ETSU Information Technology Services (ITS) currently maintains high speed Ethernet (1 – 10 Gbps) via 20,000+ secure network drops to over 100 buildings on our main campus as well as at 12 remote sites throughout northeast Tennessee. High-speed wireless access is available in and out of doors across the main campus. A separate wireless network serves our student residence buildings. Network access is by double authentication with temporary guest access available by authentication. Dell or Apple desktop and laptop computers running Windows, MAC, or Linux OS with current Microsoft Office, current enterprise anti-malware, and optional Adobe Creative Cloud are provided to faculty and staff on a four year rotation.

Patches and updates to all ETSU desktop and laptop computers are managed remotely. Researchers are provided with additional secure network drops and Voice over Internet Protocol telecommunications where needed. ITS manages security of all ETSU owned computer hardware. ITS manages the Microsoft active directory account infrastructure, server redundancy, server backups, server patches and updates, and storage area network behind a firewall. The data centers have independent backup power generators that support continued operation at full capacity during a prolonged power outage. Microsoft, Linux, and Apple servers are maintained current and backed up daily. File restoration from backup is possible for up to 20 days.

Data storage, data backup, database management, and survey management are all possible on secure network servers, including encrypted HIPAA-compliant servers and network storage drives. Several statistical analysis packages are available via the ETSU network and/or local installation. Advanced and accelerated computing are possible through virtual machine services contracted with Amazon Web Services (AWS). ETSU has an NDA, BAA, risk assessment, and business support plan in place with AWS to permit analysis of HIPAA-regulated data on AWS.

Network data sharing with external collaborators is through ETSU’s secure dropbox, ETSU Microsoft Business OneDrive accounts, and ETSU’s REDCap database and survey management servers, two of which are HIPAA compliant. Among the network data sharing methods listed here, only the HIPAA compliant REDCap servers have approval from the IRB and the HIPAA Compliance Officer for sharing HIPAA-regulated data; other mechanisms that use password authentication and encryption may be permissible, subject to IRB and HCO approval.