



THE IMPACTS OF A NETWORKED SOCIETY: HAS WIRELESS AND WIRELINE CONVERGENCE BECOME A REALITY

 OPASTCO
SUMMER CONVENTION

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Ed Korona

RNAM Strategy Office



NETWORKED SOCIETY

3 TRENDS CREATING A CONNECTED DIGITAL ECONOMY

A composite image featuring a person's profile in the foreground, with a cityscape visible through their face. The background is a hazy, aerial view of a city with many skyscrapers.

MOBILITY

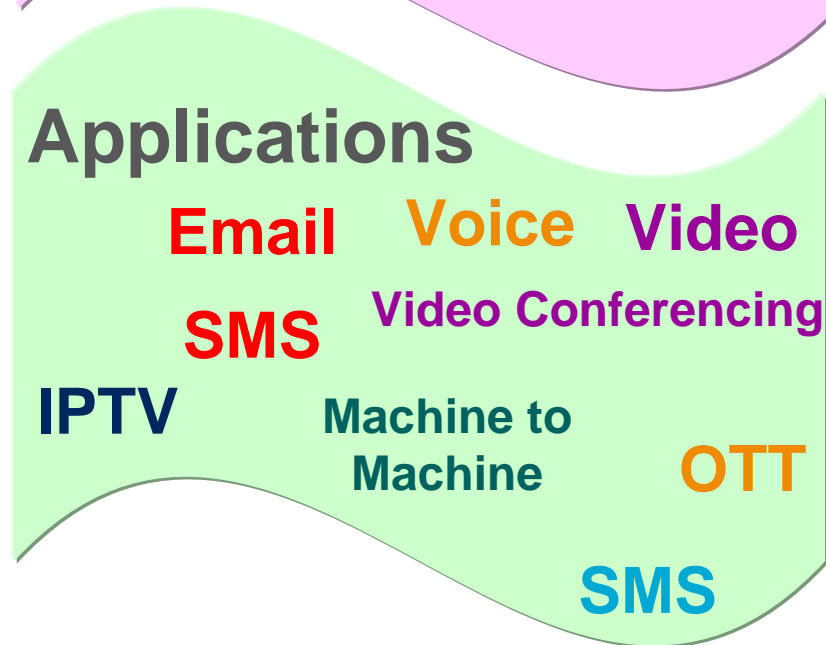
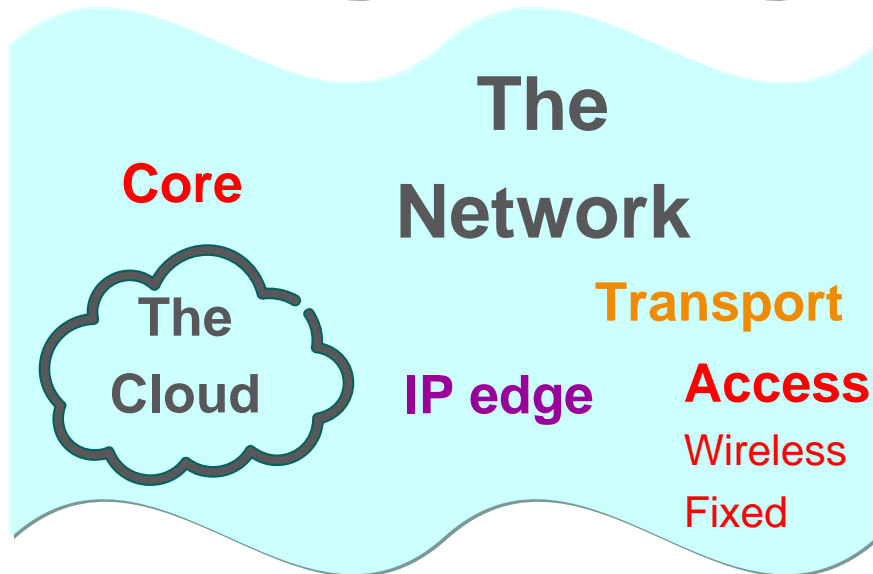
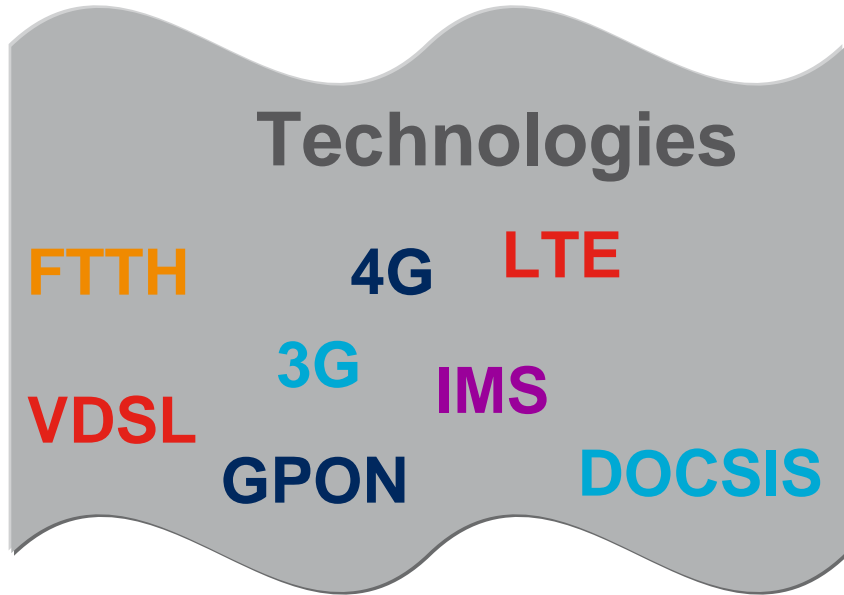
BROADBAND

CLOUD

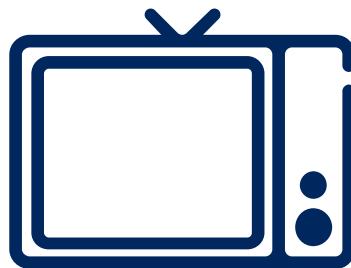
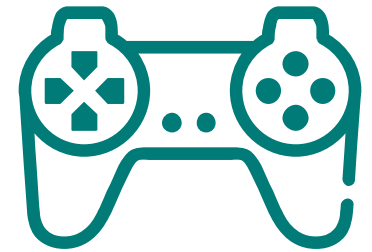
When one person is connected their life changes.
When everything is connected our world changes.

In the world of 50 billion connected devices, everything benefiting from a connection will have one.

WHERE TO START



THE CONSUMER



CONSUMER APPLICATIONS DRIVING NEXT GENERATION NETWORKING

The image shows three overlapping web browser screenshots. The top-most is the Hulu website, featuring a navigation bar with 'hulu' logo, 'TV', 'Movies', and 'Hulu Plus^{New}', along with links for 'Log In', 'Forgot Password?', and 'Sign Up'. Below the navigation are tabs for 'Browse', 'Most Popular', 'Recently Added', 'Spotlight', and 'Recommendations', and a search bar. The middle screenshot is the Ustream website, with a blue header containing 'Ustream', 'Categories', a search bar, and 'Login | Sign Up Broadcast' buttons. The bottom screenshot is the Skype website, featuring a blue header with the 'skype' logo and navigation links for 'Features', 'Get Skype', 'Prices', 'Accessories', 'Business', and 'Support'. The main content area has the headline 'Transform your business communications with Skype' and a sub-headline 'Allocate features and credit with complete control.' Below this is a 'Put Skype to work' button and a laptop displaying a dashboard. At the bottom, there are four feature icons with descriptions: 'Video calling', 'Call phones and mobiles', 'SMS through Skype', and 'Skype Manager'.

hulu™ TV Movies Hulu Plus^{New} Log In | Forgot Password? | Sign Up

Browse Most Popular Recently Added Spotlight Recommendations search

NETFLIX

Ustream Categories Search Login | Sign Up Broadcast

Start TV Conn

Go Live Mobile

Ustream watch live anytime, live even recorded upcoming your soc

Put Skype to work

skype Features Get Skype Prices Accessories Business Support Search

Transform your business communications with Skype

Allocate features and credit with complete control.

Put Skype to work

Ustream

Video calling
Free video calling makes it easy to be together, even when you're not. Now with group video.

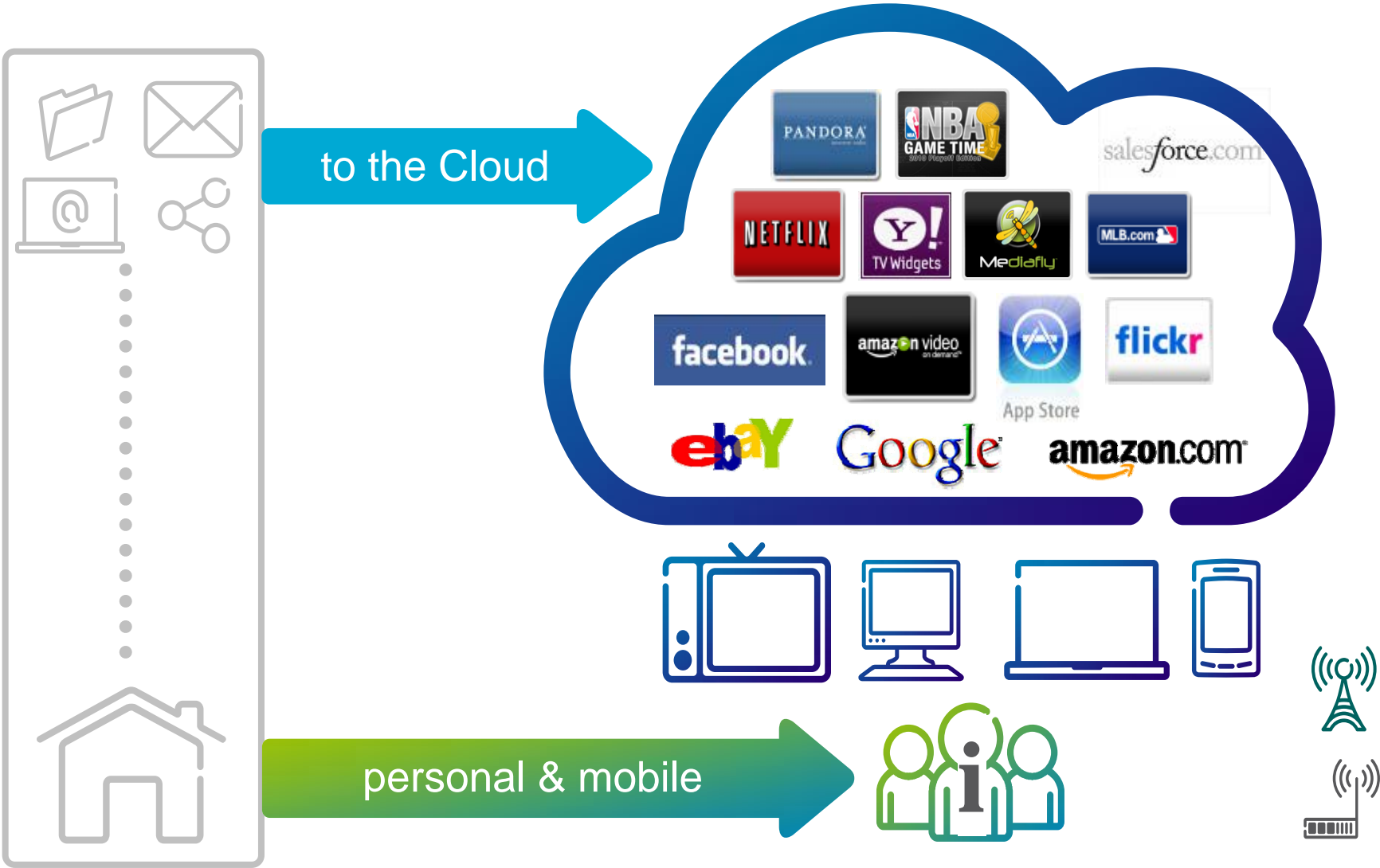
Call phones and mobiles
Call people on their phones at the best rates from 1.9c/min*** or even cheaper with a subscription.

SMS through Skype
It's quick, easy and cheap to type and text any mobile with Skype.

Skype Manager
Manage Skype for everyone at work.

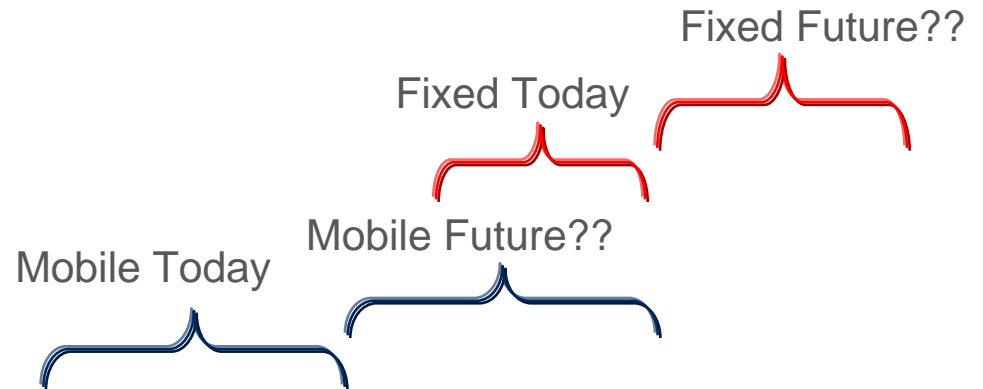
BROADBAND SERVICES

MOVING TO THE CLOUD – GETTING PERSONAL & MOBILE



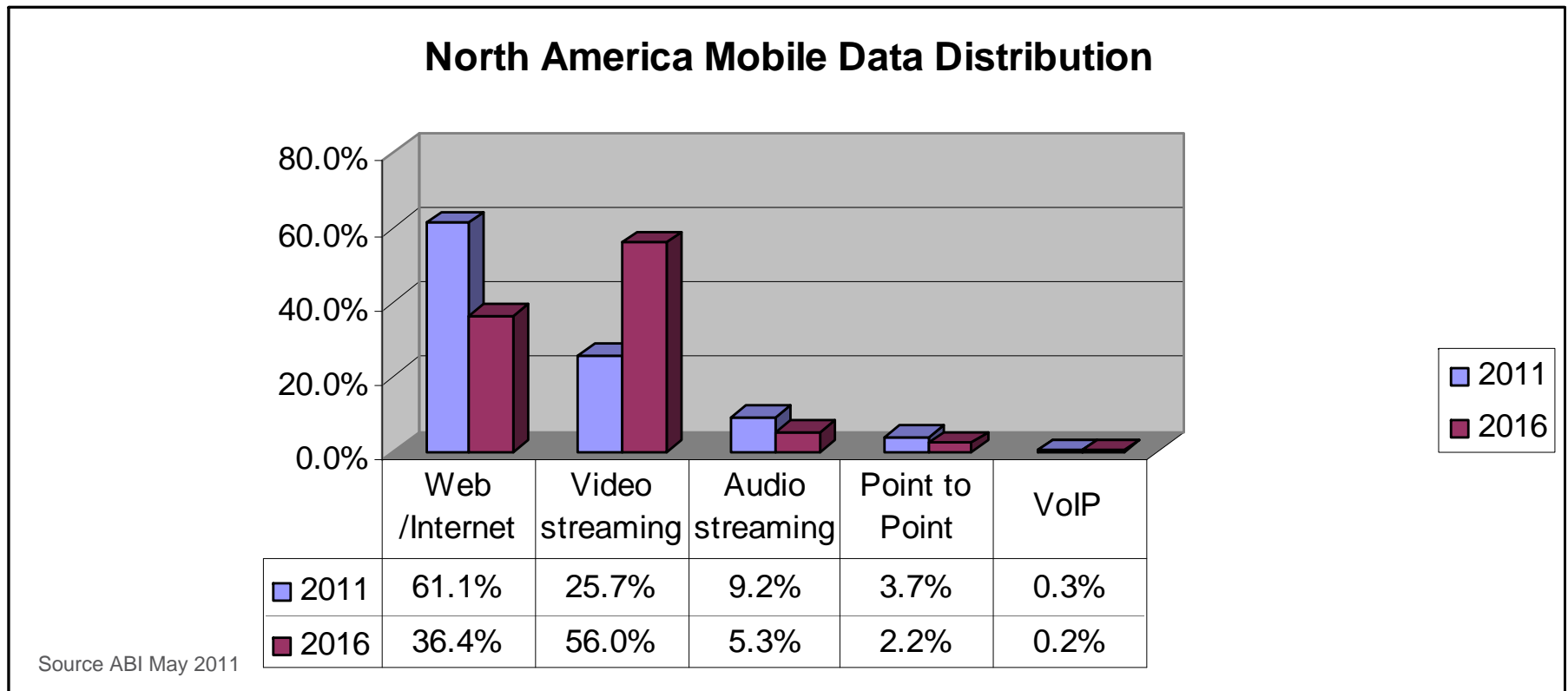
ON-LINE ACTIVITY VERSUS DATA PLAN

Video applications impact network requirements and customer behavior



Application / Service	File size MB	Monthly data plan - GB				
		2	10	30	300	500
Email	0.01	20,000.0	1,000,000.0	3,000,000.0	30,000,000.0	50,000,000.0
Web Page	0.15	13,333.0	66,667.0	200,000.0	2,000,000.0	3,333,333.0
1 Download from itunes	4.00	500.0	2,500.0	7,500.0	75,000.0	125,000.0
1 downloaded digital photo	3.00	667.0	3,333.0	10,000.0	100,000.0	166,667.0
DVD MPEG download	4.50	444.0	2,222.0	6,667.0	66,667.0	111,111.0
3 minute video on youtube	5.00	400.0	2,002.0	6,006.0	60,060.0	100,100.0
1 hour 56K audio stream	25.20	79.0	397.0	1,190.0	11,905.0	19,841.0
1 hour "World of Warcraft" online game	32.00	63.0	313.0	938.0	9,375.0	15,625.0
5 minute itune video	30.00	67.0	333.0	1,000.0	10,000.0	16,667.0
45 minute itune TV show	200.00	10.0	50.0	150.0	1,500.0	2,500.0
1 hour NetFlix SD stream	660.00	3.0	15.0	45.0	455.0	758.0
1 hour NetFlix HD stream	1,670.00	1.0	6.0	18.0	180.0	299.0
1 hour xBox online gaming	50.00	40.0	200.0	600.0	6,000.0	10,000.0
1 hour facetime 2-way video call on iPhone	90.00	22.0	111.0	333.0	3,333.0	5,556.0
1.5 hour SD TV	2,700.00	0.7	3.7	11.1	111.1	185.2
1.5 hour HD TV	9,450.00	0.2	1.1	3.2	31.7	52.9
2 hour HD video stream	10,800.00	0.2	0.9	2.8	27.8	46.3

TRAFFIC BREAK DOWN



% of Smart Phones

2011 - ~40%

2014 - ~65%

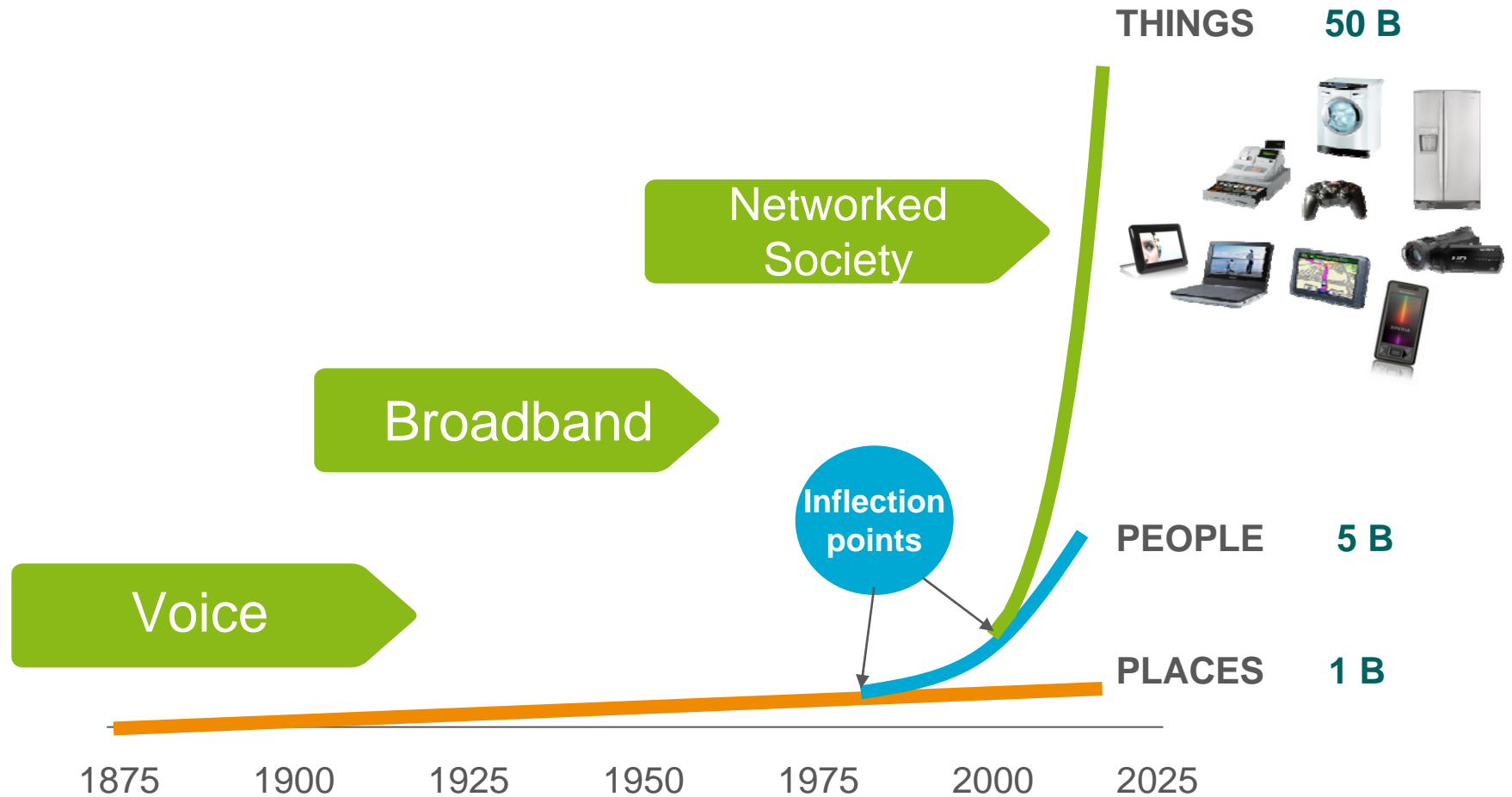
THE CONSUMER REQUIREMENTS

- Instantaneity of being networked
- Always expanding social networks
- Digital Natives – born into technology

- Technology/network expectations
 - Seamless experience between devices/locations
 - Same Quality of Experience (QoE) regardless of connectivity type
 - Must be simple
 - Easy to understand price structure for services used

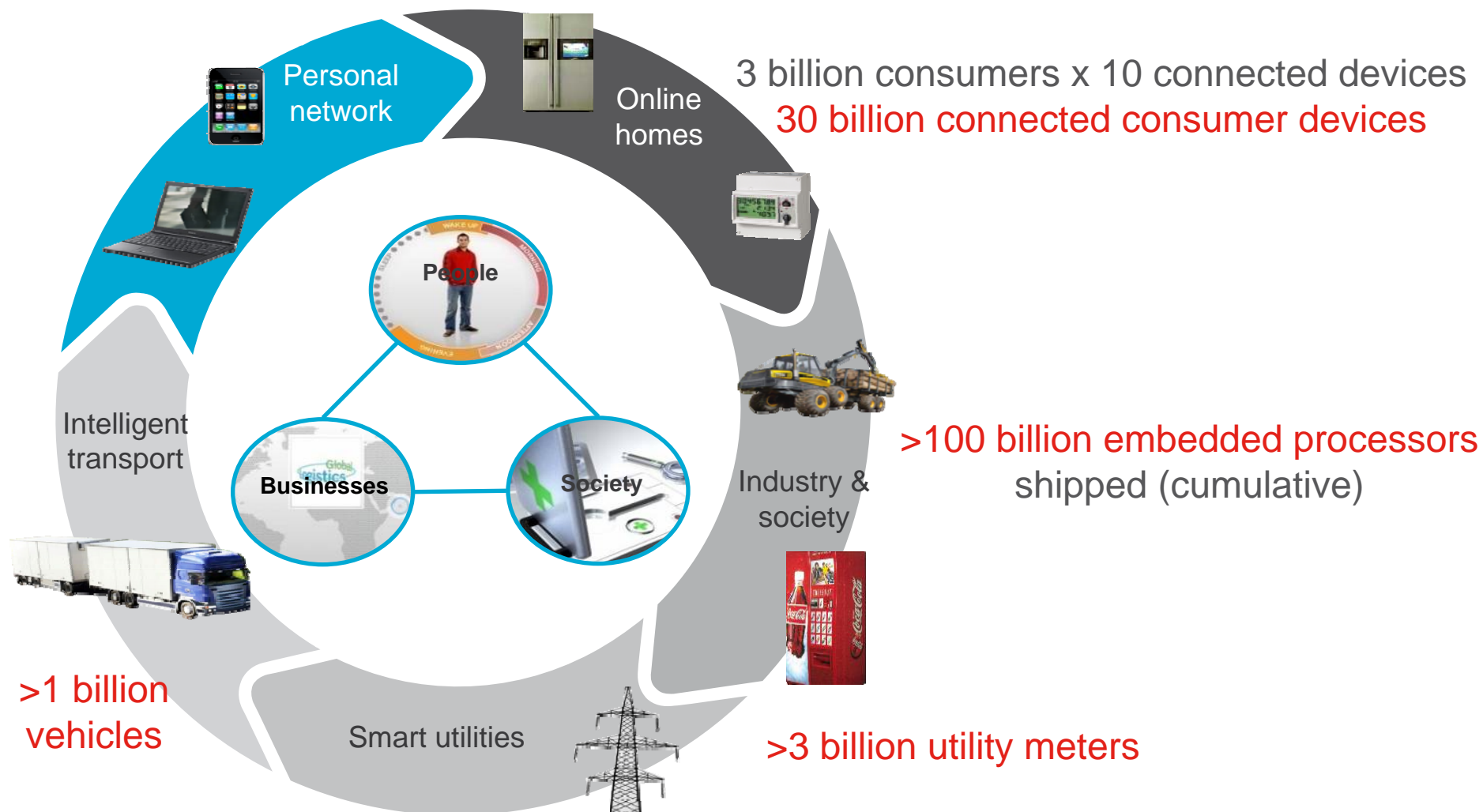


INFLECTION POINTS TOWARD 50B SHAPING THE NEW DIGITAL ECONOMY



Source: Ericsson

50 BILLION CONNECTED DEVICES.



THE BUILDING BLOCKS TO NETWORK CONVERGENCE



- › Applications are all “IP”, why not the network
 - VoIP, IPTV, Video streaming, Gaming, IMS

- › Accelerate fixed network modernization
 - FTTX, VDSL2, Ethernet over fiber
 - Broadband stimulus

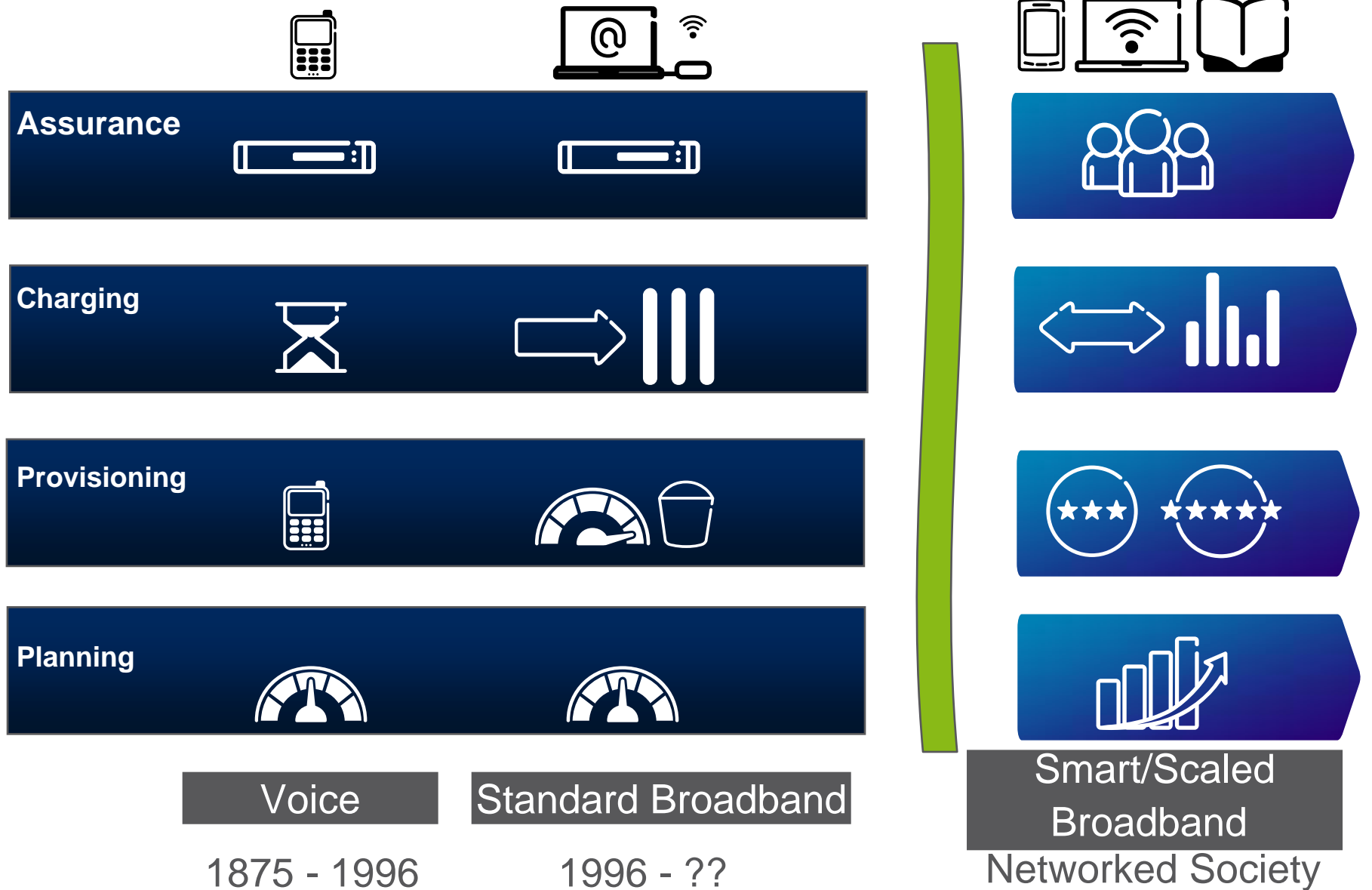
- › Next Generation Wireless – It’s here!
 - 4G, LTE, Small cells
 - › Higher bandwidth, low latency, low jitter
 - Next Generation IP Edge/core networking
 - IMS – architectural framework for delivering IP services

The future depends on the successful inter-working of networks

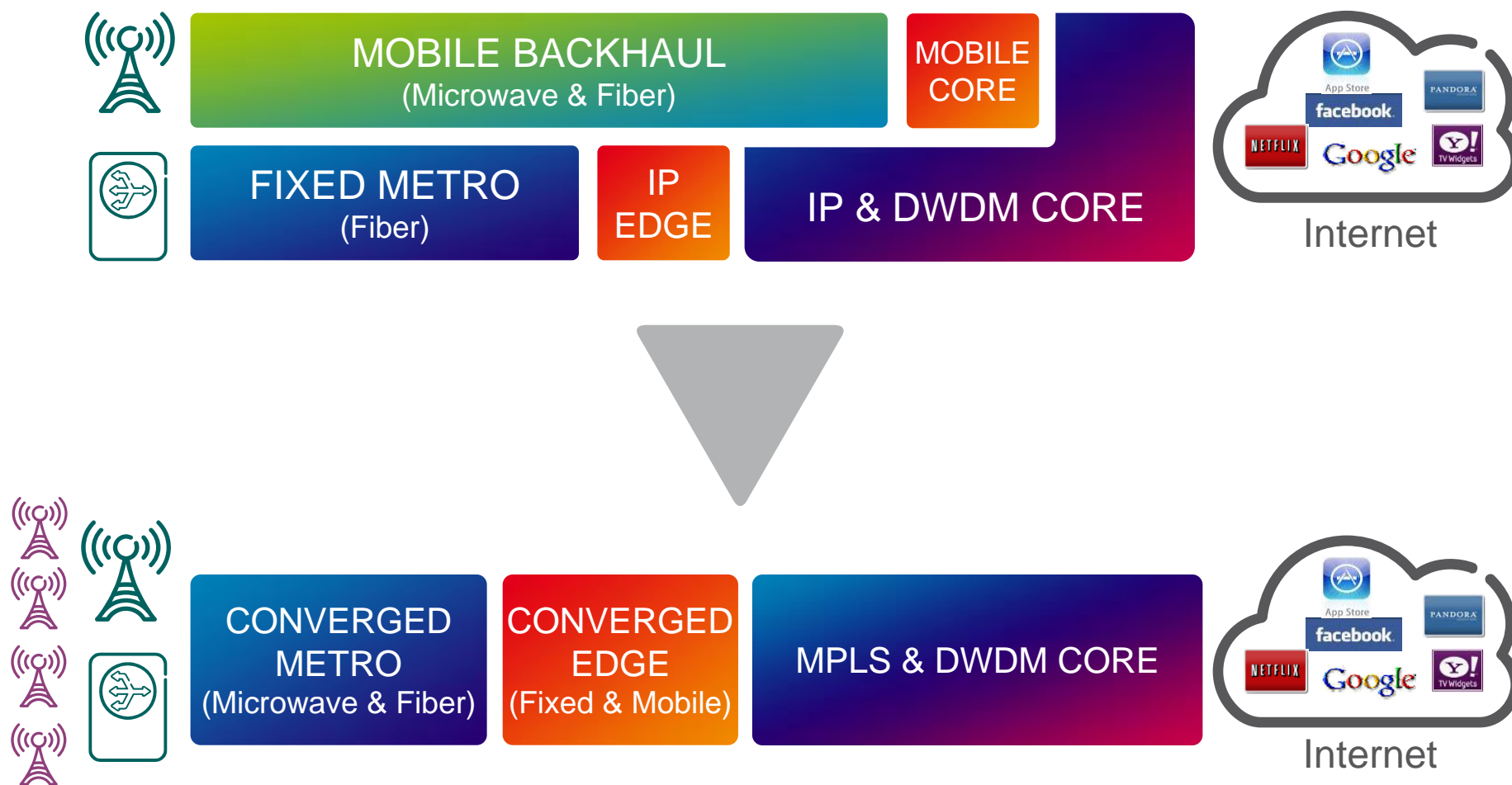
In the world of 50 billion connected devices, everything benefiting from a connection will have one.

BROADBAND EVOLUTION

AN OPERATIONAL VIEW



CONVERGENCE FROM TODAY TO 2015



WIRELESS / WIRELINE CONVERGENCE

- › It's coming!!
- › Consumer requirements:
 - Ubiquity of experience – access agnostic
 - Intuitive interface
 - Cost predictability
- › Access Technologies:
 - Fixed wireline: xDSL, FTTC, FTTP, in-building Wi-Fi
 - Traditional wireless: CDMA, HSPA, HSPA+
 - Current generation wireless; LTE
 - Carrier Wi-Fi
- › ECO system maturing and driving convergence at different levels
 - › Networks operators, application developers, ITC Vendors
- › Enable Networked Societies
 - Network complexity remains
 - › Our collective job is to shield consumers from complexity



Thank You!



ERICSSON