

# What's the IP Address of My TV?

The television industry in the United States can be broadly classified into three categories. "Commercial network television" is available free of charge to everyone, non-commercial "public television" is also available free to everyone, and "cable television," which is not free. Let us examine each category and understand their differences. Network TV is free for the viewer. Since it relies on the revenue from the advertisers on the medium, and since there is a big competition between the networks over the ratings, all the networks constantly try to improve their services. Public television (PBS channels in the US), on the other hand, does not compete with other stations and, therefore, does not worry much about the ratings. It relies on the support from viewers who find its programming valuable. The inherent, non-commercial nature of this service has its own advantages and a lot of viewers find an alternative taste in this category of broadcasting. Cable TV, contrary to the other two, is not free and is provided only to paid customers via a dedicated line. Since cable TV is a package deal, there are more specialized channels. As a service to the customers, most cable TV service providers carry the "free" Network TV and PBS channels on their "basic" package.

The television industry provides information and entertainment to the people. Although there is a broad range in the supplied services, it is only a one way street. What is lacking is the availability of entertainment or more information "on demand." (There are certain movie and music channels on some cable TV services that do provide a selection from their choices for a fee.) What it lacks most is the ability for the viewer to find out more details about a certain piece of information given on a news oriented program. New technology is being applied to patch some of the short comings of television and to combine other communication mediums with television technology.

There are two distinctly different trends in the television industry. One is to provide all the "on-the-air" programming via a dedicated cable to the consumers with several hundred of other cable-only channels. The other trend is to provide competition to the previous type of dedicated services via direct satellite broadcast of several hundred channels. The Cable trend has the advantage of being able to implement with very little initial cost to the viewer. The satellite trend has the advantage of being a free service once you make the initial purchase of the required equipment. It is estimated that the next generation "dedicated" satellites will be able to broadcast 500 or so TV channels to relatively small receiving antennas with the picture and sound quality comparable to that of a dedicated cable connection. The initial equipment purchase would not exceed a few thousand dollars. If this trend is continued, most people will opt for the satellite connection over cable connections which tend to charge a monthly fee. However, this has not discouraged the cable TV industry. Since a dedicated wire to each and every customer can carry more than just a few television stations, the cable TV giants are now teaming with other service providers such as local and long distance telephone companies. Providing TV and telephone services is not their only intention. The next step is providing data, interactive television, Internet services, paid dedicated computer

connections to specialized data banks, and other services over the same connection. The satellite industry will not take this lying down. It is also experimenting with the idea of providing certain Internet services such as the Usenet via "regular broadcasts" to receivers scattered around the country.

Before we gaze into the crystal ball to see what the future holds, let's look at the main fault of today's TV industry. The fault, as I see it, is that the TV dictates what and how much of it that the rest of us should receive. Most TV programs lack a contact point for us the viewers to provide a feedback. Most of the time, it involves writing to the TV station or the parent network station. This means, we are faced with the problems of finding out addresses or phone numbers to contact the "right" person. Most entertainment programs do not have a feedback point other than their ratings. For instance, a recent NBC sitcom "The Good Life" episode ridiculed Buddhism. I wanted to convey my strong opposition to distasteful use of a religious faith. However, there was no quick and easy way to do this since the local TV station that carried the program was not responsible for the creation and neither was its parent network. The production staff and writers are not easily reachable by the average Joe viewer. Another aspect of this lack of feedback is the inability of the viewer to get at information that he or she needs in a timely fashion via a TV news broadcast. This is best illustrated by an example. After the recent earthquake in Los Angeles I spent few hours in front of the TV, switching between network and cable news channels to finally see the map of the badly damaged areas. The first thing that I wanted was to find out if the area in which my family lives, which is less than 5 miles from the epicenter of the quake, was effected badly or not. What we need is interactive television. Being able to go deeper into the stories that we are interested and disregard other stories that the television people think that we ought to know. There is only one TV program that I know of that has made this feedback a little easier. Now you can reach NBC Nightly news via e-mail at <nightly@nbc.com>. Hopefully this is a step in the right direction and other programs will also be easily reachable via phone or e-mail without us having to dial a 900 number.

In the development of cable TV service providers giving us everything but the kitchen sink via a dedicated line, Bell Atlantic and the cable TV giant John Malone have indicated that they will wire all the schools, kindergarten through grade 12, in the Bell Atlantic service areas to be able to be "on the net" within this year as a donation. PSI, another giant commercial Internet provider in Northern Virginia, has made plans to combine its services with a cable TV giant. This leads us to the question of "as consumers, are these mergers of service providers in best interest to us?" Some analyst see it this way. Information, entertainment, data transfer, and computer services are fast becoming a one giant industry. Therefore, there should be a cooperation between the major players in order to develop this massive "information super highway." Only after this cooperation of commercial companies can this information highway be established. Others see it differently. Information should be free to everyone. If the information providers merge with each other to give us a "selection" of just one company, they will be the masters of information. The consumers will not have any option but to pay outrageous service charges to get at the information. It is believed that this proposed information super highway will have toll booths at every intersection.

It is true that there should be a certain cooperation among the industry leaders to agree on a standard. However, agreeing on a standard is vastly different from being partners and agreeing not to compete with each other. On most areas of this country we have a "selection" of one cable TV provider and one local phone company. If we are going to put all our eggs in one basket, then we'd better safeguard that basket like our freedom depended on it. Because, our information freedom WILL depend on it. This means, that the "one stop service provider" will have to be well regulated by the industry, the government, and the consumer groups.

Some people will wonder what the connection between television and data transmission is. The connection is that even in today's TV broadcasts, it is possible to send data between vertical blanks between the pictures and sound without expanding the broadcast bandwidth. (It is possible to get plug-in boards, for even PCs, to decode this information from experimental broadcasts. If you are interested in more information on this, please check the anonymous FTP site <[sunsite.unc.edu](ftp://sunsite.unc.edu/pub/sun-info/sunergy/)>:/pub/sun-info/sunergy/) The proposed information highway will have a much more broad bandwidth to carry a lot more information such as data, sound, pictures, etc. Moreover, digitizing everything in sight seems to be the trend these days. Hence it will be possible to transfer everything via a data network. Also, interactive television will need a much more computerized network than the cable TV network of today.

What this all will come down to is that one day our computers, televisions, VCRs, telephones, video-phones, stereos, and even microwave ovens will be somehow or the other tied to the "net." "Document transfer," "going shopping," "working from home" and "going to the movies" will all have different meanings when the TV comes with a built-in ethernet card.

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