Stream Video Smoothly on a Wireless Network

DIGITAL VIDEO QUALITY is all about bit rates. Usually, the higher the throughput—whether for streaming clips from the Web or for zapping TV around the house—the better the result. So if image quality is important to you, upgrade the wireless network that transports your images.

If you just want to watch YouTube videos or the current generation of iTunes video downloads (which are standard-definition), even a good 802.11g Wi-Fi router will handle bit rates to about 5 megabits per second. Of course, pictures at this rate can’t match the quality of DVDs or cable TV, especially if you have an HDTV.

Commercially made DVDs use MPEG-2 compression at peak bit rates of around 10 Mbps (an average rate of about half that). Typical high-def camcorders have peak recording rates of 19 Mbps for 720p, or 25 Mbps for 1080i, using a form of MPEG-2. To stream this sort of video, you need a draft-802.11n or MIMO router, which provides the speed and range to support high bit rates (we achieved real-world throughput of over 50 Mbps in tests; see find.pcworld.com/57793); in addition, special quality-of-service (QoS) algorithms in the routers give priority to streaming media data packets over, say, downloading the latest Windows OS updates. You also need to buy matching draft-802.11n adapters for all the devices you’ll stream video to or from (or you’ll have to connect them via wired ethernet). The Wi-Fi Multimedia standard, 802.11e QoS, must be supported at both ends of the connection; the product’s box should say whether or not it supports this standard.

Now that you have the plumbing down, here are a few more streaming tips:

- Use the best connections possible between your PC or media server and your TV. In order, from best to worst, they are as follows: HDMI or DVI, component, S-Video, and composite. Having high-definition 720p video on your media server won’t matter if your home theater relies on a composite connection. You can purchase a device such as D-Link’s DSM-520 Wireless HD Media Player with HDMI for about $240 online (find.pcworld.com/57794).

- When compressing your own home movies for streaming, use the highest playback quality that your setup will support. Perform some test transfers to determine the best combination of compression and frame rate. In most cases, MPEG-4 or H.264 will be the best choice.

- If you plan to view your home TV remotely via Sling Media’s Slingbox or Sony’s LocationFree video server, make sure that your broadband Internet connection has an adequate upload speed for the task. DSL and cable modems are usually asymmetric. A 3-Mbps download speed may be matched with a 400-kbps upload speed, which will limit your video quality. You can check your connection’s upload speed at www.speedtest.net. We recommend a threshold upload rate of 600 kbps for reasonably smooth remote Slingbox viewing in a medium-size video window. On a local network, our Slingbox slings at between 1 Mbps and 2 Mbps—good enough for full-screen viewing.

—Becky Waring

Autocompress the E-Mail You Send

IF YOU NEED to send fat files via e-mail, your ISP—and every other ISP on the planet—disdains you. As often as not, they’ll block any file or group of files you try to send that exceeds a predetermined size.

You can use the compression built into Windows (or use a third-party compression app such as the $30 WinZip; visit find.pcworld.com/57817 for the free trial) to zip files before sending them, but that process takes too long. So instead, use Outlook, Outlook Express, Vista’s Windows Mail, or another e-mail program to zip files on the fly.

Create your message and click the attachment icon. Select the files you want to attach, and right-click the group (or the file, if you’re sending just one). Next, choose Send To > Compressed (zipped) Folder. A new file with compressed versions of the selected files is created. Windows names this version the same as the first file in the group, but with the `.zip` extension. Rename the file if you like; then select it, click Insert, and send it on its merry way.

If you use Outlook and are willing to spend a little, use the $20 WinZip Companion for Outlook (find.pcworld.com/57819), which zips all of your attachments automatically as you send them.

—Preson Grulla