

Netduma R1

Powered by DUMAOS

User Guide



☰ Contents

Installing DumaOS	1
DumaOS Overview	2
Geo-Filter	3 - 5
QoS	6 - 8
Device Manager	9
Network Monitor	10
Other	11

Installing DumaOS

Step 1: Download DumaOS Firmware



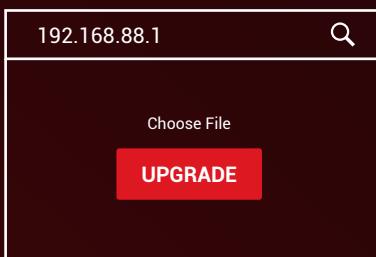
A) Download DumaOS using the link in the email provided.

If you do not have a download link, please make sure you've signed up to the open beta here:

<https://netduma.com/r1-dumaos/>

DumaOS is being released in stages so you'll get an email when we are ready for you to install the firmware.

Step 2: Install DumaOS



A screenshot of a web-based router configuration interface. At the top, there is a search bar with the IP address "192.168.88.1". Below the search bar is a "Choose File" button and a red "UPGRADE" button. The main area of the interface is currently empty.

Username: **admin**

Password: **password**

A) Open a web browser on a PC or Laptop that is connected to the Netduma R1 and access the R1 user interface. The default method of accessing the interface is to enter **192.168.88.1** in the URL bar.

B) Click on the **Upgrade** page on the left-hand menu.

C) Select **Choose File**.

D) Select the DumaOS file you downloaded in **Step 1**.

E) Leave **Preserve Settings** and **Check Version** ticked.

F) Click **Upgrade** and wait for the install to finish. Once the router has upgraded you will be redirected to DumaOS.



DumaOS Overview



The Future of Router Software

DumaOS is a cutting-edge Router Operating System designed to give you all the tools to fix lag and optimize your home network.

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

Customizable Dashboard

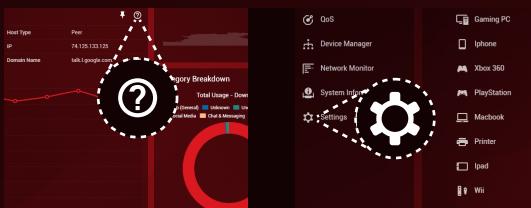
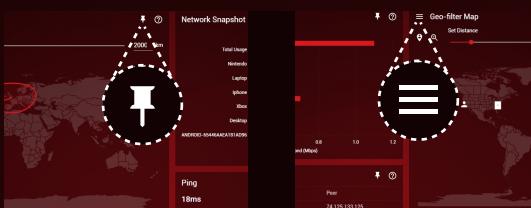
Pin and resize your favourite **Feature Panels** to your own personalized dashboard.

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 **Settings** portal.



⌚ Geo-Filter (1 of 3)



Dominate Lag

The main cause of lag in many games, like Call of Duty, Fortnite, FIFA and many others 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 a connected device. If your device is a PC, select the PC game or PC game engine you will be playing.

Filtering Mode limits and blocks hosts.
Spectating Mode does not filter hosts and is recommended for PC games,

Step 2: Set your Home

- Click on the **Home Pin** icon on the map.
- 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.



⌚ 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. We recommend 1000 - 2000km for most games.
- B) You can also click on **Profiles** and select your game to load our recommended settings for that game.

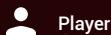
Step 4: Start Gaming

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



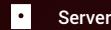
Player



Allowed Player



Blocked Player



Server



Allowed Server



Blocked Server



Denied Player

⌚ 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 (ms).

If **Auto Ping Host** is enabled in your Geo-filter submenu then the ping shown is always the current host of your game.

A ping of less than 100ms is considered to be good for gaming.

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)



Download Bandwidth	100	Mbps
Upload Bandwidth	10	Mbps

Auto Anti-Bufferbloat	<input checked="" type="radio"/> Always	
	<input type="radio"/> When High Priority Traffic Detected	
	<input type="radio"/> Never	

Eliminate network congestion

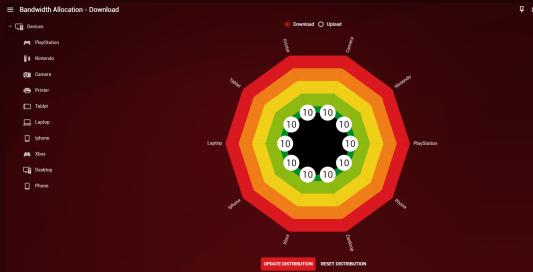
When devices in your home are using all the bandwidth, it creates congestion. This causes lag, especially for online games.

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. If you have completed the setup wizard this would have been automatically filled in for you.
- 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 will prevent greedy devices from using all your bandwidth.

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 circle 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**. Games primarily use 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	DuraOS classified games	Upload	Total Packets	Unprioritized Packets
		High Priority ↑	3103598	0
		Background	6671684	0
		Download	Total Packets	Unprioritized Packets
		High Priority ↑	3029963	0
		Background	11402376	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 prioritize 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



Control Your Home Network

The **Network Map** shows your network setup, with a separate branch for devices connected via wired LAN, via Wi-Fi and your devices which are currently offline.

Click on a device to access its settings.



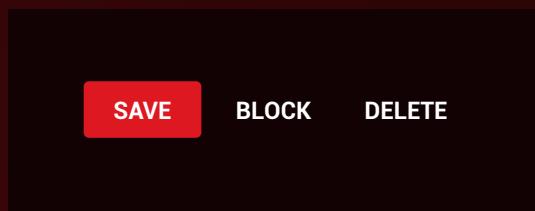
Device Settings

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 Network Map.



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).

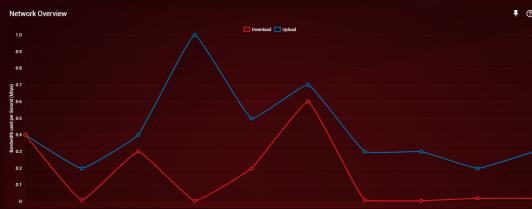
You can then use this information to apply the best **QoS** settings.



Network Snapshot

Network Snapshot shows the bandwidth being used across 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

System Information



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

Netduma Settings



The **Settings** portal contains WiFi settings, UPnP, Port Forwarding and many other tools.

Support

If you want to know more or have any issues, try our knowledge base at:

support.netduma.com/support/home

You can contact Netduma Support at:

<http://forum.netduma.com/forum/105-dumaos-on-netduma-r1-support/>

DumaOS Default Login

Username: **admin**

Password: **password**

NETDUMA

For support, contact the team at:

<http://forum.netduma.com/forum/105-dumaos-on-netduma-r1-support/>