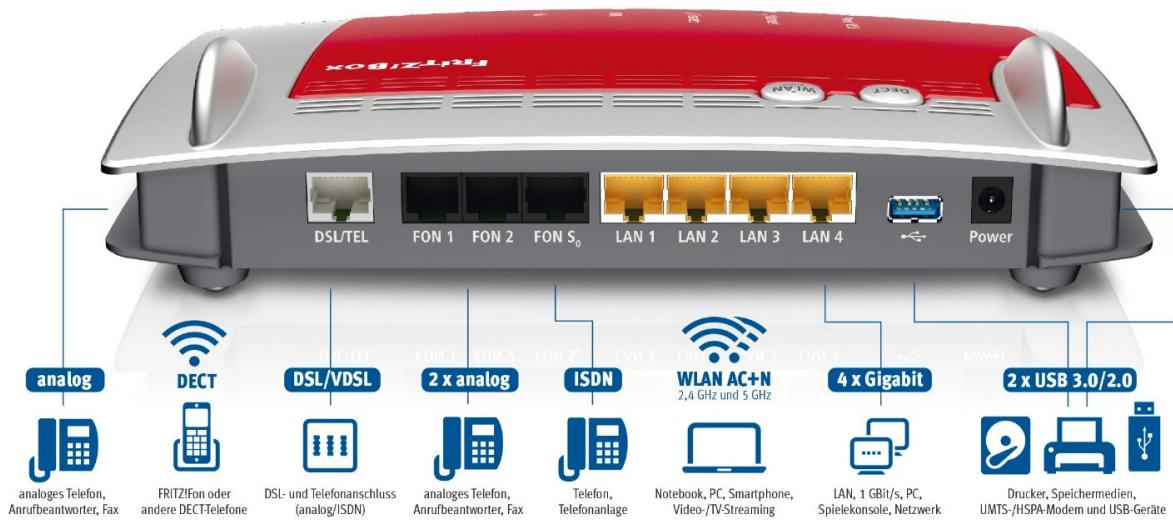


AVM Fritz!Box 7490



Sept 2016

Version 1.00

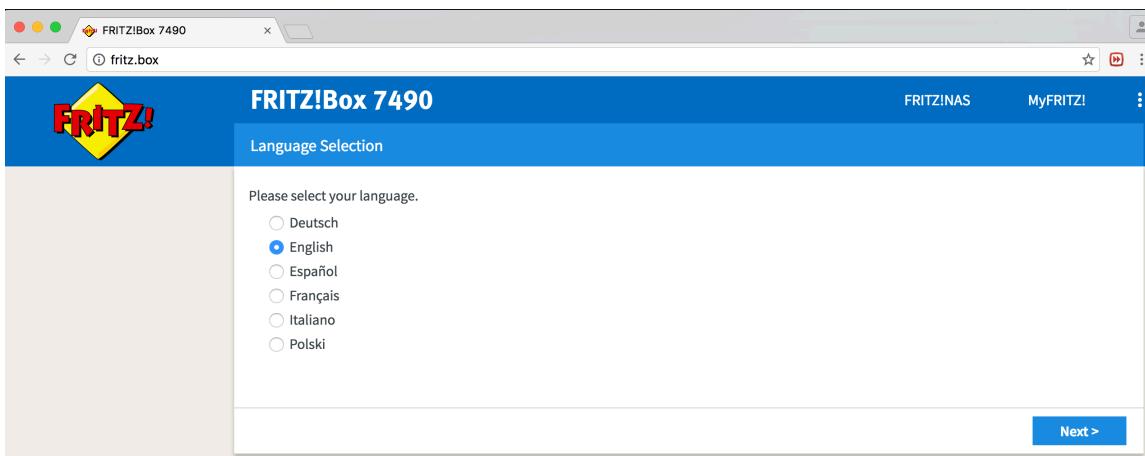
Prerequisites

This guide is for congregations with ADSL or VDSL connections. Before starting this step by step process, please power up your router and connect to the default WiFi connection provided. These details can be found in the product box. If you have a Fibre connection, please see the note under Step 8.

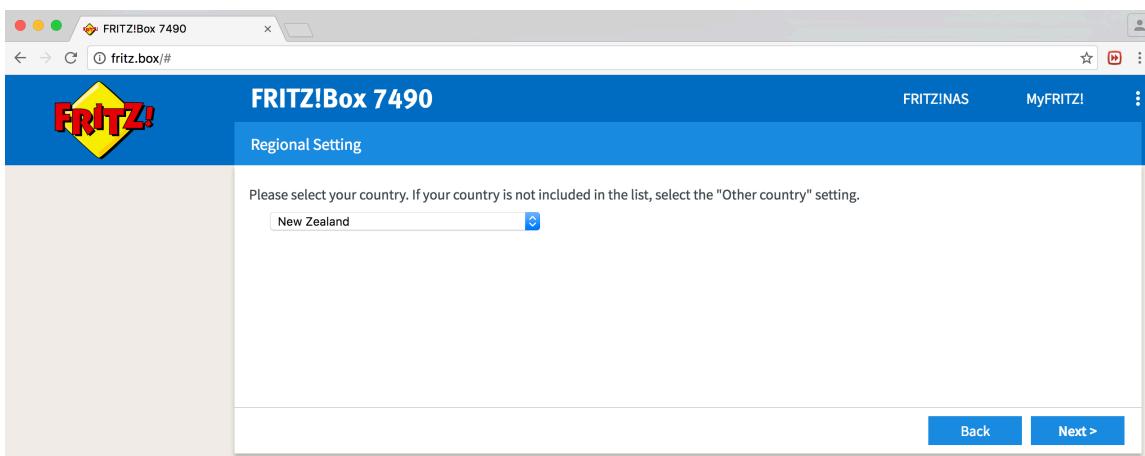
The following configuration steps will provide you with an optimized configuration for your Kingdom Hall. This process will:

1. Ensure that Vattendance VoIP traffic is prioritized, allowing the clearest sound possible.
2. Provide separate SSID's for Administrators and Guests (everyone else) to ensure that network traffic that is critical to the meeting is separated from general traffic.
3. Employ a basic web content filtering system that blocks explicit material.

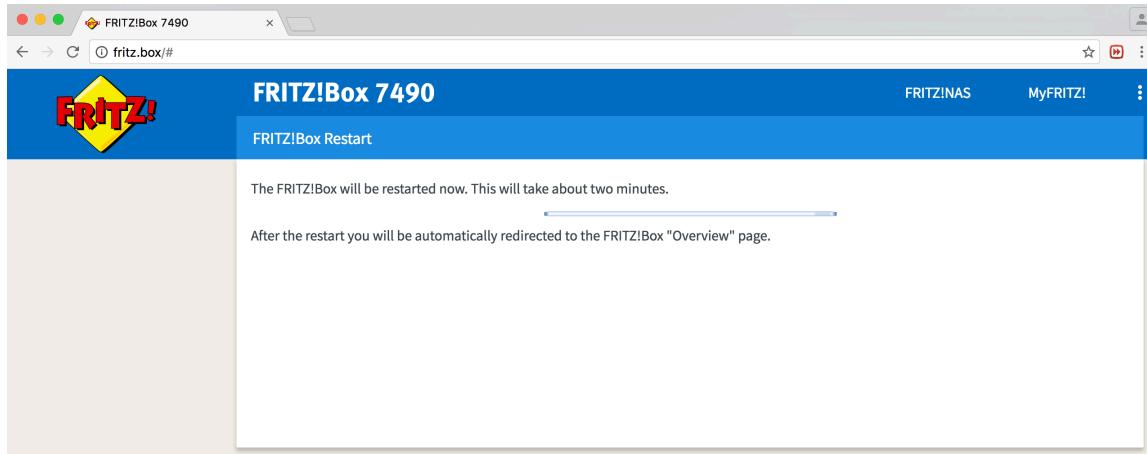
1 In your internet browser, browse to address "<http://fritz.box>". Select "English" and click "Next".



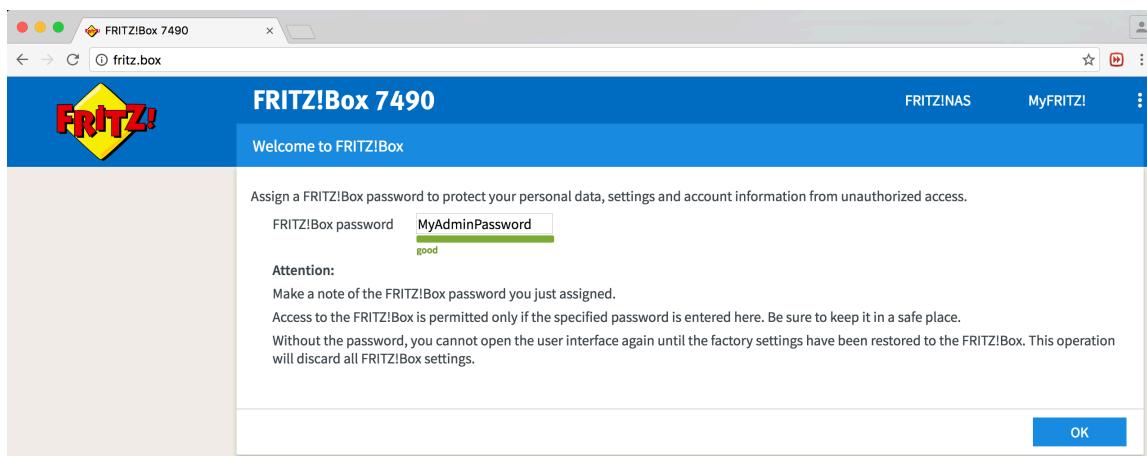
2 Select your country and click "Next"



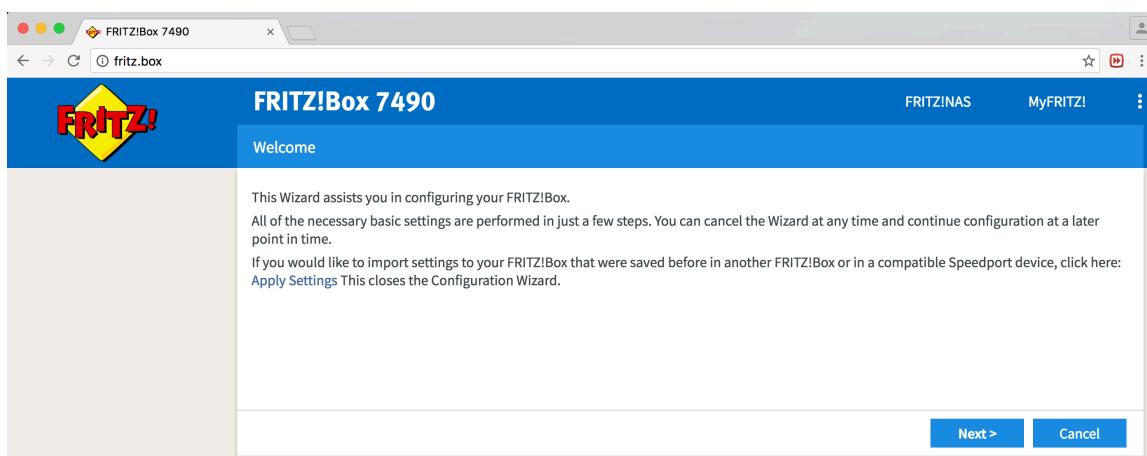
3 Router will now restart. Wait two minutes and connect again.



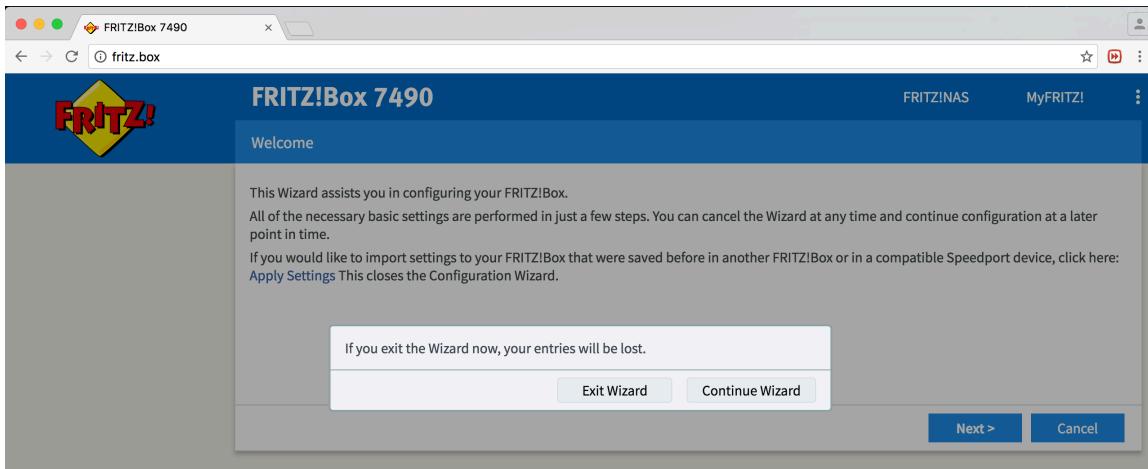
4 Enter your chosen Administrator password and click “OK”.



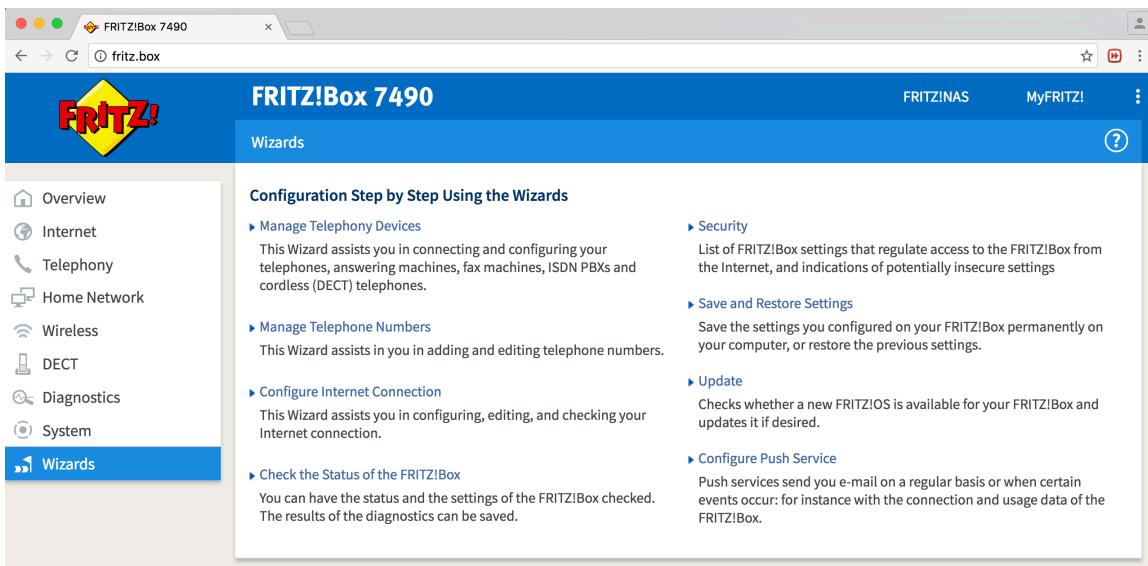
5 Click “Next”



6 Click “Exit Wizard”

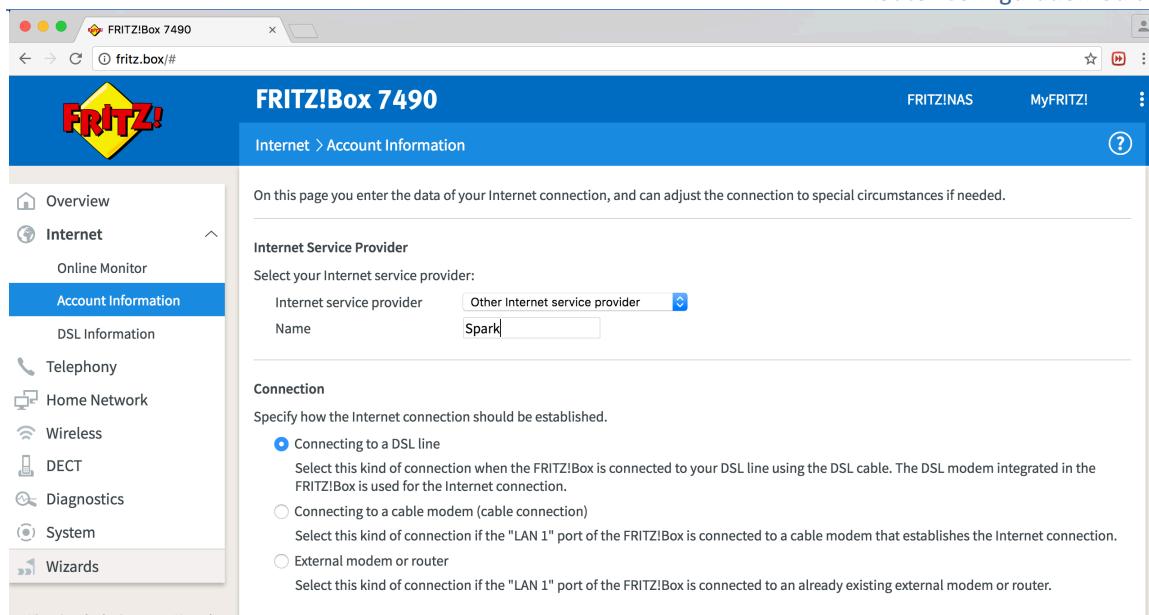


7 You will see this page. On the left menu select “Internet” then “Account Information”



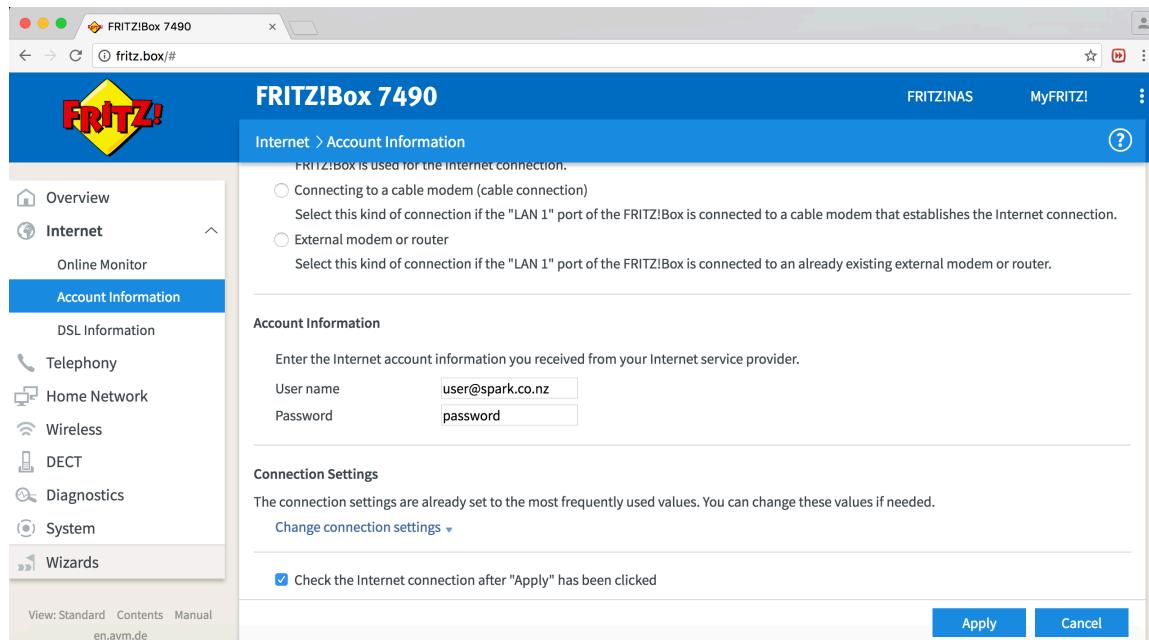
8 Enter the name of your ISP and select “Connecting to a DSL line”.

NOTE FOR THOSE WITH FIBRE: This guide is only for those with ADSL or VDSL. If you have a Fibre connection, select “External modem or router” instead. Please refer to your ISP for configuration details required for this. You will need a VLAN ID (normally “10”).

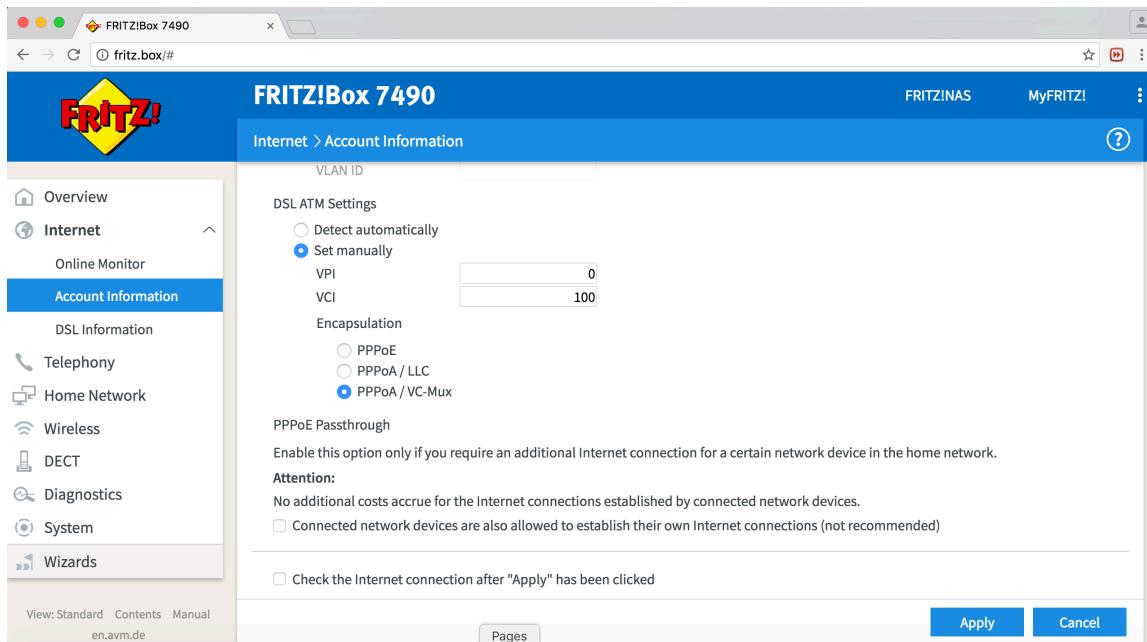


9 On the same page scroll down and enter your ISP Username and password.

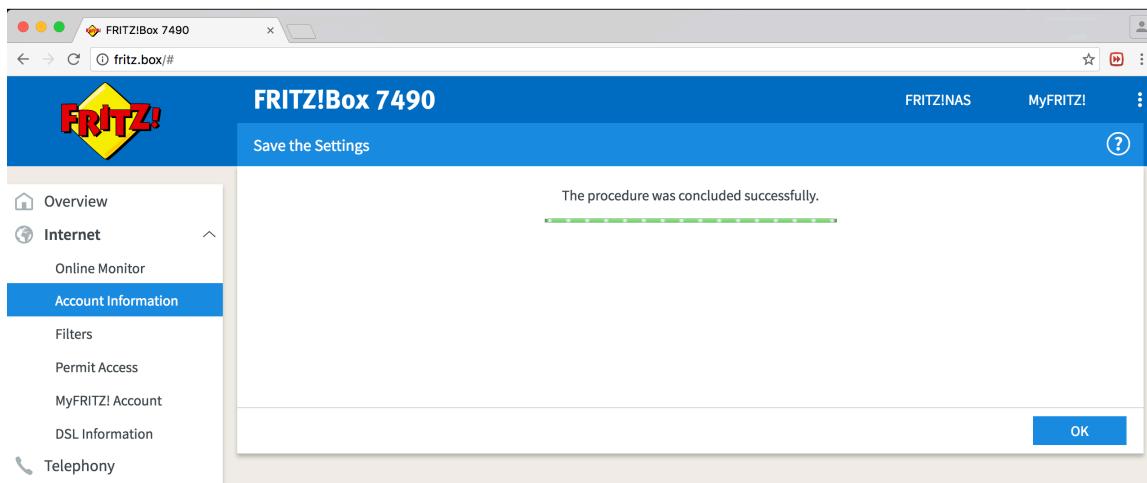
NOTE: If your ISP is Spark New Zealand, you may enter the same username and password that is shown in the below screenshot.



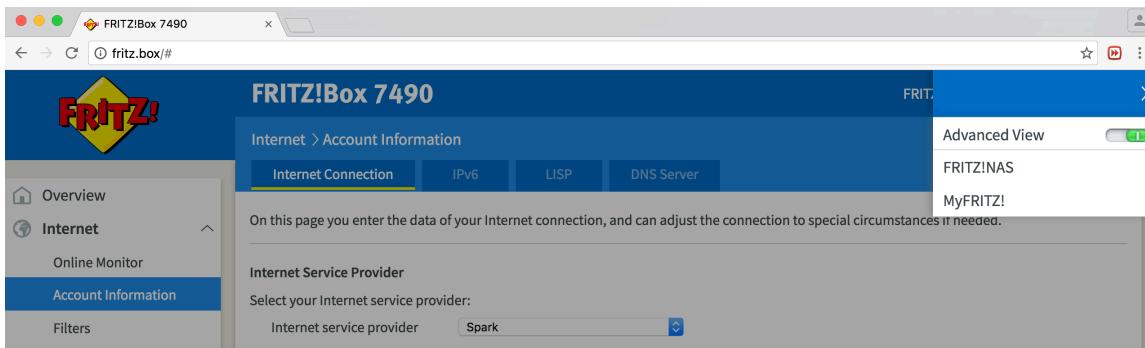
10 On the same page, click “Change connection settings”. You can either select “Detect Automatically” or enter your ISP’s DSL settings manually as below. When finished, click “Apply”.



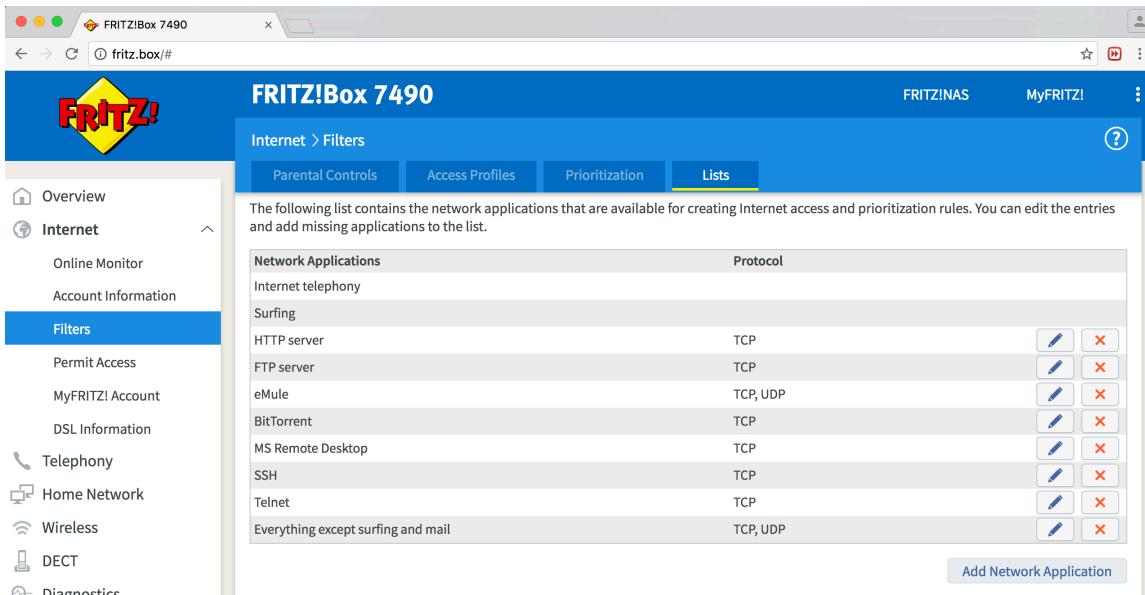
11 Click “OK”.



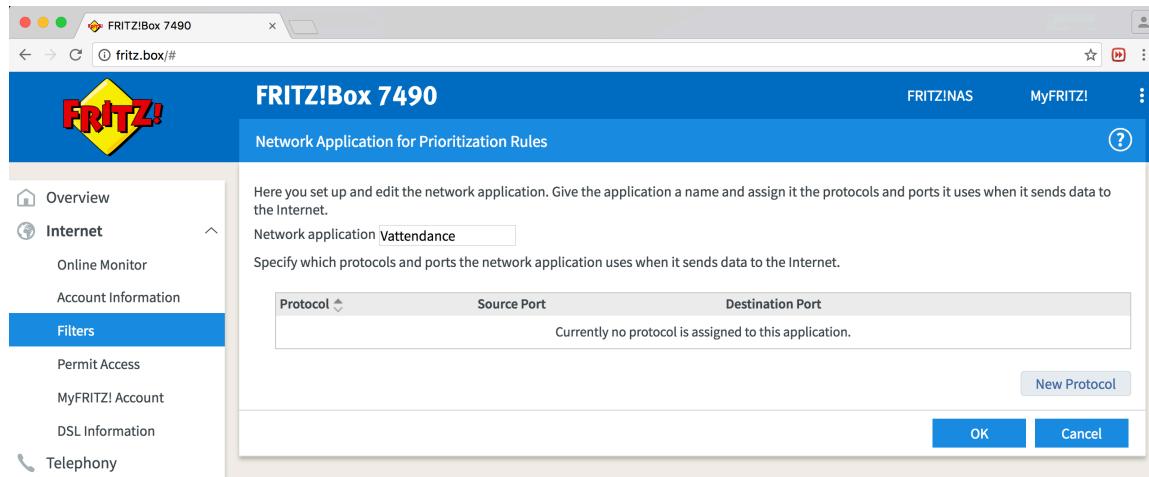
12 In the top right of the page, click the three vertical dots icon to the right of “MyFRITZ!” and turn on “Advanced View”.



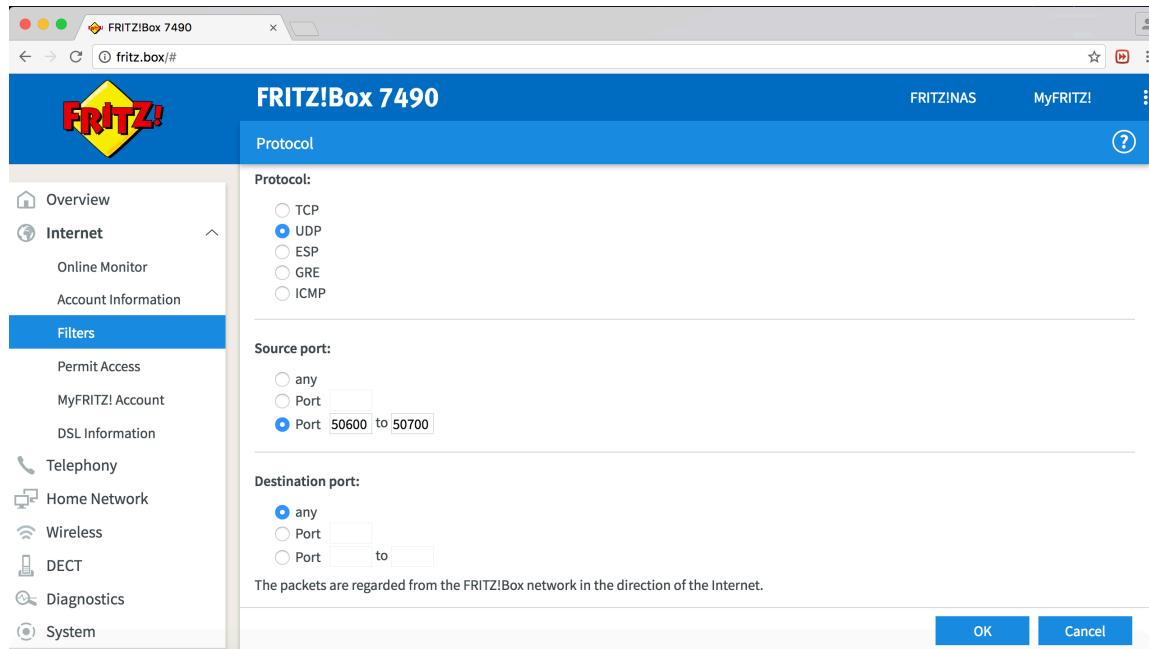
13 On the left menu Select “Internet”, “Filters” then select the “Lists” TAB. Then click “Add Network Applications”.



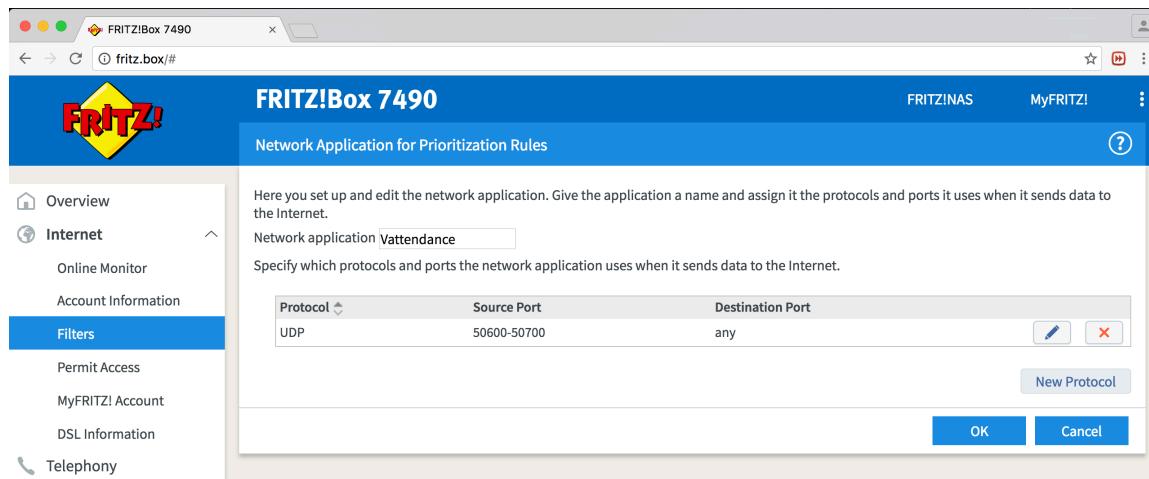
14 Click “New Protocol”



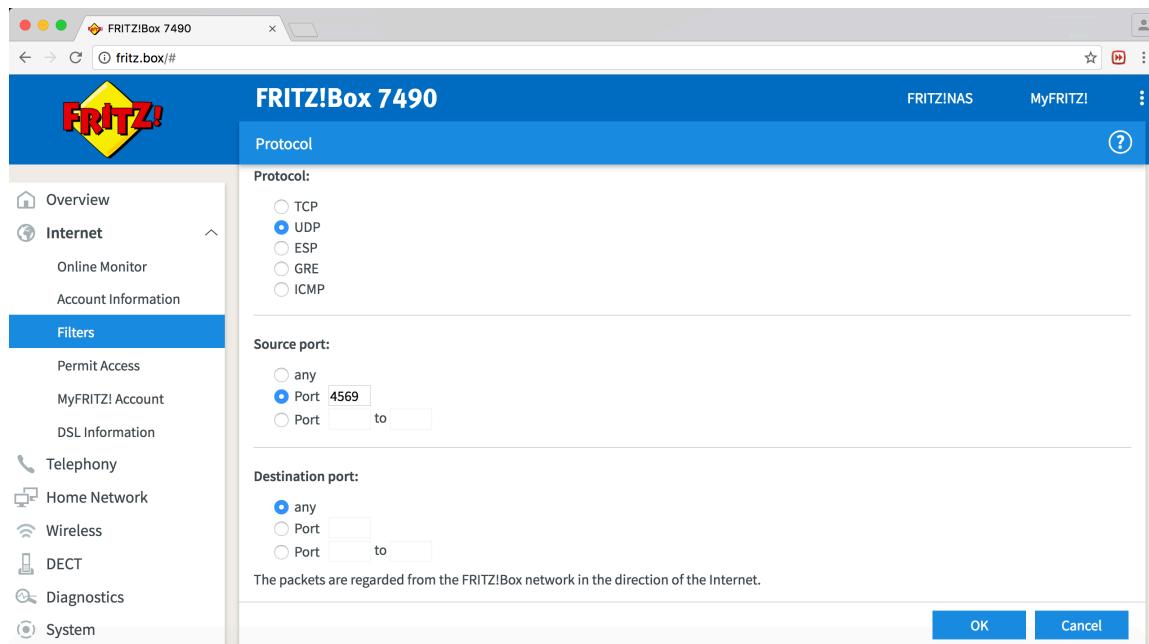
15 Fill out this page as pictured and click “OK”.



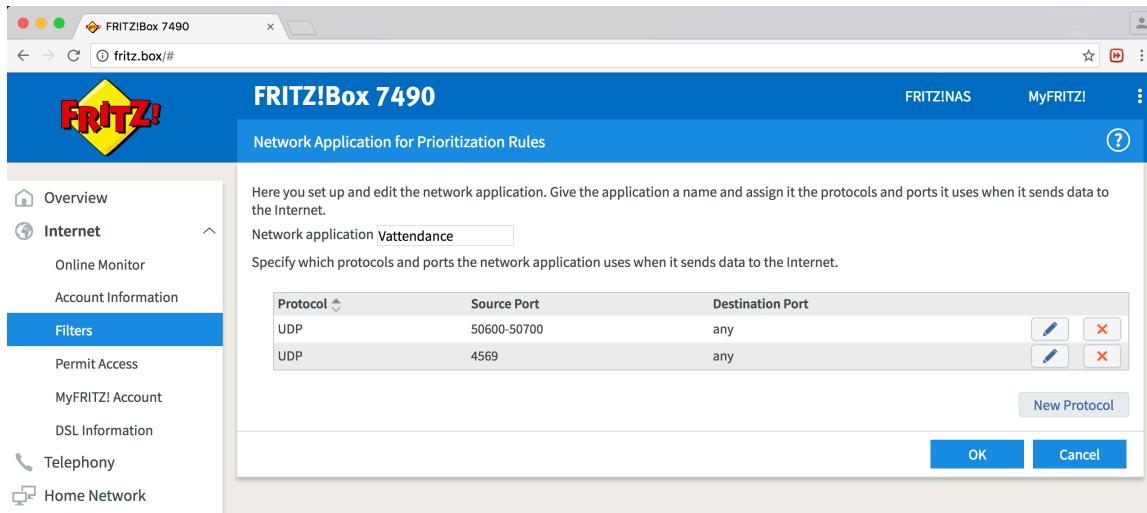
16 Click “New Protocol” again.



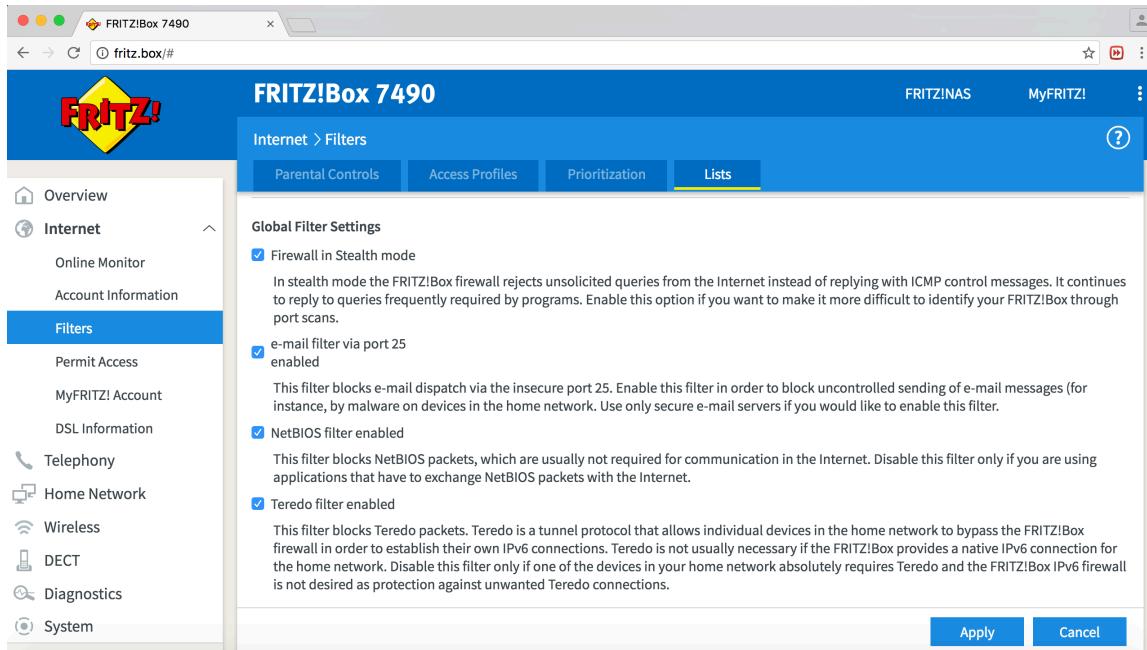
17 Fill out this page as pictured and click “OK”.



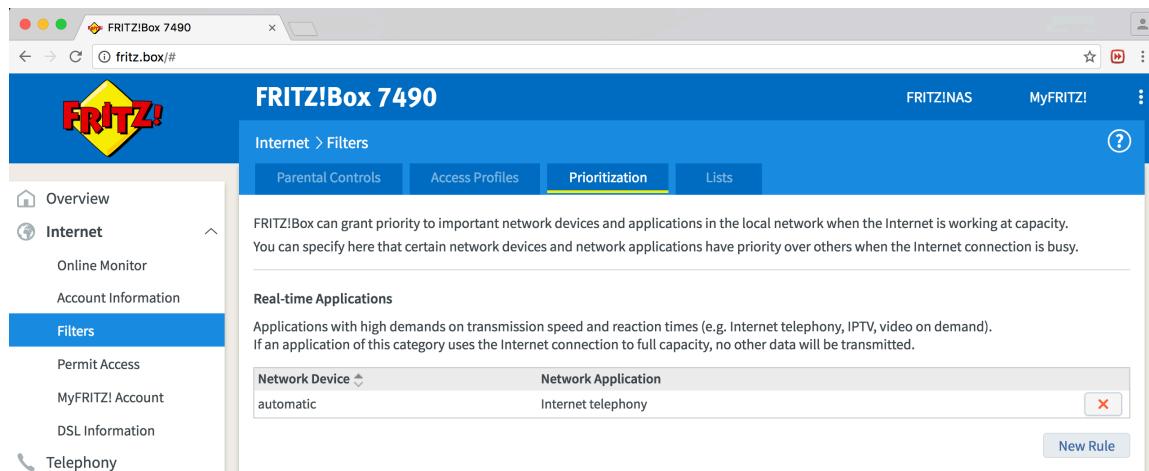
18 Click "OK"



19 On the same page scroll down and select options as shown below and click "Apply".



20 Select the “Prioritization” TAB and click “New Rule”.

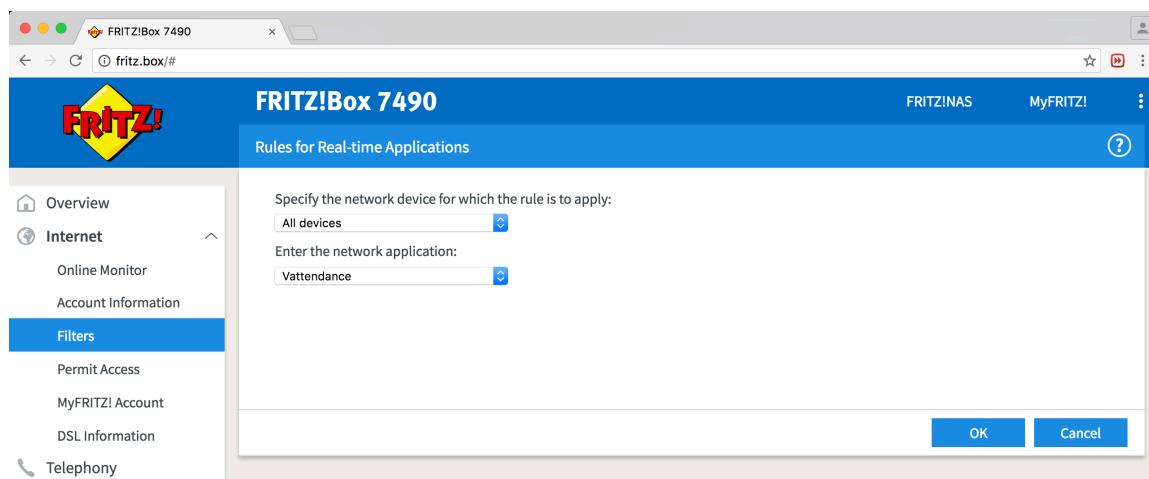


The screenshot shows the FRITZ!Box 7490 web interface. The left sidebar is collapsed. The main menu shows 'Internet > Filters'. The 'Prioritization' tab is selected. The content area displays a note about granting priority to network devices and applications. Below this is a 'Real-time Applications' section with a table:

Network Device	Network Application
automatic	Internet telephony

A red 'X' button is next to the row for 'Internet telephony'. At the bottom right of the content area is a 'New Rule' button.

21 Select the options shown below and click “OK”.

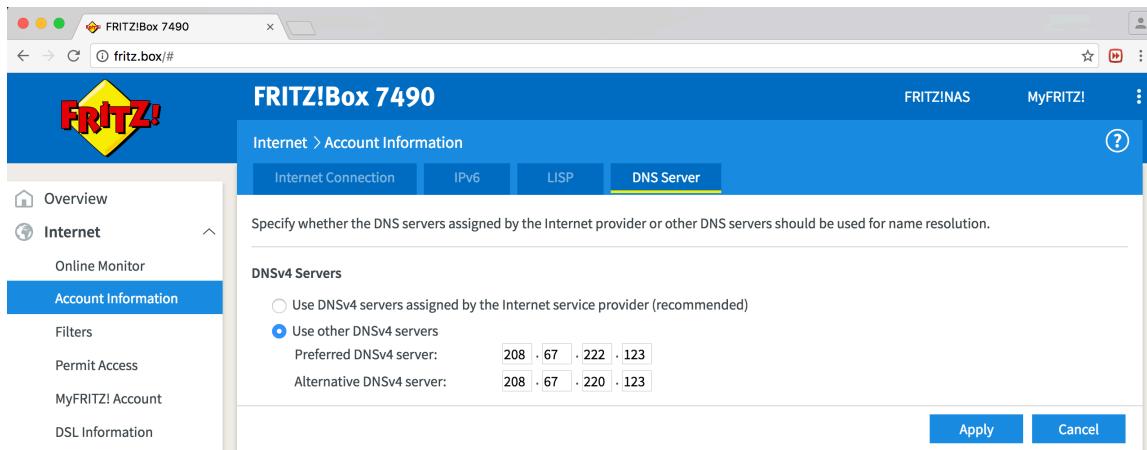


The screenshot shows the 'Rules for Real-time Applications' dialog box. The left sidebar is collapsed. The main area has two dropdown menus:

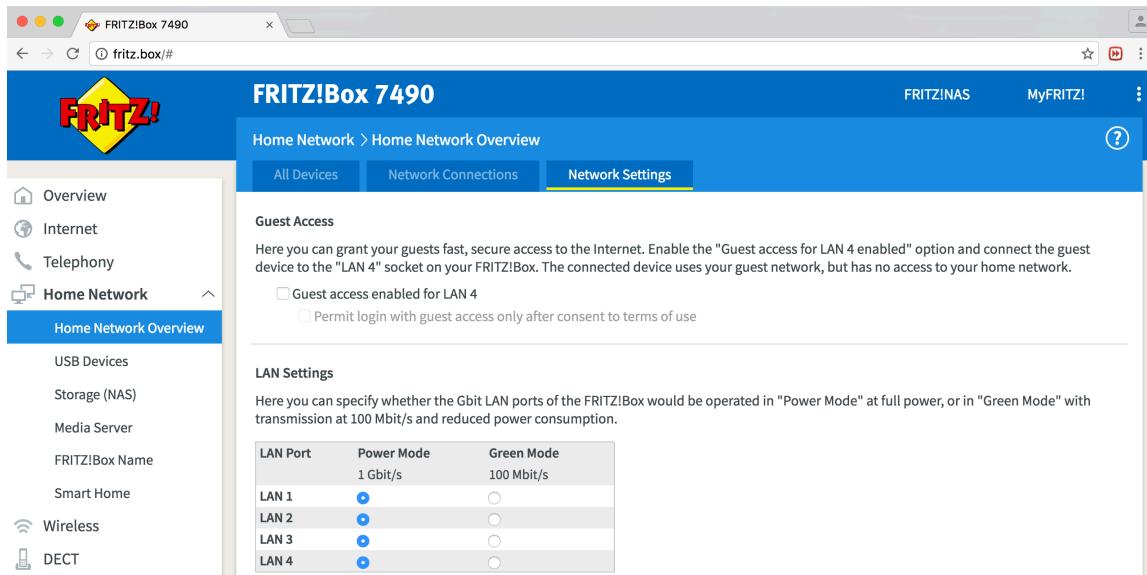
- Specify the network device for which the rule is to apply: **All devices**
- Enter the network application: **Vattendance**

At the bottom right of the dialog are 'OK' and 'Cancel' buttons, with 'OK' being highlighted.

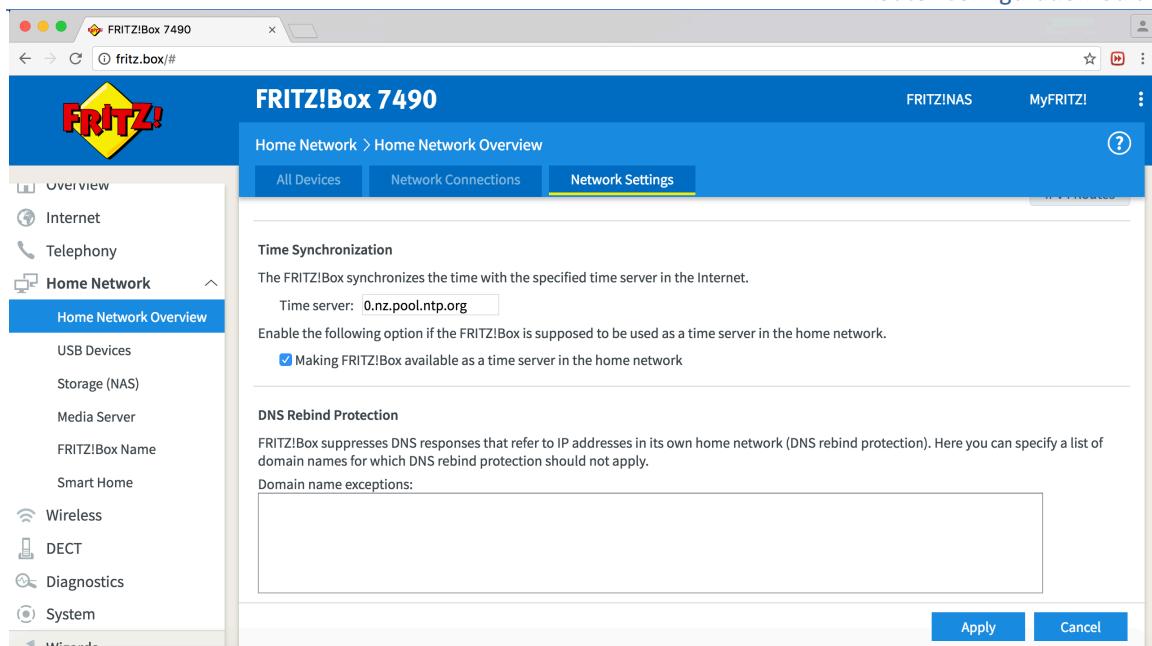
22 On the left hand menu select “Internet” then “Account Information”. Then select the “DNS Server” TAB. Configure this page as shown and click “Apply”.



23 On the left hand menu select “Home Network” then click the “Network Settings” TAB. Configure page as shown below.

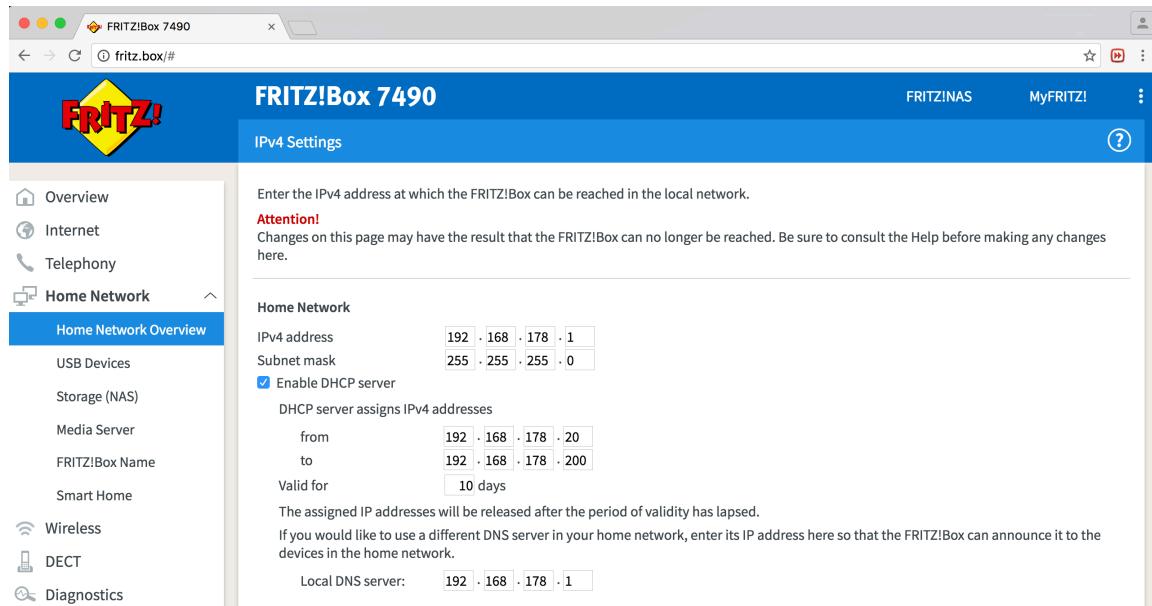


24 On the same page scroll down and configure the time server. In New Zealand, enter “0.nz.pool.ntp.org”. In Australia enter “0.au.pool.ntp.org”. Click “Apply” when done.



The screenshot shows the FRITZ!Box 7490 configuration interface. The left sidebar is titled 'Home Network' and includes 'Home Network Overview', 'USB Devices', 'Storage (NAS)', 'Media Server', 'FRITZ!Box Name', 'Smart Home', 'Wireless', 'DECT', 'Diagnostics', and 'System'. The main content area is titled 'FRITZ!Box 7490' and 'Home Network > Home Network Overview'. The 'Network Settings' tab is selected. The 'Time Synchronization' section shows the time server as '0.nz.pool.ntp.org' with a checked checkbox for 'Making FRITZ!Box available as a time server in the home network'. The 'DNS Rebind Protection' section has a text input for 'Domain name exceptions' which is currently empty. At the bottom are 'Apply' and 'Cancel' buttons.

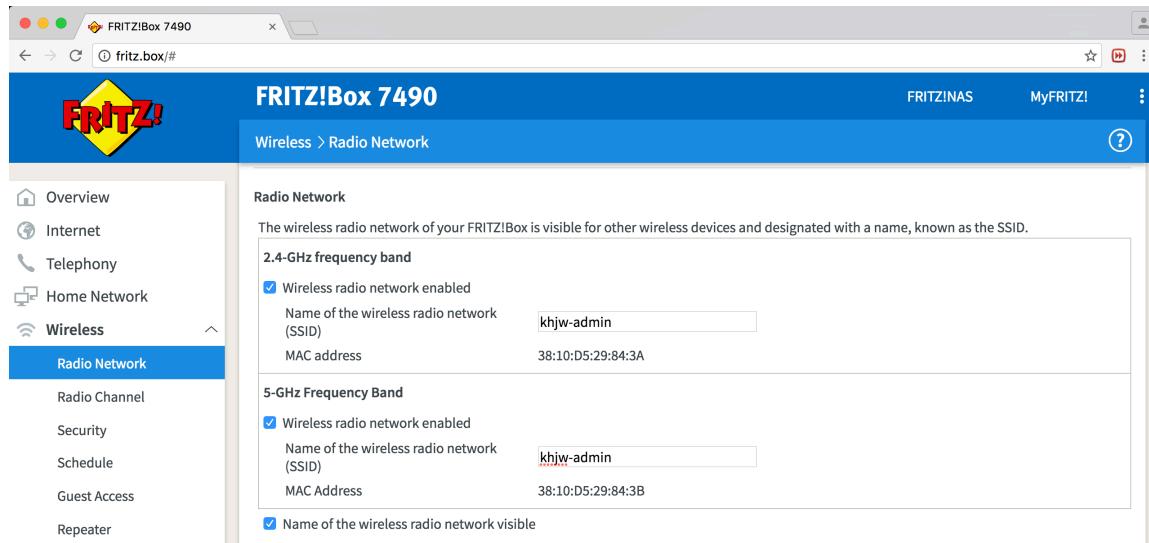
25 You can specify your network IP address settings on this page however the default settings will suffice.



The screenshot shows the FRITZ!Box 7490 configuration interface. The left sidebar is titled 'Home Network' and includes 'Home Network Overview', 'USB Devices', 'Storage (NAS)', 'Media Server', 'FRITZ!Box Name', 'Smart Home', 'Wireless', 'DECT', and 'Diagnostics'. The main content area is titled 'FRITZ!Box 7490' and 'IPv4 Settings'. The 'IPv4 Settings' section has a text input for 'IPv4 address' with '192.168.178.1' entered, 'Subnet mask' with '255.255.255.0', and a checked checkbox for 'Enable DHCP server'. Below this, the 'DHCP server assigns IPv4 addresses' section shows 'from' as '192.168.178.20' and 'to' as '192.168.178.200'. The 'Valid for' field is set to '10 days'. A note states that changes may result in the FRITZ!Box becoming unreachable. At the bottom is a 'Local DNS server' field with '192.168.178.1' entered.

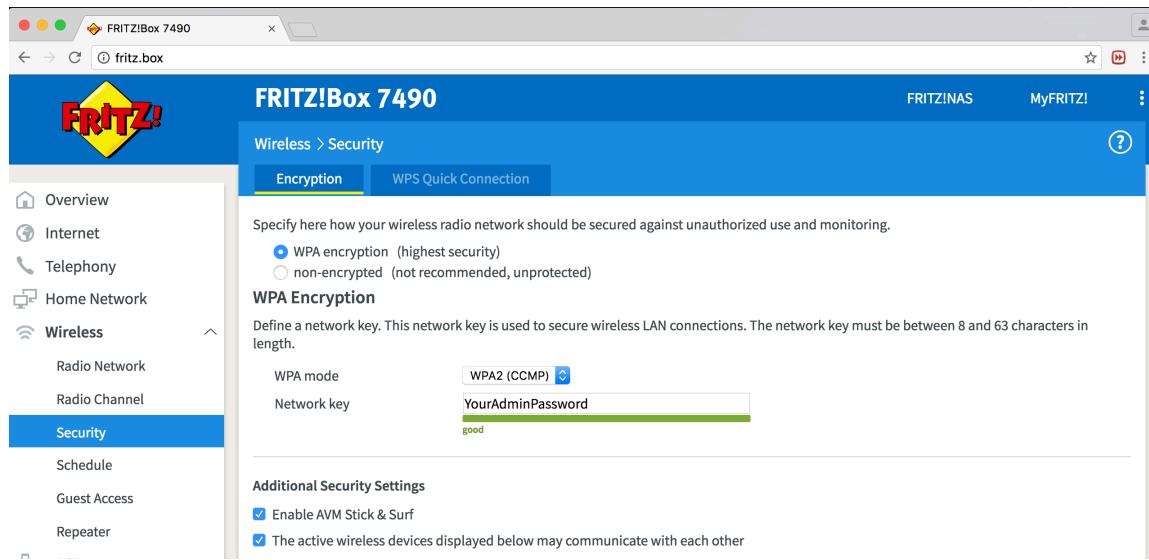
26 On the left hand menu, select “Wireless” then “Radio Network”. Configure a different name for your admin WiFi network if desire. Otherwise the default name is fine.

NOTE: This WiFi SSID is for devices perform admin functions. Devices connected to this network can connect to any other devices and have full internet access. If you change this SSID name, the router will restart and you will need to reconnect to continue these configuration steps.



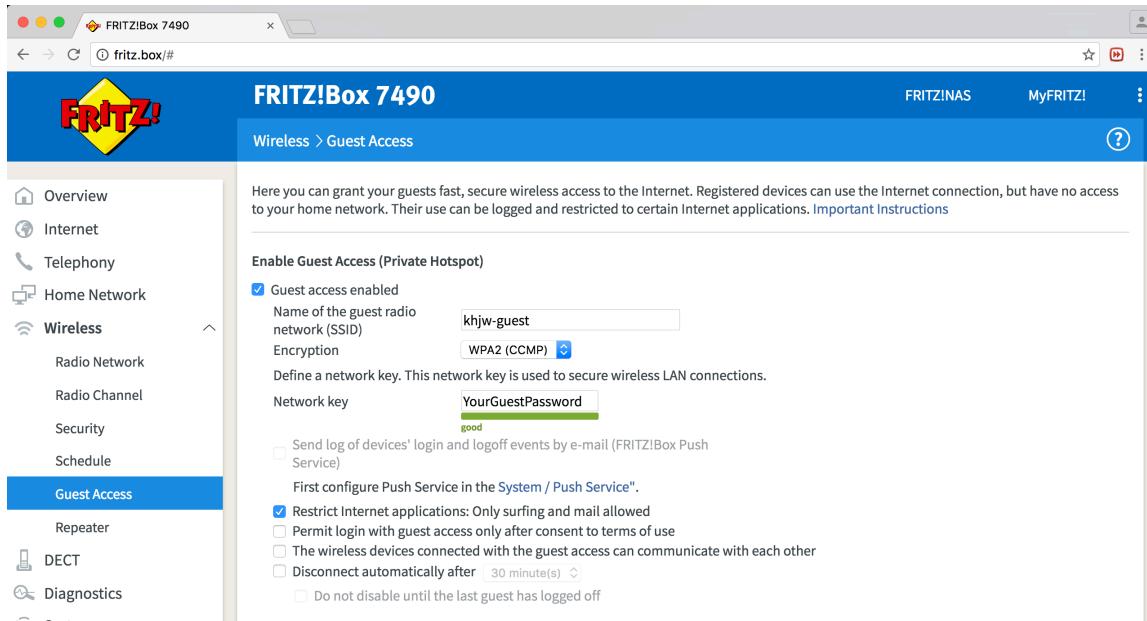
27 On the left hand menu, select “Wireless” then “Security”. Configure as below but specify your own Network Key.

NOTE: The router will restart and you will need to reconnect to the router.

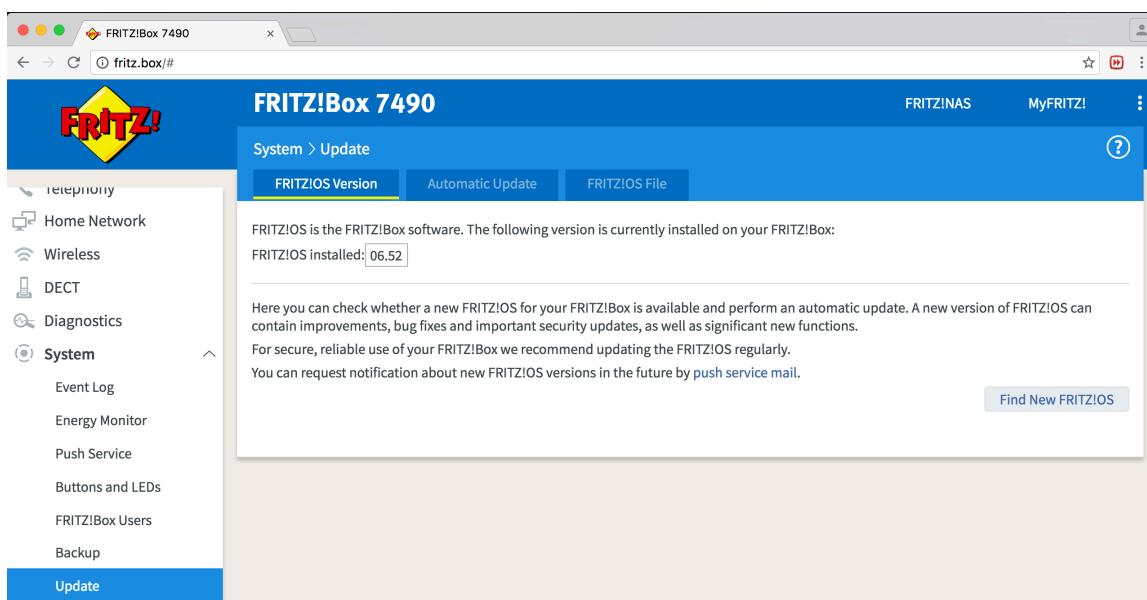


28 On the left hand menu, select “Wireless” then “Guest Access”. Configure page as shown below, using your own unique SSID and Network key (password). Then click “Apply”.

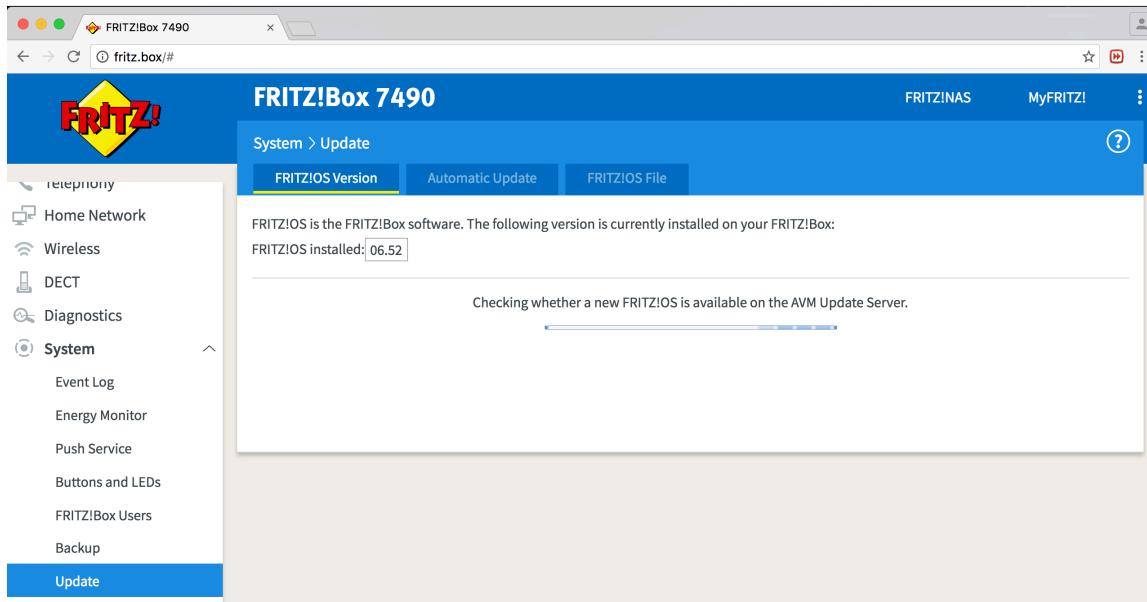
This is the SSID that most in the congregation will use. Devices using this network cannot access other devices on the network and have access only to websites and email. There is also a basic Web Content Filter applied that blocks explicit material.



29 On the left hand menu, select “System” then “Update”. Click “Find New FRITZ!OS”.

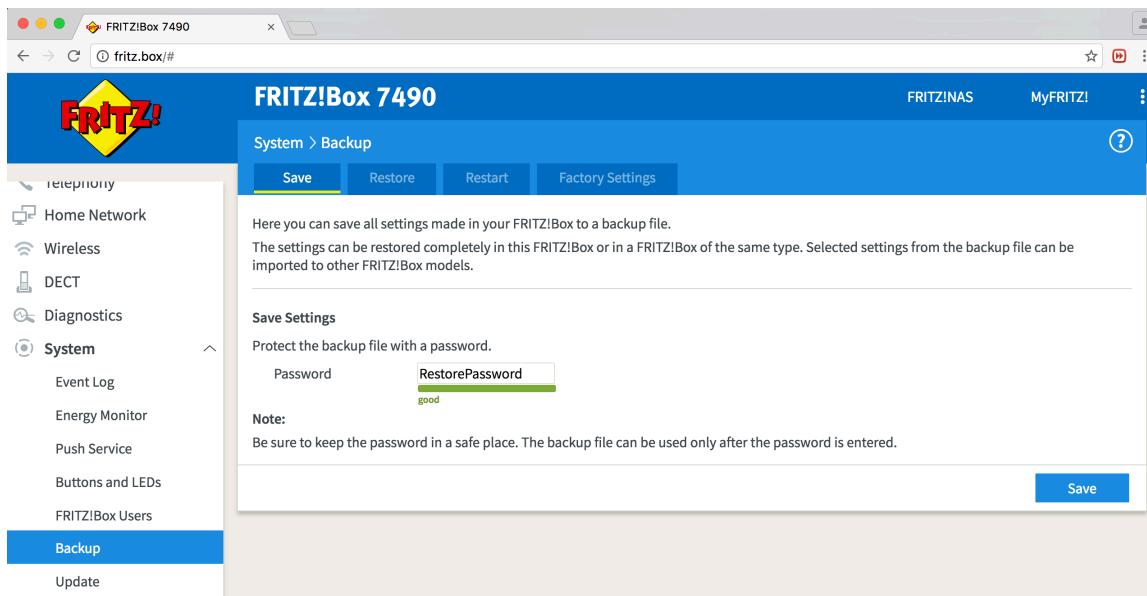


30 The router will search for the latest firmware version and install automatically.

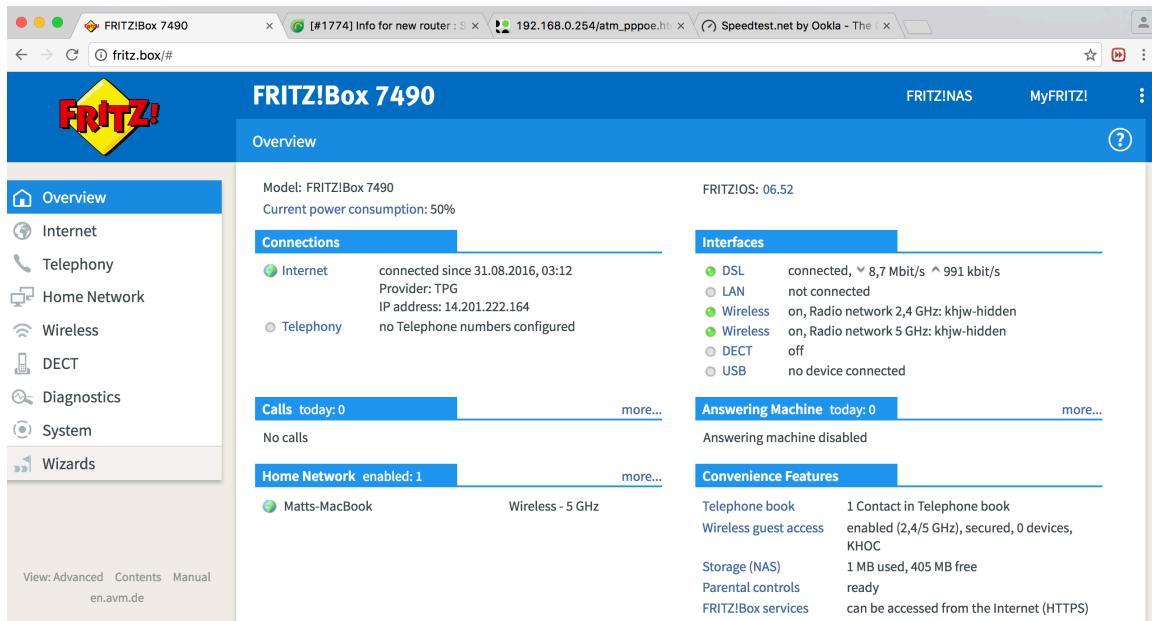


31 On the left hand menu select “System” then “Backup”. Enter a password of your choice and click “Save”.

This is a backup of your configuration if you ever need to configure your router again. Store this on your computer and remember the password.



32 And that's it! Enjoy your new router.



The screenshot shows the FRITZ!Box 7490 web interface with the following details:

- Overview:**
 - Model: FRITZ!Box 7490
 - Current power consumption: 50%
- Connections:**
 - Internet: connected since 31.08.2016, 03:12
Provider: TPG
IP address: 14.201.222.164
 - Telephony: no Telephone numbers configured
- Interfaces:**
 - DSL: connected, 8,7 Mbit/s ^ 991 kbit/s
 - LAN: not connected
 - Wireless: on, Radio network 2,4 GHz: khjw-hidden
 - Wireless: on, Radio network 5 GHz: khjw-hidden
 - DECT: off
 - USB: no device connected
- Calls today: 0** (more...) - No calls
- Answering Machine today: 0** (more...) - Answering machine disabled
- Home Network enabled: 1** (more...)
 - Matts-MacBook: Wireless - 5 GHz
- Convenience Features:**
 - Telephone book: 1 Contact in Telephone book
 - Wireless guest access: enabled (2,4/5 GHz), secured, 0 devices, KHOC
 - Storage (NAS): 1 MB used, 405 MB free
 - Parental controls: ready
 - FRITZ!Box services: can be accessed from the Internet (HTTPS)