

# Frequently Asked Questions for APS Beamline Visitors

The AES Information Technology Group maintains and supports the APS computing infrastructure including the management of all APS enterprise networks and CAT backbone networks, firewalls, and computer servers in conjunction with supporting all Laboratory cyber security policies. This document provides answers to many of the questions asked by beamline visitors. For additional information please see the IT home page at <http://www.aps.anl.gov/it>.

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## 1. How do I get help from APS IT Support if I have a problem?

### System Status Information

The IT Support Group maintains a web page that displays a summary of current network and server operational status. The URL of the page is <http://status.aps.anl.gov>. The web page is updated to inform users of current network or computer resource issues that may affect them. This page can also be seen on the site-wide TV system. If you experience network connectivity or server performance problems, please check this page for information before calling for help.

### Beamline Host

Your first line of support for beamline computing issues is your beamline host or contact. He or she should be able to help figure out the nature of your problem and may be able to solve your problem directly. If that is not the case, your beamline host will know the procedure to follow to contact APS IT Support for help.

### Off-hours Support

APS IT Support provides limited support for critical applications outside of normal work hours, limited to emergencies that affect the operation of beamline experiments. Normal working hours for APS IT Support personnel are Monday through Friday, 8:30 a.m. to 5:00 pm.

Non-APS beamline users should contact their beamline host for any problems they experience.

APS beamline users or staff should contact the on-duty Floor Coordinator (x2-0101) for off-hours problems. If a Floor Coordinator is not available, they should contact the Main Control Room (MCR), at x2-9424, directly.

The Floor Coordinator or MCR operator will evaluate the problem and let the user know if their problem is related to a known issue (such as a network outage). Otherwise, they will contact the proper on-call IT Support staff member. The APS IT Support staff member will contact you via phone to further evaluate the problem.

## **Critical Problems**

Whenever a critical problem occurs—i.e., one that affects the operation of a beamline or experiment—APS IT Support should be contacted immediately, and then, if you have an APS account, a Support Request case should be opened. During normal business hours, users may call the APS IT Support phone number (630-252-9700). If problems occur outside normal business hours, the procedure for off-hours support listed above should be followed.

If it is known which APS IT Support staff member may be able to best resolve the problem, the user may also contact that person directly during regular business hours.

## **2. Can I bring my laptop to read email or surf the Web?**

APS provides a wireless 802.11g/n network for visiting users with laptop computers. Wireless networking is available in all areas of the APS complex, including the beamline area, and most other Argonne buildings, including the Guest House. You must register your computer before it will be allowed to connect to the wireless network. Registration is a simple and quick process that is completed by starting a web browser and filling out the form that is automatically displayed. As part of the registration process, your computer will be scanned for common vulnerabilities. The scan is quick and non-intrusive. If the scan detects a serious problem with your computer, you may be required to address the problem before being permitted to access the wireless network. See <http://www.aps.anl.gov/it/Services/Networking/?page=registration> for additional information.

Wired visitor network connections are also available on some beamlines.

The visitor network is separated from the APS network through a firewall and has no access to the internal network. Non-APS personal or “general purpose” laptops and computers are not permitted to be connected to the APS internal networks.

Computers connected to the visitor network have access to most network services outside the APS, including Web browsing, SSH, FTP, email, etc. Note that computers connected to this network are monitored for suspicious activity, and if the monitoring software detects or suspects that your computer is infected with a virus, its access to the network will be disabled. In order to help ensure that this doesn't happen, please make sure that your computer has the latest security patches installed for your operating system, and that you have up-to-date virus scanning software installed and enabled.

Also note that Argonne employs web content filtering on all networks. Access to web sites that are deemed inappropriate for the Argonne is blocked by the filter. If you attempt to access such a web site, you will see a message indicating that access to the site is being blocked.

When using a Web browser behind the firewall, access to URLs and references to non-standard ports (for example, port 8080) will NOT work. See <http://www.aps.anl.gov/it/Services/Networking/?page=APSproxy> for information on how to configure the web proxy.

## **3. Can I use Skype while I'm at the APS?**

Skype is a VoIP (Voice over Internet Protocol) solution and provides the ability to record and playback audio. Skype lets you make free calls over the internet to anyone else who also has the service. Skype

is supported at the APS with no required client-side configuration changes for Windows, MAC OS, and Linux. Users no longer need to point the Skype client to the APS firewall proxy. For more information on Skype, see <http://www.aps.anl.gov/it/Services/Comms/?page=Skype>.

#### **4. My computer can no longer access the network – what do I do?**

APS employs a number of automatic network monitoring systems to prevent unauthorized access from outside the APS, and to identify and deal with potential virus infections on its networks. If your computer is infected with a virus or shows activity that the monitoring systems identify as suspicious, access to the APS network will be disabled for your computer.

If you have been accessing the network normally from your computer and suddenly find yourself unable to, for instance, access a common web site, especially if other computers are not having the same problem, your network access may have been blocked by the APS monitoring system. If you are on the visitor network and suspect that your computer has been blocked, you should contact APS IT Support (2-9700 on an APS phone) during normal business hours to find out why your computer was blocked and what you need to do to have access restored. If the blocked computer is being used as part of an experiment and the blocked access is impacting the experiment, you should contact APS IT Support during normal business hours or use the Off Hours contact procedure to have IT Support help resolve the problem immediately.

#### **5. Can I bring my own computer(s) to do an experiment?**

Visiting scientists may bring computers to the APS that function as part of their experiment, e.g., operating a detector, collecting data, etc. If you are planning to do this, please coordinate this with your beamline host to make sure that your equipment will be able to work in the APS environment when you arrive

You must verify with your beamline host what you need to do to connect your computer(s) to the beamline network. Some beamlines have dynamic IP address pools set up for visiting users. In this case, your computer will automatically configure its network interface via the DHCP service when you connect it to the network and power it up. For other beamlines that don't have this feature set up, manual configuration may be necessary.

Any computer connected to an APS network will be automatically scanned for common security vulnerabilities. The scan is non-intrusive, only scanning from outside your computer. The scan normally only takes a minute or two and is not generally noticeable. If the scan finds potential cyber security problems on one of your computers, IT staff will be notified, and they will contact you with more information. If the problem is deemed serious, your computer may be automatically denied access to the network until the problem is addressed.

Non-APS computers connected to a beamline network will have limited access to the network. These computers will have access to all network services on the beamline network, but will not be able to access network services or computers on other beamlines, or central APS services. Most protocols will be available to off-site destinations (HTTP, FTP, etc.).

#### **6. What if my computer doesn't meet security requirements?**

Computers connected to the visitor network must be able to pass the cyber security scan in order to be granted access to the network.

APS recognizes that computers that are part of an experiment sometimes have requirements and limitations that prevent them from having the latest patches installed or from running antivirus software

while the experiment is active. If this is the case with one or more of the computers that you plan to bring to the APS, please make sure to alert your beamline host about this situation prior to your arrival at the APS.

## **7. How do I use embedded devices on an XSD beamline?**

Embedded devices are typically standalone, network-connected devices that are used as part of an experiment. Examples include Ethernet terminal servers for connecting to remote serial-protocol devices and network-connected monitoring devices or sensors.

The DHCP protocol is supported at all XSD beamlines, and some beamlines have dynamic IP address pools for devices such as these. Additionally, some beamlines have local private networks set up for these devices. Using DHCP-capable embedded devices on these beamlines is as simple as plugging them into the network and turning them on.

If your embedded devices are not capable of using DHCP for network configuration, they will need to be configured manually. If this is the case with your devices, please make sure to inform your beamline host of this, so that they can request configuration information from APS IT Support.

## **8. How can I transfer experiment data from a beamline computer to my computer?**

APS supports a number of different methods of transferring experiment data from an APS computer on the beamline to your computer, so that you can analyze the data or take it home with you.

- Direct storage: The simplest method is removable media storage: DVD, thumb drive, or USB or FireWire (IEEE 1394) hard drive. Most Linux PCs, Windows PCs, and Macs used on the beamlines support thumb, USB, and FireWire hard drives, allowing you to quickly copy the data files to your own storage device. Check with your beamline host to find out if this option is available on the beamline where you'll be working.
- Remote access: The APS provides an anonymous FTP server to allow XSD beamline users to transfer data from the APS to their own computer or back to their home institution. The server, <ftp.xray.aps.anl.gov>, provides over 11 terabytes of FTP storage and a 3-gigabyte/second connection to the Internet. Check with your beamline host to find out if they support this option.

## **9. How can I access beamline software from outside the APS?**

APS IT Support is currently working on a general plan for allowing offsite APS users to login to an APS computer to run APS-developed analysis and reduction software on data from APS beamlines. Until then, please discuss your needs for this type of access with your beamline host, who will coordinate with APS IT Support to set up the access that you need.

## **10. Can I use a borrowed detector on a beamline?**

APS provides a number of detectors that can be borrowed by XSD and CAT beamlines. These detectors are fully supported by the detector pool group and APS IT Support. These computers can be connected to any XSD beamline network and will get the proper network configuration at boot time. See your host for the proper configuration on a CAT beamline.

If you need to borrow a detector from another beamline that is not part of the APS detector pool, please discuss this with your beamline host, so that they can alert APS IT Support in advance of your arrival. Generally, these computers have the same requirements as other computers discussed in Questions 5

and 6.