Business Internet Service Buyer's Guide

How to shop for an Internet service provider and select the right Internet plan for your company.

Business Internet Service Buyer's Guide

By N2Net

Last Updated: December 2016

INTRODUCTION

When you're working under a deadline, there's nothing more frustrating than an Internet connection that lags and freezes. An inconsistent and slow Internet connection is not only annoying, but it costs many businesses money. Getting a reliable connection at the right price with the right features isn't that hard if you know how to shop. Whether you are setting up new service or re-evaluating your current Internet plan, you need to understand what you're buying in today's competitive marketplace.

There are three scenarios that warrant another look at your Internet business service plan:

1. Your data requirements are modest, but it's been longer than 18 months since you reviewed your plan and pricing.
2. Your data requirements have increased or are intensive. You may be noticing lags, drops, and inconsistencies, and your team is frustrated when they access sites, applications, or networked resources.
3. You can't get support for your Internet service easily or quickly.

If your business scenario meets any of these conditions, it's time for a re-examination of your plan.

The purpose of this guide is to illustrate how to shop for a business Internet service provider and select the right Internet plan for your company. Business buyers will learn:

- what services are offered and what the names mean in plain terms
- what types of services are available in the Northeast Ohio region
- who sells these services and how to choose a "good" Internet service provider
- how to assess which features are essential for YOUR business
- how to understand bundled packages: What do you actually need?

FEATURES

In general, expect to pay more for greater speeds (up and down), capacity, and reliability. These are the essential features you'll want to use to compare plans.

Download Speed: This seems rather obvious, but this is the feature that providers use to differentiate their products. You'll see speeds that range from 1.5 Mbps (megabits per second) all the way up to 1 Gbps (gigabits per second) and above. To compare, it would take approximately 13 seconds to download a video on a 15

Mbps connection, and a fraction of a second to download the same video at a 200Mbps connection. Chances are good that streaming video, digital conferencing, social media, file sharing, and software-as-a-service (SaaS) products are important to your business, so don't mess around with anything less than a 5Mbps download speed if you've got a staff greater than one employee. You'll all feel frustrated if your speed is insufficient.

Upload Speed: If your company needs to send big files to clients or performs data synchronization between local and remote servers, then take note of the upload speed and how it behaves. Usually, your plan's promised upload speeds are a fraction of the download speeds. Also, some connection technologies will have traffic going up sharing the same "pipe" as traffic coming down: This is referred to as a symmetrical or asymmetrical connections. For both speeds, note that actual speeds may vary from what was promised. You'll be promised a maximum upload speed, but depending on the technology, you may experience lower speeds during peak use times.
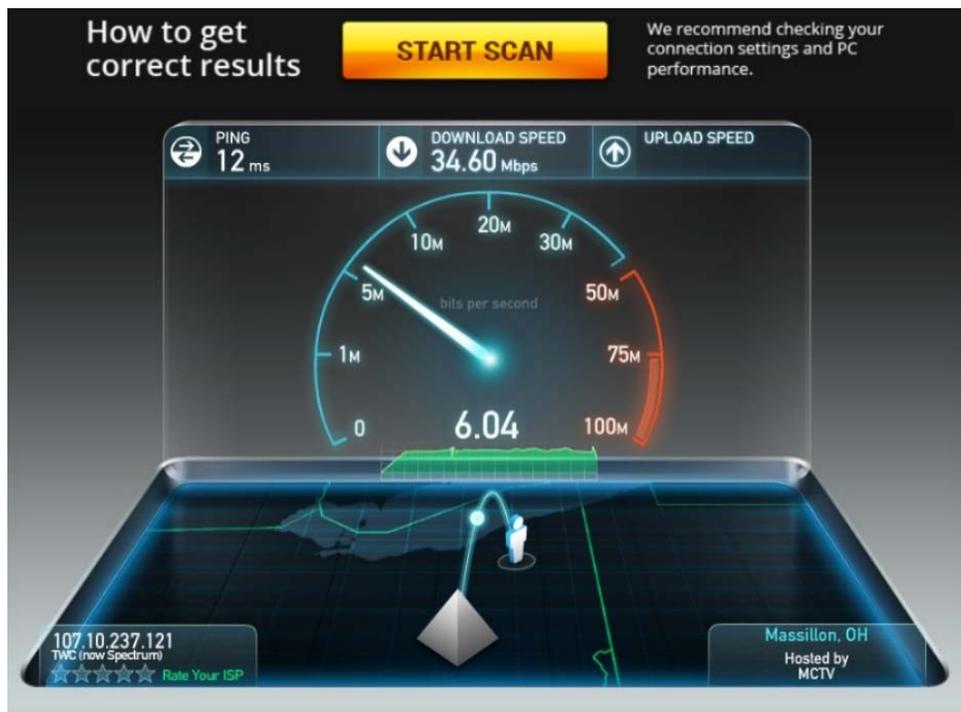

Figure 1. Speedtest.net is a site that will measure your download and upload speeds.

Bandwidth: This isn't quite the same thing as speed. Speed defines how fast data bits can travel through the circuit. Bandwidth is the amount of data capacity that will be available to your business. For example, you could have four, 10Gb Ethernet connections bundled together that provide 40Gb of bandwidth, but the maximum speed of your network might only be 10Gbps. You have four "pipes," but the fastest data can flow is limited by the top speed.

Service Level Agreement (SLA): This is a contract between the customer and provider that specifies and commits the provider to a level of service. It describes support options, enforcements, enforcement or penalty provisions for services not provided, and a guaranteed level of system performance. It also specifies how quickly your provider must respond in the event of a problem.

Cost: Typically, this is monthly or term-limited contract.

Availability: This is the geographic area a provider can service. Not all plans are available to you because not all companies have laid their network wires near your business. Most often, whatever is in the ground near your business (within about 100 yards) is what you'll have to choose from.

Bundling: If you decide to purchase more than one service from the same provider, they may offer to put them together in a "bundle" and discount on the entire package. This is great if the features they bundle are just what you need, but this isn't so great if you don't need one or two items. Most providers won't let you customize your bundle.

Hardware: Most providers will need to roll a truck to your business to install equipment and configure the connection. Make note of where the provider's equipment will go, and find out who maintains ownership of that equipment during the term of your contract.

Scalability: After you select a plan, and your business grows, how will your provider support your growth? Make sure the additional plan tiers will accommodate you in the months to come.

User Interface: How will you check your service? Most providers offer a portal for self-service and administration.

Security: Does your provider offer any special features or services to help your business stay secure? Make sure your SLA mentions who is liable in the event of network breaches.

Dedicated IP: Businesses that access the Internet are issued their own unique identifiers, called IP (Internet Protocol) addresses. IP addresses can be doled out dynamically by ISPs (Internet service providers) or they can be assigned for the exclusive use of a specific business. There are advantages of having your own IP address, such as ease of administration and better search engine optimization (SEO) for websites running off that IP address. However, it does cost more to have your own IP.

Data Caps: Now that residential customers are gobbling up capacity with their gaming, streaming, and cat videos, ISPs are instituting data caps or data throttles to control usage. This is less prevalent with business plans, but watch out for data caps or threshold pricing on more affordable plans.

TYPES OF BUSINESS INTERNET SERVICE

Business-Class Broadband

Unlike residential "general broadband services," business-class broadband services are only available to businesses. This service can be delivered via several delivery technologies, including cable or DSL. It features asymmetrical speed, which means that the download will perform slightly faster than an upload, and it is available at several service tiers. With many of these technologies, the speeds you can achieve depend on how far your business is situated relative to the nearest network exchange node.

Positives: Reasonably high speeds at lower costs.

Negatives: Although speeds are fast, they may not be consistent. It is only available to locations within a particular proximity of the service provider. Businesses on these plans may share capacity with other businesses on the same loop, which degrades performance during peak usage.

T1 and T3 Connections

A T1 line is a form of dedicated Internet access that uses physical fiber optic or copper trunk extended between a service provider and a business. These lines transport data at a rate of 1.544 Mbps. Unlike business-class broadband (cable and DSL), T1 Internet service is a dedicated circuit from point A to point B. Because of this, the rate of speed is guaranteed and covered by a service level agreement. A T1 line can be used to for voice traffic, Internet traffic, or both. If you are considering Voice over IP (VoIP) for your office telephone system, a T1 line will guarantee you the highest quality of service available.

Like a T1, a T3 line is a physical fiber optic trunk which extends between the service provider and the business. However, this line transports data at a rate of 45 Mbps. To put this in perspective, this speed is like having 29 T1 lines. With their increased bandwidth and speed, T3 lines are used by companies that do high volume phone calling or require large amounts of data transfer. Similar to the T1 line, T3 is also a dedicated circuit from point A to point B, and because of this, the rate of speed is guaranteed and covered by a service level agreement. This type of service can be used to transport voice traffic, Internet traffic, or both. If Voice over IP is desirable for your office, T3 will provide the highest quality of service available.

Positives: These connections allow for high capacity, support communications digitally, and are faster than a traditional modem. They are tariffed services, and are universally available in business areas.

Negatives: These services are distance-sensitive and can become pricey.

Metro Ethernet Access (Fiber)

Similar to T1 and T3 lines, a Metro Ethernet connection is a physical fiber optic trunk that is physically extended between a service provider and a business. It uses fiber to transmit flashes of light to communicate data at a transport rate of up to 1 Gbps. The latest fiber transport protocols support up to 10Gbit/s, 40Gbit/s, or 100Gbit/s speeds. Future urban networks may support even faster speeds.

The speeds are synchronous, meaning that downloads and uploads will perform at the same speed. Businesses also can enjoy dedicated access exclusively for their business, so they can count on the same capacity 24 hours per day, with no sharing. Metro Ethernet also offers a dedicated IP address. These features should be specified by service level agreement.

As prices for business-class Internet service has decreased, more businesses have opted for these plans. However, telecom companies are not investing in building out network capacity for the older cable, DSL, or copper technologies. Instead, they're focusing on a race for fiber and next-generation wireless networks. The number of fiber providers in the USA has exploded in the past few years, but service is mostly concentrated in urban areas. Businesses with business-class Internet often find themselves sharing capacity with others on congested, but inexpensive, networks. Again, this is fine if your business's only need is to check email. All of these factors combine to exert pressure on data-intensive businesses to choose Metro Ethernet connections rather than the other types of connections mentioned above.

Figure 2. Fiber network in the US. Image: businessinsider.com

Metro Ethernet service is scalable, meaning that there are various size options to fit your business's needs. Common rates of speed for Metro Ethernet connections range as low as 3 Mbps to 100 Mbps. Some cities offer super high speed networks through Verizon FiOS, Google or Ting.

Positives: Metro Ethernet delivers such a seamless, smooth connection experience you'll wonder how you ever lived before.

Negatives: Only available in certain areas, and only provided by particular service providers. This is also the costliest option included in this comparison.

Business Internet Options Comparison Chart

	BUSINESS CLASS BROADBAND	T1	T3	METRO ETHERNET
PRICE (MONTHLY)	$75 - $595	$249 - $599	$900 - $3,000	$500 - $4,000
PRICE (INSTALL)	Usually free, waived on term agreement	$250	$1,000	$1,000
CAPACITY	386 Kbps up x 768 Kbps down - 20 Mbps up x 300 Mbps down	1.54 Mbps	45 Mbps	5Mbps – 10Gbps
QUALITY	Basic	Very Good	Higher	Premium
BEST FIT	Small Office / Home Office	Up to 10 active users	Up to 100 active users	10 up to 1,000 users

VENDORS

Providers come in a vast array of sizes. In Northeast Ohio, businesses can choose from national carriers, regional players, and smaller companies. Larger, national providers and regional carriers are able to provide resources on a large scale, such as free equipment they purchased in bulk, and call centers they can run globally, 24 hours per day. Their emphasis is to reduce the cost of their operations and maximize profit. So, expect to wait on hold when you have a question about your competitively-priced service. Smaller, local providers are more likely to provide a hands-on consultative role for your business. Their emphasis is to cultivate a close relationship with their business clients by serving their unique needs. They can select from a variety of unified communications products and can advise businesses how to get the best products and value.

Figure 3. National, regional, and local business Internet service providers.

Time Warner

Time Warner Cable (TWC) includes features like a free modem, up to 10 free email addresses, free TWC WiFi Hotspot, dynamic IP addresses, as well as Web Hosting and Online Backup. Below is a diagram of their service/speed selection:

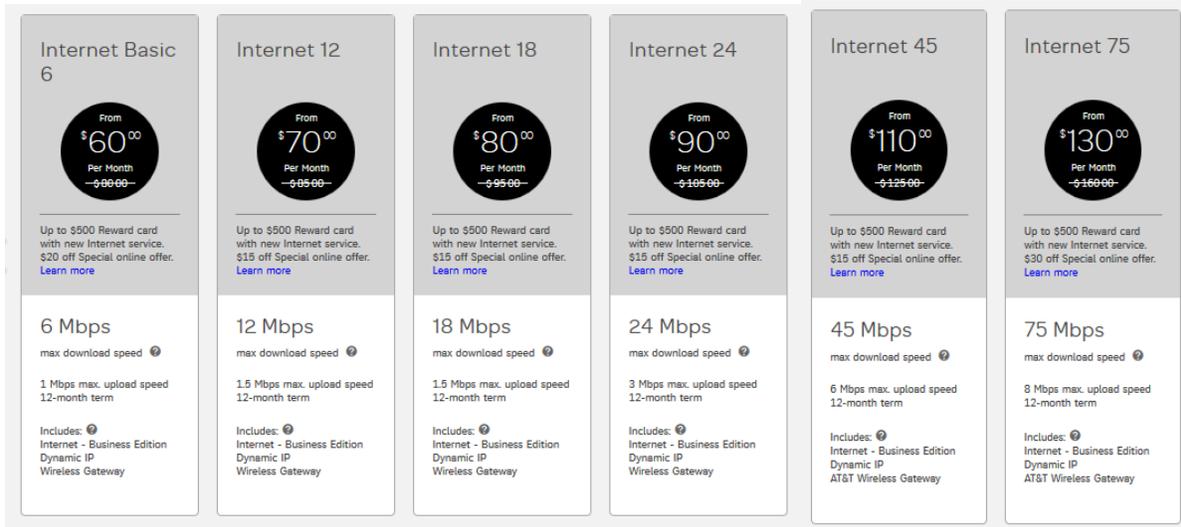| SPEED SELECTION GUIDE			
Download Speed	Upload Speed	Number of Users/Devices	Top Uses
10 Mbps	1 Mbps	1-2	• Light web browsing • Sending and receiving email • Operating one or more point-of-sale terminals
15 Mbps	2 Mbps	2-3	
25 Mbps	3 Mbps	3-5	• Moderate web browsing • Emailing large files • Support more WiFi-enabled devices with higher speeds
50 Mbps	5 Mbps	5-10	
100 Mbps	10 Mbps	10+	• Heavy Internet usage, emailing very large files • Streaming video, using cloud-based applications • Video/web conferencing and online collaboration • Conducting e-commerce
200 Mbps	15 Mbps	10+	
300 Mbps	20 Mbps	10+	

Figure 4. TWC business Internet product comparison.

While Time Warner Cable has a national footprint, they only service regionally. That means your business must be within their regional service area to ensure they can provide you service.

AT&T

Like Time Warner, AT&T also has various plans with various speeds and capacities. Where Time Warner Cable does not list their prices, AT&T does. Note that most of these prices are quoted as part of a contract of two years. Below are their options for "Business Edition" Internet:

Figure 5. ATT pricing plans.

AT&T is a national player and serves customers all over the world. However, you must check if your business is located within an approved area of service.

n2net.net

CenturyLink

CenturyLink is a regional provider that offers business Internet along with home services and mobile plans. Their service provides three basic plans that are available to bundle, if needed. Below is a diagram of their three options:

Figure 6. You must always check availability for any plan.

Different services may not be available in all areas.

N2Net

N2Net is a Cleveland-based company that specializes in phone and Internet services for businesses. We do not offer plans, and only provide bundles if they suit the needs of our customers. N2Net operates as a business communications service provider offering a complete line of high-quality, high-performance voice and data communication solutions. This allows us to create custom unified communications solutions for businesses by cherry-picking the best hardware, software, and plans. For pricing and options, contact N2Net.

Figure 7. Smaller, local providers offer customized plans and value-added services.

N2Net is a locally-operated business Internet solutions company that provides services to businesses all over the USA's contiguous 48 states. We find Internet connection solutions for businesses no matter where they are located.

HOW TO SHOP

Research the Competition

Check out *all* of your options. Any service provider that can get Internet service to your business's physical location is worth checking out. Use aggregation sites like this one and use this maps search. Anticipate that you will have to enter your address to search coverage areas. You'll also be contacted by a sales rep who will call to verify if they have appropriate plans for your company. After you make initial contact, you'll be able to compare prices, speed, capacity, SLAs, and the other features indicated above. One thing to add your comparison spreadsheet: politeness. If you are not treated with respect and kindness right from the start,

then chances are you are not going to enjoy a two-year contract with that provider. If you don't have a good feeling about a service provider, they're probably not the one for your business.

Beware of the Bundle

Bundles are very common for the home user and increasingly so for business Internet service. However, one size really doesn't fit all. Do you really need ten free email addresses? How about web hosting? Unless you're a brand-new business, you already have these components, so including them in a bundle is unnecessary.

A better way to approach purchasing services is to make a list of business functions that must be supported by your Internet service: Fast connection, streaming, cloud-based phone or desktop services, etc. Gather a rough idea of how much data and voice your company is currently using by asking your network administrator. Have your phone bill handy, too. If you haven't looked at your phone plan in the last eighteen months, bundling in phone services or switching to VoIP could save you money. Have this information ready before you speak with the sales representative. Many other bundled "features" are just fluff.

Installation

Typically, installation fees are charged, depending on the physical situation of your business. Sometimes, cabling must be run, holes must be drilled through walls, power needs to be supplied, or equipment must be housed. Savvy negotiators can sometimes get these fees waived or amortized over time. For all but the cheapest plans, do expect this to be a cost.

Selection

Your final selection comes down to two things:

- **Price**: How many megabits per second can you get per dollar?
- **Trust**: Your business depends on a solid Internet connection. Do you trust your chosen Internet service provider to maintain your access at the level agreed upon? If you choose a low-cost provider, do you feel confident that their automated systems will work for you? If you choose a relationship with a smaller provider, do you feel confident they will fulfill their role as your partner?

CONCLUSION

The landscape of business Internet service is constantly changing, with three or four very good options widely available in the Northeast Ohio area today:

- Business-Class Broadband
- T1 and T3 Connections
- Metro Ethernet Access (Fiber)

You can choose supremely-affordable Internet access that is optimal for the basic needs of small businesses, or super-fast fiber that's so fast it will blow your mind. Different products offer a range of speed and service

tiers to suit any business. However, the trick is to perform a high-level audit of your data and phone consumption before you start shopping so you can select a plan hits the "Goldilocks" zone—just the right amount of Internet service your business needs at the best price.

Remember, when you choose a business Internet plan, you're also choosing the company behind it. Your provider should meet your expectations, whether you want a no frills plan at a low cost, or a valued partner who can help your company save money and grow with the times.