**Capacity capabilities of popular IT applications used @ Hopkins**

**Blackboard** – services are hosted on-premises @JH in a virtualized environment. Usage and capacity of this platform is closely monitored and Johns Hopkins can quickly add additional resources to this environment if capacity issues arise. Johns Hopkins IT has significant control for this platform, because it’s hosted in our datacenters and our IT engineers manage the backend server environment. This platform can be accessed remotely through a web interface and does not need VPN Pulse Secure.

To-date, IT@JH has not seen any operational issues related to increased Blackboard usage.

**Zoom** – this video conferencing service is Cloud based, therefore there are no on-premises infrastructure dependencies that would create any bottlenecks or resource restrictions. This product is totally controlled and operated by Zoom, Inc. and Johns Hopkins has user licenses that facilitate our access. These licenses are monitored by IT@JH and we can quickly expand our licensing, if needed. As a side note, Zoom worldwide is seeing an increase in their operational load, due to changes in business workflow associated to the COVID-19 outbreak. This platform can be accessed remotely through a web interface and does not need VPN access.

To-date, IT@JH has not seen any operational issues related to increased Zoom usage.

**MyCloud Desktop**- provides direct access to hundreds of applications with their own server resources. This virtualized infrastructure is housed and managed on-premises @JH. On a typical day, this platform will see utilization of 3500-4000 concurrent sessions. We believe this platform can handle traffic spikes up to 8000+ concurrent users and we own unlimited licensing. MyCloud Desktop services can be accessed through myJH Portal under the Cloud Icon. In the event we need to ramp up capacity beyond 8,000 sessions, IT@JH can leverage existing idle hardware that currently resides at our business continuity data center located in Ashburn, VA. If capacity needs grow beyond 15-20K concurrent sessions, emergency hardware will need to be procured.

To-date, IT@JH has not seen any operational issues related to increased MyCloud Desktop usage.

**VPN Pulse** – the enterprise VPN solution for Johns Hopkins is called Pulse Secure. This solution is an on-premises solution managed by IT@JH. On a typical day (pre-Corona) our usage would average about 4,000 concurrent sessions daily and we are still seeing this approximate usage. This platform has the capability of handling up to 40,000 concurrent sessions and we have ICE (In Case of Emergency) licensing in place to handle surges to 80,000. Additional information can be found on the myJH portal under the VPN Icon – VPN FAQ.

To-date, IT@JH has not seen any operational issues related to increased VPN Pulse Secure usage.

**Messaging / Email** – Microsoft Outlook messaging platforms are available remotely through full and web-based clients. The web based client can be accessed via the JH Portal – under the messaging Icon called Outlook. The Hopkins messaging environment is a hybrid with some infrastructure hosted on-premises while the vast majority is in the Microsoft cloud. This environment is extremely robust supporting tens of thousands of users on a daily basis. To-date, IT@JH has not seen any operational issues related to increased messaging usage.

**TEAMS & Microsoft collaboration tools** – Microsoft Teams is a cloud-based team collaboration software that is part of the Office 365 suite of applications. The core capabilities in Microsoft Teams include business messaging, calling, video meetings and file sharing. All of these technologies are hosted within Microsoft’s infrastructure and are capable of supporting thousands of concurrent users.

To-date, IT@JH has not seen any operational issues related to increased TEAMS or collaboration tool usage.

**Microsoft Office automation tools** (Word, Excel, Powerpoint, OneNote, Excel, OneDrive, etc) – all of these products are now available remotely through a web interface called [www.Office.com](http://www.Office.com). There is no need to launch the VPN Pulse client to access any of these products.