



Grandstream Networks, Inc.

GDMS Networking & GWN Manager

Deploy a local GWN Speed Test Server

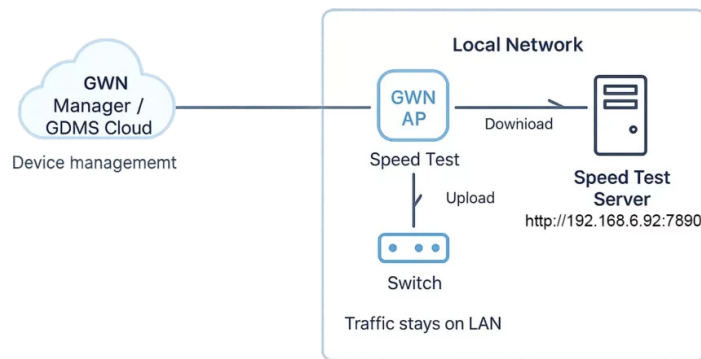


Overview

This guide shows how to deploy a **local GWN Speed Test Server** on Linux and register it in GDMS Networking or GWN Manager. Testing against a local target keeps traffic on your network, avoids internet bottlenecks, and provides consistent, reproducible results for troubleshooting and capacity checks. We'll walk through the GUI steps and include copy-paste commands for Ubuntu and CentOS.

Note: The platforms also offer public test servers; this document focuses on the local option for controlled testing.

Local Speed Test Overview



Local GWN Speed Test Overview

Prerequisites

To follow this guide, have the following ready:

- **Platform access:** A GDMS Networking or GWN Manager account with rights to add a Speed Test Server (Organization → Global).
- **One managed device:** At least one device such as a GWN access point adopted in GWN Manager or added to GDMS Networking to run the test.
- **Linux host for the server:** Ubuntu or CentOS machine (physical or VM).
- **Static IP recommended:** Assign a fixed address to the host so the server URL remains stable.
- **Network mode:** If using a VM, use **Bridged** (or equivalent) so devices can reach the server IP directly.
- **Admin privileges:** `sudo` access on the Linux host.
- **Download:** Speed Test package from the Grandstream Tools page: <https://www.grandstream.com/support/tools>
- **Example URL used in this guide:** `http://192.168.6.92:7890` (replace with your server's IP).

Speed Test Server Installation

Docker Installation

Install Docker on the Linux host so the speed test package can deploy its service.

- **Ubuntu (22.04+)**

```
sudo apt install docker.io
```

```
jawad@jawad-VirtualBox: ~$ sudo apt install docker.io
[sudo] password for jawad: █
```

Docker installation

Verify Docker is available

```
docker -v
```

```
jawad@jawad-VirtualBox: ~$ docker -v
Docker version 28.2.2, build 28.2.2-0ubuntu1~22.04.1
jawad@jawad-VirtualBox: ~$ S█
```

Confirm Docker is installed

- **CentOS**

For CentOS installation of Docker, follow these commands.

- Update packages

```
yum update -y
```

- Install Docker

```
yum install docker -y
```

- Start Docker

```
systemctl start docker
```

- Check status (should show "active")

```
systemctl status docker
```

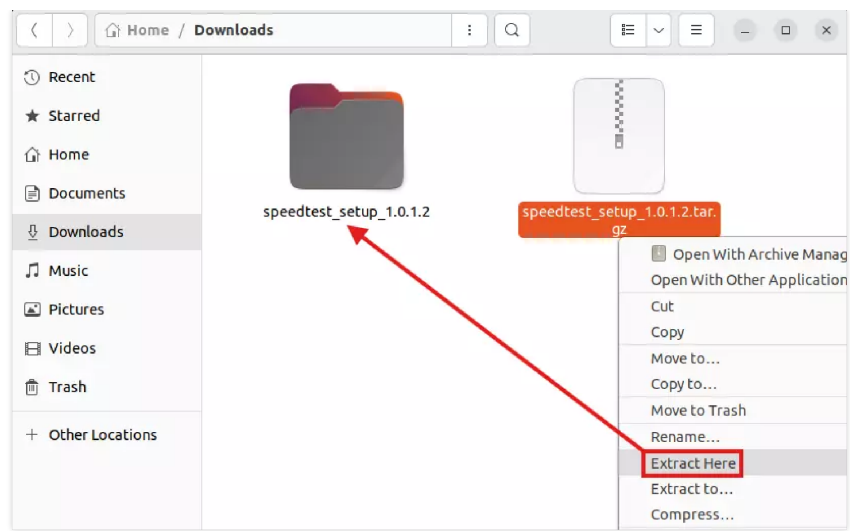
Speed Test package Installation

1. Download the package (latest from Grandstream Tools, save to ~/Downloads)

```
# https://www.grandstream.com/support/tools (download the tar.gz file)
```

2. Extract the archive

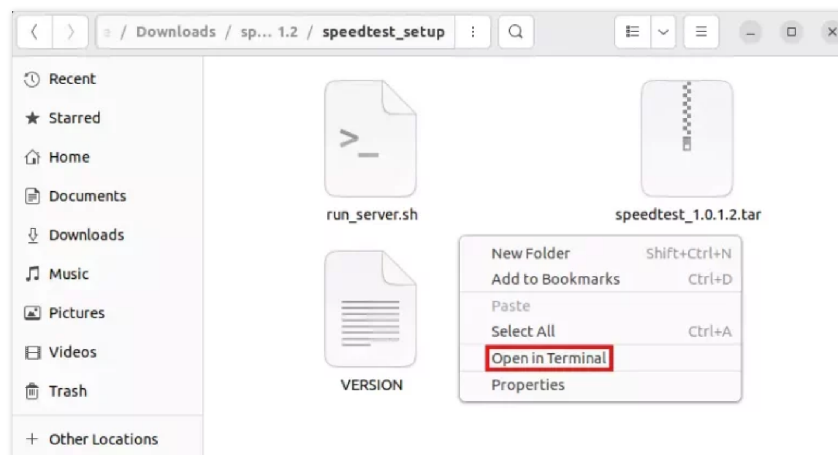
```
cd ~/Downloads
tar -xzf speedtest_setup_1.0.1.2.tar.gz
```



Extract the file

3. Open the setup folder

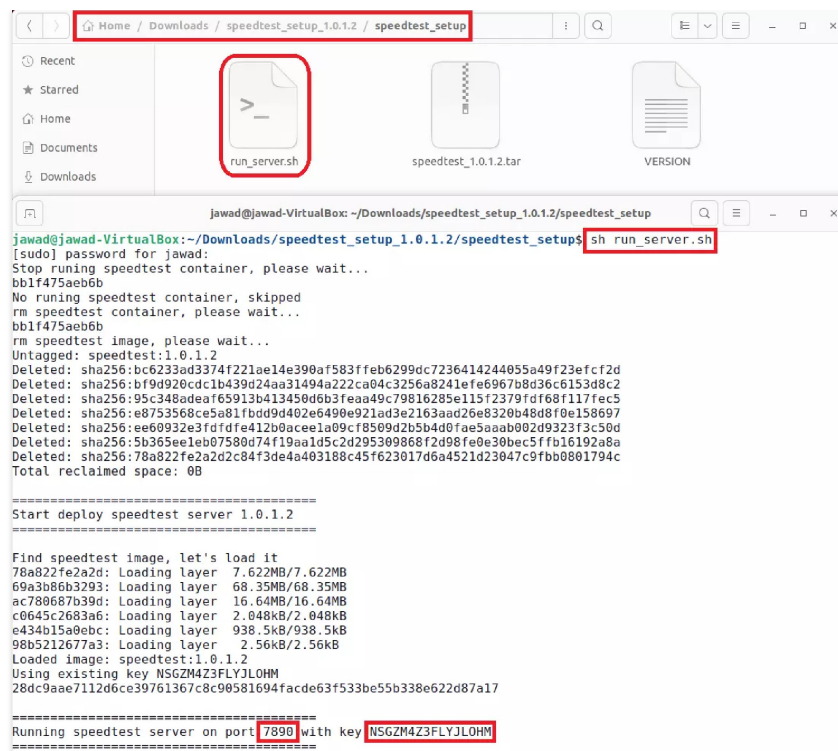
```
cd speedtest_setup_1.0.1.2/speedtest_setup
```



Open the setup folder

4. Run the setup script (deploy the server)

```
sh run_server.sh
```



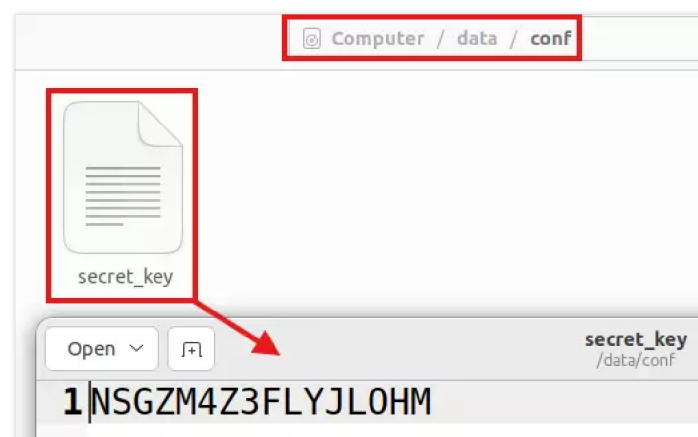
Run the script

5. Server URL (default port 7890)

```
# Replace with your host IP
http://192.168.6.92:7890
```

6. Secret key file (for adding the server in the platform)

```
sudo cat /data/conf/secret_key
```



Secret Key file

7. Verify the service status

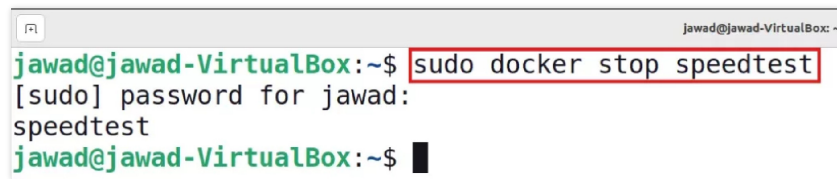
```
sudo docker ps
# Expect: 0.0.0.0:7890->7890/tcp and container name "speedtest"
```



Verify the service

8. Stop the server (optional)

```
sudo docker stop speedtest
```

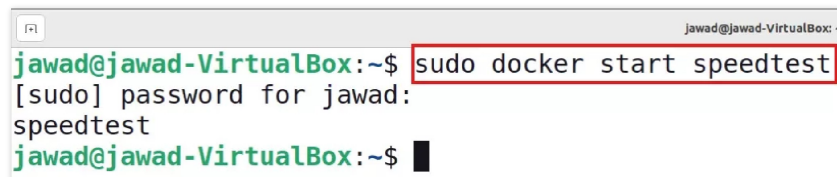


```
jawad@jawad-VirtualBox: ~$ sudo docker stop speedtest
[sudo] password for jawad:
speedtest
jawad@jawad-VirtualBox: ~$
```

Stop the service

9. Start the server (optional)

```
sudo docker start speedtest
```



```
jawad@jawad-VirtualBox: ~$ sudo docker start speedtest
[sudo] password for jawad:
speedtest
jawad@jawad-VirtualBox: ~$
```

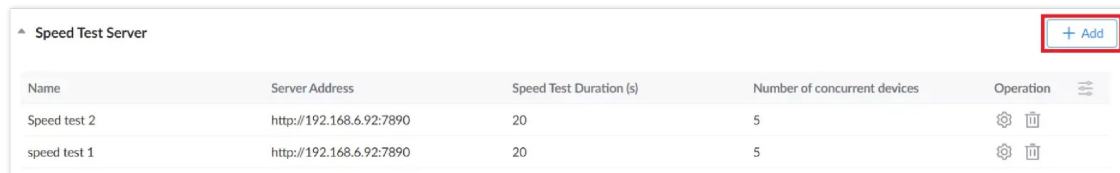
Start the server

Management Platform Configuration

Follow these steps in **GDMS Networking** or **GWN Manager** to register your local server and run a test from a device.

1) Open the Speed Test Server page

- Go to **Organization** → **Global** → **Speed Test Server**.
- Click **Add**.



Name	Server Address	Speed Test Duration (s)	Number of concurrent devices	Operation
Speed test 2	http://192.168.6.92:7890	20	5	
speed test 1	http://192.168.6.92:7890	20	5	

Open the Speed Test Server page

2) Add your local server

Fill the dialog:

- Name:** `Speed test <#>` (any label).
 - Server Address:** `http://<server_ip>:7890`
Example: `http://192.168.6.92:7890`
 - Secret Key:** `<secret_key>` printed by `run_server.sh` (or read with `sudo cat /data/conf/secret_key`).
 - Speed Test Duration (s):** 10-30 (e.g., 20).
 - Number of concurrent devices:** 1-10 (e.g., 5).
- Click **Add** to save.

Tip: Use a **static IP** on the server so this entry stays valid. You can add multiple local servers and pick among them during testing.

Add speed test server

* Name
1-64 characters
Speed test 2

* Server Address ⓘ
http://192.168.6.92:7890

* Secret Key
.....

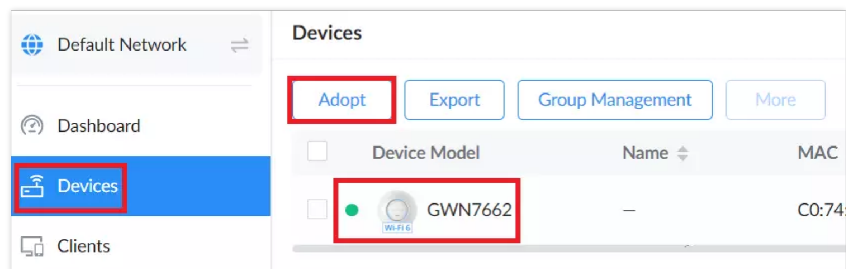
* Speed Test Duration (s)
10-30 numbers
20

* Number of concurrent devices ⓘ
Cannot be 0
5

Add your local server

3) Prepare a device for testing

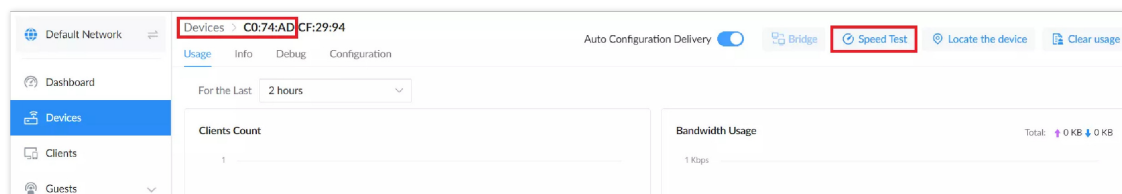
- Ensure at least one **GWN AP/router** is **adopted to GWN Manager or Added to GDMS Networking and online** under **Devices**.
- If you need onboarding steps, see [Getting Started with GDMS Platform](#).



Prepare a device for testing

4) Start a speed test from the device page

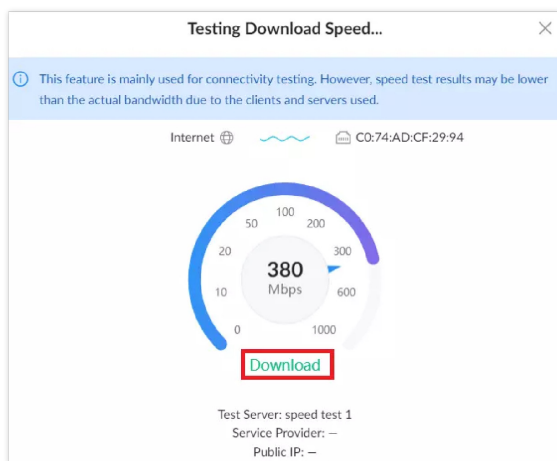
- Open **Devices** → **<device>**.
- Click **Speed Test**.



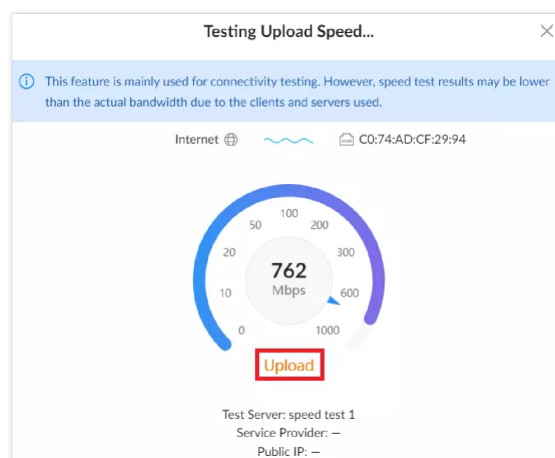
Start a speed test from the device page

5) Observe the test phases

- The dialog runs **Download** first, then **Upload** against your local server.



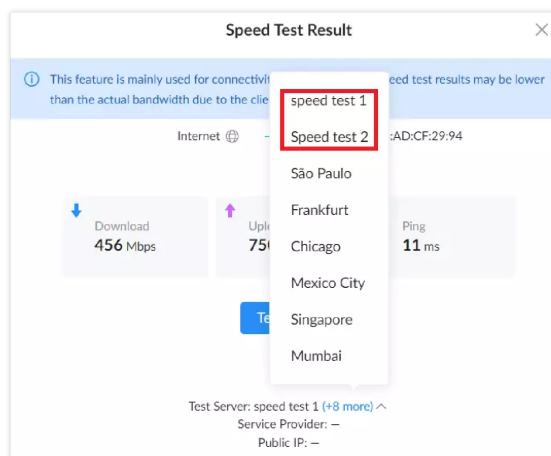
Testing Downloading Speed



Testing Upload Speed

6) Review the results and retest with different server

- Final panel shows **Download / Upload / Ping**.
- Click **Test Again** to repeat. (optional)
- In the results dialog, open **Test Server** list and select another entry (e.g., *speed test 1* , *speed test 2*) to compare runs.



Review the results and retest with different server