

Netduma R2

Powered by DUMA**OS**

User Guide





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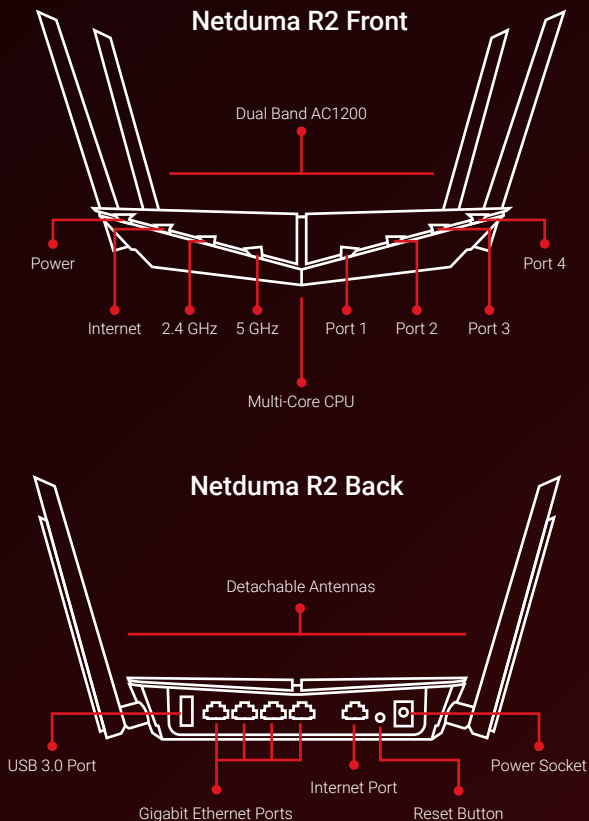
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For more in-depth guides, please visit: <http://support.netduma.com/en/support/solutions>



In the Box



Package Contents



Netduma R2 Router



User Guide



4 Detachable Antennas



1 CAT-6 Ethernet Cable



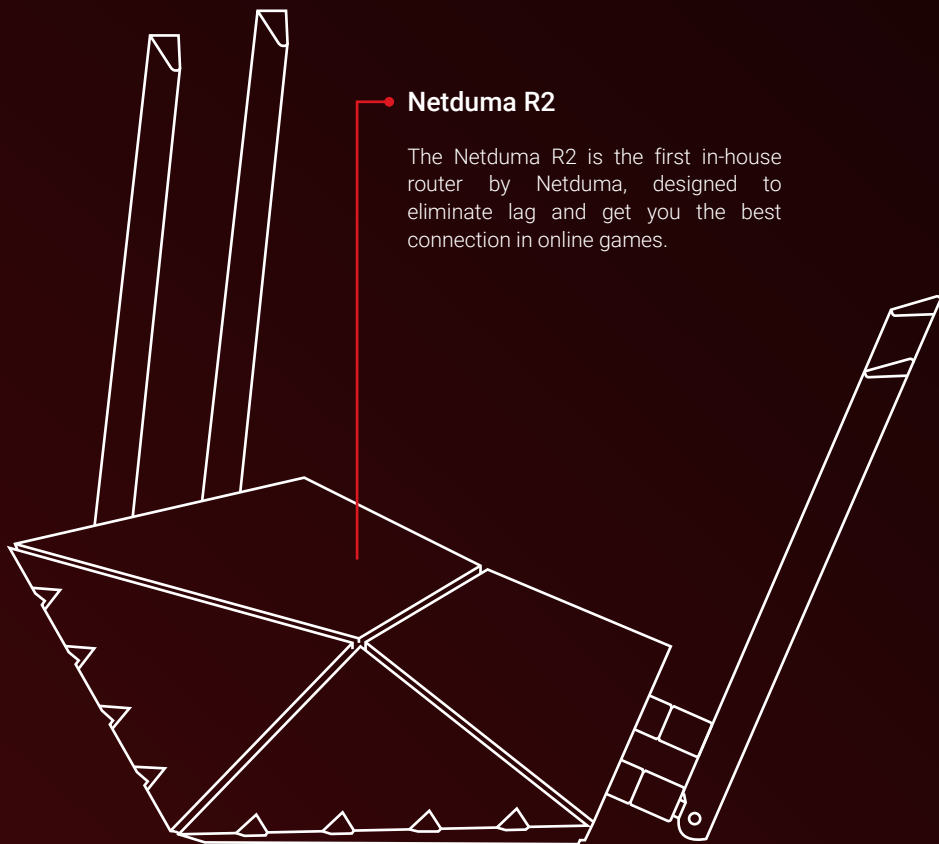
Power Adapter



Your New Hardware

Netduma R2

The Netduma R2 is the first in-house router by Netduma, designed to eliminate lag and get you the best connection in online games.

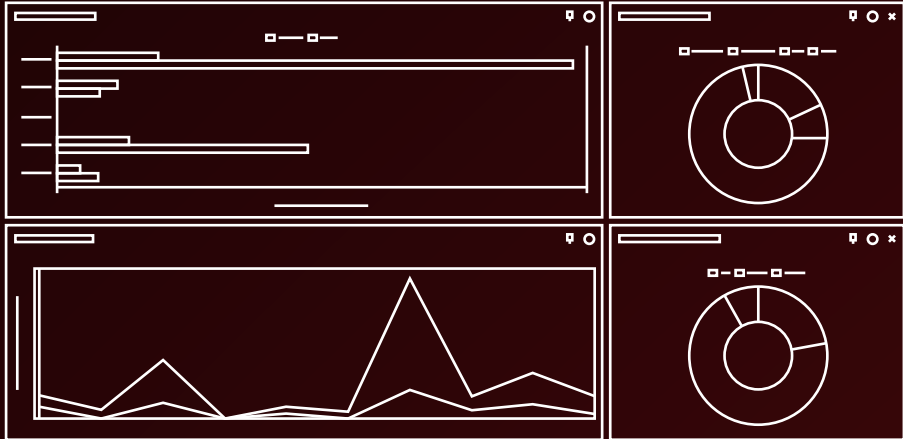




Your New Software

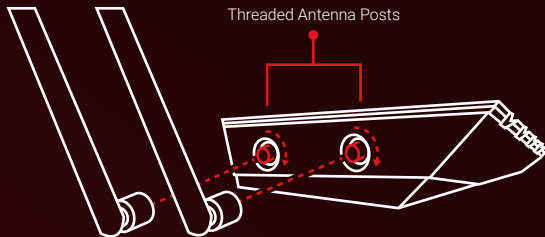
DumaOS

The future of router software starts here. DumaOS' cutting edge technology is designed to crush your game's lag and give you control over your home's connection. This guide will help you to quickly set up DumaOS and transform your online experience.



🔌 Quickstart Guide (1 of 3)

Step 1: Attaching Antennas

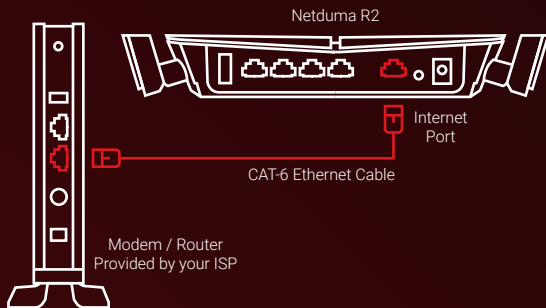


A) Screw the four antennas onto the threaded antenna posts.

B) For the best Wi-Fi performance, position the antennas vertically.

TIP : For the best Wi-Fi signal, position your router out in the open.

Step 2: Plugging In



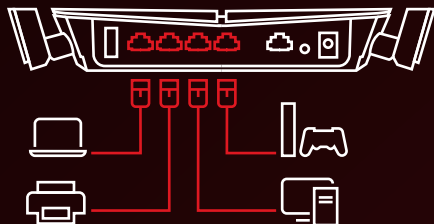
A) Turn off the Modem / Router provided by your Internet Service Provider. (ISP).

B) Connect one end of the Ethernet cable into the **Internet Port** of the Netduma R2, which is located on the rear of the router.

C) Connect the other end of the Ethernet cable to your ISP's Modem / Router.

🔌 Quickstart Guide (2 of 3)

Step 3: Connecting Wired Devices

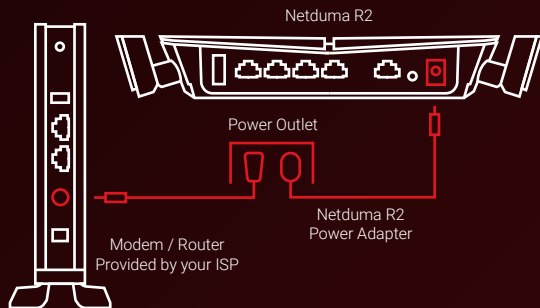


A) Disconnect any other wired devices that are connected to the ISP Modem / Router (or any other router you own) and connect them instead to the Netduma R2.

B) At this point the only device wired to your ISP Hub should be your Netduma R2.

TIP : For the best results, connect your game console(s) via wired Ethernet.

Step 4: Powering On



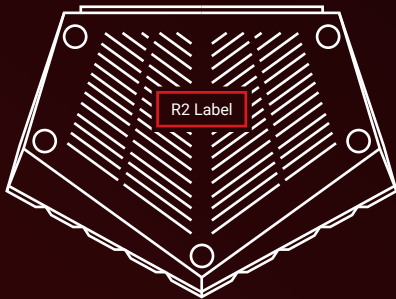
A) Turn on the Modem / Router provided by your Internet Service Provider. (ISP).

B) Connect your Netduma R2 power adapter into the power socket of the Netduma R2, and connect the other end into your Power Outlet.

C) Turn your power on. Both your Netduma R2 and your ISP Hub should now be on.

🔌 Quickstart Guide (3 of 3)

Step 5: Connecting Wireless Devices



📶 NetdumaR2

A) On your wireless laptop or PC, access your computer's **Wi-Fi settings**.

B) Search for available Wi-Fi networks and select **NetdumaR2**.

C) The router **Password** can be found on the label on the bottom of the router.

D) If you ever factory reset your router, the Wi-Fi password will always revert back to the router default password.

TIP : To change your router Wi-Fi password, go to **Network Settings > Wi-Fi**

Step 6: Accessing the Interface

192.168.77.1	🔍
SIGN IN	
Username:	admin
Password:	password

A) Open a web browser on a PC or Laptop that is connected to the Netduma R2 and enter **192.168.77.1** in the URL bar.

B) Log in using the username and password below:

Username: **admin**
Password: **password**

C) The **Welcome Tour** will now walk you through the main features of DumaOS.



Introducing DumaOS



Take Control

DumaOS is the world's first Router Operating System designed to give you every tool you need to control your home network and fix lag in online games.

This section of the guide will help you get the most important features set up.

Customisable Dashboard

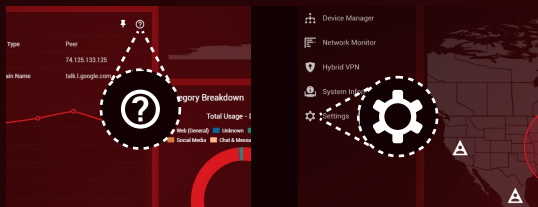
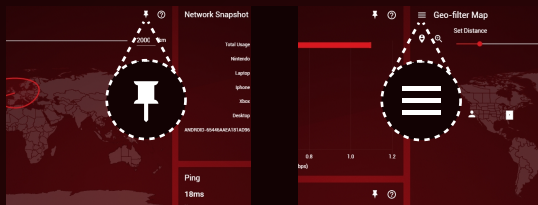
Pin and resize your favourite **Feature Panels** to your own personalised dashboard.

Access advanced features through efficient **Submenus**.

Intuitive Interface

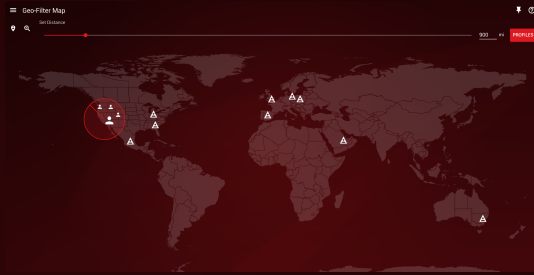
Get straight in the game with useful **Help Tips** to optimise your experience.

Access more in-depth configuration options via the **Network Settings** portal.





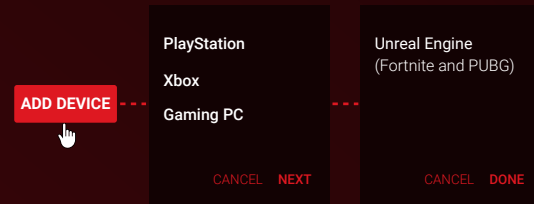
Geo-Filter (1 of 3)



The Geo-Filter

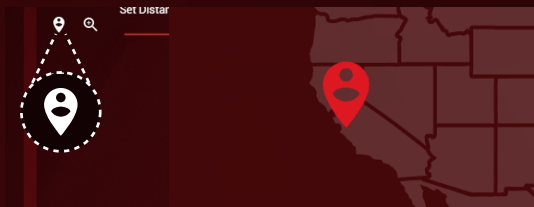
The main cause of lag in online games such as Call of Duty, Fortnite, Apex Legends and FIFA is the **distance** from you to the host or server of your game.

The **Geo-Filter** is unique because it limits the distance of these hosts or servers. The effect on your game will be very noticeable, with improved response time and fairer gameplay.



Step 1: Getting Started

- A)** Click **Add Device** and select your device.
- B)** If a device is not listed, make sure it is connected to the Netduma R2.
- C)** If your device is not a console (e.g. a PC), select the PC game you will be playing.



Step 2: Set your Home

- A)** Click on the **Home Pin** icon on the map.
- B)** Click on where you are located on the world map as accurately as you can to set this as your home. To look closer, use the **Zoom** icon.

⑧ Geo-Filter (2 of 3)



Step 3: Set your Radius

A) The radius blocks all hosts outside its range. Set the radius to a size you want by dragging the **Distance** slider.

B) Advanced settings such as **Ping Assist** can be found in the Geo-Filter submenu.



Step 4: Start Gaming

Blocked connections outside of your radius will appear as warning triangles (see the **Geo-Filter Legend** below).

The host of your game will be the largest, most consistently shown icon.

Geo-Filter Legend



Player



Server



Allowed Player



Blocked Player



Blocked Server



Allowed Server



Ping Assist Player

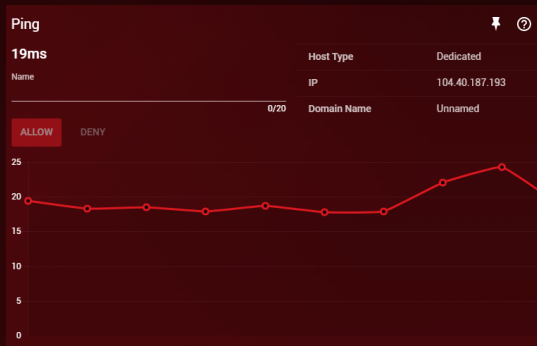


Ping Assist Server



Denied Player

⑧ Geo-Filter (3 of 3)



Ping Graph


Ping shows the connection quality (the ping) from you to the connection you have selected on the map. This is measured in milliseconds.

With **Auto Ping Host** enabled in the Geo-filter submenu, you can automatically ping your game's host and unlock advanced connection statistics e.g. Tickrate


A ping of **<100ms** is considered to be good for gaming online.

Allow and Deny

Name	ID	Allowed/Denied
Laggy Host	gt71ja3v53h169w	Denied
East Coast Host	fq37sa4m51cs72q	Allowed



Allow



Deny

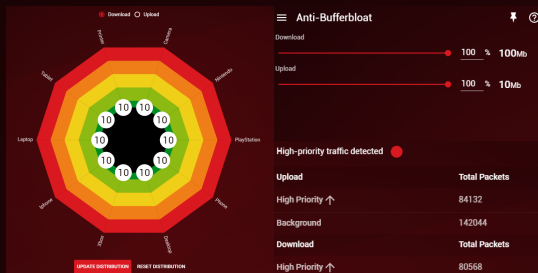
Allow and Deny

Allow your device to connect with another player or server when they are outside your Geo-Filter radius. This can be used to play with distant friends.

Deny your device from connecting to another player or server when they are inside your Geo-Filter radius. Use this to avoid nearby laggy hosts.

Click on a connection's icon on your Geo-filter Map and in the **Ping** panel that opens, give it a name and choose either **Allow** or **Deny**.

QoS (1 of 3)



QoS

When devices in your home are using all the bandwidth, it creates congestion. This causes lag, especially for online games.

QoS gives you the complete toolset to solve this problem.

Step 1: Getting Started

A) Open the **Anti-Bufferbloat** submenu.

B) Enter the bandwidth speeds you receive from a wired speed test on a PC or Laptop.

C) Click **Always** to enable Anti-Bufferbloat. If you just want it to activate when you are playing games, select **When High Priority Traffic Detected**.

D) Lower both the **Download** and **Upload** sliders to 70%. This prevents greedy devices from using more than 70% of your bandwidth.

Download Bandwidth
100 Mbps

Upload Bandwidth
10 Mbps

Auto Anti-Bufferbloat

☒ Always

☐ When High Priority Traffic Detected

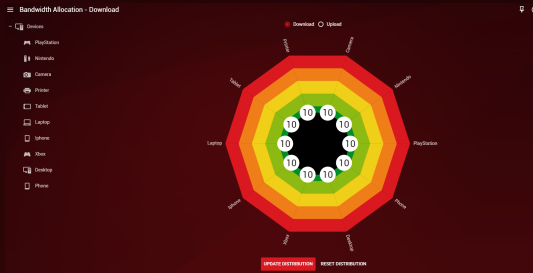
☐ Never

Download

Upload



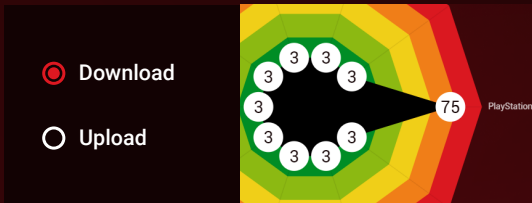
QoS (2 of 3)



Bandwidth Allocation

Some devices need more bandwidth than others, such as a PC watching Netflix.

With **Bandwidth Allocation**, you can control how your bandwidth is shared across all of your devices.



Step 2: Set your Allocation

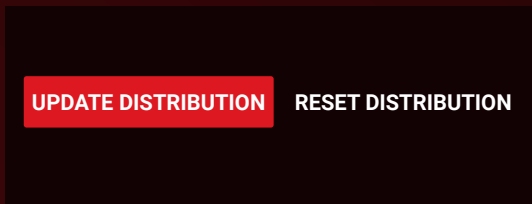
A) Select **Download** on Bandwidth Allocation.

B) Drag the percentage node next to a device to change its bandwidth allocation. By default, any unused bandwidth is automatically given to any other devices that need it.

C) Click **Update Distribution** to save your changes to Bandwidth Allocation.

D) Repeat steps **B** and **C** for **Upload**.

Click **Reset Distribution** if you want to reset your Bandwidth Allocation to default.





QoS (3 of 3)

Traffic Prioritization		Traffic Prioritization Information		
Device Name	Service	High Priority traffic detected ●		
All Devices	DumaOS classified games	Upload	Total Packets	Unprioritized Packets
ADD DEVICE		High Priority ↑	3103598	0
		Background	6671684	0
		Download	Total Packets	Unprioritized Packets
		High Priority ↑	3029963	0
		Background	11402876	0

Traffic Prioritization

Network congestion creates a queue, which forces games and other fast applications to wait.

Traffic Prioritization guarantees that these fast applications will always be placed at the front of the queue, reducing lag.

Traffic Prioritization Information	
High Priority traffic detected ●	
Upload	Total Packets
High Priority ↑	3103598
Background	6671684

Step 3: Set up Traffic Prioritization

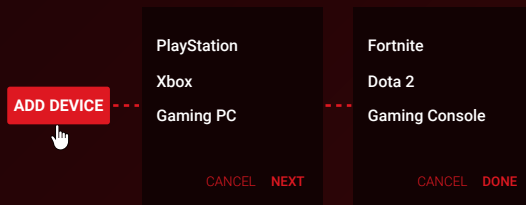
A) **Traffic Prioritization** will detect and prioritise a preset list of games on all devices by default. This covers all console games and most PC games.

B) **Traffic Prioritization Information** shows a red circle when this is taking effect.

C) To add a game that has not automatically been detected, click **Add Device** to add a service to **Traffic Prioritization**.

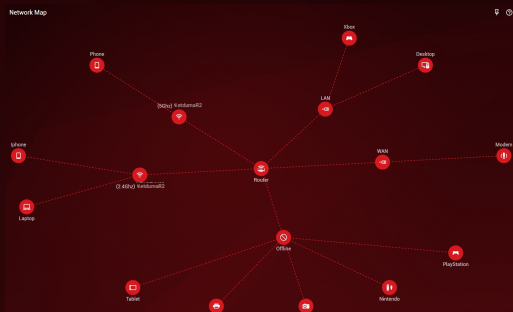
D) Select a device from the **Device Selector**.

E) Select a service or ports to prioritize.





Device Manager



Network Map

The **Network Map** displays your connected devices, how they are connected and which devices are currently offline in a simple tree.

Alternatively, enable **Table Mode** to view your network in more detail. This can be found in the Network Map submenu.

Click on a device to access its settings.

Device Settings

Name

PlayStation

Device Type

PlayStation

11/35

MAC Address

IP Addresses

Connection Type

SAVE

BLOCK

DELETE

SAVE

BLOCK

DELETE

Device Settings

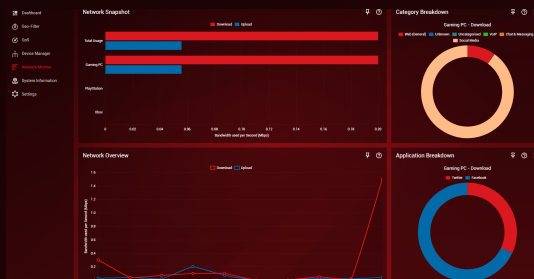
Rename the device by typing its name in the **Name** text box. Select which type of device it is using the **Device Type** drop-down menu.

Click **Save** to save your changes.

Click **Block** to prevent an unwanted device from your network. Click **Delete** to remove an offline device from your Device Tree.



Network Monitor



Analyse Network Usage

The **Network Monitor** helps you to identify who, or what, is using your network thanks to enterprise level **Deep Packet Inspection (DPI)**.

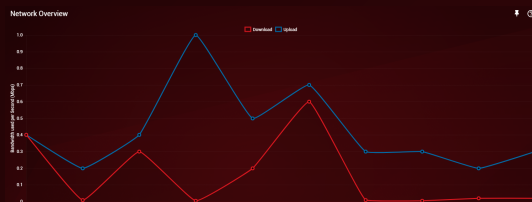
You can then use this information to apply the best **QoS** settings.



Network Snapshot

Network Snapshot shows the bandwidth being used by all of your devices, and is measured in megabits per second (Mbps).

Clicking on a bar will open the **Category Breakdown**. Clicking on a segment will open the **Application Breakdown**.



Network Overview

The **Network Overview** shows your network's current, total bandwidth usage. This graph is measured in megabits per second (Mbps).



Other



Hybrid VPN

Hybrid VPN gives you the power to apply your VPN to any device or application. Compatible with all OpenVPN providers.



System Information

System Information displays hardware statistics such as CPU usage, Wi-Fi Information and installed R-apps.



Network Settings

The **Network Settings** portal contains UPnP, Port Forwarding, DHCP and other essential router tools.



To reboot or factory reset the router, click on the **Information** icon at the top of DumaOS. Remember that your password will reset to default.

Support

For technical support you can contact Netduma at:
<http://forum.netduma.com>

For more in-depth guides, please visit the knowledge base at:
<http://support.netduma.com/en/support/solutions>

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