

High-Speed Internet/Cable Modems – Basic Information for Boxborough Residents

Starting in mid-April, Comcast will be offering a new service to Boxborough residents. This service will provide high-speed Internet access via a cable modem. The purpose of this document is to provide you with some very basic information about cable modems and how you can use them for single or multiple computer systems. The goal is to help you understand the issues involved and not to recommend a specific solution.

If you are interested in this new service, you probably already have a computer and you use a telephone line to dial up your ISP (Internet Service Provider like AOL or RCN or Earthlink). You use a telephone line modem to do this but the actual modem is probably inside your computer box so you just plug a phone line into the back. A cable modem works in the same manner as your current modem but plugs into the television cable that comes into your home instead of the phone line. If you do not currently have a television drop next to your computer, you can have Comcast install one as part of the cable modem installation. The cable modem is a standalone box. It plugs into a wall outlet for power and into a television drop to connect to the cable system. The connection to your computer is via a network connection – either standard Ethernet or USB (Universal Serial Bus). Most current computers support one or both of these connections. If not, you will have to add the appropriate hardware to connect the cable modem. The software to support the cable modem comes with it.

Current cable subscribers should have received a brochure on Comcast High-Speed Internet along with an updated channel listing. There is also information available on the Comcast website (see below for web pointers). You need to acquire the cable modem and then subscribe to the service to support it. The cable modems can be rented from Comcast (\$3 per month), bought from Comcast (\$139), or purchased from one of the local electronic stores like Best Buy, Comp USA, or Circuit City. The service is in the range of \$43-\$58 per month. There are two options for installation – one is to have just the video cable installed and the second is to have the modem installed, connected to your computer and the software installed.

Once you are up and running on the cable modem, you will be using Comcast as your ISP. This means your email address will change to something@comcast.net. You will probably want to keep your current ISP account active for a few months until you can be sure that you have notified everyone of your new email address. This implies that your computer must be set up to allow you to read email from the two systems. You can always continue to use your current ISP and just access it via Comcast but you are then paying for two ISP accounts each month. If you are using a national ISP like AOL or Earthlink, check with Comcast to see if they provide any special sharing arrangements with them. AOL just announced a new Broadband AOL service.

There are two areas of computer security that you need to consider in the use of any cable modem system. The first is antivirus protection for the computer itself. Any computer system connected to the Internet should have one of the standard antivirus programs installed. The virus definition files used by these programs are constantly being updated –

at least once per week. It is essential you have your antivirus program set to do automatic updates. The cost of this level of protection is about \$30 per year and well worth it.

A cable modem Internet connection is “always on”. This is a great benefit to you as it provides instant access without waiting for the system to dial up. However, it also makes your system more of a target for anyone wishing to obtain access to your computer. The two current greatest threats are gaining access to data on your hard drive and using your system as a base to launch attacks on other systems. The standard solution here is a device called a firewall. It is either a separate system or software added to your existing computer that watches over all Internet traffic on a specific connection. Many of the antivirus programs now include a software firewall as part of the standard system or as a separate product. The newer systems are starting to include such capabilities. For example, Windows XP Home Edition has a built-in firewall (disabled by default).

The simplest way to add a firewall is to use a standalone hardware version. It is a small box that is connected between your cable modem and your computer. They are readily available for under \$100 and also provide the capability to connect more than one computer (see next section).

Several of you probably have more than one computer system in your house. In the past you may have just shared a phone line and dialed up the Internet as needed on a shared basis. Small home networks have become popular in the past few years. All the systems are connected to a network hub/switch and this allows files, printers, and an Internet connection to be shared by all systems. This is the best way to share a cable modem connection. The systems can be connected by wires (CAT 5 cables) or by use of wireless links. The cable modem is plugged into a small box called a router that will make the Internet connection available to all the systems.

There are a wide variety of routers available for the home that combine the cable modem interface, a hardwired network interconnect (usually a 4 port switch), a firewall, and may also incorporate wireless capability. There are just starting to be units that also incorporate the cable modem itself. In addition to wired and wireless networks, it is now possible to use your home power lines to build a home network. The wireless and power line systems are useful if you do not want to string CAT5 cable around your house.

There are some additional security considerations for home networks. Wired networks are quite secure. The signals from wireless networks can be detected throughout your neighborhood and those from power-line networks by any other house on the same side of the power transformer. Be sure to enable security and encryption on any wireless or power-line network.

This document describes the residential high-speed Internet offering from Comcast. They also provide a set of business services including different levels of Internet access and web hosting services.

See www.comcast-ne.com for more details on their high-speed Internet offerings. In particular, see http://www.comcast-ne.com/internet_faqs.html and <http://www.comcast-ne.com/internet.html>.