

Division of Radiological Sciences
Neuroimaging Laboratories (NIL)
Computer Support Group (CSG)
Reviewed: November 16, 2021

The Neuroimaging Laboratories consists of a group of investigators who share equipment and facilities necessary to do modern state-of-the-art neuroimaging research. The Neuroimaging Laboratories maintain an extensive network of computing facilities for post-acquisition processing of PET and MR scans. This network functions as a shared resource for the collaborative group of investigators.

The Neuroimaging Laboratories data network supports over 450 active devices. These devices include MR scanners, data storage systems, workstations, servers, printers, and other peripherals. Approximately 375 computer systems consisting of Windows servers, UNIX workstations, PC's, and Macintosh computers comprise over 90 TB of disk storage. A virtual tape library with 30TB of storage provides monthly full and daily incremental backups of key data directories on all desktop systems. All PC's are updated regularly with antivirus software and operating system patches. Central servers and critical workstations are connected to Washington University IT's (WUIT) secure-WUCON network at 1Gb/s and 10Gb/s speeds, enabling high-speed data transfers between devices. Remote access to NIL devices is provided through a Cisco VPN appliance managed by WUIT. These devices insure that only trusted members of the community are able to access data using methods that are safe, secure and HIPAA compliant.

Services provided by the Computer Support Group include:

- Installation and support of customized, non-vendor specific hardware (server, workstations, laptops)
- Assistance with configuration of personal devices used for lab purposes (laptops, tablets, phones)
- Support of all operating system software platforms (Windows, Macintosh, SUN, Linux)
- Administration of 50 SUN and Linux data processing servers
- Administration of Microsoft server infrastructure (Active Directory, Sharepoint, SUS, SMS, etc.)
- Installation and support of ALL requested research-based software applications
- End-user support for access to Shared Data Storage system
- Information security policy oversight
- After-hour support of workstations and server services
- Activation of network lines for workstations and servers
- Virtual tape backup of server and workstations
- Website administration for individual labs
- Support for lab printing services
- Software licensing and contract maintenance
- HIPAA guidance and oversight
- Liaison services with other Washington University IT entities

Costs for the Computer Support Group include maintenance contracts on computers and peripherals, supplies for computers and peripherals and salary support for personnel. Purchases of new equipment and software necessary to run the computer support group is also considered to be an included cost. Purchases of new equipment and software for individual investigators are borne by the investigators and their funding sources. All such purchases must be approved by the computer support group if the investigators intend to use the group to provide support for these new acquisitions.

Investigators who choose to use this facility must participate in its financial support. The appropriate share to be paid per year by each grant for use of the CSG facility is determined by the fractional number of full time equivalent (FTE) personnel engaged in the research supported by the grant. In each fiscal year the total costs for

personnel, supplies and maintenance for the CSG in the previous year is determined and the anticipated costs for the next year projected. In addition, the total of number of FTE personnel in the NIL who use the facility is determined. Each person who uses computers supported by the CSG is identified and the percent of each person's FTE effort supported by the CSG is determined. For research personnel located in the East Building, who do not have offices elsewhere, this is 100%. For those who spend part of their time at a separate physical location that provides all the necessary computer support for activities performed there, the % FTE is reduced accordingly based on appropriate justification. Only those personnel with yearly appointments (full or part-time) will be counted; medical students, fellows, residents, visitors who come for several months will still have computer privileges but will not figure into the calculations. Full time graduate students that remain in the lab for one or more years are considered 100% FTE and require CSG support. The appropriate fraction of the CSG costs for each grant is the number of FTE personnel engaged in that project divided by the total number of FTE personnel supported by the CSG. When a grant that will use this facility is submitted, the budget will include these costs as the yearly line item "Computer Support Costs" based on the FTE personnel listed on that grant and the most recent cost estimate and total FTE count. In cases of budget cuts, each grant will be assessed in its first year based on the number of FTEs actually supported in the revised budget. For each successive year of the grant, the cost share will be re-assessed. Once per fiscal year, each grant's appropriate share will be reassessed based on the number of FTE supported by the grant, the total FTE number in NIL and the projected CSG costs for the next fiscal year. CSG costs can be paid from Federal grants only for the FTE personnel supported by that grant. This revised cost share will be provided to each investigator before the end of the fiscal year as the amount that will be charged during the next grant year.

CSG costs for research supported by Departmental funds will also be paid by Departmental funds as yearly budgetary support for the CSG based on the same formula. When non-Departmental research funds do not permit payment of CSG costs, investigators must cover the costs from other sources or apply for Departmental support to cover these costs.