webdyn

Flexitron group

TITAN

Application Note 35

Configuring the Router to Send Data Over 3G/4G, Ethernet and Wi-Fi

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1. Scenario Details

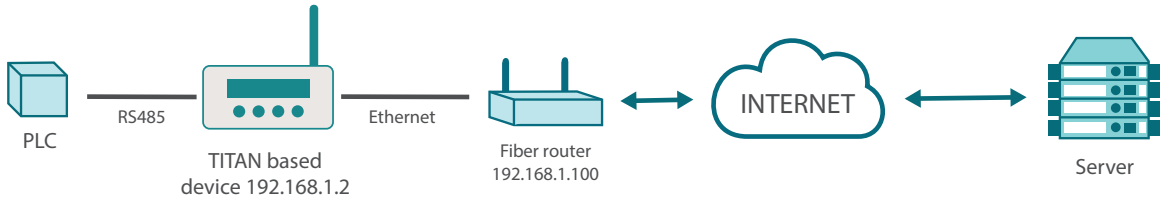
TITAN-based devices have all the typical functionalities of 4G/3G/2G routers, as well as a series of added features that make them one of the most feature-packed routers on the market.

One of the most relevant added features is the ability to act as a concentrator of data from sensors (Modbus, temperature, distance, etc.).

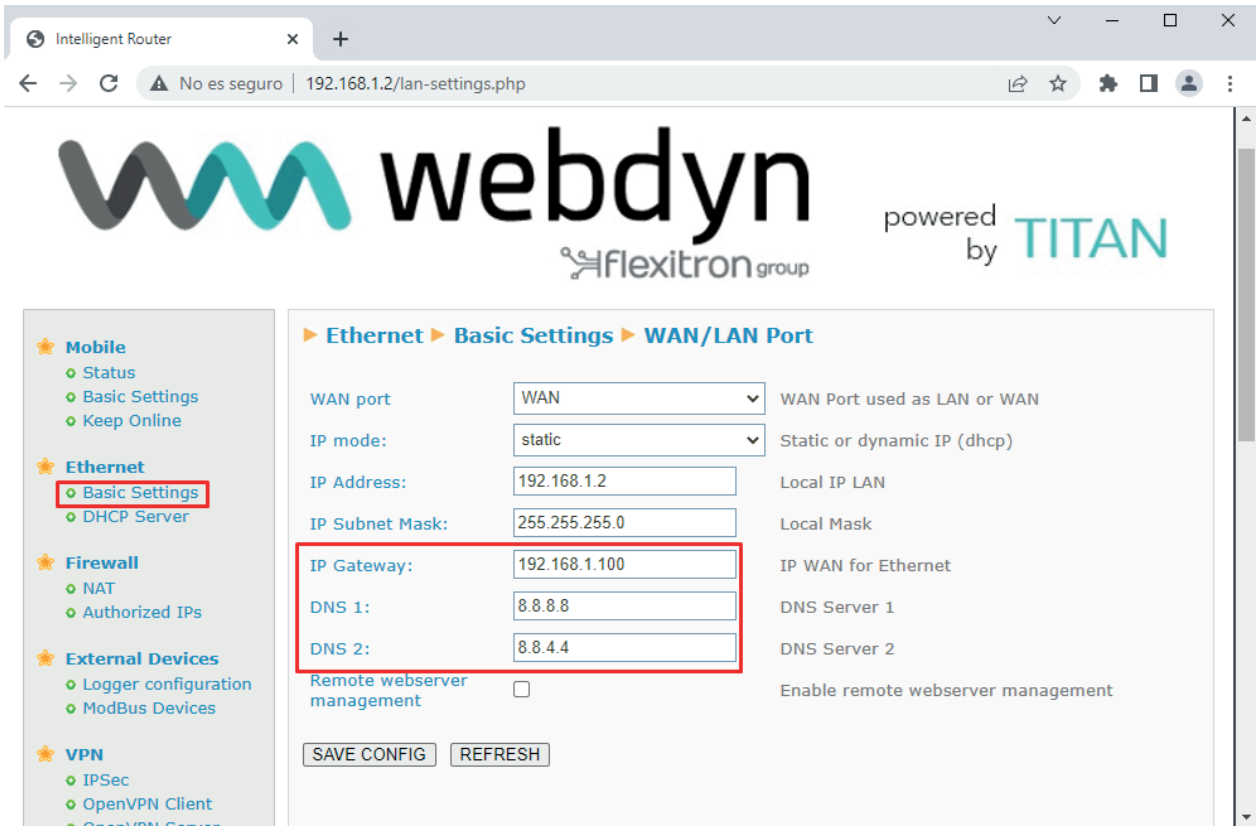
The data collected, as is evident, must be sent to a server for processing. The TITAN-based device has several options to achieve this, the data can be sent via HTTP/HTTPS, MQTT/MQTTS and FTP. A range of application notes are available explaining how to configure the TITAN-based device to collect and deliver data.

However, in most of the application notes, the TITAN-based device is configured to send the data to a server through its 4G/3G/2G interface, as this is the most commonly used method. However, the TITAN-based device can also be configured to send data via Ethernet and Wi-Fi interfaces. This is a simple explanatory application note describing the configuration required to send data via Ethernet and Wi-Fi interfaces.

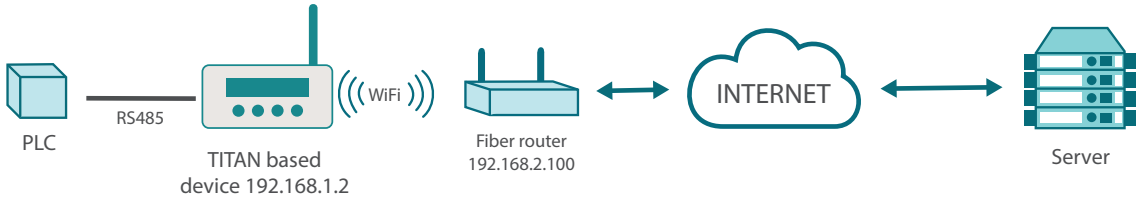
2. Configuring the TITAN-based Device to Send Data Via its Ethernet Interface Using an Existing Fibre Router



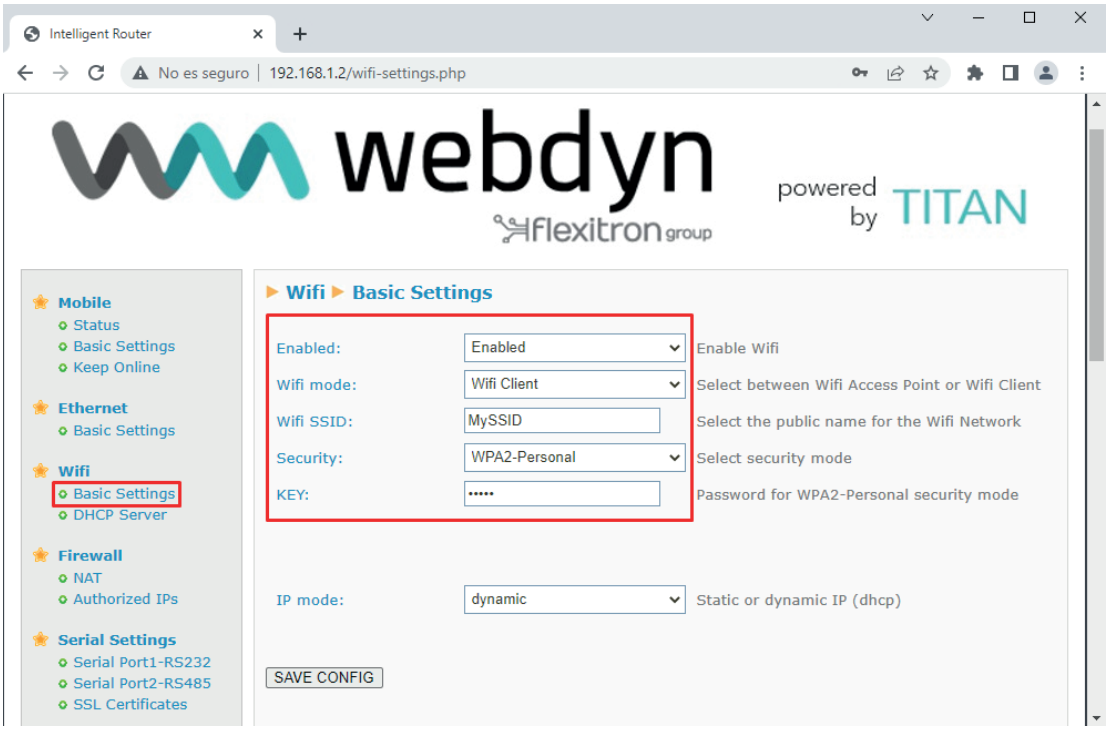
Configuring the TITAN-based device for this scenario is a simple matter. When the 4G/3G/2G WAN interface is disabled, all we have to do is configure the LAN > Basic Settings section, appropriately configuring the Gateway IP address (in which we will indicate the LAN IP address of the TITAN-based device with accessing the Internet, in this example 192.168.1.100) and the DNS, which in this case we will use those for Google: 8.8.8.8 and 8.8.4.4



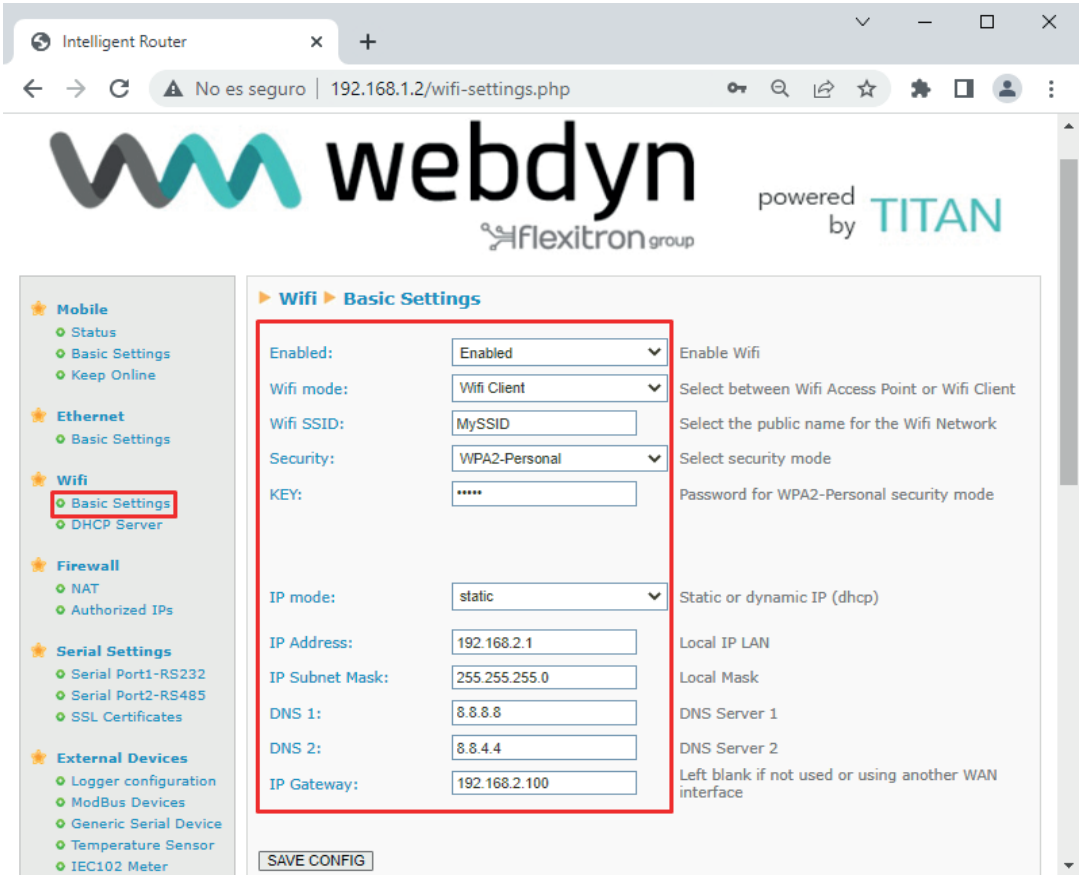
3. Configuring the TITAN-based Device to Send Data Via its Wi-Fi Interface Using an Existing Fibre Router



Configuring the TITAN-based device for this scenario is a also simple matter. With the 4G/3G/2G interface disabled, go to the Wi-Fi > Basic Settings section. Here we must enter the required data and set “Wi-Fi Client" mode, we must enter the fibre router’s SSID (with Wi-Fi) that provides access to the Internet, as well as the type of security and the key. We will then have two options. The first is to set the “IP mode” field of the TITAN-based device to “dynamic”. The TITAN-based device will now take its IP, Gateway IP and DNS from the DHCP server of the existing fibre router. This is done as shown in the following figure:



The second step is to configure the TITAN-based device to assign a static Wi-Fi IP address. To do this, we simply select the “static” option in the “IP Mode” box and, as in the case of Ethernet, enter the DNS and IP Gateway data.



Remember that the Wi-Fi interface must have a DIFFERENT subnet than the Ethernet interface. For example, if the Ethernet interface belongs to the 192.168.1.X / 24 subnet, the Wi-Fi interface cannot belong to this one as well. The correct configuration, as is seen in this example, is to set the Wi-Fi interface to 192.168.2.X / 24.

When using Wi-Fi in “Dynamic” mode (DHCP), we must also make sure that the IP assigned to the TITAN-based device by the DHCP server does not belong to the subnet used by the Ethernet interface. If it does, the Ethernet IP address of the TITAN-based device must be changed to another subnet.