

# Xbox Series X|S Low Latency DOCSIS Trial Instructions

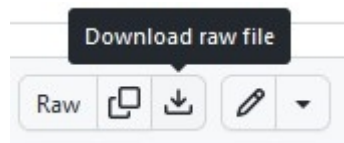
## Purpose

The Xbox Series X|S provides the ability to enable and test low latency from within the OS itself. We can use the built-in functionality to gather data showing the benefit of low latency when there is congestion in the upstream bandwidth.

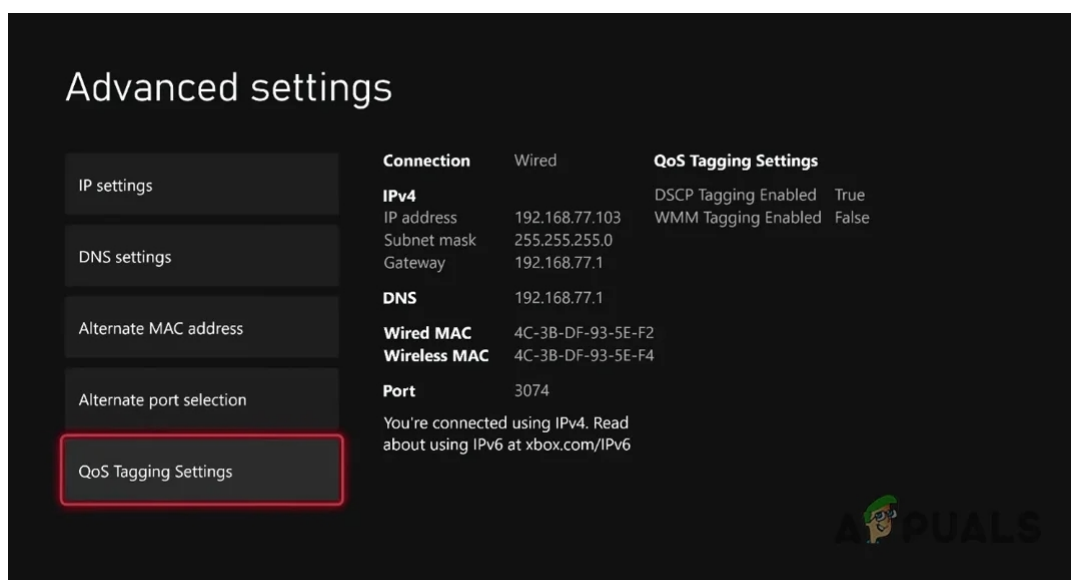
Note: In previous trial communications, we stated this test only applies to users using a S33, Netgear CM1000v2 or a XB7/XB8 in bridge mode. **This is no longer the case!** Please run these tests with any device you are using for the Low Latency trial.

## Setup

1. Download the iPerf traffic generation tool onto your PC or Mac:
  - Mac: <https://github.com/jlivingood/IETF-L4S-Deployment/blob/main/iperf3-GUI-macos-10102023-v2.zip>
  - Windows: [https://github.com/jlivingood/IETF-L4S-Deployment/blob/main/iperf3-GUI-windows-x86\\_64-10102023-v2.exe](https://github.com/jlivingood/IETF-L4S-Deployment/blob/main/iperf3-GUI-windows-x86_64-10102023-v2.exe)
  - Click the "Download Raw file" button to properly save the file.



2. For the tests, we will enable and disable the low latency option. This option is under your Xbox's Settings > General > Network Settings > Advanced Settings shown below. Your Xbox will require a restart when you change this setting.



## QoS Tagging Settings

DSCP Tagging Enabled ☒

WMM Tagging Enabled ☐

Apply



3. The built-in speed/latency test we will run is also under the network settings:

## Network

Set up wireless network

Test network connection

Test remote play

Test network speed & statistics

Test multiplayer connection

Test NAT type

Go offline

Disconnect wireless

Bandwidth usage

Advanced settings

### Current network status

Butterflyone

IPv4

NAT Type: Strict

UPnP not successful

xbox.com/xboxone/UPnP

All services are available



## Detailed network statistics

### Download speed

214.30 Mbps

### Upload speed

44.68 Mbps

### Packet loss

0%

### MTU

1480

### Latency

57 ms

### Wireless strength

78%

## Test Scenarios

The three scenarios we would like you to gather data for:

### Test Scenario 1 – No Low Latency without Background Traffic

1. Disable the “DSCP tagging enabled” option in the Xbox’s network setting if not already.
2. Select “Test network speed & statistics” in your Xbox’s network settings. It takes about 30 seconds.
3. When complete, please record the following data:
  - a. Packet Loss
  - b. Latency

### Test Scenario 2 – No Low Latency with Background Traffic

1. Disable the “DSCP tagging enabled” option in the Xbox’s network settings if not already.
2. Open the iPerf tool on your PC or Mac and click the Play button.
3. Run “Test network speed & statistics” in your Xbox’s network settings.
4. When complete, please record the following data:
  - a. Packet Loss
  - b. Latency
5. Stop the traffic generation tool.

### Test Scenario 3 – Low Latency with Background Traffic

1. **Enable** the “DSCP tagging enabled” option in the Xbox’s network settings.
2. Open the iPerf tool on your PC or Mac and click the Play button.
3. Run “Test network speed & statistics” in your Xbox’s network settings.
4. When complete, please record the following data:
  - a. Packet Loss
  - b. Latency
5. Stop the traffic generation tool.

Note: The Xbox applies the low latency tags to the latency test packets only and not the speed test packets.

## More Data Is Welcome!

If you can, rerunning the tests more than once will be very helpful.

## Send In Your Results

Please use this form to upload your notepad files with collected game statistics:

<https://app.smartsheet.com/b/form/a7fc9fdcae4f4f468d2c1c99c78b05df>