
Description: End to end broadband networks leverage a combination of optical infrastructure in the long haul and copper infrastructure in the last few meters from the distribution box to the home. Fiber has had rapid advance but does not work in the end, it is too expensive to the home. FTTH is too expensive and DSL continues to be a viable alternative, with DSL set to be replaced at the high end initially by G.fast. Copper based broadband technologies promise to last for a long time. Though for many years FTTH has threatened to make xDSL obsolete, this has not proven to be the case.

Broadband Internet is used in all corners of the world. It is set to be used by everyone by 2025. There is a lot left to be done. Networking services company Akamai says the second quarter of 2014 marks the first time the global average broadband speed jumped over the 4-megabit mark.

South Korea occupies the top broadband user category in both average bandwidth (24.6 megabits) and proportion of the population on a broadband connection (95 percent, tied with Bulgaria). Smaller islands, the Philippines, countries with lots of rural areas, like India, are struggling to deliver useful speeds.

The U.S. falls behind East Asia, ranking somewhere in the middle, with the Nordic countries, in terms of broadband speed and penetration. Inside the U.S., Delaware appears well equipped with bandwidth — the Mid-Atlantic state ranked first in every category: average speed, peak speed, connectivity and even "4K readiness," referring to the 15 megabit speed that can handle ultra high-def broadcasts. The slowest US state is Arkansas.

Copper represents an installed infrastructure worth trillions and too expensive to just replace. Fiber is too expensive to use it to replace all the copper. FTTH DSL and G.fast, the copper works in many cases and does not need to be re3placed. xDSL markets will be strong for some long time to come as copper remains a transport line.

G.fast leverages copper infrastructure that is everywhere in the telecommunications network. Copper provide connectivity to all residences. Copper is still the primary wireless backbone transport means, meaning it continues to be vital as new wireless systems continue to expand their markets. It predominates in the local loop, creating demand for systems that are able to support high speed signal transport over copper wire.

Copper based broadband is and will remain for the foreseeable future, the dominant broadband access technology across the globe. Broadband service providers who rely on copper loops for broadband access have to improve broadband performance and extend its life. Choices between DSL technologies and G.fast are based on cost. Fiber technologies are used to come to the curb. DSL and G.fast represent a hybrid rooted in a network planning.

According to the lead author of the team that prepared the study, “The opportunity to participate in G.fast Chips markets is compelling. G.fast provides the ability to leverage outdated copper infrastructure to breathe new life into existing investment. This market is evolving as new G.fast technology and vectoring are implemented. Growth in this market based on technical breakthroughs and innovation. Technology platforms are rapidly evolving.”

Consideration of G.fast chips market forecasts indicates that markets at $31 million in 2014 will reach $2.9 billion by 2020. Growth comes as every industry achieves leveraging broadband to make social media and smart phones work to grow the business. G.fast is able to make the benefits of broadband available to consumers and support network flexibility for consumers, data centers, and cell tower backbone communications. G.fast networks are flexible and support broadband that is able to reach.

Key Topics:
- G.fast
- G.fast Vectoring
You Must Have This Study:

- New technology is evolving
- G.fast is poised for rapid adoption
- Copper networks are needed to supplement fiber communications

Market Opportunity:

- G.fast is 10 times less expensive than DSL chips
- G.fast is working
- G.fast mature faster than suppliers expected

Market Challenges:

- DSL is set to dominate at the low end
- G.fast needs improvements at the high end for vectoring
- G.fast needs more development in the basic technology
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