Wireless technology: 4G LTE helps enable better business results.

Faster speed and better performance to help improve customer experience and increase productivity

verizon

Customers today are connected 24/7 via their wireless devices, and they want fast access to applications and content, such as business productivity tools, streaming video and social networks. This desire creates a need for greater bandwidth, improved responsiveness and faster upload/download speeds than previous generations of wireless technologies. The result is rising interest in and adoption of 4G LTE devices. Analysts expect more than 220 million 4G LTE subscribers worldwide in 2014 and predict that by 2020, 4G LTE will enable more than 24 billion connected devices.[1]

To better understand this growing trend, IDG Research Services recently conducted a survey of IT professionals and business managers across a variety of industries. Among the key findings:

- Increased speed and greater device performance are the top benefits respondents are aware of or have experienced when comparing 4G LTE to 3G.
- Increased speed is the top perceived potential organizational benefit of 4G LTE (89 percent of respondents).
- Employee mobility and the need for faster application downloads are the top industry drivers contributing to a demand for 4G LTE–enabled devices.

This brief highlights how 4G LTE improves the user experience; offers users untethered mobility to run Web-based applications on mobile devices; and helps enable innovation and improved business outcomes.

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4G LTE delivers.

Long Term Evolution (LTE) technology represents the culmination of decades of technological evolution and development, with each new generation building upon the previous to improve users' overall wireless experiences and better meet their wireless connectivity needs.

With 4G LTE technology, businesses can address mobile workers' requirements for fast, reliable access to in-office business applications and services—including video conferencing, powerful wireless applications and direct access to files and customer-specific applications—on the go.

"A faster connection and greater productivity are the key benefits we've achieved from 4G LTE," explains a network engineer at a U.S. bank with a global customer base. "Many of our users telecommute and need access to banking and office applications. 4G LTE provides a better user experience."

David McCarley, executive director of technology at Verizon Wireless, agrees.

"The 4G LTE speed experience of reduced latency and sustained higher speeds leads to this sense that if I can transmit and receive data at a more efficient level, then one is more productive."

More than 85 percent of survey respondents cite increased speed, and 61 percent cite its contribution to greater device performance as very important potential benefits of 4G LTE to their organizations.

Industry drivers

The majority of survey respondents indicate that employee mobility (63 percent) and the need for faster application downloads (54 percent) are likely to be the top industry drivers contributing to a demand for 4G LTE–enabled devices.

"The ability to work on any device without being tethered to an office or network connection is critical for the legal industry," explains the CIO of a large law firm with multiple U.S. locations that is currently using 4G LTE. "Speed, device performance and reliability are important because we typically transmit over email very large files, e.g., 500-page documents."

Improved business functions and processes

A 4G LTE network combines performance and mobility, provides greater flexibility than Wi-Fi, delivers upload and download speeds up to 10 times greater than a 3G network, and has much lower latency than 3G. This combination of greater speeds and lower latency enables real-time sharing of large files and streaming media, high-resolution video conferencing, fast delivery of time-sensitive information and support for more applications on mobile devices than 3G.[2]

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The following business cases highlight how 4G LTE helps improve worker productivity, enhances customer service and satisfaction, drives innovation, and fosters communication and collaboration in a variety of industries:

- **Technology**. IT field technicians who travel to customer locations must complete, update and send trouble tickets to the main office in a timely manner. Using 3G technology, technicians are slower to respond, have fewer capabilities and can't download large document files as quickly and efficiently. With 4G LTE–capable smartphones, tablets and machine-to-machine (M2M) technology with video-conferencing capabilities, technicians can communicate with home office experts and receive or update trouble tickets at dramatically increased speeds.
- **Public safety.** 4G LTE allows first responders to access critical information—including data and live video—so they can respond quickly to incidents and emergency situations on the go. Real-time video streams and data help police, firefighters and government agencies improve situational awareness and communication.

- **Healthcare.** EMS personnel can consult more quickly with physicians and hospital personnel while en route to the hospital, which helps improve patient support in transit and better prepares emergency rooms to save the patient's life upon arrival.

The Verizon 4G LTE network

The Verizon Wireless 4G network is built on LTE, the gold standard for wireless technology. Verizon was the first major U.S. carrier to launch 4G LTE, and its 4G LTE network covers over 97 percent of the U.S. population.

Verizon's 4G network is 100 percent LTE, and Verizon is the only carrier with contiguous, coast-to-coast 700 MHz C-block spectrum coverage.

Verizon 4G LTE supports download and upload rates up to 10 times faster than existing 3G technologies. With an average download rate for LTE of 5 to 12 Mbps, and an average upload rate of 2 to 5 Mbps, customers can take advantage of these speeds to download or deliver media-rich content and stream high-definition video in real time when they're on the go.[3]

Verizon provides wireless connectivity with higher data rates and spectrum efficiency than previous generations of wireless technology—resulting in high peak speeds, low latency, scalable bandwidths, improved spectrum efficiency, cell-edge data rates and seamless performance.[4] The Verizon 4G LTE network is based on an IP Multimedia Subsystem (IMS) core, which simplifies the delivery of applications and services through multiple networks and provides service compatibility across a wide variety of network types, including global wireline, private and fiber. Verizon has the largest and most reliable 4G LTE network in North America.

1 Tom Pica, *The Future Is Here, and It Is 4G LTE: Network Expansion Is Transforming the World of Mobile*, Verizon Wireless News Center. June 27, 2013. http://www.verizonwireless.com/news/article/2013/06/verizon-wireless-500-4G-LTE-markets.html

2, 3 "4G Technology Comparison Overview—4G LTE: The Fastest, Most Advanced 4G Network in America," Verizon, 2013.

4 *The Verizon Wireless 4G LTE Network: Transforming Business with Next-Generation Technology*, Verizon, 2013.

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