Network Specifications (OP Cloud Environment)

Last Modified on 09/30/2022 3:55 pm EDT

> 📌 **Note**: This documentation applies to the OP Cloud environment.

The following provides the minimum requirements for running OP Cloud.

Internet Connectivity

Redundant Internet connectivity (i.e. internet access through two different service providers, a primary and a secondary, e.g. Comcast AND FiOS) is highly recommended to ensure constant access to the OP Cloud in the event one of the services fails.

The required speeds below refer to the primary Internet line and not the combined bandwidth of the primary and secondary lines. The bandwidth requirements below are the minimums required to run Office Practicum. Depending on the other services that your practice is using (site-to-site VPN tunnels, other SaaS products, Internet radio, Voice Over IP) your practice's requirements will be higher. For instance if a practice is using Voice Over IP, we strongly recommend for OP to have its own dedicated network separate to that of the VOIP.

> 📌 **Note**: Business class connectivity is required.

Required Internet Connectivity/Minimum Speeds

Number of Providers	Connection Type	Minimum Download (in Mbps)	Minimum Upload (in Mbps)
1	T1, ADSL, Cable	5	3
2 - 5	ADSL, Cable	25	15
5 - 7	ADSL, Cable, FiOS	35	20
7 - 10	ADSL, Cable, FiOS	50	30
10 - 15	ADSL, Cable, FiOS	75	45
15 - 20	ADSL, Cable, FiOS	100	60

You can test your internet speed at https://speedtest.officepracticum.com/

Latency and Packet Loss

- The latency of your network must be less than 100ms.
- The packet loss of your network must be zero.

You can test both of these at https://www.speedtest.net/apps/windows (PC) and https://www.speedtest.net/apps/mac (for Mac).

Network Hardware

> **Note**: **Entry level consumer routers are not supported:**
>
> Your practice is required to use a high end consumer router/firewall or professional/business grade router/firewall. The router or firewall you select must have adequate wireless coverage for the entire office, and be centrally located in the office to promote a strong, consistent wireless signal.

- Minimum 100Mbps Ethernet backbone.
- Recommended 1Gbps Ethernet throughout the office.
- Wireless G/N is recommended.

Examples of Failover Network Hardware

The following products are recommended for dual internet connections so that, if one connection goes down, the second will automatically be used.

Vendor	Model	Recommended Configuration
Cisco	5505 ASA	Standard SOHO router/firewall capable of static route failover to secondary ISP. Click**here** for additional information.
Linksys	RV042/082	Capable of dual WAN connections to the Internet, configurable for failover or load balancing.
Cradlepoint	MBR1400	Capable of 3G/4G failover over. The device allows for the addition of multiple USB based 3G/4G modems. Recommended for areas that experience frequent Internet outages or locations where conventional Internet is unavailable.