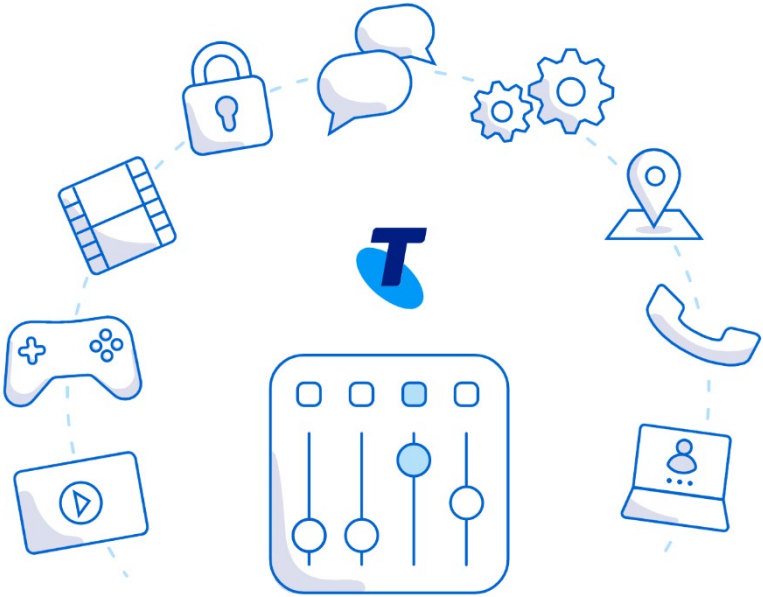
Telstra Internet Optimiser



User Guide

V221114

POWERED BY DUMAOS

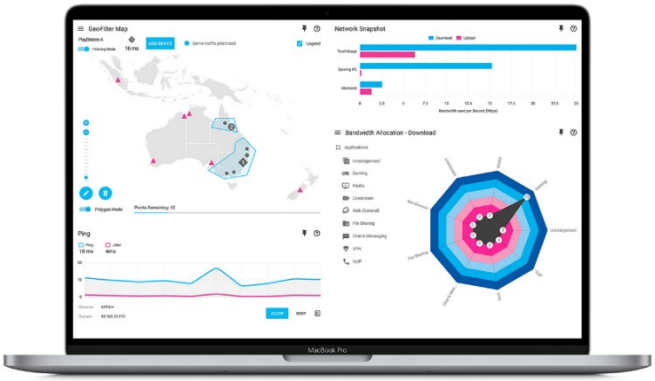
Contents

Welcome to Internet Optimiser

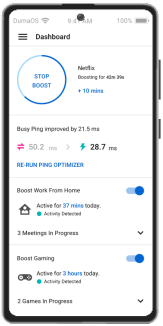
With a powerful set of features, Internet Optimiser gives you control over your home network, so you can improve online experiences like gaming & video calling in busy households. This guide will help you to get started with customising Internet Optimiser and using its features for your own network. Internet Optimiser is powered by DumaOS, a specialised software that runs on Telstra's Smart Modems.

You can use features and change settings via a web portal that runs from your Smart Modem, accessed from either a desktop PC or handheld mobile device. This manual is divided up to show you how to use features from either Desktop or Mobile devices, as they vary slightly with the different screen sizes.

Desktop view



Mobile view

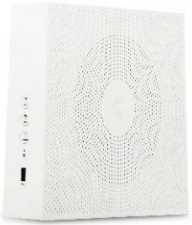


Accessing Internet Optimiser

After adding Internet Optimiser in MyTelstra, DumaOS software is activated on your Telstra Smart Modem and can be customised using its web interface from desktop or mobile To access it:

Identify your modem type

or



Gen 2 & 3 Smart Modem Setup

1. Make sure your Telstra Smart Modem is connected to your PC or mobile device
2. Open http://mymodem/ (or http://192.168.0.1) in your web browser
3. Check the Optimiser tile to make sure it's active

4. Find the login details for My Modem on the base of your Smart Modem
5. Get started with an initial setup

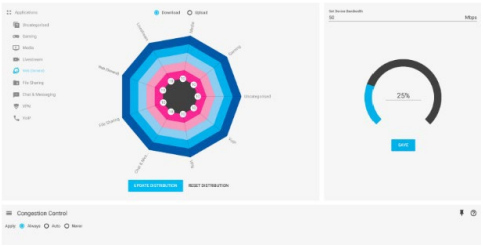
Gen 1 Smart Modem Setup

1. Make sure your Telstra Smart Modem is connected to your PC or mobile device
2. Open http://mymodem/ (or http://192.168.0.1) in your web browser. If Internet Optimiser has been successfully activated, you will be taken to the initial screen
3. Get started with an initial setup

Doesn't look like Internet Optimiser is activated? See our Troubleshooting suggestions.

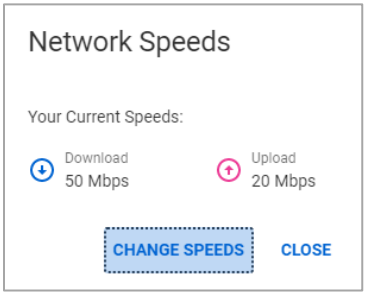
Network Priority

Desktop view



Network Priority

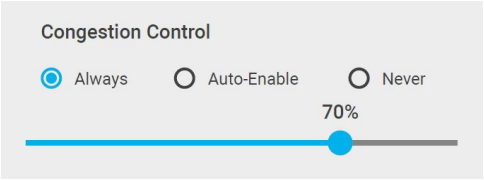
When devices in your home are using all the bandwidth, it creates congestion. This can cause lag in online games or interruptions to online video calls. Network Priority features gives you a toolset to help solve this problem.



Getting Started

A) During setup, Network Priority is populated with your connection speeds but you can also manually adjust them using the Set Bandwidth Speeds button under the Congestion control sub-menu.

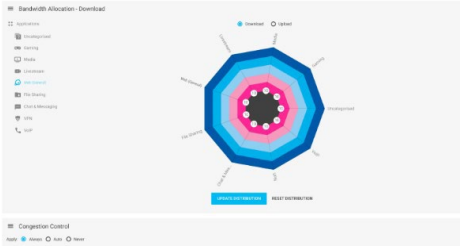
B) Click Always to enable Congestion Control. If you only want it to activate when gaming or video calling is detected you can leave it the default setting of Auto-Enable.

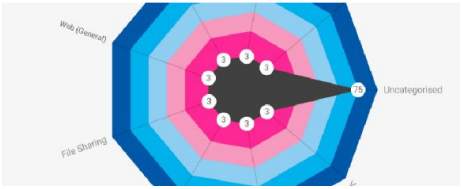


C) Lower the Congestion Control sliders down to as low as 50% for both upload and download for gaming. This prevents greedy devices from using more than 50% of your bandwidth. Defaults are set to 85%, meaning 15% of your connection is reserved when priority traffic is detected.

Network Priority

Desktop view





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 applications or devices. By allocating more bandwidth to your priority activities, there may be some impact to maximum achievable speeds of your deprioritised devices or applications.

Set your Allocation

A) In the Bandwidth Allocation submenu, you can choose either Devices or Applications to allocate bandwidth to.

B) Drag the percentage node next to a device to give it access to more or less bandwidth

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

D) Use the Download / Upload radio button to set your bandwidth allocation for Upload.

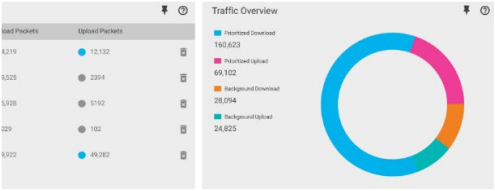
Click Reset Distribution if you want to reset your Bandwidth Allocation to default.

Network Priority

Desktop view

Traffic Prioritisation

Network congestion creates a queue, which forces games and other real-time applications to wait. Traffic Prioritisation places these fast applications at the front of the queue, helping to reduce lag and delays.



Setup Traffic Prioritisation

By default, all console games, most PC games and popular video conferencing applications can be detected and prioritised.
Blue indicators light up when this is actively occurring. You can monitor how much data is being prioritised in Traffic Overview.

A) To add a service that has not automatically been detected, click Add Device.

B) Select a device from the Device Selector.

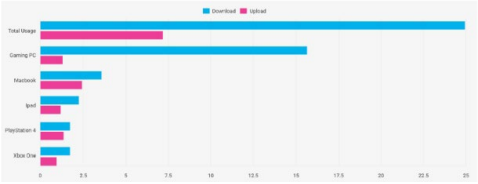
C) Select a Service or Ports to prioritise.

Network Monitor

Desktop view

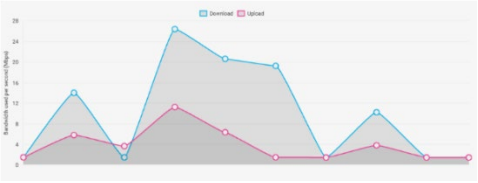
Analyse Network usage

The Network Monitor helps you to identify who, what and how your network is being used.
You can then use this information to apply the best Network Priority settings in your own network.



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 pie chart. Clicking on a portion of the pie chart will drill down further and open the Application Breakdown.
Clicking on a device name will open its Device Manager Settings screen.

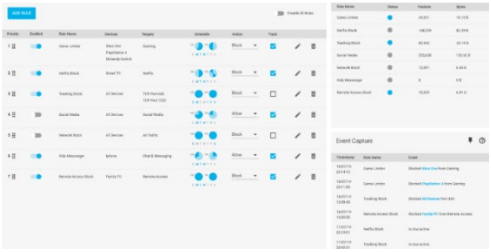


Network Overview

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

Network Rules

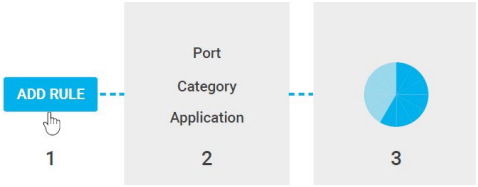
Desktop view



Rules for Devices & Apps

Network Rules blocks traffic by device or application, on a schedule. Making Rules lets you manage every aspect of your home network, like blocking Xbox online access after kids bed time.

Note: Network Rules may override existing Parental Control or Firewall rules configured via your Smart Modem interface – be sure to test results if using a combination of the functions.



Create Rule

A) Click Add Rule to get started. Select the type of rule you are creating and the target(s) for it.

B) Select the hours and days you want the rule to apply for and click Done.

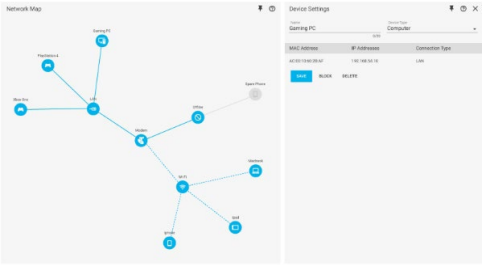
Rule Table

Created rules are ordered by priority, and can be reordered using the Drag Handle. Each rule can be edited, deleted and turned on or off.

Toggle Track to see when a rule is triggered on the Event Capture panel.

Device Manager

Desktop view



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 from within the submenu ☰ to view your network in a detailed list.

Click on a device to change its settings. If you have a Telstra Smart WiFi Booster, you can rename it under the Settings section

Device Settings

A) Rename the device by typing a new name into the Name text box.

B) Select which type of device it is using the Device Type drop-down menu.

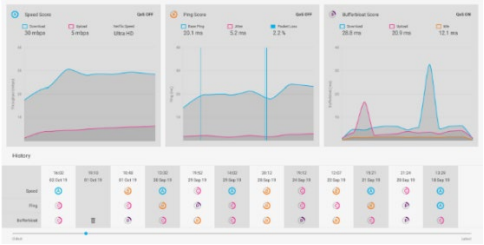
C) Click Save to save your changes.

D) Click Block to prevent an unwanted device from accessing your network, it will show highlighted on the Network Map

E) Click Delete to remove an offline device from your Device Tree.

Connection Benchmark

Desktop view



Test Network Performance

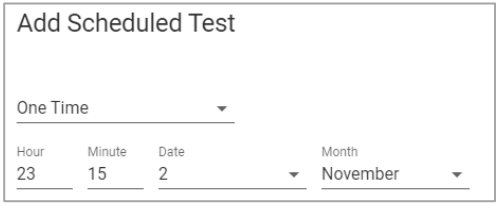
Connection Benchmark runs a full connection test from your Modem, checking throughput (speeds), ping quality and performance under congestion (bloat).

You can Schedule Tests and store them in Test History to see how your network is performing over time.

Connection Test

A) Click Run Test. Each test will run in a set order and provide real-time results until the test is complete.

B) After running a test, your results will be stored in Test History and graded from A+ to D.



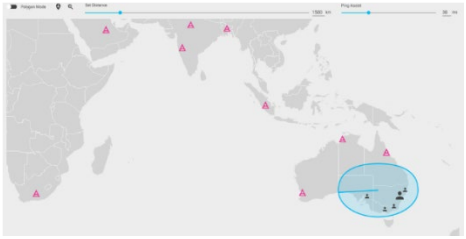
Scheduling Tests

A) Click the Schedule Tests button in the Scheduled Tests sub-section, at the bottom right section of the screen to make a new test.

B) Input the time / date / month for the test to take place, or set it to repeat.

Gaming Geo-Filter

Desktop view



The Geo-Filter

High ping times in online games is often caused by the distance from you to the host or server of your game.

The Geo-Filter is unique because it filters servers based on distance. This can help improve game response times and promote fairer gameplay.

Getting Started

A) Click Add Device and select your device from the list.

B) If your device is not listed, make sure it is connected to the Smart Modem.

C) If your device is not a console (e.g. a PC), select the PC game you will be playing.

Set Your Home

A) Click on the Home Pin icon.

B) Click on where you are located on the map.

C) The radius blocks all hosts outside its range. Set the size using the Distance slider.

Gaming Geo-Filter

Desktop view

Polygon Mode

A) Alternatively, you can draw filter shapes on the map by enabling Polygon Mode

B) Click the Pencil icon to draw shapes

C) Click the Delete icon to remove shapes

Start Gaming

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

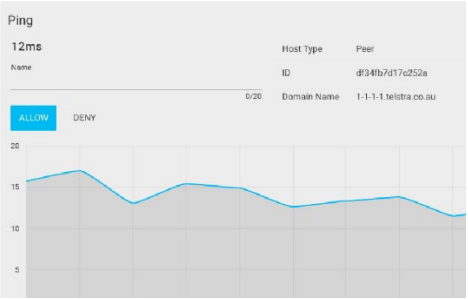
The host of your game will be the largest, most consistently shown icon.

Geo-Filter Legend

Player	Server	Allowed Player
Blocked Player	Blocked Server	Denied Player
Ping Assist Player	Ping Assist Server	Allowed Server

Gaming Geo-Filter

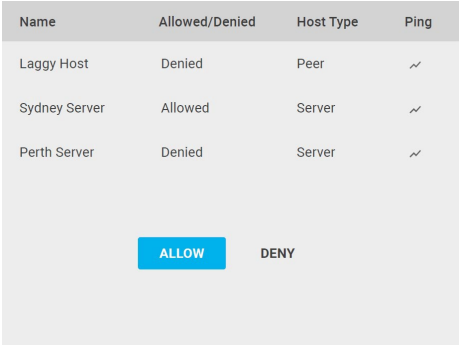
Desktop view



Ping Graph

Ping shows the connection quality (latency) 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 like Tickrate. A ping of less than 50ms is considered to be good for gaming online.



Allow & Deny

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.

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

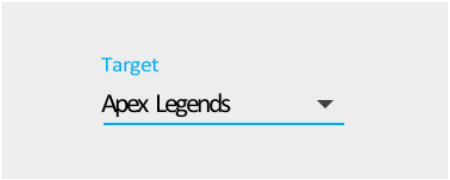
Gaming Ping Map

Desktop view

Monitor Server Quality

Ping Map pings your favourite game's servers, displaying your connection quality to each server on a world map.

You can build a Ping History for your favourite servers to monitor the quality of the hosts you play on over time.

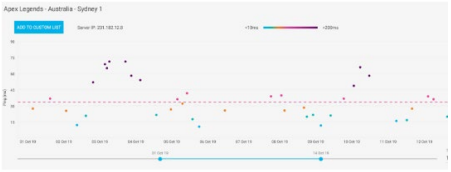


Ping Map

A) Select a game using the Target drop-down.

B) The map will display your ping to all servers for that game. New Games will be added to Ping Map regularly with cloud updates.

C) After selecting a game, click the clock icon to schedule pings for that target.



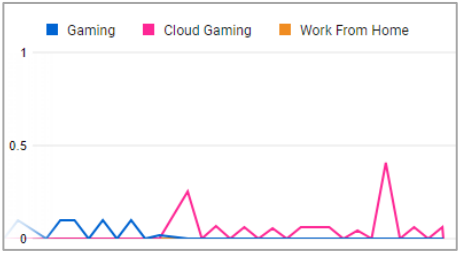
Ping History

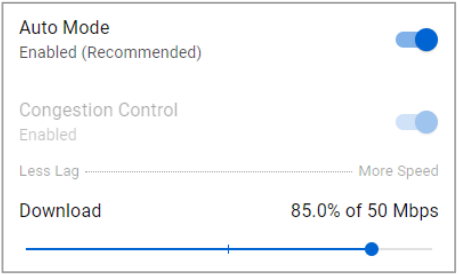
A) Click on a server on the map to open the Ping History feature, which tracks ping data over time for any server you choose.

B) Click Add To List to make your own ping target. You can ping all added servers at the same time using the Target selector.

Network Priority

Mobile view





Network Priority

When devices in your home are using all the bandwidth, it creates congestion. This can cause lag in online games and delays or interruptions in online video calls. Network Priority features gives you a toolset to help solve this problem.

Getting Started

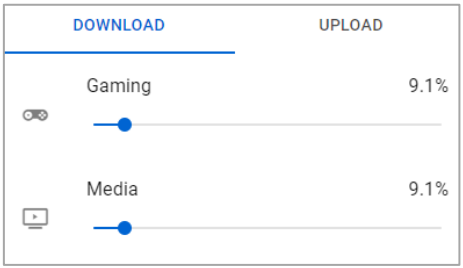
A) During initial setup, Network Priority is populated with your connection speeds but you can also manually adjust them using the Set Bandwidth Speeds button under the Congestion control sub-menu.

B) Lower the Congestion Control sliders down to as low as 50% for both upload and download for gaming. This prevents greedy devices from using more than 50% of your bandwidth. Defaults are set to 85%, meaning 15% of your connection is reserved when priority traffic is detected.

C) Toggle off Auto Mode to enable Congestion Control all the time. If you only want it to activate when priority activities are detected you can leave it the default setting of Auto Mode on.

Network Priority

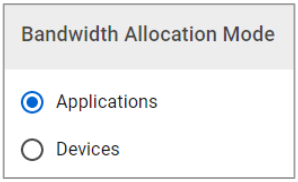
Mobile view



Bandwidth Allocation

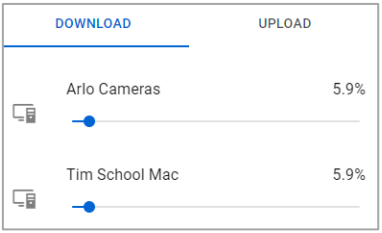
Some devices need more bandwidth than others, such as a PC watching Netflix.

With Bandwidth Allocation, you can control how your bandwidth is shared across all of your applications or devices. By allocating more bandwidth to your priority activities, there may be some impact to maximum achievable speeds of your deprioritised devices or applications.



Set your Allocation

A) In the Network Priority > Settings submenu, you can choose either Devices or Applications to allocate bandwidth to.

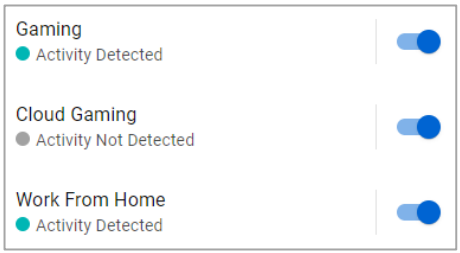


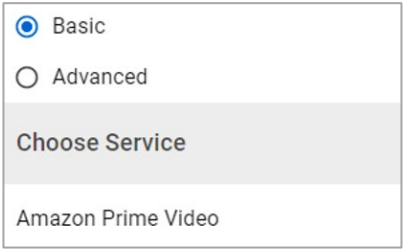
B) Then in the Bandwidth Allocation screen, drag the percentage slider to a device or app category, to give it access to more or less bandwidth

C) Swap between the Download / Upload tabs to set bandwidth allocations for either direction.

Network Priority

Mobile view





Traffic Prioritisation

Network congestion creates a queue, which forces games and other real-time applications to wait. Traffic Prioritisation places these fast applications at the front of the queue, helping to reduce lag.

Setup Traffic Prioritisation

By default, all console games, most PC games and popular video conferencing applications are detected and prioritised.
Teal circles indicate when this is actively occurring.
You can monitor how much data is being prioritised in Traffic Overview.

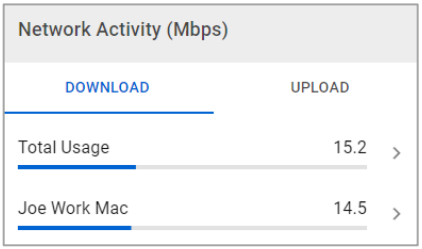
A) To add a service that has not automatically been detected, click Create New Rule.

B) Select a device from the Device Selector.

C) Select an Application under Basic or specify Ports under Advanced to prioritise manually.

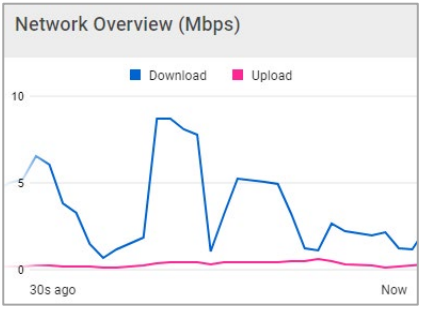
Network Monitor

Mobile view



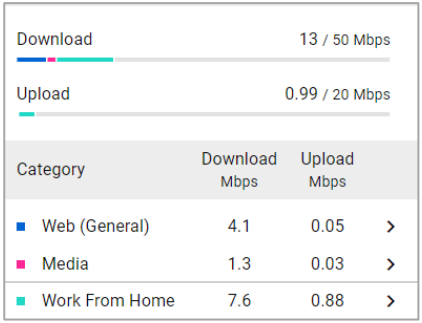
Analyse Network usage

The Network Monitor feature helps you to identify who, what and how your network is being used. You can then use this information to apply the best Network Priority settings in your own network.



Network Snapshot

Network Activity shows the bandwidth being used by all of your devices, and is measured in megabits per second (Mbps).
Clicking on a device will open the Category Breakdown. Clicking on a category bar will try to drill down further to the applications being used.

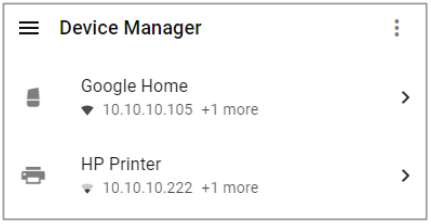


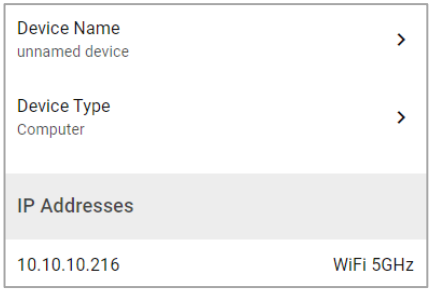
Network Overview

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

Device Manager

Mobile view





Connected Devices

The Device Manager shows details for your connected devices, letting you name and categorise them for easy recognition elsewhere in Internet Optimiser. You can rename both online and offline devices.

If you don't recognise a device in the list by name, you can identify devices in the list by IP address, usually shown on most devices settings screens.

Device Settings

A) Rename a device by tapping Device Name and typing a new name into the Name text box.

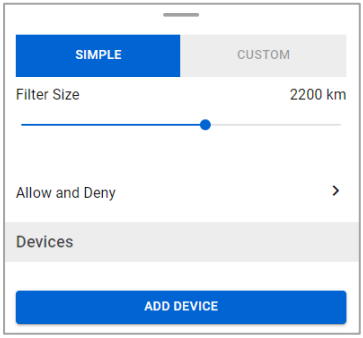
B) Tap Save to complete

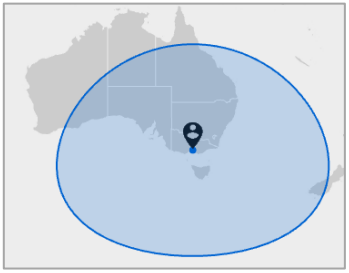
C) Select which type of device it is using the Device Type list menu.

Under the Offline Device list, any device that's not currently connected will be shown. You can tap on a device and use Delete to remove from the list individually or use Clear All to remove all offline devices from the list.

Gaming Geo-Filter

Mobile view





The Geo-Filter

Lag in online games is often caused by the distance from you to the host or server of your game. The Geo-Filter feature allows you to filter servers based on distance. This can help improve game response times and promote fairer gameplay.

Getting Started

A) Swipe up from the bottom to open the options draw. Tap Add Device and select your device from the list. If your device is not listed, make sure it is connected to the Smart Modem.

B) If your gaming device is a console, use Choose Manually and tap Next, and Next again with Filtering Mode toggled on to finish.

C) If your gaming device is a PC, you will be prompted to select your game. Choose your game or game engine, then next to use Recommended Settings

Set Your Home

A) Tap on the Home icon and then tap on the map your approximate location or region where you want to play. You can also tap the Search

B) The filter blocks all hosts outside its range. Set the Filter Size using the slider.

Gaming Geo-Filter

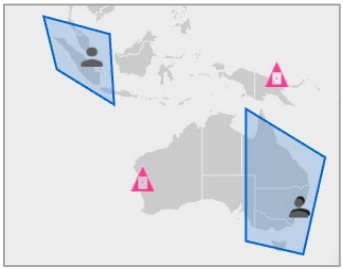
Mobile view

Custom Mode

A) Alternatively, you can draw filter shapes on the map by using Custom Mode, which allows you to have multiple regions. Eg. if you want to allow game servers in both Singapore and Australia for instance.

B) Tap the Pencil icon to draw shapes

C) Tap on a region and then Delete to remove



Start Gaming

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

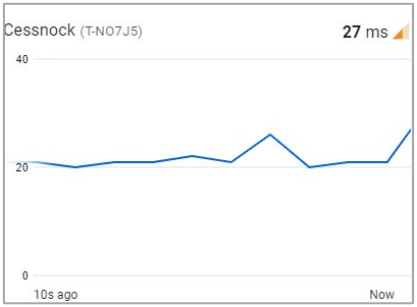
The host of your game will be the largest, most consistently shown icon.

Geo-Filter Legend

Player	Server	Allowed Player
Blocked Player	Blocked Server	Denied Player
Ping Assist Player	Ping Assist Server	Allowed Server

Gaming Geo-Filter

Mobile view



Ping Graph

By tapping on a server the Ping Graph is shown, showing the connection quality (latency) from you to the server you have selected on the map. This is measured in milliseconds.

A ping of <50ms is considered to be good for gaming online.

Allow & Deny

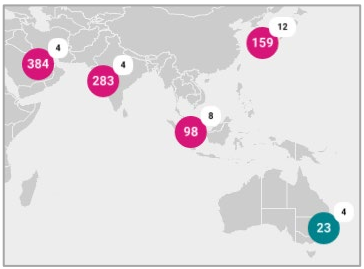
Tap on a servers icon on your Geo-filter Map when your game lobby is open and in the Ping panel that opens, choose either Allow or Deny, you will be prompted to give it a name.

Allow your game 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 game from connecting to another player or server when they are inside your Geo-Filter radius. Use this to avoid nearby laggy servers.

Gaming Ping Map

Mobile view



Monitor Server Quality

Ping Map keeps you informed on your favourite game's servers by pinging them from your home at any given time.

You can build a Ping History for your favourite servers to monitor the quality of the servers you play on over time.

Ping Map

A) Select a game using the Target drop-down

B) The map will display your ping to all servers for that game. New Games will be added to Ping Map regularly with cloud updates

C) After selecting a game, click the clock icon to schedule pings for that target

Ping History

A) Click on a server on the map to open the Ping History feature, which tracks ping data over time for any server you choose.

B) Click Add To List to make your own ping target. You can ping all added servers at the same time using the Target selector.

Accessibility Features

Mobile view | Desktop view

To support those with accessibility needs, interface elements are navigatable through keyboard with screen reader support and two additional accessibility options are available. Navigate to DumaOS Settings ⋮ and Accessibility to set these:

Accessibility Mode applies a high contrast theme and pattern overlays to increase clarity to graphs

Charts to Tables converts all network graphs to tables with screen reader support

Other Features

Desktop view

System Information displays hardware statistics such as firmware version, uptime, CPU & memory usage.

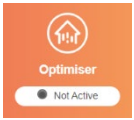
Smart Modem Settings portal contains UPnP, Port Forwarding, DHCP and other standard Telstra configuration tools.

To reboot your device or factory reset the DumaOS settings, click on the Information icon at the top right of DumaOS. Doing a device Reboot takes approximately 2 mins to complete and you will need to login again. Under the Advanced menu, the Reset DumaOS option will erase your configured Internet Optimiser settings back to default, but your underlying Telstra Smart Modem settings will not be affected.

Application Categories displays the list of different network traffic and application types that DumaOS recognises. If you cant find your favourite online game in this list, you can post to the forums to inquire about having it added.

Help & Support

Troubleshooting



What to do when Internet Optimiser isnt showing as Active on your Smart Modem

If more than 30 minutes has past following you activating Internet Optimiser and it is still not showing Active on the Smart Modem login screen, then;

1. Try rebooting your Smart Modem, this can be done by:
    a. Power off / power on your device from the wall

    Or

    b. If the login page reports you have a Technicolor make device - Logging in > Advanced > Modem > Restart Device
    c. If the login page reports you have a Arcadyan make device - Logging in > Go To Advanced > Management > System Reset > Restart

Upon rebooting the Smart Modem will re-collect its provisioning information from Telstra servers, including Internet Optimiser.

2. If a reboot doesn't resolve it – try to use MyTelstra to Deactivate and Reactivate Internet Optimiser. Wait 5 minutes for the reactivation to take affect and retry login.

What to do if you suspect DumaOS software or configurations are causing issues?

You can temporarily suspend DumaOS on your Smart Modem, by going to the Settings ⋮ menu under Advanced and to Pause DumaOS. All DumaOS will functions will be shutdown from operation on the device for 24 hours, unless resumed earlier. This can be used to rule out DumaOS or its configuration as a cause for performance issues or faults when troubleshooting. This does not remove Internet Optimiser from your service.

What to do following a plan speed change?

When Internet Optimiser is first activated it collects the line speeds of your broadband plan to pre-set its own Network Speed settings.

Following an upgrade or downgrade of your broadband plan speed, go to the Settings menu under Advanced and Network Speeds option to confirm the setting has updated automatically.

What to do if Adblocker causes problems with websites

AdBlocker is disabled by default. The feature works by not responding to known advertising platforms domain names, that are embedded within websites. Due to the huge variance of how different websites are designed, there may be adverse effects with Adblocker in combination with some sites or mobile apps that fetch website objects, either because:

a. The website in question has been developed to depend on objects that are hosted on the same domain as the advertising that is being blocked
b. The website in question has adblocking detection built in

If you or others in your household experience problems accessing a particular website, you can turn off Adblocker entirely by the Disable AdBlocker button. You can also exclude specific devices from the Adblocker feature toggling the Pause buttons next to the device.

Extra Resources

- For scenario-based setup instructions see the Setup guides and Help & Support pages at: https://www.telstra.com.au/support/category/broadband/internet-optimiser
- For troubleshooting of configuration problems or if you believe you might have discovered a bug, you can post to the forums at http://telstra.netduma.com/. Note: When posting about an issue, it usually helps to include your modem's serial number and firmware version from the login screen, in case the team need to check on it. But never post any of your account details or other identifiable information.