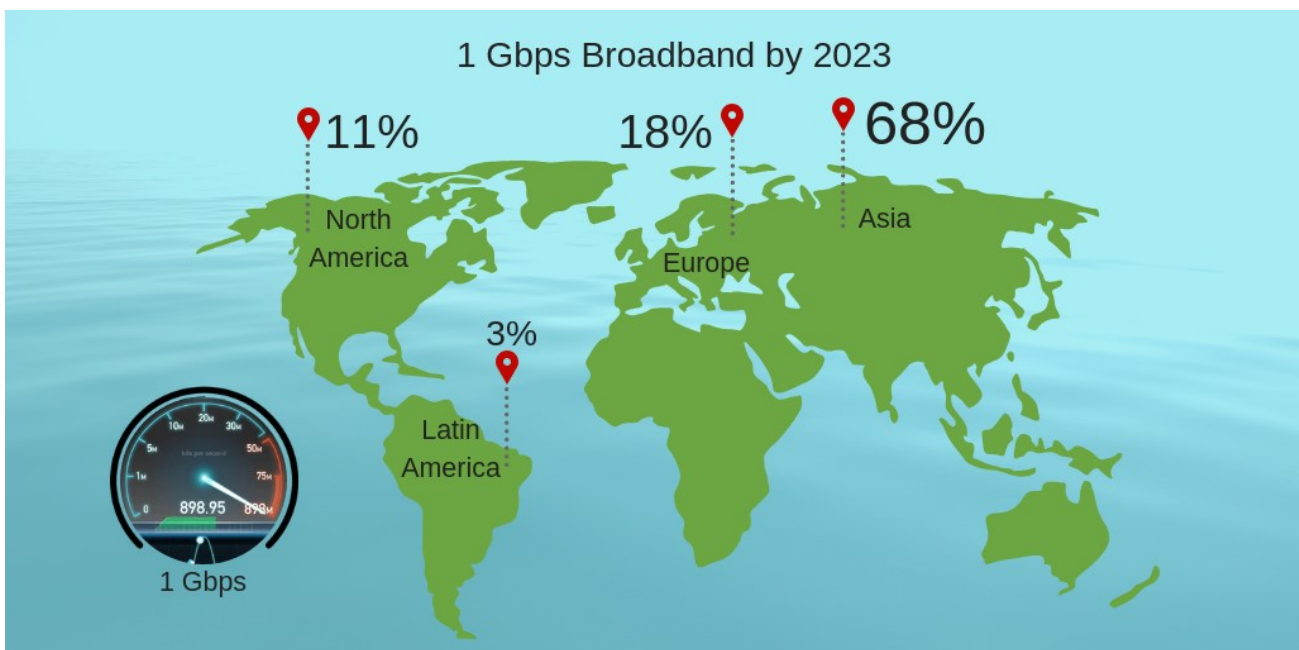


US left in China's wake in the quest for Gigabit broadband

Forecast and Report to 2023

RETHINK TV: THE RESEARCH ARM OF FAULTLINE ONLINE REPORTER



Companies mentioned in this report: Alcatel, Altice, AT&T, Bell Canada, Broadcom, CenturyLink, Charter, China Mobile, China TieTong, China Telecom, China Unicom, and more

Authored by Peter White

Executive Summary Only

“Leading the way with independent thought and no regurgitated analysis”

RETHINK
TECHNOLOGY
RESEARCH

Bristol & Exeter House,
Lower Approach Road,
Temple Meads,
Bristol
BS1 6QS

Phone: +44 (0)117 925 7019
Fax: +44 (0)117 329 1480
Email: info@rethinkresearch.biz



CONTENTS

	Page
Gigabit broadband Forecast - 2023	4
Global 1 Gbps broadband	5
Who's leading the 1 Gbps way?	8
Multi-Dwelling Units	11
Adoption rules	14
Does Cable have highest speeds for the lowest price?	15
Video to become the biggest data application	15
Current broadband situation in Europe and Asia	16
Fiber where you can, and copper where you can't	17
Global 1 Gbps broadband	18
The rise of 1 Gbps lines in Asia	20
The rise of 1 Gbps lines in the US	25
Europe embraces 1 Gbps in both North and South	27
Latin American 1 Gbps broadband lags the world	29
Methodology	30
Rethink TV: Forecasting disruption in video	32
Contributors and Contacts	33
About Rethink Technology Research	34

GRAPHS AND TABLES

Charting PHY, Real Life, and Multi-AP WiFi Performance	7
1 Gbps lines in 2018 by % of homes	9
1 Gbps lines on 2023 by % of homes	9
Countries with over 1m 1 Gbps lines installed	10
Countries with 1m 1 Gbps lines by 2023	10
1 Gbps broadband globally today	19
1 Gbps broadband by 2023	19
1 Gbps Broadband to 2023 by region	20
Growth of 1 Gbps broadband lines in Asia to 2023	21
1 Gbps broadband across Asia today	23
1 Gbps broadband across Asia by 2023	23
1 Gbps across North America to 2023	25
1 Gbps in North America by 2023	26
1 Gbps growth across Europe to 2023	27
1 Gbps lines today in Europe	28
1 Gbps broadband lines in Europe to 2023	29
1 Gbps Broadband in LATAM to 2023	30

GIGABIT BROADBAND FORECAST - 2023

Gigabit broadband growth, faster than expected

Gigabit broadband is about to accelerate and will grow far faster than most forecasts have so far imagined. 1 Gbps subscribers will grow tenfold globally over the next 5 years, turning from selective high priced packages to the standard offering during that time. Concentrations of 1 Gbps broadband will grow from 3% to 4% of homes in most countries to well above 30% on average, and in advanced countries such as France, Switzerland and South Korea, more than 50% of households will take 1 Gbps broadband by 2023.

China will improve its broadband monumentally, taking 1 Gbps subscribers from 4% of its 456 million households, to close to 42%, in a series of massive build-outs led by China Mobile.

Advanced 1 Gbps countries will include the USA, Japan, France and South Korea, while laggards in percentage terms will include the United Kingdom and Germany and much of Latin America.

At the same time fiber has become king with most countries moving from broadband upgrades for the cheapest price using existing copper, to adopting a fiber first approach and looking after ADSL technology upgrades later.

Increasingly there is a landgrab for apartment dwellers who live in MDUs, with high speed internet offerings, if not always quite at the 1 Gbps level.

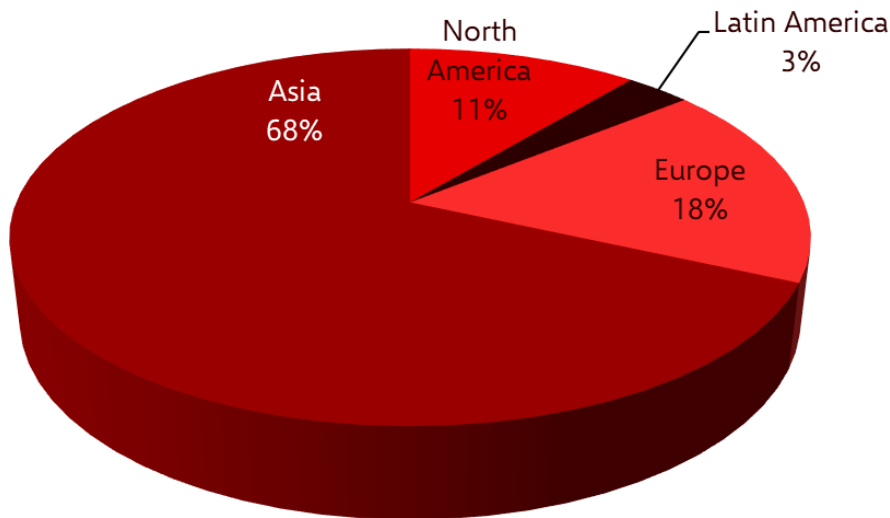
As fiber picks up momentum, the window of opportunity for Gfast, G.Now and MoCA Access is closing as more buildings opt for fiber direct to the home or apartment. The one major exception is DOCSIS 3.1, which is really triggering US cable 1 Gbps installations, and is promising to move up to 10 Mbps eventually.

Globally over the next five years 1 Gbps lines will rise to make up 31% of all broadband, but if you include fiber at lower speeds, it could be as much as 60%.

A massive 68% of all 1 Gbps lines will emerge in Asia, being strongly led by China which will ship 193.5 million ports of 1 Gbps broadband out of an Asian total of 232.5 million, and a global total of 340.5 million.

Globally we see the acceleration being gradual, but getting somewhat steeper in 2020 . We expect Asia to reach 232.5 million 1 Gbps lines, Europe some 59.6 million, the US will reach 37.7 million and Latin America will install just 10.7 million. China alone is expected to have 193.5 million.

1 Gbps Broadband by 2023



From a base of 341m lines

Methodology

We have established over time the existing broadband numbers and each operator's trending growth, for the top 100 operators or so globally and these deliver around 90% of the global broadband lines.

We have also tracked the rate at which they have replaced their existing home gateway CPE. This varies between a full refresh in 5 years to a full refresh in 11 years. In the early years of this forecast we have assumed a slowly rising percentage of the broadband audience (40% of a particular year's broadband upgrades) are prepared to pay a significant price differential (>US\$20) and have slowly raised this proportion of people happy to upgrade as prices fall over the first three to four years of a 1 Gbps offering until 65% of all homes changing equipment or upgrading their lines will take 1 Gbps Broadband.

Typically the longer that an operator has had a 1 Gbps offering, the larger percentage of its customers will be convinced to upgrade.

This model gives a gently accelerating number of customers upgrading to 1 Gbps, from around 5% of a customer base per annum, rising to around 8% in later years.

Some operators may decide to give away the upgrade to 1 Gbps broadband right from the get go, but we believe the few that will do this, will be averaged out by those who hold out for higher monthly broadband revenues.

Who should buy this report

This report is critical to anyone involved in planning for the introduction of 1 Gbps broadband services or providing the underlying technology for such services, or providing services which will rely on 1 Gbps delivery speeds. So this means operators, technology partners, implementers, equipment suppliers, software providers and investors, at C Suite level down to product marketing and product planning. The Rethink TV arm of Rethink Technology Research is essential reading for anyone who wants to stay on top of current trends and thinking among digital video delivery.

This report will:

- Give you regional clues to which countries have the most competitive and advanced 1 Gbps programs
- It will help prioritize your regional targets
- Help align vendor product roadmaps with operator plans
- Help operators plan Capex spend on 1 Gbps services

Companies mentioned in the report:

Alcatel, Altice, AT&T, Bell Canada, Broadcom, CenturyLink, Charter, China Mobile, China TieTong, China Telecom, China Unicom, Cogeco, Comcast, Cox, Deutsche Telekom, Frontier, Google, Huawei, Korea Telecom, MoCA, Netflix, Nokia, Reliance, Reliance Jio, Rogers, Sckipio, Shaw, South Korea Telecom and Verizon.

Pricing

Each module of Rethink TV costs \$2,500 for up to 5 users and \$3,800 for a corporate license for any individual report such as this one. This is the price for “US left in China’s wake in the quest for Gigabit broadband – Forecast and Report to 2023” but a single report subscription will include ALL previous reports and all reports for the coming 12 months. The entire service is essentially a subscription, which comes with at least 11 reports each year.

How to buy this report

Buy Report Online - 1-5 user license:

<https://rethinkresearch.biz/store/product/gigabit-broadband-forecast-to-2023-1-5-user-license/>

Buy Report Online - corporate license:

<https://rethinkresearch.biz/store/product/gigabit-broadband-forecast-to-2023-corporate-license/>

Rethink TV: Forecasting disruption in video

Rethink TV is our video research team, producing market forecasts, technology white papers and tracking operator-technology vendor relationships in pay TV, OTT video and have documented the transition of TV services from the TV set, onto laptops, tablets, phones and smart TVs and other devices.

Our sister publication Faultline Online Reporter has been Rethinking the ideas behind TV for the past 20 years. We thought it was time you gave you a reliable source of business forecasts for the underlying technologies which have made that transition possible.

Rethink TV also tracks the top 100 paid OTT service providers and their suppliers, providers monthly updates to their key providers whether that is Adaptive Bit Rate packaging, encoding, DRM, recommendation systems, analytics or programmatic advertising systems.

It comprises of two parts:

- 1) 12 forecasts a year, delivered once a month, related to OTT and video
- 2) 100 up-to-date profiles on the top 100 operators globally.

Here are some sample titles of reports we have produced recently:

- SVoD killed the Cinema star: Global Cinema Market – Forecast to 2023
- Transcasting and the Birth of the Smart IP pipe: Multicast ABR Forecast
- The Multi-AP WiFi revolution - Forecast to 2023

SUBSCRIPTION COSTS

Annual 1-5 User license - \$2,500 (*A group license permits up to 5 users*).

Annual corporate license—\$3,800 (*unlimited distribution inside your organization*).

About Rethink Technology Research

Rethink is a thought leader in quadruple play and emerging wireless and IoT technologies. It offers consulting, advisory services, research papers, plus three weekly research services; Wireless Watch, a major influence among wireless operators and equipment makers; Faultline, which tracks disruption in the video ecosystem, and OTT video. Riot on enterprise disruption from the combination of AI/IoT and cloud.



giving people in leadership the news and predictions they need to hear, not want to hear"

Need more information?

Chloe Spring (*Head of Marketing*)

chloe@rethinkresearch.biz

+44 (0)117 925 7019



Bristol & Exeter House
Lower Approach Road
Temple Meads
Bristol
BS1 6QS
United Kingdom

Tel. +44 (0) 1173 291480
Tel. +44 (0) 1179 257019

www.rethinkresearch.biz

Published August 2018

