**, click Import Certificate button to add a new CA.

## Trusted CA (Certificate Authority) Certificates

Add, View or Remove certificates from this page. CA certificates are used by you to verify peers' certificates.  
Maximum entries: 4

Name	Subject	Type	Action
------	---------	------	--------

- Setup a name for importing certificate and paste the CA to **Certificate** field. Click **Apply** button to save your CA.

Enter certificate name and paste certificate content.

Test\_CA

Certificate:

```
-----BEGIN CERTIFICATE-----
MIIDrjCCAxegAwIBAgIJAMdMDbEBCqzKMA0GCsqGSIb3DQEBBQUAMIGXMsowCQYD
VQOGEwJGStELMAkGA1UECBMCRkxkCzA3BgNVBACtAk58MRgwFgYDVQKKEw93d3cu
dGV5ZXdlbGwuzmkxGDAwBgNVBAsTD3d3dy50ZWxlid2VsbC5maTEbMBkGA1UEAxMS
d3d3LnRlbGwuzWxsLmZpIENBMR0wGwYJKoZIhvcNAQKBGfG5jYUB0ZWxlid2VsbC5m
aTEaFw0xMDAxMDAwMDI0MTA0MTA0YjYzAwYzAwMDI0MTA0MTA0MTA0MTA0MTA0MTA0
STELMAkGA1UECBMCRkxkCzA3BgNVBACtAk58MRgwFgYDVQKKEw93d3cudGV5ZXdl
bGwuzmkxGDAwBgNVBAsTD3d3dy50ZWxlid2VsbC5maTEbMBkGA1UEAxMSd3d3LnRl
bGV3ZWxsLmZpIENBMR0wGwYJKoZIhvcNAQKBGfG5jYUB0ZWxlid2VsbC5maTEbNzAN
BgkqhkiG9w0BAQEFAAOBjQAwGyKCGYEAuKHu5YpduQhD+SL33d9NS2lMVX8ezOfI
EiPt8qhvhvCsUsv+MlpKIIXcQolzf+kWQ36iDRcgIyZ2dQPTnjfEvFuniBOPXW03W
yHua+dxj1lScqgez+y3oMbTH034H8VRvCIpLlFtaNTUowxAWC0dk7aMnQu46CjPnz
0TAmXQ9S0LkCAwEAABoB/zCB/DadBgNVHQ4EFgQUFIQaenB1UC986ZLSy38JjN1P
q34gwcwGA1UdIwSBwDCBwYAUFIQaenB1UC986ZLSy38JjN1Pq36hgZ2kgZowgZcx
CzA3BgNVBAYTAkZJMQswCQYDVQKKEwJGStELMAkGA1UEBxVCTkExGDAwBgNVBAot
D3d3dy50ZWxlid2VsbC5maTEYMBYGA1UECwMPD3d3LnRlbGwuzWxsLmZpMRswGQYD
VQODEXJ3d3cudGV5ZXdlbGwuzmkxGDAwQ0E0XHTABBgkqhkiG9w0BCQEWDMNhOHRlbgV3
ZWxsLmZpZggkAx0wMF4EKROQwDZVR0TBAUwAGBg/zANBgkqhkiG9w0BAQFAAOB
gQATn+jkt+gODM9csc5YhGmZedU8y+Uz6VWruVnSIfJccQvvaIe9X07v3jpdQnIdo
5Cc54Amwrm/DX+vYzw7n7sS+vgNfQZatVRra+oSBcvPAjswFMHS/xTnG+jKXs1mQ
-----END CERTIFICATE-----
```

### Apply

**Note:** The CA contents must between wording “-----BEGIN CERTIFICATE-----”and “-----END CERTIFICATE-----”, they cannot be deleted.

8. Once the CA import successfully, you will see the page as below.

Add, View or Remove certificates from this page. CA certificates are used by you to verify peers' certificates.  
Maximum entries: 4

Name	Subject	Type	Action
Test_CA	C=FI/ST=FI/L=NA/O=www.telewell.fi/OU=www.telewell.fi/CN=www.telewell.fi CA/emailAddress=ca@telewell.fi	ca	<input type="button" value="View"/> <input type="button" value="Remove"/>

Import Certificate

9. Go to **Advanced Setup -> VPN -> OpenVPN -> OpenVPN Client**, click **Add** button to add a new OpenVPN connection.

## OpenVPN Client

Name:	<input type="text" value="OpenVPN-Test"/>
<input checked="" type="checkbox"/> Enable	
Local Gateway Interface:	<input type="text" value="ipoe_eth4/eth4.1"/>
Remote Gateway:	<input type="text" value="10.0.0.254"/>
Username:	<input type="text" value="test"/>
Password:	<input type="password" value="...."/>
Protocol:	<input type="text" value="TCP"/>
Port Number:	<input type="text" value="443"/>
Cipher Encryption:	<input type="text" value="BF-CBC"/>
HMAC Authentication:	<input type="text" value="SHA1"/>
<input checked="" type="checkbox"/> Enabled LZO data compression	
CA Profile:	<input type="text" value="Test_CA"/>

Click **Apply/Save** button to save account settings.

**Note:** The OpenVPN client side will get peer network information from server side, so no need to setup peer network.

### OpenVPN Client

Maximum entries: 4

Name	Local Gateway Interface	Remote Gateway	Username	Protocol	Port Number	Cipher Encryption	HMAC Authentication	LZO	CA Profile	Enable	Remove	Edit
OpenVPN-Test	eth4.1	10.0.0.254	test	TCP	443	BF-CBC	SHA1	Enable	Test_CA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Edit"/>

10. Go to **Device Info -> VPN -> Client Info** to check connection status. You can also click **Disconnect** button to disconnect the OpenVPN connection.

### Device Info -- Client Info

Name	Type	Enable	Status	Connection Type	Remote Gateway	Peer IP	Client IP	Action
OpenVPN-Test	OpenVPN	Enabled	Connected		10.0.0.254	10.8.0.1	10.8.0.6	<input type="button" value="Disconnect"/>

When **Status** shows **Connected**, you can now access to remote network.

Below is Server Info for reference.

### Device Info -- Server Info

Name	Type	Enable	Status	Connection Type	Peer IP	Connected By	Action
test	OpenVPN	Enabled	Connected	LAN TO LAN	192.168.20.0	10.8.0.6	

# Windows/Mac/Android/iOS Setting

Regarding to the OpenVPN on Windows/Mac/Android/iOS, you can download the software/APP from link below.

<https://openvpn.net/>

There is also a HOW TO documentation which can be found at link below.

<https://openvpn.net/index.php/access-server/docs.html>