A static notion of broadband is not a good plan. The current definition of 768 kbps is terribly slow. Today, 10megabit should be considered low speed, 100meg high speed and 1gig a future goal. As commonly deployed speeds increase, the services available online will take advantage of those faster speeds. For example, back when we were on dial up modems, no one would dream of downloading a 500 megabyte TV episode from iTunes. As we moved to 1.5 megabit connections, that 500 megabyte show became hard to endure but feasible. No one would tolerate the time it would take to download a 1.5gigabyte HD download from iTunes. With 10mbps and now 50mbps connections more common, the higher resolution files are feasible. People don't understand megabit though. Picking a base speed might be a good idea (10megabit as the base). A 50 megabit connection would be a 5x broadband connection. 100 meg would be 10x, etc. Speeds less than 10megabit/sec would not qualify as broadband. Speed isn't the sole determining factor in the quality of a connection.

When the internet first came about, every computer on the internet had a globally unique IP address. As every device had a globally unique address, any device could communicate directly with any other device (the end-to-end model). As most homes only had a single PC or device capable of getting online, this wasn't a problem. Now the number of devices has exploded and IPv4 addresses are in short supply. The most common solution has been NAT devices. NAT devices break the end to end connectivity model of the internet. They still provide customers with a way to gain access to most services on the internet from multiple devices even though their ISP only provided a single IP address. In most cases, ISPs provide a globally unique IP address, leaving the consumer to provide the NAT. NATs break a lot of protocols such as IPSec (used for VPNs) and they disallow incoming connection. When the consumer controls the NAT they have the option to configure it to work around some of these shortcomings. Most NATs these days support protocols like UPnP and NAT-PMP that allow computers to talk directly to the NAT and find out what the shared global address is as well as request a port for listening. While this isn't the true end-to-end model that can enable innovative technologies like Skype, it does provide enough of a workaround for most ISP customers. Some ISPs provide a NAT address already. Customers of these ISPs have no opportunity to coordinate for incoming connection. A Broadband connection must provide at least one globally unique IPv4 address or a globally unique IPv6 network prefix from which the customer may allocate as many address or subnetworks as the prefix will allow. A broadband provider must not do any filtering without permission from the customer and may not charge extra to eliminate the filtering. Throttling under network congestion must not be confused with filtering. This will ensure that all "Broadband" customers will have unfettered end-to-end connectivity allowing incredible technologies like Skype, Apple's Back to My Mac and World of Warcraft's peer-to-peer

distribution of updates.

The finally component that has a huge impact on a customers Broadband experience is latency. Technologies such as Satellite provide fairly fast connections but those connections have terrible latencys. 3G internet access has a similar problem. The round trip time on these networks kills user perceived performance. A round trip time of less the 50milliseconds is reasonable. Round trip times longer than that make web browsing painfully slow.

in Summary:
- Broadband speeds should be at least 10megabit where 1x is 10megabit, 5x is 50 megabit and so on
- Broadband implies basic end to end connectivity with at least one global IPv4 address and/or a global IPv6 prefix without any firewalls or filters (throttling is okay)
- Round Trip Times must be advertised. A similar 1x model should be determined for round trip times so customers signing up for services such as 3g or satellite may understand the consequences of those technologies.