



NORTH AMERICA

ERICSSON MOBILITY REPORT APPENDIX

JUNE 2015

MARKET OVERVIEW

Key figures: North America

	2014	2020	CAGR 2014–2020
Mobile subscriptions (million)	380	480	4%
Smartphone subscriptions (million)	250	370	5%
Data traffic per active smartphone (GB/month)	2.4	14	35%
Total mobile traffic (EB/month)	0.8	6	40%

Connectivity anytime, anywhere is the expected norm

Internet connectivity has reached its 25th year. Mobile devices are now affordable and in ample supply, while mobile networks are keeping pace with the latest networking technologies.

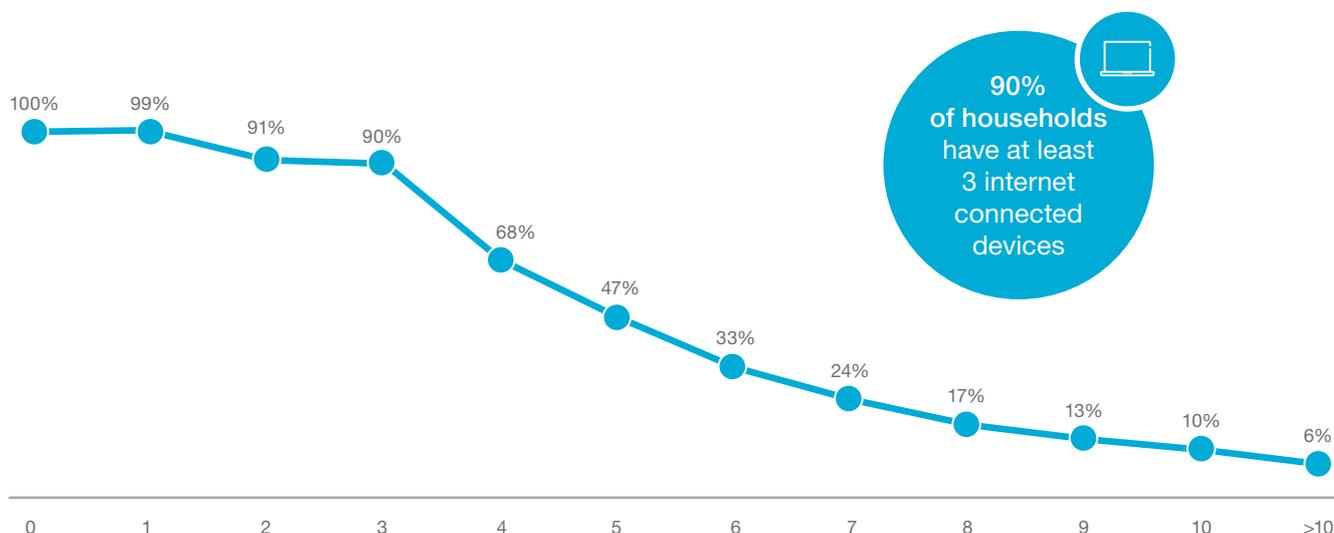
Consumers in the U.S. and Canada, alongside other developed markets, have passed the introductory phase of the Networked Society. The pervasive connectivity of

people and devices is transforming our lives, including our homes, jobs, health, relationships and more.

In 1990, the internet had existed as a public resource for less than a decade, and almost 80 percent of the world's internet users resided in the U.S. or Canada. Now, 99 percent of households in the U.S. have at least 1 device connected to the internet and nearly 50 percent have 5 devices or more.¹

	U.S.	CANADA	TOTAL
2014 population (million)	319	36	355
2014 households (million)	123	13	136
Land mass (millions of square miles)	3.7	3.9	7.6

Number of internet connected devices per household in the U.S. in 2014



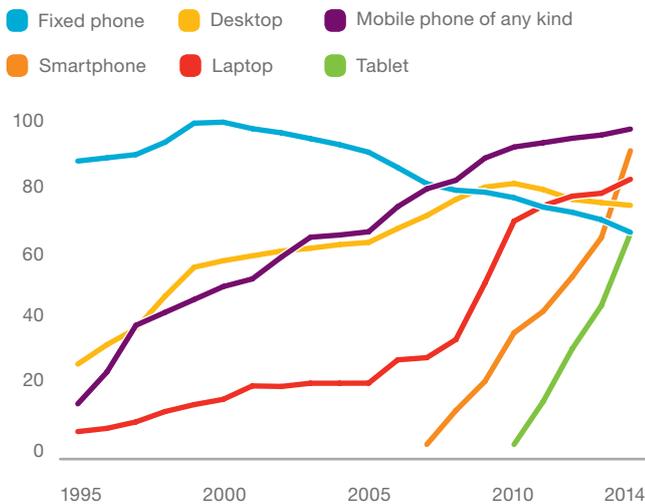
Source: Ericsson ConsumerLab (2014)

¹ Among U.S. respondents, ages 15–69, surveyed during Ericsson's ConsumerLab 2014 InfoCom consumer research



64%
in North America use
the internet everywhere

Connected device adoption in the U.S. (per household)



Source: Ericsson ConsumerLab (1995–2014)
Base: Population aged 15–69 years old, U.S.

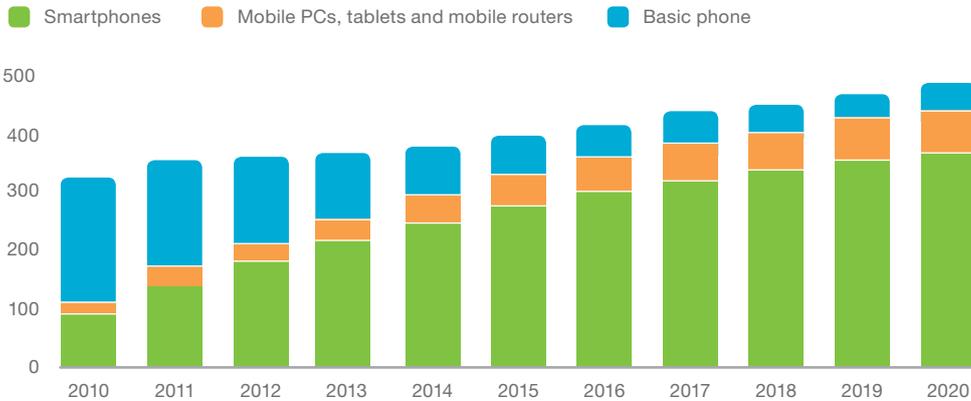
97% of U.S. households have a mobile phone

Consumers in the U.S. and Canada quickly adopted smartphones, tablets and laptops as essential devices. In these markets in 2014, there were 2 smartphones for every household. The majority of consumers in the U.S. (90 percent) say they need a mobile phone, and 64 percent say they use the internet everywhere – indoors, outdoors and in vehicles.¹

¹ Among U.S. respondents, ages 15–69, surveyed during Ericsson’s ConsumerLab 2014 InfoCom consumer research

MOBILE SUBSCRIPTIONS

Mobile subscriptions, U.S. and Canada (million)



One smartphone subscription per person in 2020

In 2014, the U.S. and Canada were home to almost 380 million mobile subscriptions, of which nearly 300 million were for smartphones, mobile PCs, tablets and mobile routers. Most of the growth from 2013 to 2014 came from an increase in subscriptions for these devices – a trend which is predicted to continue. By 2020, total mobile subscriptions will approach 480 million, of which smartphone, mobile PC, tablet and router subscriptions will comprise nearly 450 million. This translates to a population penetration rate of almost 125 percent of the nearly 370 million predicted inhabitants in North America in 2020.

Over the next five years, mobile service providers will continue to transition customers to 4G networks to deliver new services like VoLTE and enable LTE Advanced features. By 2020, approximately 90 percent of subscriptions will be LTE.

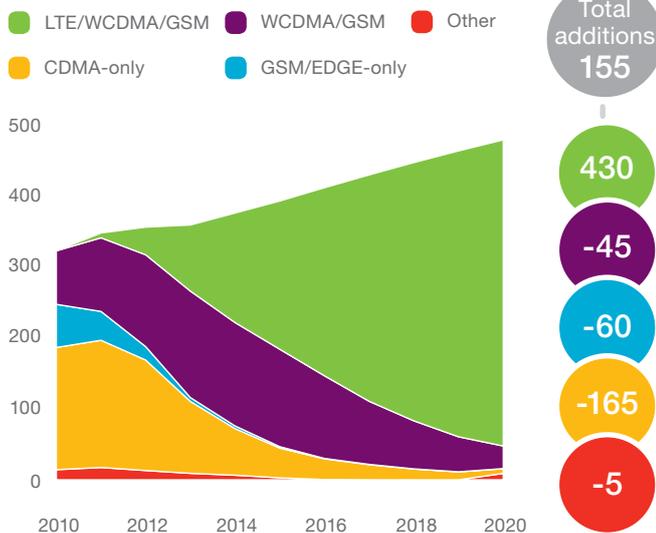
Much of this subscription growth will come from an increased number of connected devices per user, rather than the addition of individual new users. In 2014, the average number of connected devices per household in the U.S. was 5.2, and consumer intention to acquire more devices indicates that growth will continue.

LTE subscriptions will dominate in the coming years

Over 25 percent of all mobile subscriptions in 2013 were LTE, a figure that jumped to around 40 percent in 2014.

In addition, 5G will begin to be deployed during the forecast period, with 5G subscriptions becoming commercially available in 2020. 5G usage will be driven to a large extent by new use cases, especially machine-type communications.

Mobile subscriptions, U.S. and Canada (million)



MOBILE TRAFFIC

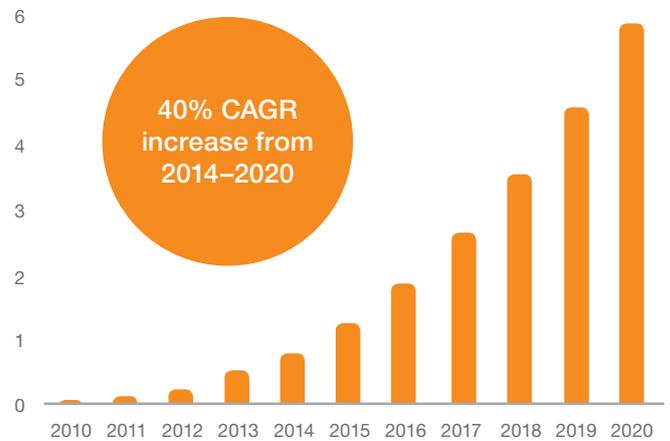
By the end of 2020, mobile data traffic in the U.S. and Canada will be close to 6 ExaBytes (EB) per month – or 7.5 times the traffic of 2014. 6 EB is equivalent to about 4.2 billion movie downloads.

Aggregate mobile voice traffic will increase slightly over the next six years. Mobile data traffic is forecast to increase at a CAGR of nearly 40 percent from 2014 to 2020. In 2020, mobile networks in the U.S. and Canada will carry more mobile data than the cumulative totals predicted for the 5-year period from 2010 to 2016.

Mobile data traffic per active smartphone, North America (monthly)



Total mobile traffic, U.S. and Canada (monthly ExaByte)



Smartphones accounted for three-fourths of the data traffic in 2014, and as consumers adopt larger form factor phones, smartphones will continue to be the major source of mobile data traffic through 2020. Data usage per smartphone will continue to increase, growing over 5 times between 2014 and 2020.

App coverage – a new way of looking at network performance

The relative importance of network performance to user satisfaction is higher in the U.S. than the global average, driving 24 percent of overall mobile user satisfaction compared to 19 percent globally.²

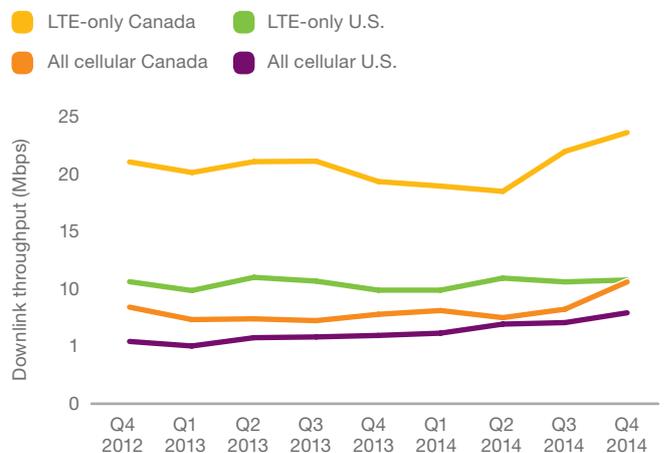
With the increased use of mobile applications, Ericsson proposed a new approach to network performance called app coverage. Essentially, every application has its own coverage map, driven by a number of factors.

To illustrate, Ericsson analyzed network performance measurements from Speedtest.net to calculate median and cell edge downlink data throughput rates. A good streaming video experience requires a throughput rate of 5 to 10 Mbps. In the U.S. and Canada, a user has a 50 percent probability of receiving 7 to 10 Mbps downlink throughput. Measuring results only on LTE networks, the median throughput is 1.4 times faster in the U.S. and 2.3 times faster in Canada.

The benefit of LTE is even more dramatic at the 90 percent probability threshold (a proxy for cell-edge performance), where throughput is 2 times faster in the U.S. and 4 times faster in Canada, when compared to

throughput measurements across cellular technologies. However, with greater demand on LTE networks, LTE network cell edge performance continues to decline in both markets. Densification, appropriate network dimensioning and adequate spectrum allocations are required to continue to ensure good app coverage for all users in the entire cell, even after LTE is deployed.

Median throughput measurements

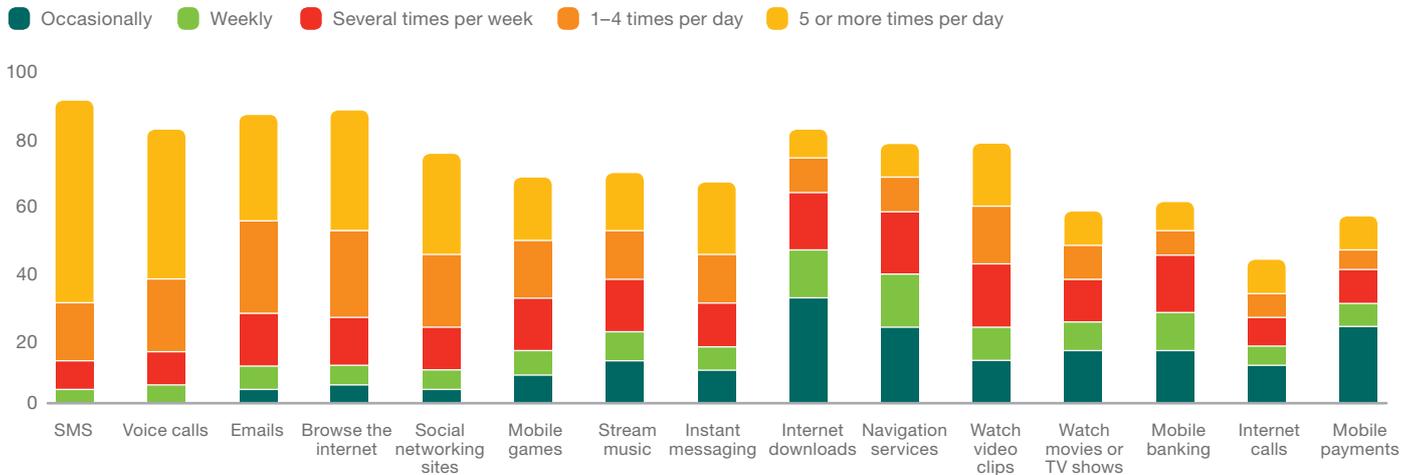


Source: Analysis performed by Ericsson, based on Ookla's NetMetrics data from Speedtest.net, 2014

² Source: Ericsson ConsumerLab, Network Performance study (2013)

SEGMENTS OF ONE

Frequency of application use, U.S. smartphone users



Source: Ericsson ConsumerLab, 2014
Base: Smartphone users, ages 15–69, U.S.

There is no “typical” mobile user in the U.S. and Canada

The burgeoning number of activities performed over mobile networks and devices has resulted in increasingly personal mobile user profiles.

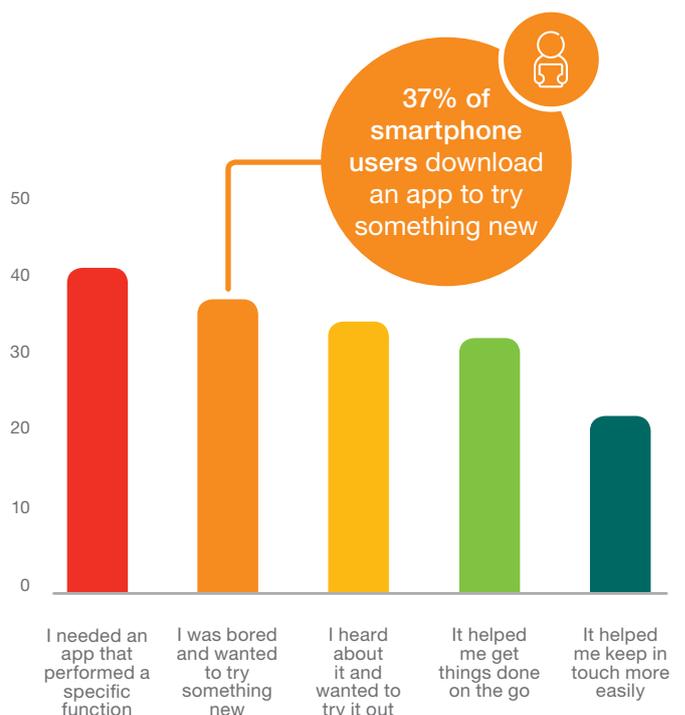
Some applications are frequently used by nearly all mobile users, such as SMS and voice calling. Others, such as mobile gaming and music streaming, are used frequently by a smaller number of consumers. Overall, consumers increasingly pick and mix the applications that best meet their unique needs.

U.S. and Canadian consumers also have a rising number of choices when it comes to mobile devices. Among smartphone users, household penetration of tablets is higher than 50 percent, and a number of less-traditional connected devices are rising in popularity.

Whether consumers prefer their news to be delivered through a smartphone, a tablet or a smart watch, any combination of device, location and time of day is possible. It’s ultimately the consumer’s choice, and this ability to choose is the underlying reason why the U.S. and Canada market segments are increasingly composed of individuals creating their unique mobile experience. As a result, each user becomes their own distinct segment of the market. As mobile usage diversifies to include dozens of tasks over dozens of devices, the consumer mobile-experience needs to change as well.

Traditional mobile-experience needs, such as productivity and staying in touch, are joined by the consumer desire to be entertained, to try new things and to have fun. When asked why they downloaded an app to their smartphone, U.S. respondents cited boredom as their motivation nearly as often as they cited the need for a specific function.

Smartphone users’ reasons for app downloads, U.S.



Source: Ericsson ConsumerLab (2013)
Base: Smartphone users, ages 15–69, U.S.

Improved outcomes through connectivity

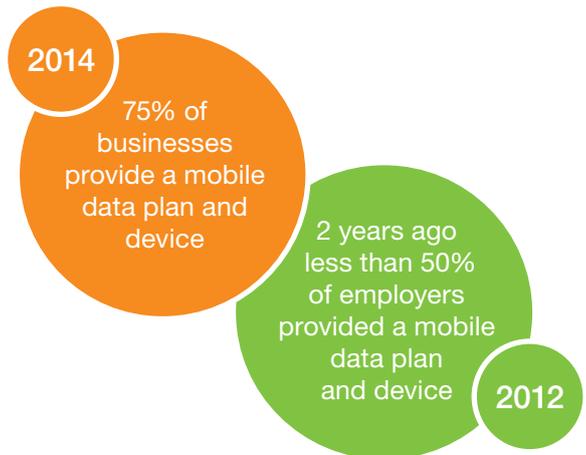
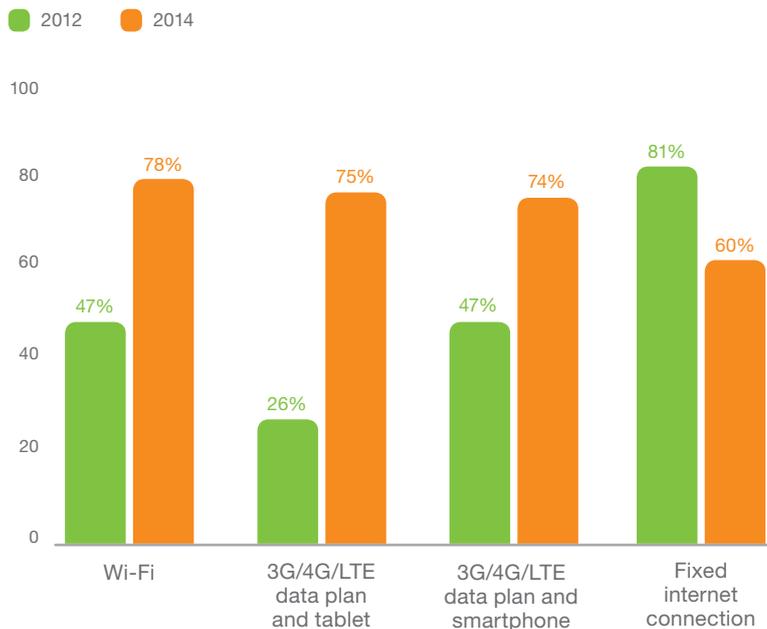


Mobility is critical for business

Consumer expectations of the businesses with which they interact are affected by anywhere, anytime attitudes. With nearly 90 percent of North American consumers digitally interacting with brands, businesses are looking for ways to improve customer engagement and support.³ Increasingly, this means providing more and better mobile connectivity for their organizations.

The figure below shows the results of a survey of mobile high tech business users in the U.S., regarding the kinds of connectivity provided by their employers.⁴ The relative importance of mobility has changed dramatically in just two years. Around 75 percent of respondents indicated that they have access to a mobile data plan and mobile device from their employer, compared to less than 50 percent in 2012.

U.S. employer provided connectivity



Source: Ericsson ConsumerLab, Business Users Go Mobile study (2014)
Base: Survey of 750 mobile high-tech business users in the U.S.; representative of 5 million users

In fact, 70 percent of the CIOs and CTOs interviewed in the survey felt that mobility was critical to their business. They saw this as a key enabler for quicker response time to clients as well as employee productivity and satisfaction. As consumers increasingly use their mobile

devices for researching and buying products, as well as for post-sale activities including bill payment and customer service, the channels of connectivity between businesses and their customers will continue to grow broader and deeper.

³ Source: TNS Connected Life study (2014)

⁴ Source: Ericsson ConsumerLab, Business Users Go Mobile study (2014)

Ericsson is the driving force behind the Networked Society – a world leader in communications technology and services. Our long-term relationships with every major telecom operator in the world allow people, business and society to fulfill their potential and create a more sustainable future.

Our services, software and infrastructure – especially in mobility, broadband and the cloud – are enabling the telecom industry and other sectors to do better business, increase efficiency, improve the user experience and capture new opportunities.

With approximately 115,000 professionals and customers in 180 countries, we combine global scale with technology and services leadership. We support networks that connect more than 2.5 billion subscribers. Forty percent of the world's mobile traffic is carried over Ericsson networks. And our investments in research and development ensure that our solutions – and our customers – stay in front.

Founded in 1876, Ericsson has its headquarters in Stockholm, Sweden. Net sales in 2014 were SEK 228.0 billion (USD 33.1 billion). Ericsson is listed on NASDAQ OMX stock exchange in Stockholm and the NASDAQ in New York.

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