

# **Internet Connection Quality Troubleshooting**

Virtual Desktop Service

Toby vanRoojen December 02, 2020

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## Internet Connection Quality Troubleshooting

### **Symptoms**

Dropped users connections requiring a reconnect. Laggy interface response, general performance problems that don't appear to be related to resource (RAM/CPU) loads.

#### Cause

When users report performance issues, dropped user connections or a laggy interface, the most common cause is not resources at all but rather the network connections between the customer and the datacenter. These connections run through their ISP, various internet backbone carriers and ultimately into the datacenter. Along the way the data traverses multiple stops. Each of theses hops can introduce network latency, lost packets and jitter, all of these can contribute to the perceived performance of the desktop computing environment in the virtual desktop.

Tier 1 triage and troubleshooting will include basic steps like confirming resources (RAM, CPU and HDD Space) are sufficient but once that is completed, testing the network connectivity is a great next step in the troubleshooting process.

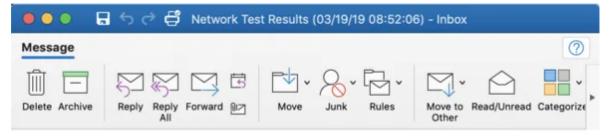
Resolution

#### Primary option: NetApp VDS Windows client has built-in diagnostic tools

The diagnostic test can be run and delivered to your email, all from within the virtual desktop Client.

- 1. Click on the preferences icon (four horizontal lines on the top menu bar)
- 2. Click Help
- 3. Click Network Test
- 4. Enter the user name experiencing the issues, click Run
- 5. Once complete, enter your email address to receive an email report
- 6. Review the report to troubleshoot potential connection issues





#### Network Test Results (03/19/19 08:52:06)



#### cloudworkspaceclient

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Tuesday, March 19, 2019 at 8:52 AM

Show Details

Network Test Results: API address resolved successfully API is reachable Username: toby.vanroojen@cloudjumper.com Gateway: fcf-rds.fcf.cloudworkspace.app Tenant: rjb5.fcf.cloudworkspace.app Gateway resolved to: 13.82.216.254 Gateway is reachable fcf-rds.fcf.cloudworkspace.app 90.02ms fcf-rds.fcf.cloudworkspace.app 96.65ms fcf-rds.fcf.cloudworkspace.app 93.32ms fcf-rds.fcf.cloudworkspace.app 90.35ms fcf-rds.fcf.cloudworkspace.app 88.85ms fcf-rds.fcf.cloudworkspace.app 91.81ms 91.39ms fcf-rds.fcf.cloudworkspace.app fcf-rds.fcf.cloudworkspace.app 95.21ms fcf-rds.fcf.cloudworkspace.app 92.3ms fcf-rds.fcf.cloudworkspace.app 92.2ms fcf-rds.fcf.cloudworkspace.app 90.68ms fcf-rds.fcf.cloudworkspace.app 93.51ms 93.08ms fcf-rds.fcf.cloudworkspace.app fcf-rds.fcf.cloudworkspace.app 1019.5ms fcf-rds.fcf.cloudworkspace.app 90.74ms fcf-rds.fcf.cloudworkspace.app 3109.41ms 92.28ms fcf-rds.fcf.cloudworkspace.app fcf-rds.fcf.cloudworkspace.app 90.4ms fcf-rds.fcf.cloudworkspace.app 88.61ms fcf-rds.fcf.cloudworkspace.app 90.88ms fcf-rds.fcf.cloudworkspace.app 93.46ms fcf-rds.fcf.cloudworkspace.app 92.99ms fcf-rds.fcf.cloudworkspace.app 95.7ms fcf-rds.fcf.cloudworkspace.app 90.11ms fcf-rds.fcf.cloudworkspace.app 92.49ms fcf-rds.fcf.cloudworkspace.app 94.54ms fcf-rds.fcf.cloudworkspace.app 89.77ms fcf-rds.fcf.cloudworkspace.app 94.84ms fcf-rds.fcf.cloudworkspace.app 91.9ms fcf-rds.fcf.cloudworkspace.app 91.62ms fcf-rds.fcf.cloudworkspace.app 94.07ms fcf-rds.fcf.cloudworkspace.app 92.1ms fcf-rds.fcf.cloudworkspace.app 91.91ms fcf-rds.fcf.cloudworkspace.app 99.07ms fcf-rds.fcf.cloudworkspace.app 93.89ms fcf-rds.fcf.cloudworkspace.app 89.78ms fcf-rds.fcf.cloudworkspace.app 92.65ms fcf-rds.fcf.cloudworkspace.app 92.26ms 94.82ms fcf-rds.fcf.cloudworkspace.app fcf-rds.fcf.cloudworkspace.app 92.64ms Average Latency: 191.04ms

#### Secondary option: Manual analysis using PingPlotter

To confirm the client's network connection is the culprit you can run the free utility PingPlotter. This utility sends a ping every few seconds and reports on the speed (latency) of the round trip of that ping. It also notes the packet loss (PL) percentage at each hop along the route. When high latency and/or high packet loss is observed it is a good indication that the performance issues are caused by the quality of the internet connection at the hop that is displaying those issues.

- 1. Download and install Ping Plotter (Available for MacOS, Windows and iOS).
- 2. Enter the gateway of the data center in which the tenant is deployed.
- 3. Let it run for several minutes. Ideally while the performance issues or disconnections are being experienced.
- 4. Capture the data by choosing "Save Image..." from the File Menu if it is needed for additional troubleshooting.

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