Over the past two decades, the Internet has drastically changed. In 1987, the fastest dial-up modems ran at 9.6kbps. Today, some providers offer broadband access over the same copper infrastructure at 50Mbps. This is a huge increase, and demand for bandwidth isn’t slowing down anytime soon.

In fact, there’s an increasing shortage of bandwidth, relative to America’s growing need for it. The growth of network bandwidth over the past 25 years has been compared to storage density and processing power, which typically doubles in performance every two years.
High bandwidth improves efficiency and productivity.

The American City Business Journals conducted a survey of over 1,700 small and midsized business owners. The results showed that Internet access was being used to achieve strategic goals, and to improve competitiveness, efficiency, and interaction with vendors. Internet access has also been shown to increase the quality and frequency of communication with customers.

For bandwidth, this means maximum data speeds have increased 4,000 fold between the time of the first generally available online services and 2011\(^2\). But why is the demand rising? The answer is simple. High bandwidth Internet access is opening new doors to capabilities that improve efficiency and productivity. This includes applications that leverage the cloud.

The Benefit of Speed

Businesses rely on information, knowledge and communication now more than ever, which is why the demand for high bandwidth Internet is growing.\(^4\)

This technology allows for real-time interactions with customers, something that was unheard of two decades ago.

Higher bandwidth capabilities are also used for data-intense graphics and video content online, allowing companies to:

- Accelerate business development
- Engage in new opportunities
- Promote innovation
- Customize and scale bandwidth based on changing business needs

(continued)
With these significant benefits in mind, it is no surprise that government leaders and policy makers, along with information technology experts, are eager to see the U.S. realize the benefits of high bandwidth, without regard to geography. Earlier this year at the 2013 International Consumer Electronics Show, former President Bill Clinton made the observation that South Korea is now number one in the world for computer download speeds, and the U.S. has fallen to number 15. “Our speeds are one-fourth of theirs, and we have fallen off the map,” Clinton said.

Industry expert, Richard Bennet, a senior researcher at Information Technology Innovation Foundation, suggests the U.S. was ranked more closely to 8th place. In January, FCC Chairman Julius Genachowski pointed at success of broadband initiatives in locales such as Bristol, Virginia and Chattanooga, Tennessee, where thousands of jobs have been created. Genachowski began calling for all 50 states to create at least one ‘gigabit community’ by 2015 saying, “The US needs a critical mass of gigabit communities nationwide so that innovators can develop next-generation applications and services that will drive global economic growth.”

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This “over the top” trend is allowing consumers to use on-demand technology for everything from user-generated content to entertainment and movies. For the business market, cloud is being used for a wide range of applications, including: online services, backing up files on local computers, servers, and in the cloud – and online tools to archive email to hosting virtual servers. Specific business applications, such as SharePoint, leverage this technology to operate in the cloud and assist with efficient transfer of large amounts of information.

Tapping into New Capabilities

Operational efficiency is taken to a new level, with access to high bandwidth Internet. For example, voice and Internet service can be used over high-speed cable Internet connections, which are designed to precisely match your company’s needs. Often times, this can result in cost savings.

Operating in the cloud and increased scalability are additional benefits gained from this technology. Even routine tasks, such as listening to voicemail, get more efficient with the capability to listen through email attachments. Also, POTS lines, for alarms and fax machines, can run with increased bandwidth.

You can also safeguard against catastrophic data loss through a partnership with the right provider. With these capabilities, you have the ability to access files from anywhere, as well as have a redundant circuit in place with auto failover. For example, if a circuit goes down you have a backup already in place; eliminating downtime and giving you back control.

Moving Ahead

When it comes to the Internet: everything is moving faster. And technology isn’t slowing down anytime soon. Leveraging high bandwidth Internet access allows companies to solve their biggest problems. As a result, they tap into robust solutions to better compete in the marketplace.

About CornerStone

CornerStone delivers advanced communications solutions to organizations of all sizes, in all industries. Enjoy the benefits of our SkySphere™ product line of cloud voice and cloud computing services, and use our high-bandwidth Cable Access Transport (CAT) service to connect to the cloud. Our credentials include SAS 70 Type II and SSAE 16 SOC II certifications as well as a robust carrier-grade voice and data network. SkySphere, only from CornerStone, is a Microsoft® Gold Certified Partner; meets the stringent requirements to become an Intuit-Authorized Commercial hosting company; is a ZixCorp Diamond Partner; and works with technology platforms and providers such as Cisco, Citrix®, Blackberry®, Barracuda, Mozy® and Sonian for best-in-class solutions. Let us help you assess how to best leverage hosted e-mail, hosted desktops, virtual private servers, and a full range of products and services from a single, trusted advisor.
References


