**Research Data Management Best Practices**

ETSU’s Digital Research Data Storage and Backup Policy requires that researchers back up data on secure ETSU network drives, ETSU OneDrive for Business, or in the ETSU-managed AWS cloud. HIPAA research data may not be stored on ETSU OneDrive for Business but may be stored on ETSU’s HIPAA-compliant network drive, HIPAA-compliant REDCap server, or HIPAA perimeter within the ETSU AWS cloud. HIPAA data stored in approved locations are encrypted in transit and at rest. ETSU electronically enforces a strong password policy and two-factor identity authentication on network connections. Out-of-support operating systems are blocked from the network. The ETSU guest network is separate from the main ETSU network.

ETSU Research Computing Services recommends LastPass password management in support of complex password creation and device encryption. ETSU Mac computers are protected against malware, viruses, and other vulnerabilities with onboard XProtect and MS Defender. PC's are protected with MS Defender. Updates to endpoint protection and operating system software are installed automatically. Laptops are encrypted per Tennessee State law upon arrival at ETSU. Desktop encryption is not currently mandatory but is possible through FileVault on Macs; the majority of ETSU desktop PC's are now encrypted with BitLocker. While platform specific flash drives may be encrypted with FileVault or BitLocker, cross-platform flash drives are encrypted with VeraCrypt, or hardware encrypted flash drives may be purchased. A disaster recovery plan and cyber-incident response plan are in place for restoration of network services. Data lost from ETSU-ITS network drives and storage areas through drive failure or accidental deletion can be restored for up to 20 days. Research Computing Services recommends activation of device locator software for laptops and mobile devices. Secure authenticated data sharing is possible through MS Outlook e-mail encryption, ETSU OneDrive for Business (and Teams), various ETSU-managed AWS services, and the ETSU REDCap servers.