



QoE in New Media Landscape

The battle between Content Providers and Network Operators

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Statement: Domains of Service Evolution on the Internet

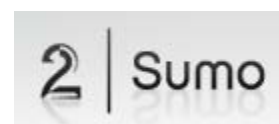
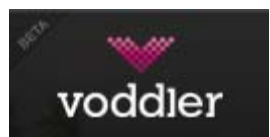
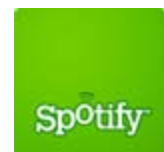
Migration domain

"The Internet..

Innovation domain



...a global, unifying network"



Contradictions causing a battle



Network Neutrality – changing ?

Vil ta betalt for "over the top"

Volum og kvalitet vil koste ekstra for Teliasoneras fiberkunder.



Telenor bryter ned nettnøytraliteten

Av [Marius Jørgenrud](#), tirsdag 25. januar 2011 kl 09:22

Krever ekstra betalt for nettvideo.

Prinsippet om den såkalte nettnøytraliteten har vært debattert i mange år. Den rådende oppfatningen er at aksessleverandørene ikke skal kreve betaling for å foretrekke visse typer datatrafikk fremfor annen.

Modellen er truet av linjeleverandører, som særlig hevder at fremveksten av bredbåndsintensivt videoinnhold krever dyre investeringer i infrastruktur.

Telenor planlegger nå å ta seg betalt i begge ender.

Allerede i løpet av 2011 vil telegiganten kreve at aktører som Youtube, NRK, VG og andre større distributører av video på nett plukker opp deler av regningen. Det melder Dagens Næringsliv.

IKT-bransjens nettavis



Network Neutrality – changing ?

DECEMBER 21, 2010 10:12 AM PST

FCC makes Net neutrality rules official

by Marguerite Reardon



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155

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67 comments

The Federal Communications Commission today officially adopted controversial Net neutrality rules, but the fight is far from over as the FCC's authority to create and enforce these rules may still be in question.

INTERNET

Appeals court overturns FCC rule on net neutrality

The FCC's policy on broadband access had required Comcast to give equal treatment to all Internet traffic it carried. Now providers may be able to charge more for fast content delivery.

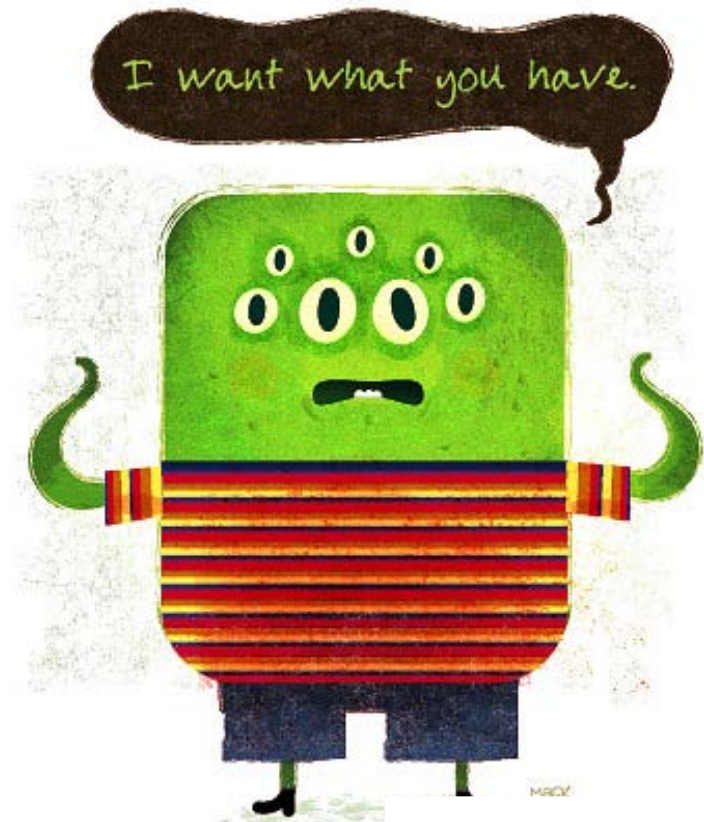
April 07, 2010 | By Jim Puzzanghera and Jessica Guynn

Los Angeles Times

In a case with wide-ranging ramifications for how Americans use the Internet, an appeals court Tuesday struck down a federal rule that required broadband providers to keep their networks open -- even to bandwidth hogs.

The decision appears to give telecommunications companies a free hand to limit or block people from watching videos or accessing other online content that they have become increasingly accustomed to downloading with ease. It could also allow Internet service providers to charge a premium to websites for fast delivery of their content.

What is the root cause ?



Greed, envy or what ?

Statement: Large operators are run by excel

There's no innovation formula in Excel !



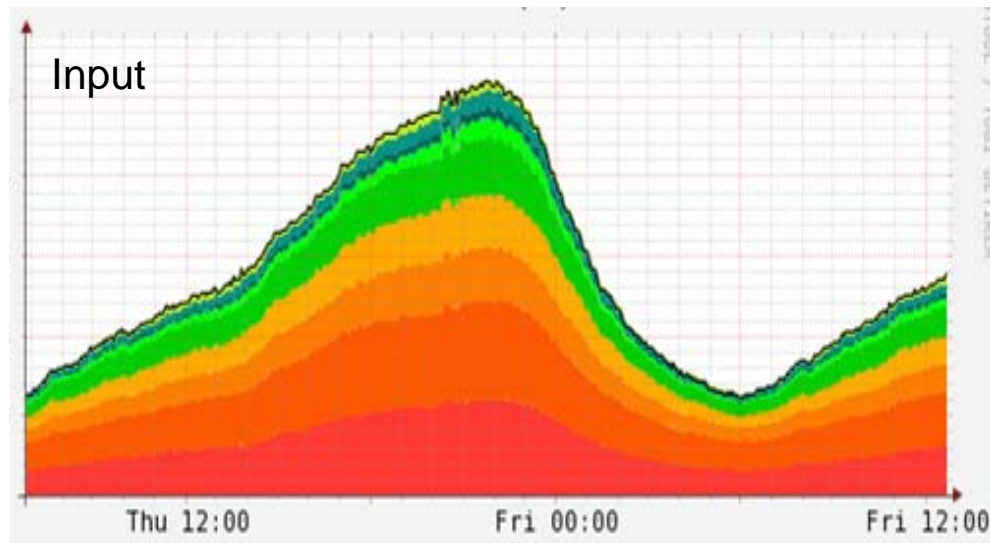
Value Chains on Internet are unpredictable, and you can only dream of **controlling** them....

....BUT SOME TRY !



A smokescreen concerning capacity, scaling, cost etc is built

Internet Traffic Volum, Case study

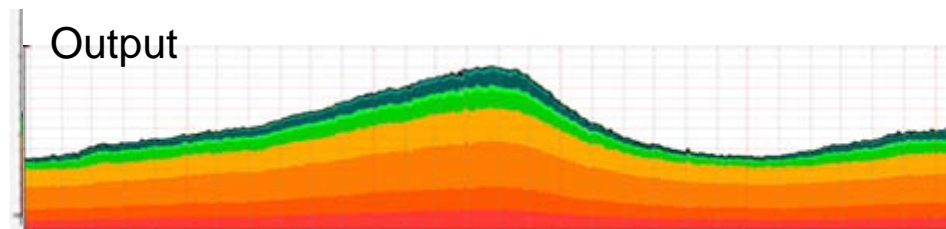


Data from live network
~1.5mill subscr and peak
traffic of 125Gbps

Busy hours in the evening,
drives network scaling

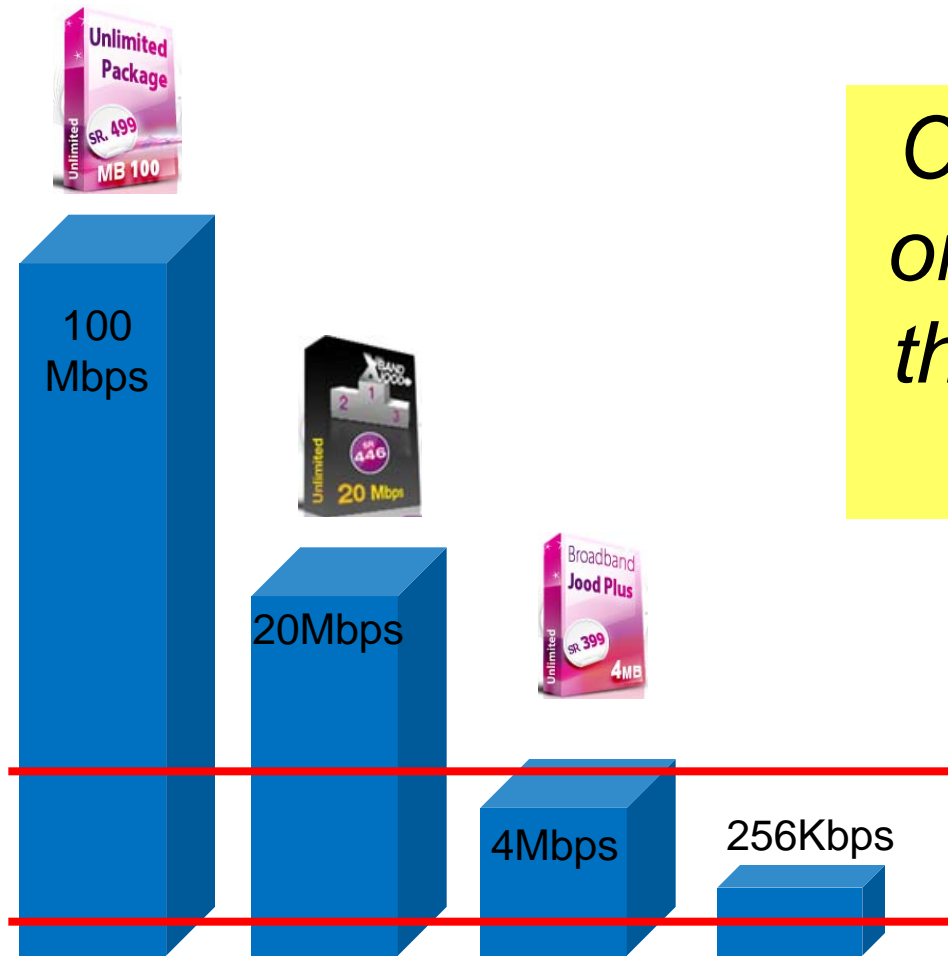
~80% of all traffic comes
from outside the network

~20% of traffic is internal



Numbers are from an international operator

Sold vs Used Capacity



*Operators sell in the order of **30-40 times** the bandwidth which is actually used*

Average Sold Capacity Per User
~**4Mbps (for this country)**

Average Usage Per User (Peak Period)
~**100-150Kbps**

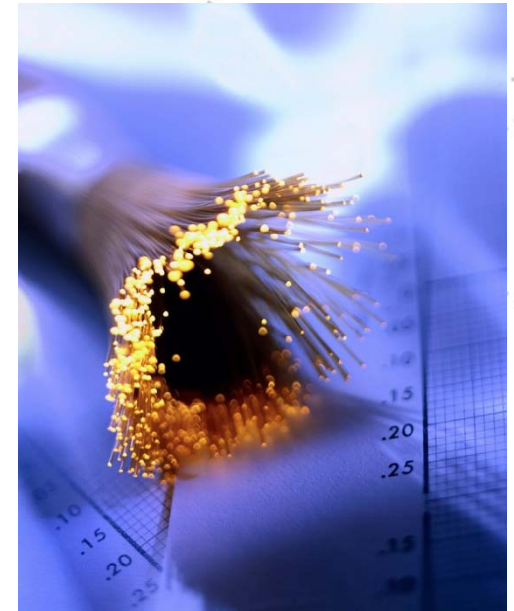
The same ratio is seen for multiple operators

Innovations in Technology

According to Gerry Butters the former head of Lucent's Optical Networking Group at Bell Labs, the well know **Moore's law** holds true with fiber optics, know as the “**Law of Photonics**”

This states that the **amount of data coming out of an optical fiber is doubling every nine months.**

Thus, excluding the transmission equipment upgrades, the cost of transmitting a bit over an optical network decreases by half every nine months

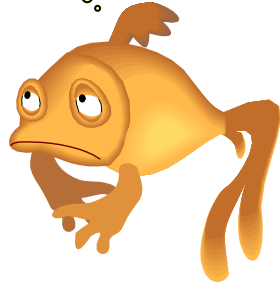
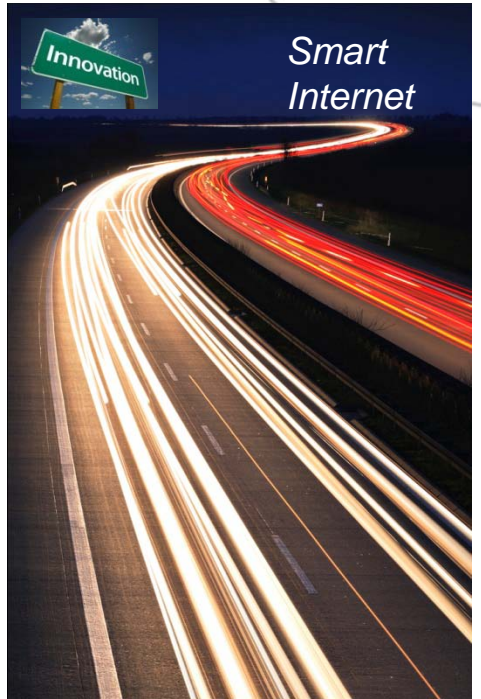
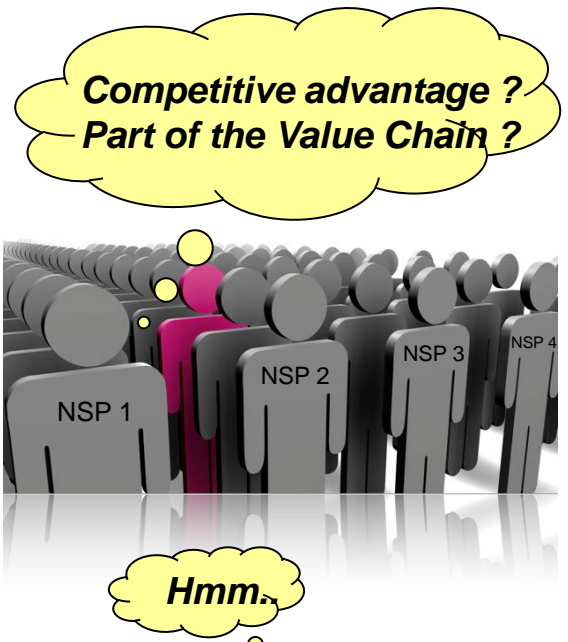
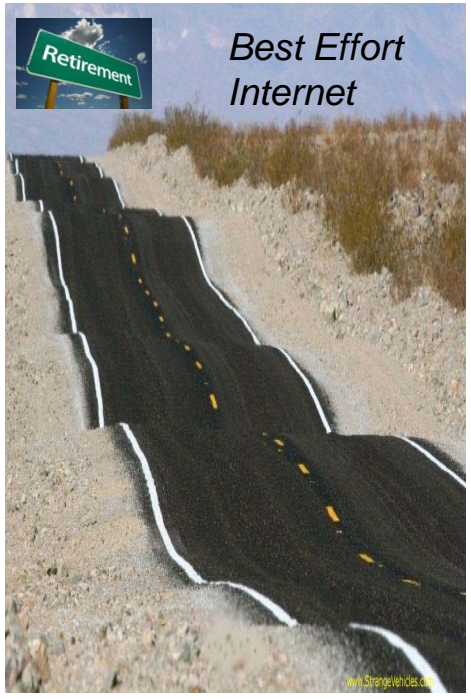


It's just a smokescreen !



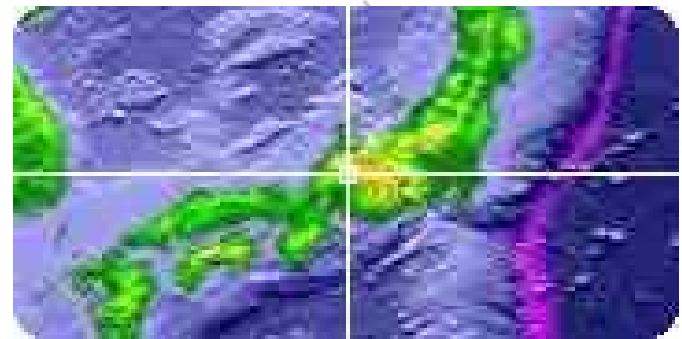
A Challenge to Network Operators

Bumpy Road or Smart Highway ?



"Smart" = QoE = **Kando** ?

Kando is a place in Japan...



...but also...

a Japanese word for: the **simultaneous feelings of deep satisfaction and intense excitement that we experience when we encounter something of exceptional value.**

And in my view Kando is provided by.....

