

BPL & Why It Doesn't Work

In today's society, complete access and speed are considered to be at the forefront of all services. On the surface, this attitude continues to be the driving force in today's market. But, we must consider the disadvantages, as well.

It is my hope that with this brief description of the pro's and con's of BPL – based on what I've read thus far, the FCC will consider these issues with the same intent and perseverance it has shown in all other matters within its jurisdiction.

Pros:

1. BPL technology would allow for internet access to all homes which currently receive power from either overhead or underground lines.
2. Because most homes already have power lines in place, there is little need for any further hardware installations – with the exception of a filtering device to segregate the electricity from the signal and the modem, making access to the Internet fairly cheap to distribute to prospective customers.
3. Rural areas would have a reasonable method for obtaining Internet access.
4. Let's not forget the additional income for the provided service, which will be disbursed according to the executives in charge of running the power companies.

Cons:

1. BPL service would be provided on a system that is already beginning to show obvious signs of wear and tear. Hence, the black-out in August of 2003 and all the findings based therein on a very thorough investigation.
2. Users of this service would experience interference from any device – internal to their home or outside of their home, making their Internet experience extremely unfavorable. The interference would still be considered 'legal' interference, according to the current regulations enforced by the FCC. To note, that interference would come from any device generating a signal between 1 and 60 MHz, roughly.
3. Amateur and Government Radio Services (whether Federal or local) may receive interference due to the deployment of this service.

Technical Basis for ‘Cons’

When studying for my Technician class Amateur Radio license, I learned quickly that any wire – no matter the shape or size, could be used as an antenna. In fact, some Amateur Radio operators prefer to use wire antennas. A decision based loosely on their preferences (of course) and their current station set up, as well as environmental issues and/or concerns. In effect, these types of antennas – depending on station set up and terrain can be more efficient than any largely manufactured roof mounted antenna for the same purpose. I, myself, have two wire antennas installed at my aforementioned address. On the lower segments of the Amateur Radio frequency spectrum, these types of antennas become even more efficient. In fact, with a power output of 5 watts, these antennas are capable of sending that small amount of power half-way across the world. This is possible with even lower power than the aforementioned 5 watts.

Based on the information in the above paragraph, it is extremely possible for the signal radiated by the BPL services to propagate throughout the area easily. It may even propagate through different states. There are other variables for this to occur, of course. However, those variables are not far fetched. In fact, most Amateur Radio operators look forward to those variables. The lines used for power transfers are not dissimilar to that which is used for making wire antennas. The most obvious difference is that these lines are much thicker in diameter than what is normally used for antenna making purposes by Amateur Radio operators.

As a LAN Administrator, good ideas on data transfer are always welcomed. But they must have had thorough testing before implementation. There are always problems that MUST be worked out. BPL is a good idea. However, there are not enough safeguards to prevent interference – both to and from the user. If I’m not mistaken, I’ve already read that there are interference issues in some of the BPL test areas. The power companies that are testing BPL have also already indicated to the FCC (again, if I’m not mistaken) in a letter, that the issues are minor and will not be addressed because of the specific regulations which the FCC enforces – or in this case, what is not enforced. In the private sector, this type of ‘It’s not my fault’ attitude would never be tolerated.

Allow me to end my comments with a single scenario...

...A family is at home watching TV. The father decides to use his computer to download some information on a company which he is interested in – for whatever reason. A siren goes off, indicating a possible tornado in the immediate area. The family is able to move to a safer location before the tornado hits. They avoid the destructive forces and live through the event. However, their home is damaged by the tornado, forcing them to gather the little they have and admit themselves to the shelter, which the American Red Cross has opened in the High School 3 streets away. There is power in parts of the area. The Red Cross headquarters is on the other side of town. They have already set up several shelters and are now looking for Amateur Radio operators to man the shelters.

The operators have arrived and realize that there is a large amount of interference that they cannot pinpoint or ignore. Messages are not going through clearly to the Red Cross headquarters and families are waiting for these messages so that they can be informed of their sibling's status. The father is a diabetic and requires insulin to sustain him. Because of the interference, a message cannot be sent in an appropriate and timely fashion. This man's life is threatened, all because BPL was needed in this particular rural area, which could have easily used satellite technology for Internet connectivity. Which do think the father would prefer now?

I thank you for taking the time to read my comments and hope that you will consider ALL aspects of BPL technology.

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