Get Connected!

How to Configure Your Computer for MITnet

Red Hat Enterprise Linux
Mac OS X
Windows XP Professional, Vista

Information Services & Technology

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Introduction

About This Document

This document provides step-by-step instructions for connecting computers to MITnet. This document will help you:

- Understand the different methods for connecting to the network, depending on your MIT status;
- Obtain the proper credentials for accessing network services;
- Understand what operating systems are supported by MIT's Information Services and Technology (IS&T) department.

What is MITnet?

MITnet is MIT's campus network, connecting computers in dorms, laboratories and offices. MITnet is also MIT's segment of the Internet, a world-wide network that connects hundreds of millions of computers.

Once you are on MITnet, you can retrieve your e-mail, surf web pages, print to networked printers and chat with others on the network.

How to get started

Here are the basic requirements for connecting a computer to MITnet from a dorm, office or lab on-campus:

Step 1: Get an MIT ID number

To begin the process of creating an MITnet username, you need an MIT Card. Your MIT Card has your identification (ID) number on it. If you don't have an MIT Card, contact the MIT Card Office:

In-person:	W20-021 Stratton Student Center basement 8:30 AM–4:30 PM, Monday through Friday
E-mail:	`mitcard@mit.edu`
Web:	`http://web.mit.edu/mitcard`
Telephone:	617-253-3475

Step 2: Create a username

Every user must have a unique way of identifying themselves on MITnet. In technical terms, this is your *Kerberos principal*, or Kerberos username and password. IS&T uses Kerberos, an industry-standard protocol (developed at MIT) which provides a secure method to authenticate users on networks. Your MIT Kerberos username and password is the same as your Athena, MIT e-mail, or MITnet account.

To register for a username, use a web browser on a computer that is already on the network (Athena workstation , Linux, Macintosh, or Windows) and go to `http://web.mit.edu/register`.

You may also register for a username in person at the User Accounts Office, Building N42 (211 Massachusetts Avenue). User Accounts is open for walk-ins Monday, Wednesday and Friday, 2:00 pm to 5:00 pm; Tuesday and Thursday, 9:00 am to 12:00 pm. You can contact User Accounts at 617-253-1325, or at `accounts@mit.edu` to schedule an appointment if you require a different time. Additional information about User Accounts is available at `http://web.mit.edu/accounts`.

Step 3: Confirm that your computer is running an IS&T-supported operating system

- Red Hat Enterprise Linux 5.2 or 4.0
- Mac OS X 10.5.*x* or 10.4.*x*
- Windows Vista Enterprise or XP Professional

Step 4: Confirm that you have a supported Ethernet or wireless network interface

Ethernet support consists of one of the following:

- A computer with a built-in Ethernet port, or
- A supported network interface card that provides an Ethernet port

Wireless support consists of one of the following:

- A computer with built-in wireless (Wi-Fi) networking hardware, or
- A supported network interface card that provides wireless networking

IS&T's wireless network is compatible with either the 802.11b/g standard.

Students

Students living in MIT dorms can connect to MITnet via DHCP or a static IP address through a network jack located in their dorm rooms, or through wireless access. Free Ethernet cables are available from the Residential Computing Consultant (RCC) for each dorm, or from the IS&T Computing Help Desk in Building N42, located at 211 Massachusetts Avenue.

For students living in an MIT-recognized Independent Living Group (ILG), contact the ILG's network administrator. For students living off-campus, see **Remote Access** on page 4.

Faculty and Staff

On campus, faculty and staff may connect to MITnet via DHCP or a static IP address. Users of desktop computers may wish to obtain a static, or permanent, IP (Internet Protocol) address. To obtain an IP address, first check with your departmental supervisor, network administrator, local expert or administrative officer for an available address that your group may already have. If your group does not have available IP addresses, you may request one from IS&T at `http://web.mit.edu/ist/services/network/ip-request.html`.

Once you have an IP address, you need to configure your computer to access MITnet. For computers which are going to be used from one stationary location on campus, such as an office or lab, there are no additional configuration steps.

Users of laptop computers who wish to connect from locations other than their offices or labs need to register the laptop for DHCP (Dynamic Host Configuration Protocol). DHCP lets a laptop automatically obtain an IP address using Ethernet or wireless in almost any building on campus, enabling the use of laptops in classrooms, libraries, auditoriums and other common areas. See the chart **Connection Options for Faculty and Staff**.

To register a laptop for DHCP, you need the following:

- A supported web browser (see `http://web.mit.edu/ist/topics/browsers/`):
  Red Hat Enterprise Linux: Firefox
  Mac OS X: Safari, Firefox
  Windows XP Professional/Vista: Internet Explorer, Firefox
- An MIT personal certificate; see `http://web.mit.edu/ist/topics/certificates` for more information.

For the actual DHCP registration of the laptop, go to `http://web.mit.edu/ist/services/network/dhcp/dhcp.html`.

Visitors and Alumni

Visitors registered with MIT, and alumni, may connect to MITnet on campus for up to 14 days, total, per academic year.

Remote Access to MITnet

For students living off-campus or for faculty or staff that wish to access MITnet when not on campus, there are several ways to connect to MITnet remotely. See **Options for connecting to MITnet from off-campus** on page 5.

Connection Options for Faculty and Staff

Computer Type	Desired Setup	Connection Options	Requirements
Desktop	Connect to MITnet from an office or lab	Ethernet, DHCP or static IP address	• activated network jack • DHCP registration for Ethernet interface or IP address • supported Ethernet interface
Laptop	Connect to MITnet from an office or lab	Ethernet, DHCP or static IP address	• activated network jack • DHCP registration for Ethernet interface or IP address • supported Ethernet interface
		wireless, DHCP or static IP address	• within range of an wireless access point • DHCP registration for wireless interface or IP address • supported wireless interface
	Connect to MITnet from any building on campus	Ethernet, DHCP	• supported Ethernet interface • valid certificate installed in a supported browser • DHCP registration for Ethernet interface
		wireless, DHCP	• supported wireless interface • valid certificate installed in a supported browser • DHCP registration for wireless interface

Options for connecting to MITnet from off-campus

Connection Method	Decription	Disadvantage	Cost	Hardware Required
Tether	• A dialup connection to MITnet • Bandwith: up to 53Kbps • Allows access to all MITnet services • Can be billed to an institute account, a student's bursar bill or payroll deduction for employees	• Slow compared to other connection methods • Dialup connections can be unreliable • No access access numbers outside of the 617 area code. • No toll-free number	• Free	A 56 Kbps modem
ISP (Internet Service Provider)	• Provides a connection to the internet from off-campus locations • Connection methods include dialup, broadband and wireless • Billing is between the user and the vendor • Most dialup ISPs provide local access and toll-free numbers • Wireless ISPs are beginning to offer nationwide access	• May require additional software to be installed • No configuration support from MIT • Some MITnet services may not be available • Some software (such as an email client) may require additional configuration to function correctly	Rates per hour will vary according to location; for example: • Dialup: $10 to $23 per month • Broadband: $20–$50 per month • Wireless: $30 per month; $6 per hour	Dialup requires a 56 Kbps modem Broadband requires a built-in Ethernet port or supported Ethernet network interface card Wireless requires built-in Wi-Fi (802.11b/g) or a supported Wi-Fi network interface card
	Note: In many places around the work, *free* Wi-Fi service is available to the general public, customers, or guests.			
iPass	• A fee-based service for accessing the internet when traveling with a laptop in the US or internationally • Connection methods include dialup, broadband and wireless • Can be billed to an institute account	• iPass software needs to be installed • Some MITnet services may not be available • Some software (such as an email client) may require additional configuration to function correctly	Rates per hour will vary according to location; for example: • Dialup: $3 to $17 • Broadband: $9 to $23 • Wireless: $7 to $23	Dialup requires a 56 Kbps modem Broadband requires a built-in Ethernet port or supported Ethernet network interface card Wireless requires built-in Wi-Fi (802.11b/g) or a supported Wi-Fi network interface card

A Note from the MIT IS&T Help Desk

Through our call center, e-mail, and walk-in services, the IS&T Help Desk provides a full range of computing assistance on IS&T products and services (go to `http://web.mit.edu/ist/helpdesk`). You can help us in our effort to support you and your computer by paying attention to the following.

Maintain Your Computer—Perform Regular Tune Ups

While we are here to help you if something should go wrong with your computer, you should also be aware that, with a little routine maintenance, you can help keep your computer running efficiently.

For Windows PCs

If you use a PC running an MIT-supported Windows operating system, be sure to run Windows Update to install the latest critical updates, hot fixes and MIT-supported service packs. To update your machine, connect to the Internet and select Windows Update from the Start menu or use Internet Explorer and go to `http://windowsupdate.microsoft.com`. Be sure to install all **critical** patches as they are made available from Microsoft, but wait for MIT's recommendation regarding Service Packs. You may have to restart your machine several times during this process.

Another option to keep your Windows machine up to date is to use the MIT Windows Automatic Update Service (WAUS). This service enables the MIT community to utilize Microsoft's Automatic Update feature with a more conservative selection of patches focused on critical security updates, rather than those available directly from Microsoft. MIT faculty, staff, and students on MIT-owned and personal machines may use MIT's WAUS service.

More information about WAUS, including instructions for subscribing and unsubscribing, are at `http://web.mit.edu/ist/topics/windows/updates/`.

For Macintoshes

Mac OS X 10.3 and later are configured by default to automatically check for operating-system and security updates. You may also check manually by selecting Software Update under the Apple menu. More information on updates for Mac OS X is available at `http://web.mit.edu/ist/topics/macos/updates/`.

Back Up Your Data

The importance of backing up your data cannot be stressed enough. If your hard drive fails or your computer is compromised, a backup can make a world of difference in recovering from such an event. Backups are always advised prior to updating your operating system. More information on MIT backup services is at `http://web.mit.edu/ist/topics/backup/`.

Install Anti-Virus Software

While MIT does its best to prevent virus attacks, no computer is immune to them. To encourage protection of your computer, MIT provides *VirusScan* anti-virus software for free, for Linux, Macintosh, and Windows. For more information about virus protection at MIT, go to `http://web.mit.edu/ist/topics/virus/`.

Once installed, VirusScan is configured to update your virus definitions automatically. (Before installing VirusScan, remove any other anti-virus software.)

Choose Strong Passwords

Weak passwords can be guessed, thus giving someone else access to your files and your system. Create passwords that are at least eight characters long, containing numbers, upper and lower case letters, and symbols. More information on creating strong passwords can be found at `http://web.mit.edu/ist/topics/network/passwords.html`.

How to Contact Us

The IS&T Help Desk is available to assist you. If you would like to speak with someone 'live,' our call center hours are Monday through Friday, 8 AM–6 PM. You can reach us via telephone at 617-253-1101 (on campus, 3-1101) or via e-mail at `computing-help@mit.edu`. You may also submit a request using the Web at `http://web.mit.edu/ist/helpdesk/help-form.html`. In order to assist you, we may need to ask several questions during your call. Here are some of the questions we may ask you :

- What is your e-mail address?
- What is your telephone number?
- What kind of computer do you have? Or printer?
- What is the hostname of the computer or printer?
- What operating system are you running? What version?
- What service packs or updates?
- How long have you had the problem you are currently experiencing?
- What is the device's IP address?
- What is your jack number?
- What version of the software are you running?
- What are the exact error messages you are receiving, if any?
- Have you changed or installed new software or hardware?

We look forward to hearing from you, and to helping you!