

Doug Webster, Vice President, Service Provider Marketing, Cisco

Additional Questions for the Record – “Disruptor Series: Wearable Devices”

The Honorable Michael C. Burgess, M.D.

1) Mr. Webster, in what industry or industries do you see the most growth in use of wearable devices? And in what other industries do you expect to see that growth in the future?

There are several industries where we can expect to see significant growth in the wearable devices market.

Presently, the **health care industry** is embracing the significant benefits that wearable devices can provide both to patients suffering from chronic medical conditions as well as healthy individuals who value preventative care. As mentioned in my testimony, examples include FDA-approved wearable devices that provide specific health issue monitoring, such as glucose or blood-sugar levels, which can be transmitted back to medical providers in real time. The changing face of healthcare will continue to be driven by devices that can track and analyze information about a person’s health.

Demand for new products in the **fitness industry** is also expected to continue to grow. Consumer demand has resulted in an influx of devices on the market which track statistics like heart rate, calories burned and steps taken.

“Life-saving” wearables is another area for major growth. These types of devices may include alarm or GPS-alerts, which offer personal security, or devices that could offer major benefits to the developing world, such as flood and earthquake warning wearables.

Entertainment is yet another industry which is on the cusp of a wearable technology breakthrough. Movie studios, game publishers, professional sports leagues and the music industry are developing virtual reality-embedded headsets, games, films, and apps to enhance the experience of their products and offerings.

There is no doubt the wearable market will continue to grow – and thrive - in these industries and many others.

2) Mr. Webster, when you look at the development of wearable technology on a global scale, do you see anything different abroad than what is happening in the U.S. in terms of investment or innovation?

Major technology companies around the globe are engaged in producing connected wearable devices. Countries such as Korea, Japan, China, the United States, Sweden and Finland are already large nodes for innovation and development of these technologies, with many other countries competing to join that top tier. The differences between international regions, to the extent differences develop, are likely to be in part a reflection of differences in approaches to consumer privacy. Highly prescriptive rules around privacy of consumer data from wearables raises the cost and difficulty for smaller entrepreneurial companies that may have a good idea but lack legal guidance to navigate these rules in order to bring that idea to reality.

If the full benefits of wearables are to be realized, the investment climate must be one in which good ideas can easily reach markets. Of course, regulations are necessary if there is a direct threat to human health or property. Government's role should be education – for example, encouraging digital literacy among consumers, transparency and privacy by design among developers, and enforcing against existing legal standards.

3) What are the incentives for business and consumers who are not using wearables to start using wearables now?

From a business perspective, there are significant market incentives to “get in on the action,” so to speak, both to address growing market opportunities or gain increased efficiencies, quality, or productivity. As highlighted in my testimony, we forecast approximately 600 million wearable devices globally by 2020, up from 97 million just last year. North America alone has a 40% market share of global wearable device connections as of today, with growth in Europe and Asia increasing each year. As with any burgeoning technology, the global business community does not want to miss the wave of consumer interest in this area.

Businesses simply cannot risk ignoring how wearable devices are disrupting industries. In customer facing industries, wearables may provide new methods for consumers to interface with service representatives, fostering customer loyalty and improved efficiency. This type of application can lead to significant cost savings, improved efficiencies, and much better customer experiences.

The incentives for consumers to start using wearable devices are also significant. Wearable devices can lead to improved safety, providing parents with an ability to keep track of their children. Wearables can also help consumers better manage their health and healthcare costs, improve their retail experiences, and assist with workplace productivity. The wearable market has endless potential to continue to improve the quality of life for consumers around the world.

The Honorable Gregg Harper

1) What enhanced capabilities do you see wearable devices providing in the next five to 10 years, beyond what they are providing to consumers and businesses today?

“The sky is the limit” when it comes to the potential capabilities of wearables in the future. Several products are currently in development that would enhance the benefits that businesses and consumers can gain from this type of technology.

Currently, wearable technology companies are developing biometric garments that can measure biometric data and activity levels, with a goal of notifying the user when it’s time to step away from the computer screen.

Other developments include wearables that converge with connected homes to drive efficiencies. For example, devices that could use an individual’s heartbeat signature to signal a door’s “smart” lock to unlock. This might be useful when you are returning home with groceries - or even an infant in hand. Another product currently in development can detect an individual’s core body temperature, then interacting with a Nest “smart” thermostat to trigger the air conditioning to turn on.

These are just a few examples of how the wearable market continues to innovate by making products that are more useful for consumers and businesses alike.

2) What does this fast pace of innovation mean for policymakers in terms of how we should be thinking about the technology?

Given the fast pace of innovation in this area, it is very important for policymakers to carefully consider the regulatory issues surrounding wearable devices.

As I highlighted in my testimony, there are four specific areas that legislators must consider as we look for public policies that encourage development in the wearable market.

First, policymakers need to ensure that radio spectrum is available with the right set of rules to make sure these devices can connect to the network.

Secondly, policymakers should support investment in the service provider networks that are needed to transport data to the Internet.

Third, a focus on policies that encourage start ups and small companies by ensuring access to venture capital, tax policies that support research & development, as well as encouraging more young people to enter careers in science, technology, engineering and math, also known as STEM.

And finally, these policies must ensure that device manufacturers and applications developers understand privacy and security threats, and take steps to protect their devices and the personal information of consumers.

Wearables represent a measurable component of the mobile landscape, and they are projected to continue to grow. They hold incredible promise to improve our lives. Public policies that encourage the development of this category should be supported so that the United States can continue to be a leader in this next chapter of the Internet.