

The Network Connection – a jack with multiple uses

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More and more manufacturers are now fitting their PVR receivers with not only the standard USB 2.0 jack but also a network interface, whether it's wired or wireless. The reasons for this are actually quite obvious: if you've ever tried to link components via USB 2.0 that are more than 10 – 15 meters apart, you would already know that you are approaching the limits of its capabilities.

Manufacturers are running into customers that have their receiver's set up in the living room but have their PC's installed somewhere else such as in an office on the second floor. Incorporating network technology actually saves manufacturers quite a bit of extra



FTP access on a Topfield receiver via an Internet connection

work. While USB connections require the use of additional drivers and programs in order to transfer recordings, this necessity all but disappears with a network connection thanks to standardized protocols such as FTP; every usable tool can be

put into service without any problems.

And let's not forget that a network connection also gives you access to the great wide outside world; that is, if your Internet connection and router are prop-

erly configured, you can access your hard drive from anywhere in the world.

This can be very practical if you happen to be away on business sitting in a hotel room and want to confirm that your programmed timer recordings all happened as planned. But it also offers totally new possibilities such as the legal exchange of video recordings. This would allow, for example, relatives in the USA to directly access native-language recorded programs from a receiver's hard drive and easily transfer them via the Internet. All you need is someone on the other end to set up and take care of a receiver and arrange for an Internet connection.

While many manufacturers slowly but surely are recognizing the advantages of a network connection, others are quite a few steps ahead. In addition to FTP, the Internet works primarily with the HTTP protocol; why not give the receiver its own web server?

The possibilities that would then be opened would be fascinating: imagine you are working with your PC and it suddenly dawns on you that you forgot to set the recording of your favorite TV program. Normally you would have to get up and walk to the living room and start the recording on your receiver manually. But if you happen to own a receiver with a network inter-



Direct Internet reception of a satellite receiver via the web interface of the receiver





A video stream, for example, from a satellite receiver is received via the Internet using a Slingbox

face that offers the required functions, you could then stay in your seat and access your receiver's control center from your web browser.

Depending on the make and

model of the unit, nearly every function is made available to you. The basic functions are the same in almost every model: you can start and stop recordings, timers can be set

and existing recordings can be deleted, moved, renamed or copied to the PC.

Other manufacturers take it a step further and offer the full control of your unit through the use of a virtual remote control that is blended in to the screen. In other words, you can control and activate all of the functions of your box as if you were standing directly in front of it.

Even here you have to think ahead. You might be thinking to yourself that these features might not really be necessary since walking from your office to the living room occasionally might not be a bad thing. But to be able to control your receiver from your hotel room while on vacation, that's where these features would really come in handy.

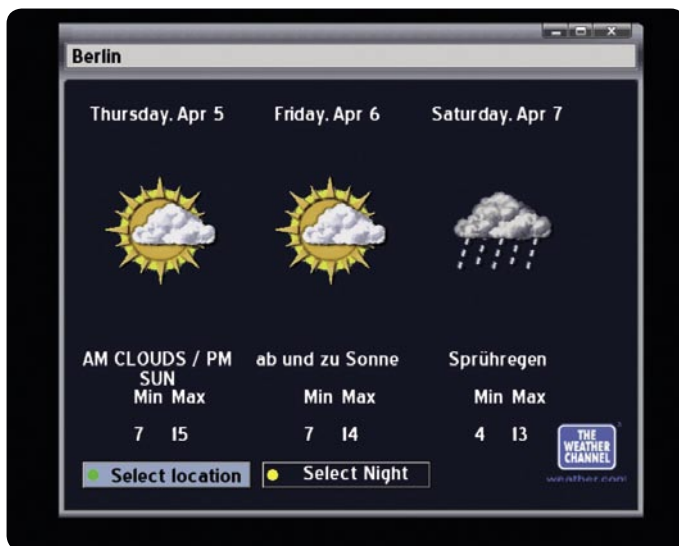
With such a receiver, you would be able to control and utilize it from any point in the world. One of the larger set-top-box manufacturers was especially brilliant and included alarm and security functions in

the unit. Before you go on vacation, connect your receiver to a small video camera and position it, for example, in the vicinity of your front door. While you are away, you can at any time check to see if everything at home is still as it should be and that no one decided to break in while you were gone.

The more control possibilities your receiver has, the more important security tends to become. No doubt you wouldn't be all too happy if someone decided to access your digital receiver without your permission and inflicted damage such as deleting your recordings or your channel/favorites lists.

For this reason, most manufacturers did not forget about your security and offer password access to your FTP and HTTP connections. Of course, this feature can be deactivated if you're dealing with nothing more than your own internal network at home.

The third interesting possibility with a network connection



The receiver displays weather data acquired via the Internet

has to do with streaming services. This all belongs under the heading IPTV, something you may have been hearing more and more about over the last several years.

Besides Internet and telephone services, every Internet provider with a reasonable reputation also offers IPTV. This

is becoming more and more popular thanks to the higher bandwidth Internet connections that are now readily available. Unfortunately, these extra services are still somewhat expensive and watching TV on your PC isn't really all that much fun.

But think about the worldwide applications of this technology

and imagine this situation: you are on vacation somewhere in the Caribbean but still don't want to miss the eight o'clock news from home. Unless you're from the USA, the chances of finding this on some channel on the hotel TV are slim to none.

So why not grab your laptop, establish an Internet connection and watch that news program live via the Internet? All you need to make this happen is a set-top-box with a network interface and audio/video streaming capabilities plus a hotel with a high-speed Internet connection. In conjunction with the FTP and HTTP services of your box, you can not only control your receiver from afar, but also view audio and video from your receiver.

If these possibilities sound intriguing to you but you happen to have a box without a network interface, have no fear, there are other ways for you to construct your own IPTV system.

Elsewhere in this issue of TELE-satellite we provided a

report on the Slingbox, a device that can take any signal source and distribute it as an IPTV stream in your local network or over the Internet. Thanks to the included IR transmitter, all of your other electronic devices such as your TV, VCR, DVD player, satellite receiver, etc., can be activated and controlled from a distance.

The fourth and (for hobbyists) most interesting application would be the accessing of data through the set-top-box via the Internet. While most of the larger manufacturers use this practical feature for software and channel list updates, there are some that have taken this a step further to make their receiver just a bit more interesting. The fun begins with some small gadgets that can, for example, display current weather data or inform you of newly arrived e-mails. It can go as far as providing access to the Internet so that you can download a variety of useful programs such as MP3 players, picture viewers, etc., directly to your set top box.