Telephone: 01480 395256
www.i4automation.co.uk
sales@i4automation.co.uk

i4 Automation Ltd
Innovative Solutions for Industry

Unitronics UCR routers

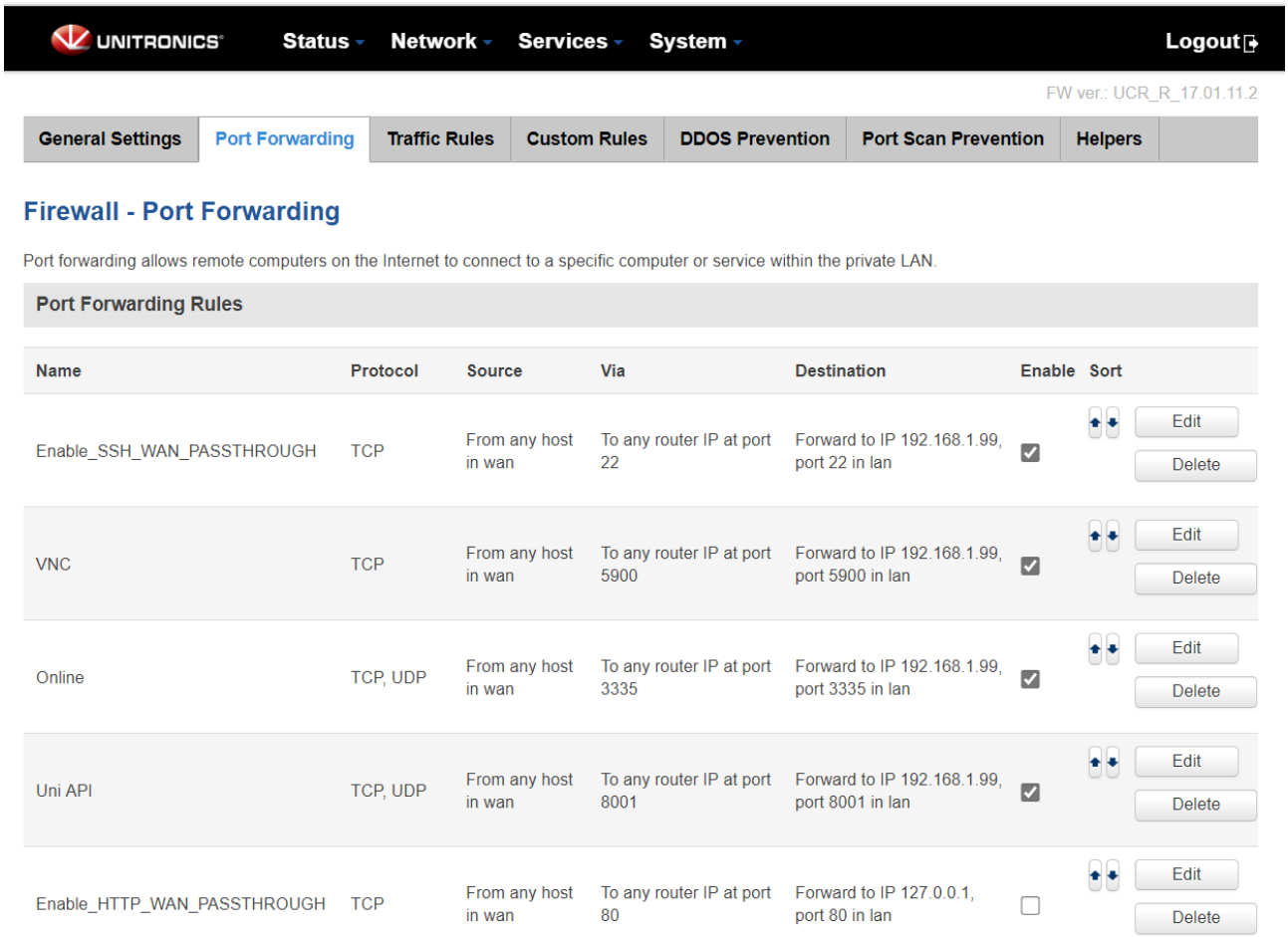
Firewall

In order to allow Unilogic software to download to and monitor the Unistream PLC it is necessary to add some port redirection for ports 22, 3335 & 8001. Port number 5900 should also be added if a remote VNC connection is required. These redirects are NOT required if a VPN connection has been made to the router (see later).

Connect to the router web GUI via a browser, the default IP address is 192.168.1.1, user: Admin, password: Admin.

You will be instructed to change the router password, once this is complete select Network > Firewall from the main menu then > Port Forwarding. Add and enable the following four rules and SAVE the changes.

The target PLC IP address is 192.168.1.99

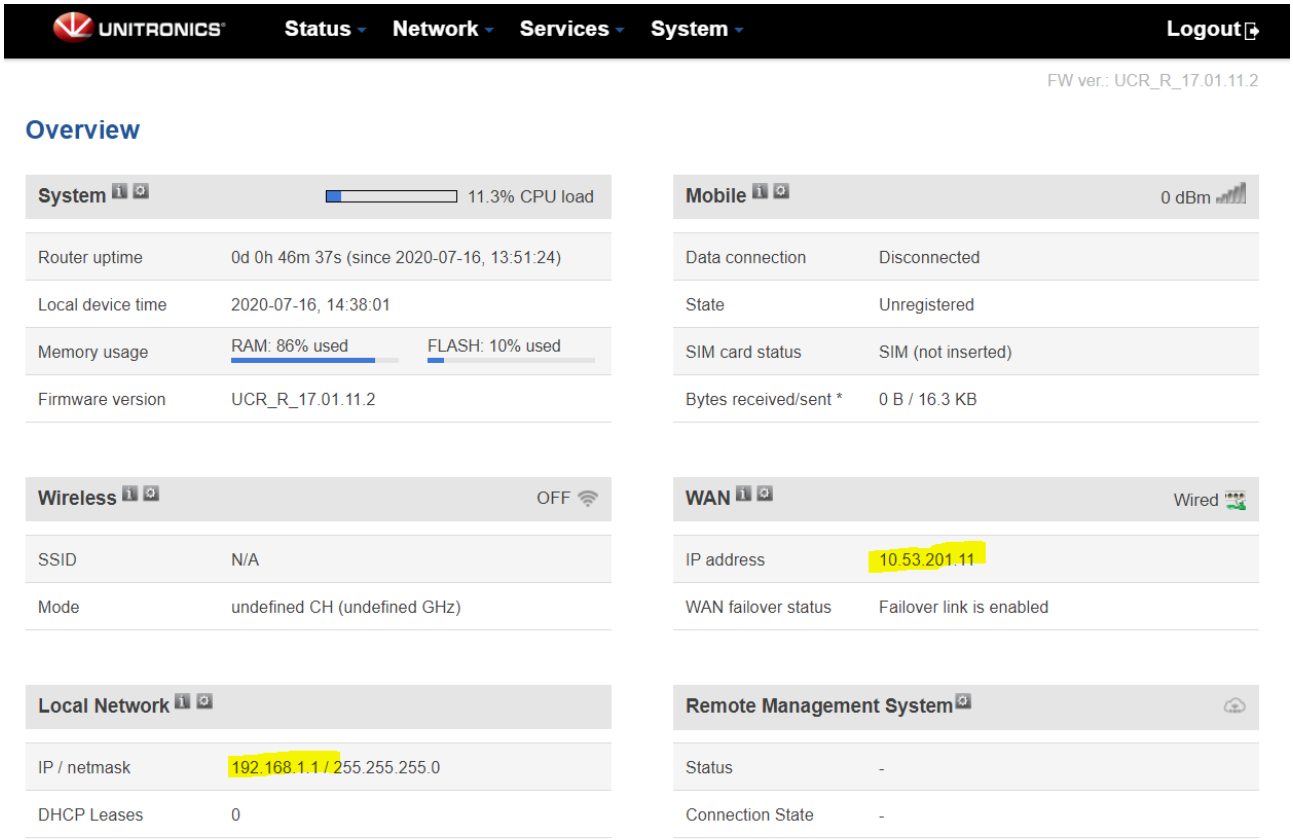


You can now communicate with the PLC via the router, if your computer is on the same local area network then use the router LAN address, however if you require a remote connection via the Internet then use the router WAN address which should be a static public address.

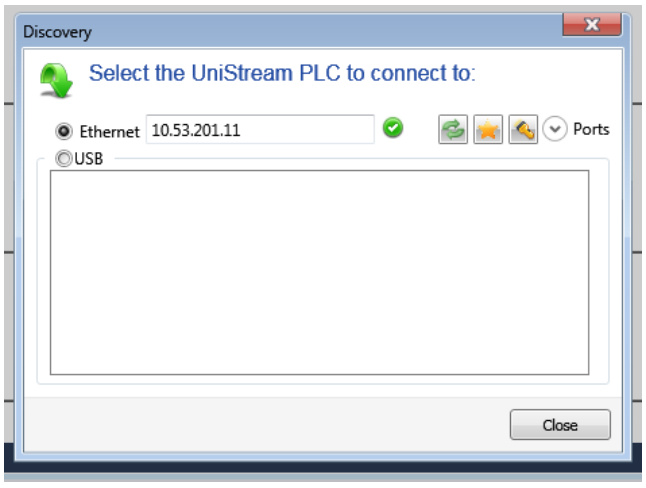
Telephone: 01480 395256
www.i4automation.co.uk
sales@i4automation.co.uk

i4 Automation Ltd
Innovative Solutions for Industry

The LAN and WAN address of the router can be found from Status > Overview



Add the appropriate address to Unilogic in the box below.

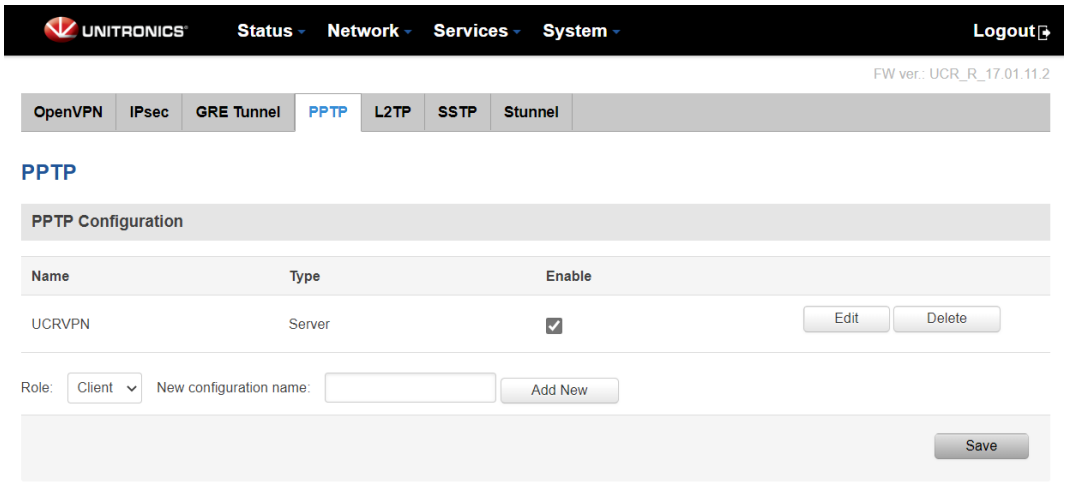


Telephone: 01480 395256
www.i4automation.co.uk
sales@i4automation.co.uk

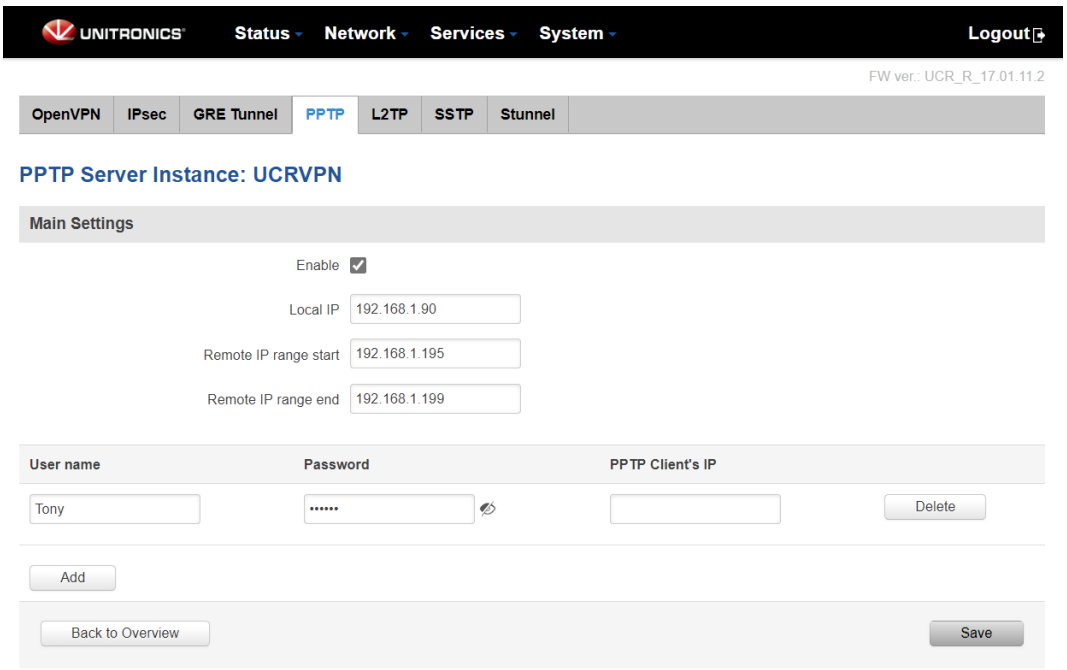
i4 Automation Ltd
Innovative Solutions for Industry

VPN Server setup

It is possible to connect to the router using a VPN provided the router has been set to be a VPN server. To set up a PPTP VPN go to Services > VPN > PPTP then select Server from the Role drop down box, add a friendly name and Add New. Tick Enable.



Edit the server instance and tick Enable, add a local IP address which is the router address for the VPN, this can be the same as the LAN address or different. The remote IP address range is the addresses that will be handed out by the router for VPN leases. Add a user name and a password for the connection. The Client IP can be left blank which causes an address from the remote range to be used, or it can be fixed to a different value. Click SAVE.

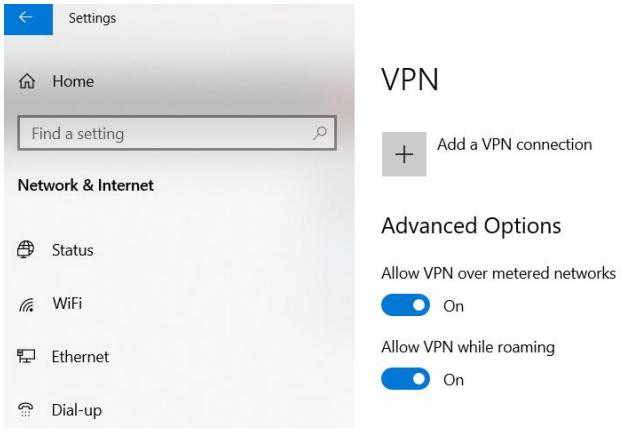


Telephone: 01480 395256
www.i4automation.co.uk
sales@i4automation.co.uk

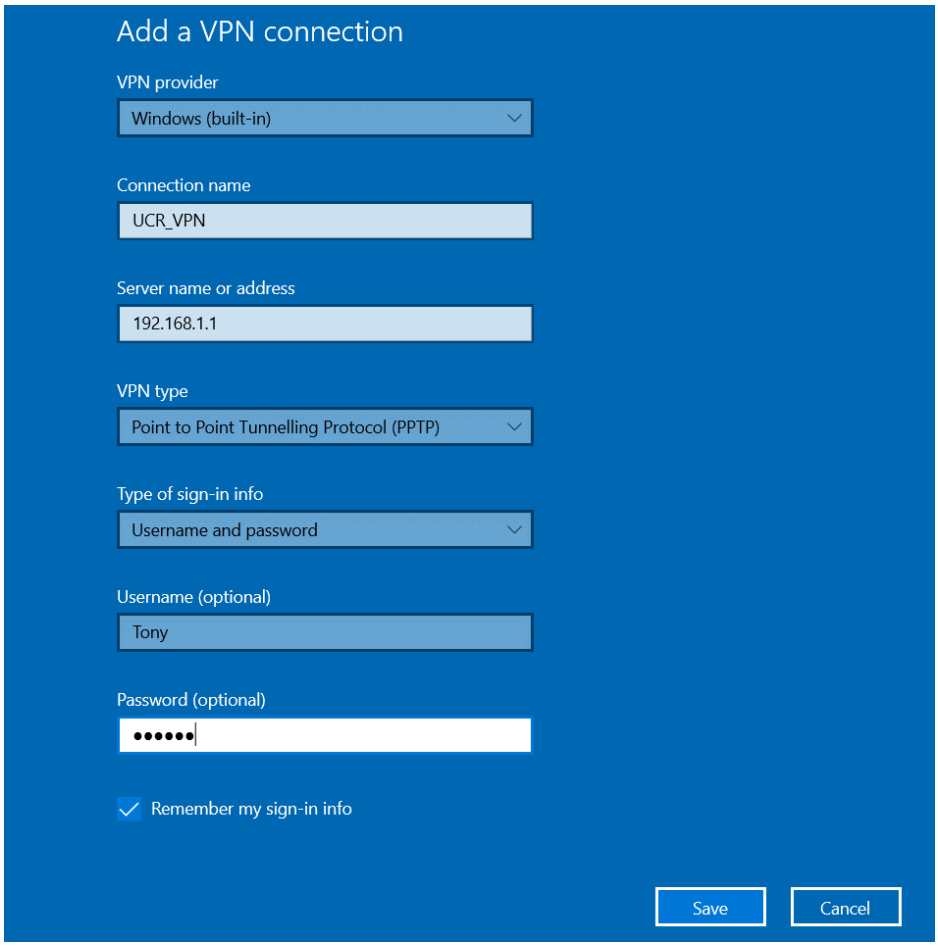
i4 Automation Ltd
Innovative Solutions for Industry

VPN Client setup

To set up the VPN client in Windows 10 enter Settings in the task bar search window, then when Settings opens search for Add VPN in the settings search window.



Select Add a VPN connection and fill out the dialog box as below.



Note that the Server name or address needs to be the router WAN address for remote access via the Internet, or the LAN address for remote access via a local area network.

Telephone: 01480 395256
www.i4automation.co.uk
sales@i4automation.co.uk

i4 Automation Ltd
Innovative Solutions for Industry

VPN Operation

If a VPN connection is made to the router the client computer is allocated an IP address by the router for the same subnet range as the router LAN settings. There is, therefore, no need for any port redirection within the router.

Comms loss protection

The network towers on a mobile network can only handle so many SIM cards at any one time, if a registered SIM card is inactive for a long period of time then it can be 'dropped' by the tower resulting in loss of communication. This dropping is not normally apparent and may not be noticed for long periods of time.

The UCR routers offer three tools to help work round this dropping by the network operator.

SIM Idle Protection

The router periodically switches to the secondary SIM card to prevent the network operator from blocking the SIM due to inactivity.

Periodic reboot

Reboots the router at certain fixed times regardless.

Ping reboot

Reboots the router if a designated server fails to respond to a defined number of pings.

Default gateway matters – needs to be router or possibility that Unilogic ping hangs.

Router init – make sure SMS enabled in router.