

## **Stealth Communications Advisory on Business Connectivity during COVID19**

Stealth Communications provides NYC businesses with high-speed fiber optic internet and other connections. Above all, we hope everyone will remain safe during this difficult time.

As businesses are facing new challenges in the face of COVID-19, we're providing here some guidance and best practice recommendations for network connectivity for those workplaces that suddenly find themselves relocated, decentralized and dispersed. This communication covers:

- How internet access works differently with a remote workforce
- Network pressures and limitations most likely to cause difficulties
- How Stealth may be able to help some in some circumstances

### **Internet access and a remote workforce**

During the COVID 19 pandemic, many people will be working from home (WFH). We want to help by explaining what WFH means for connecting remotely to various work repositories, from office desktop, LAN-based servers, and the cloud. We also know many firms require VPN login (encrypted virtual private network) connection into an office environment.

Residential internet connections, especially from cable providers, are usually asymmetric, not symmetric. Asymmetric connections provide very limited bandwidth for the upstream path (outbound data traffic) such as uploading to the cloud or sending large files via email attachments. It's likely home users will have greater latency (delay) and jitter (consistency), which may be disruptive to persistent connection requirements like VPN and cloud applications as well as two-way applications such as VoIP and web/video-conferencing that need symmetric connections.

### **Recommendations:**

- Make employees aware of simultaneous upstream usage on their home connection, to try to limit bandwidth congestion. For example, avoid sending large files while on VoIP call or Zoom conference
- VoIP, web and video-conferencing and other real-time, two-way applications work better on a wired connection rather than Wi-Fi (wireless) connection. Where feasible, try to connect to the home router to the computer via ethernet cable for these applications. (Obviously not applicable for mobile phones).
- Wi-Fi connections may be subject to interference, which can disrupt persistent connections need by VPN and cloud apps. If possible, a wired connection can reduce these hiccups.

**Network pressures and limitations**

Remember that if your home internet connection is shared with others (children, roommates, significant others, etc.), bandwidth is a shared resource. Activities that ride on the same broadband connections, especially bandwidth-intensive like streaming apps (such as Netflix, Hulu, AppleTV) and gaming, should be scheduled to avoid interruption to business real-time apps (e.g. VoIP, Zoom, video Calls).

Another limitation is around simultaneous VPN connections back to the office LAN, which may congest the (upstream) bandwidth of the office connection. We have heard from our customers that many of their most important assets reside on the office LAN itself, not in the cloud.

Our recommendation: IT departments could consider imposing some rule-based management, time or usage limits.

**What Stealth is doing to help**

We may be able to upgrade the bandwidth on your Stealth fiber office internet connection to help alleviate it as a remote access congestion bottleneck and will facilitate temporary bandwidth upgrades on existing fiber internet connections to the extent we can. We have a diverse customer base, so although some upgrades can be done quickly and remotely, other circuit upgrades would require sending our technicians onsite to make physical changes or may not be possible at all. We will need to assess individually.

If you're interested, please contact [info@stealth.net](mailto:info@stealth.net) and we'll look into your specific situation. Please also feel free to reach out with any connectivity related questions, we'd be glad to provide guidance whenever we can. We'd also like to hear any suggestions and novel ideas that we can share with others, as we all try to navigate these difficult circumstances.

Finally, we want to convey our deepest hopes for a healthy future for you and your loved ones.

Thank you.