How to Choose an Internet Service Provider

Internet. More important and more confusing than ever! As we rely more and more on our connection to this wonderful resource, we also become more reliant on having a reliable, fast connection within a budget. That's the kicker. We love choices, but sometimes too many is just plain frustrating or too costly. We often get caught up in the marketing of high speeds for low cost but the real question should be 'how much does it cost my firm to be down per hour'? Lost business and lower employee productivity can be calculated, but items like customer relationships and support are more subjective, but not less important.

Technologies have changed and so have the providers. Many business owners, and even professional IT staff, have trouble keeping up with what's available and from whom. Each day, more and more firms are changing the way they communicate. Due to frustration and uncertainty, many people turn to ask a trusted source for some advice. As your trusted source on managed IT, this is our take on how to select an ISP…

There are plenty of internet provider options and then even more options within each company. Even if you know a few 'brand names', like AT&T or Time Warner, calling them and asking for internet service is like calling a restaurant asking for food. In order to satisfy your internet hunger, you will need to answer a few questions so the carrier can match your needs with the most appropriate service or technology.

Cost always enters the decision process, but it should not be what you start with. Paying for a service that does not meet your needs is worse than overpaying for something that does. We'll try to keep you from doing either.

Understanding Your Internet Connection Options

First, let's look at a few of the more popular technologies used by small to large businesses:

DSL / Co-Ax cable

These technologies are designed for small offices with basic needs. Typically, download speeds are faster than upload speed because they were designed for residential home use where downloading information is the primary use. These connections tend to work just fine for small office/home office where a few people are using email and surfing the internet.

The main benefit is cost and ease of installation. These are usually the lowest cost options and can be installed in about 10 days. What to watch out for is the marketing genius of 'up to' speeds. You may sign up for a 15 mbps x 5 mbps (the higher number is the download speed, the

lower number is the speed you can send information), but there is no minimum guarantee of the speed since these technologies are distance sensitive. The farther you are from the signal source, the slower the speed. Unfortunately, until the service is installed, you will not know the exact speed you will get. In addition, these are called 'shared services' so your speed will fluctuate depending on what your neighbors sharing the service are running too.

Due to the change in speeds and lack of control over the connection, this service is not recommended for hosted VOIP or higher security needs and lands at the bottom for reliability and speed of repair. If connecting to the internet is critical to your operation (you lose money or customers if it's down), you should look at investing in a higher grade connection. If your needs are basic and outages do not affect your business, then these will be good choices to consider.

T1, DS1

This technology was the standard for medium to large businesses for decades. A T1 or DS1 is a pair of copper wires where electric signals carry your voice and data transmissions. They run at 1.544 mbps no matter who you get them from. Years ago, before fiber became cost effective, companies could bond (connect) these copper wires together to make a larger, faster connection. Bonding 2 sets of wires gave you 3.0 mbps, adding a 3rd gave you 4.5, etc. This connection is very reliable and takes priority over DSL/Co-ax cable in a repair situation. This technology still has some relevance, but is being replaced by fiber optic connections as those networks are being built out and more affordable.

Wireless

Wireless includes line of sight, radio and cellular. Line of sight simply means the dish sending the signal needs to be able to 'see' the dish receiving it for it to work. In some circumstances, companies can 'bounce' the signal off buildings to get it to work, but it is subject to weather conditions, landscapes (trees, hills and buildings) and even flocks of birds. In an open campus setting, where buildings are close, terrain is flat and there are no obstructions, this is an option to consider. The bandwidth is similar cost to T1, but are not reliant on wires which makes it a more reliable connection. Wired connections are subject to outages since lines can be cut or damaged in the ground or on telephone poles.

Cellular is the most reliable wireless connection since the network is not subject to terrain. The main issues with cellular is how it is billed and speed. Unlike other internet connections, cellular charges based on consumption (like a cell phone data plan) and speeds are similar to DSL/Co-ax cable. Costs can skyrocket depending on the amount of information you need to move from month to month and your speed will be slower than fiber. A cellular wireless can be a very effective backup to a faster cable, bonded T1 or fiber connection because of cost (less than $100) and rare usage. Think of it as an insurance policy.

Fiber

Due to network expansion and reliance on cloud based applications, fiber has become the new standard of connectivity for many businesses. The trend of moving servers off site into secure data centers, mobile devices accessing the network and internet based software platforms have created a need for faster, more reliable connections to support these changes. Where fiber

traditionally has been expensive with limited availability, carriers have aggressively built networks over the last 10 years which now reach over 90% of U.S. businesses.

Fiber is faster because it uses light waves rather than electrical impulses and a strand of fiber has higher bandwidth capabilities than copper. Although initial installation takes longer - about 90 – 120 days is standard - it is a technology that allows for easy growth. Once fiber is installed, increasing the speed of the connection is an administrative event, not a new install like copper requires. Doubling speed is also very cost effective. Going from 10 mbps to 20 is not double, it is more like 20% or less as you move up the bandwidth scale.

Choosing an Internet Service Provider

Now that we covered the main technologies, it is time to pick a vendor. Internet access can be purchased from a variety of sources – direct from the carrier or through agents/partners. There are pros and cons to each.

Direct

Contrary to popular belief, buying direct from the carrier does not save you money. Sales people make commission whether they work for the company or for a partner. Sales prices are typically the same no matter who you buy through so it comes down to who you trust to recommend the proper solution for your current and future needs. The pros of buying direct are that the sales people will have a higher level of training on the products, the paperwork and the internal processes. If they have good internal sales skills, they may be able to cut through some red tape or get favors done based on their internal relationships. They also have access to Engineering staff who can be a quality control measure to make sure what you are being sold will actually work. The con is the industry turnover rate. Often times, the sales person you bought from is no longer employed at the company by the end of the term.

Master Agents and Sub Agents

Telecom Master Agents and sub agents offer another avenue. Master agents are larger organizations who enter into large revenue commitments to gain the best commission rates. Sub agents are smaller operations, typically a single person, who sell under these Master agents to gain a higher commission level as part of the larger whole than they could get on their own. True sales agents typically represent several carriers so they can mix and match from several sources for the best fit. One drawback can be their lack of knowledge, since they have several companies, product lines and paperwork to master. From my experience, there are more errors on agent orders than direct sales reps. They can be corrected, but it could cause frustrating delays for the client and installation personnel.

Another potential negative is an agent selling what makes them the most money, not the best solution for you. If you select an agent to buy from, make sure you research them thoroughly so you are not dealing with someone who simply wants to sell you the lowest cost option for a quick sale, or who oversells you more than you need so they make more money. Many times they also lack the technical knowledge, or access to engineers, for more complex solutions. Depending on the arrangement, you can also be an additional layer away from resolving a problem. If the agent has you call them for any trouble, they need to then call the carrier to

open a ticket. If the carrier has questions, they may have to ask the agent, who needs to track you down to ask, then has to relay the info back to the carrier. Very inefficient. Often they do not help speed the process up, they slow it down in an effort to 'add value' or control the account. The most efficient method to resolve an issue is to get the person with the problem connected to the person who can fix it in the most direct manner.

Carrier Partners

Carrier partners offer a hybrid of both direct and agent scenarios. A carrier partner is typically an IT vendor who supports the account and has intimate knowledge of their needs. Rather than selling the solution directly, they will bring in key staff from the carrier and work together on the solution. This arrangement allows for the customer to contact the carrier directly while alleviating the turn over issue that plagues the carrier sales force. The IT vendor will only align themselves with a trusted provider since their core business could be in jeopardy if the service and support are not excellent.

Bottom line, seek the advice of a knowledgeable, trusted party who has a vested interest in building a long term relationship with your company, to help navigate the myriad of choices in technologies and providers to select a solution that fits both your needs and your budget.

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Lee Elliott started his career in telecommunications as an agent for Afford-A-Call in 1988 selling recently deregulated long distance service. Moving to a full time Sales Management position with BN1 Telecommunications in 1992, Elliott helped to pioneer the successful long distance phone association marketing program through groups like the Ohio Auto Dealers, Ohio Bar Association, Ohio Municipal League, County Commissioners Association and many local trade groups and Chambers of Commerce. As the industry developed, Elliott held Sales Management positions with Cable & Wireless, MCI, First Communications and now currently as Sales Director for T1 Company in Cleveland, OH. Over his 25 year tenure, Elliott added significant experience from small office to world-wide enterprise accounts covering Wide Area Networking, cloud services, managed services, 4G LTE wireless and data center connectivity.