As the community of Carrollsburg Condominiums own the access to and the multiple types of wiring infrastructure already in place, it makes sense that instead of hiring a 3rd party company to offer campus wide Internet that they consider creating a division of their association to manage the Telecommunications infrastructure, including any upgrades that may be necessary and to offer owners and tenants Internet access on the wiring infrastructure. Once established, a team of technicians, employed by the Board of Carrollsburg Condominiums could install, troubleshoot and offer repair services rather than contracting with an outside organization and in the end would retain a greater share of the revenue generated.

As the prevalence of Internet technologies becomes more readily available and required for most people's daily use, the idea of always on Internet at home becomes an issue. This is more a topic at multi-family residences, such as apartment, condominium, and co-operative buildings to offer the flexibility and comfort of working and relaxing at home. Areas of concern are available bandwidth which may be limited by the facility's current infrastructure or owners, or tenants do not need gigabit speed internet and thereby the association could become their own ISP and resell the service.

Difference between MB and GB

In daily life, both **megabytes** and **gigabytes** are commonly used to define the size of songs, images, and games. If we have a mobile phone or a device, we probably know how many megabytes a game is when we download it or how many gigabytes a video is when we purchase it to download. The various bits, characters, or blocks in computer and telecommunications systems determine the data transfer rate. These transfer rates are measured in bits per second or bytes per second.

The gigabyte (GB) is one of the most popular daily data measurements. Measurements are usually rounded off. A **megabyte (MB)** is claimed to be a thousand kilobytes, but it is actually **1,024 kilobytes (KB)**, and a **gigabyte (GB)** is also **1,024 megabytes (MB)**.

In this article, we will discuss the difference between the MB (Megabyte) and Gb (Gigabyte). But before discussing the differences, we will know about the Megabyte (MB) and gigabyte (GB). The International System of Units (SI) suggests defining one million bytes in terms of CPU clock speed, networking contexts, performance measurement, and hard drives and flash storage. It expresses file sizes in decimal units. For example, Microsoft Windows uses the definition **1,048,576 bytes** in the show of drive capacity and file size. In contrast, the **1,024,000 bytes** concept is used in **3.5-inch** HD floppy disks. The binary mega prefix has a size of **1,048,576 bits** or **1,024 Kb**. The difference between SI and binary is approximately **4.86%**.

What is GB (Gigabyte)?

A gigabyte (GB) is a digital device or media storage data measurement unit. A gigabyte (GB) is a collection of byte units used for digital information storage. It is also used to refer to a gigabyte (**1,073,741,824 bytes**). One gigabyte (GB) is equal to **1,024 megabytes (MB)** in the computer system.

A gigabyte is one billion bytes in terms of disk storage and data transmission numbers in telecommunications. While most hard drive sizes are now measured in gigabytes, manufacturers continue to utilize distinct interpretations, which can be confusing.

Gigabytes, which are sometimes abbreviated as **"gigs"**, are commonly used to measure the capacity of storage devices. For example, a standard DVD drive can hold **4.7 GBs** of data. Terabytes are storage devices that hold **1,000 GB** of data.

Examples of GB (Gigabyte) Storage

1. 114 minutes of uncompressed CD-quality audio equals about **1 GB**.
2. A dual-layered Blu-ray disc can hold approximately **50 GB** of data.
3. A **7-minute** HDTV video is approximately **1** GB in size.
4. A DVD-R can hold approximately **7 GB** of data.

Main Difference between the MB (Megabyte) and GB (Gigabyte)

Here, we will discuss the main differences between the MB (Megabyte) and GB (Gigabyte). There are various differences between MB and GB.

1. One MB constitutes **1024 KB**. In contrast, one GB constitutes **1024 MB**.
2. Gigabyte (GB) and Megabyte (MB) are digital data storage and transmission multiples of the unit byte.
3. A GB of storage can hold **1024 MB** of data. One megabyte (MB) can hold **1024 KB** of data. One KB can hold **1024 bytes** of data, and a byte contains **8** bits of data.
4. The main distinction between a megabyte and a gigabyte is the number of bytes they contain.
5. A megabyte is made up of **2^20 bytes (1,048,576 bytes)**, whereas a gigabyte is made up **of 2^30 bytes (1,073,741,824 bytes)**. Taking this into account, a gigabyte can be made up of **2^10 megabytes (1024 megabytes)**. Every step on the scale is represented by the number **1024**. A kilobyte (KB) has **1024 bytes**, a megabyte has **1024 kilobytes (KB)**, and a gigabyte has **1024 megabytes (MB)**.
6. A megabyte is made up of **1,048,576 bytes** when used for computer memory.
7. Most hard drive capacities are measured in gigabytes (GB), which is the larger of the two units.

Megabytes and gigabytes are magnitudes of bytes, similar to the kilobyte. The gigabyte (GB) is greater than the megabyte (MB). For example, when a user buys a system with **500 GB** of storage, we're getting a computer that can hold roughly **500 billion bytes** of data. A typical MP3 file can be up to **5** MB in size or about **5** million bytes. A megabyte has a numerical value of **2^20 (1,048,576)**, and a gigabyte has a numerical value of **2^30 (1,073,741,824)**.

A November 2019 study conducted by the National Multi-Family Housing Council took a look at what people were searching for when they shopped for an apartment rental. Out of the top four trends, three of them pointed toward internet features. This study revealed that families are wanting certain amenities from apartment owners nationwide. And it appears that if these amenities are not provided as part of the basic package, they are willing to take their business elsewhere.

For a community to keep up with the trends of this new generation, they need to take sincere consideration at upgrading their buildings to include internet features to attract this new generation of renters. Like internet access everywhere they go!

The National Multi-Family Housing Council found that high-speed internet access is a top priority for renters. 92% of residents expressed interest in high-speed internet, while 48% would not rent without it. 64% of all tenants are using streaming services which require reliable internet service, making community Wi-Fi the most important amenity for all residents. Residents want to have access to Wi-Fi while they are taking in those views, laying by the pool, working out, working from home, streaming their favorite game, or series, and they want to have it ready the day they move in.

Author's Final Notes

Whether your use of the internet is just to read email, look for dinner, a movie to watch or plan your next business or pleasure trip the bandwidth available for use is a concern along with the type and number of devices. Your building's infrastructure may not be up to the specifications necessary to support current and emerging / future technological advancements. And not to forget, the number of units accessing the internet services (TV / Streaming, Email, Surfing, Telephone, Security) at the same time may also affect the available bandwidth depending on the type of Internet service brought to your building, such as Fixed Wireless. A multi-family collection of units would be best served by selecting a vendor, even if they become the vendor who would be able to upgrade the complex's telecommunication infrastructure to not only manage today's available technologies, but also to ensure it has the capacity for future expansion and modern technologies.

Links for more information:

1) https://www.allconnect.com/blog/can-you-become-your-own-isp
2) https://startyourownisp.com/
3) https://www.wikihow.com/Become-an-Internet-Provider
4) https://mhtlighting.com/advantages-of-living-in-a-power-over-ethernet-poe-building/
5) https://inbuildingtech.com/network-infrastructure/poe-power-over-ethernet/