There is much debate on how to connect to the internet. On the one side, there are those that think a wired connection is the best way, and on the other proponents would rather a wireless connection. Let’s take a look at both of these and see for ourselves.

The older of the two is the wired connection. This type has been around for what seems like forever. This being the case is one of its strong points. With this long history, the wired connection is over 99% reliable. It is also pretty cheap. The cables and wires are readily available and well within most everybody’s budget. The real cost of the wired network is in the time needed to install it which is one downside. The transfer speeds over a wired connection are generally better and faster. This can also be a con as well. Not all areas, especially rural ones, have the broadband infrastructure to even get a decent connection, and could possible still be stuck with the despised “Dial up” connection which in some ways is not much better than not having a connection at all.

Security and maintenance are some other issues to look at when looking at the wired connection. The maintenance of a wired network is pretty simple, but can at times be costly. If
a wire goes out, gets cut, or succumbs to some other misfortune, the wire itself is relatively cheap to replace. The down side is that if the wire is in a wall it can be very costly to get to it, replace it, and fix the wall. If the wire is outside the home, or some other building, the owner of the line could take a long time to fix the problem leaving you with nothing but down time. The wired connection can be really secure. The only way to get through to the computers on the wired network is from an external location. With a hardwired, hardware firewall at the point the connection comes into the network, and a software firewall on all the computers security can be incredibly tight. Not perfect, but really tight.

The major downside to the wired connection is all the exposed wires. They can be unsightly, costly to conceal, and downright annoying. Also if there is ever a need to expand the network, you have to install a new set of wires every time which adds to the overall cost, and complexity of the network which is possible a money and time sink.

The other type of connection is the wireless connection. This is the younger of the two, and could still be in the debugging and growth stages of its evolution. The main benefit of this type of connection is the comfort and convenience it provides. As long as there is a signal you have a connection. The downside here is that the signal can suffer from interference, and somewhat slower transfer speeds. These problems may not be a severe in the future as the technology gets better, and the signals get stronger and more specialized. Another major downside is the cost. Sometimes the cost of the equipment such as routers, repeaters, and wireless cards, can sometimes be cost prohibitive to some. If you have an older computer it is sometimes hard to find the parts for an upgrade, or you might just have to buy a new
computer. Laptop computers usually come equipped with the needed hardware. The price of these computers is coming way down and readily accessible to most budgets. The costs of routers, and other types of hardware, are coming down as well. Companies like Charter, Comcast, and AT&T, are making the wireless network an option for their customers. The cost is nominal and included in their normal bill, and the company has technicians come out and install it for you. This can be a major benefit when it comes to getting a wireless connection. It also makes the maintenance costs and hassles go way down. You may have to wait a few days for the technician to come out, but the cost is included in the regular service price. Another thing about wireless connections is that it doesn’t have to originate within the home or office. The proliferation of cell phone transmission towers allow the internet to be delivered over a cell phone signal. There are products that can create a mobile hot spot anywhere you can use a cell phone. This increases the potential for a wireless network to be anywhere. As this technology increases in power and decreases in cost the potential and value of the wireless network can only increase.

Security for the wireless connection is a little more complicated than the wired connection. The signal is sent out without discrimination, and can be tapped by anyone within range. Most wireless routers come with built in firewalls, and usually need to be turned on and configured. Wireless connections can be encrypted and require a code to access them. The computers on the network all should have a software security suite whatever connection they use. These security measures can make the wireless connection almost, if not as, secure as the wired connection. The expansion of the wireless network is so much easier, and cheaper than it wired brother. All that is needed is for the computer to connect with the signal. There may
come a time when there needs to be a signal booster added to accommodate the number of users, and to pass through any obstructions presented in the network range. These boosters are not too expensive, and most likely not be needed for smaller networks.

The technologies that are around now really make the two connections very similar when it comes to cost and security. To me the main factor that would inform my decision between the two would be that of comfort, convenience, and expansion potential. I, myself, have opted for the wireless network. The cost of the changeover was about the same as a broadband wired connection upgrade, and the convenience of not having to deal with all the wires was a major plus. The time invested on the install was a one-time thing. The ease of expanding the network is a plus and only requires handing out the code to connect. The download and upload speeds are about the same, and seem to be just as reliable. This might not be the case on a high volume network; however there are options for more bandwidth for a relatively small increase in cost. The security concerns are now really no different than those of the wired networks I’ve used. The software security, which I can download from my service provider, is factored into the overall price of the service. To me, the wireless LAN is the way to go. I would still keep the large scale wired networks on the larger scale infrastructure level. As more time passes, the need for an upgrade to any network will need to be done, and as the benefits of the wireless network grow, and the cost goes down it will be cheaper in the long run.
Sources:


