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Internet Data Tsunami

Intel presentation resume

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Basing on statistical data this presentation informs about the broadband traffic development and factors driving it.

There is a research evidence of significant impact of broadband on GDP growth in economies world-wide.

New Applications Drive Bandwidth Consumption - 18,7 GByte/Month is the average user's "consumption" and Cisco forecasts 6.3 Exabytes/Month of mobile data traffic by 2015.

Between 2009 and 2014 the mobile video traffic is exploding driven by video conferencing, video sharing and life streaming driven by laptops and smartphones users.

The physical limits of already existing infrastructures are already achieved - the next significant step of at least 10x improvement is needed - Optical Fibre everywhere and radio with small cells. This growth requires policies that enable innovation, promote competition, and allow sustainable operator business models.

Consumers are inpatient - given available applications and services, 100++Mbps connectivity is needed for good user experience because nobody is waiting long for system/network reaction. Examples illustrate waiting time for download of common applications given available transfer data.

Only high data transfer speed together with low latency generate traffic mostly video based. Examples illustrate applications pushing bandwidth demand as well as proliferation of applications depending on broadband speed.

Mature economies like Germany rank on middle places considering Broadband Quality Score because consumers' broadband experience is mainly affected by transfer speeds in uplink and downlink directions, latency, network oversubscription, and packet loss, all of them not up to date thanks only available copper based networks.

Digging optical fibre is too expensive for incumbents and therefore Europe needs new regulatory solutions to accelerate the target of the >50% of households with >100 Mbit/s connected by 2020. Regulation framework basing on "Old Wires- old rules, new wires- new rules" and technology and service neutrality could be the solutions.

Concluding, we never know which applications will fly therefore the networks always enable the applications, not the applications justify the networks' deployment (chicken and egg dilemma).