

# Open Digital: The Digital Services Opportunity Explored

Nik Willetts, Chief Strategy Officer APNOMS 2013 – Hiroshima, September 26, 2013



## tmførum

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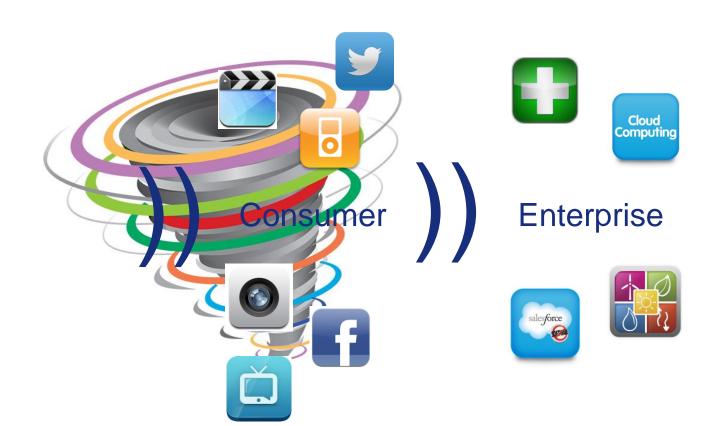
Coverage

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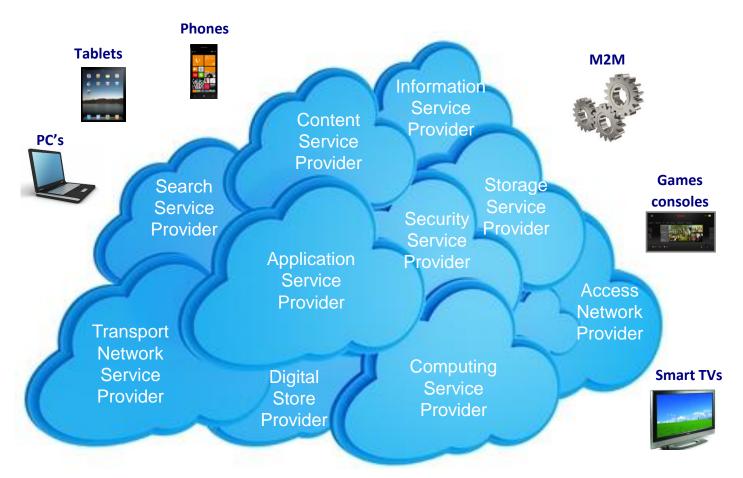


## We're in a digital storm





## A complex digital ecosystem

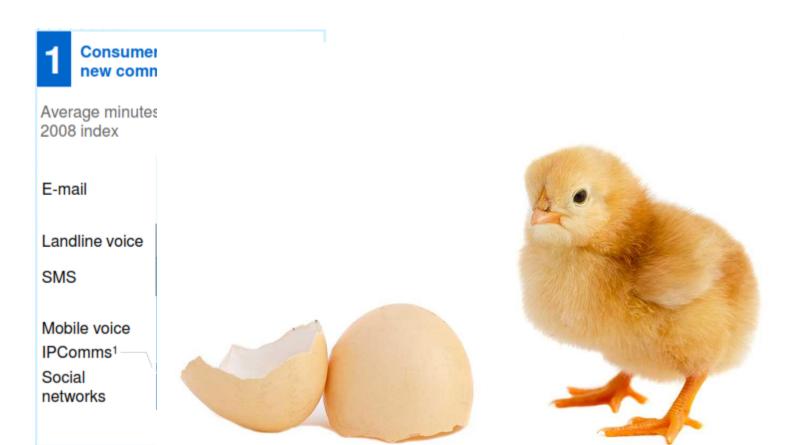


Multiple services, providers, business models & users



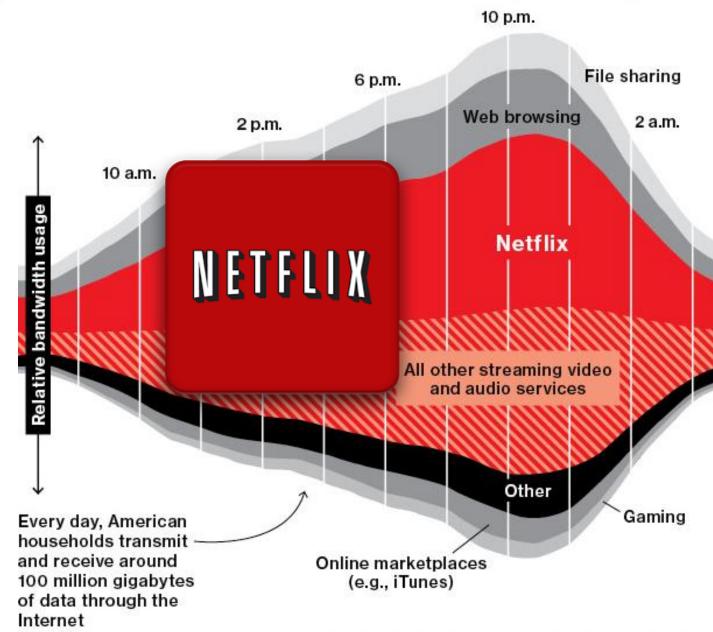


## **Communications industry** paradox



Source: McKinsey research: Consumer 2008-12; Ericsson, sample operators











## **Autonomous networks...**









## ... with priority



## The threat: the OTT View

For economy of scale, this network needs to be inexpensive, agile, elastic and controlled by the application layer using SDN

The device is becoming yet another blade (with constraints (power, bandwidth))

Google: openflow technology in android

**Enterprise** 

Gateway

Home Gateway

The state of the s

Gateway/appliance are installed on premise

Google, Apple: TV Amazon: Streaming

CDN optimizer
Google
Akamai



#### Hardware abstraction

- Network elements should run using commoditized hardware
- · Network becomes elastic

#### Forwarding plane remote access

- Clear separation between the control plane and the data plane
- Application layer to control the forwarding plane
- · Can be implemented natively or as an overlay



Modern data centers are an extensive network of blades that expands within the data centre or between data centres. Each blade is remotely controlled to dynamically manage the forwarding plane

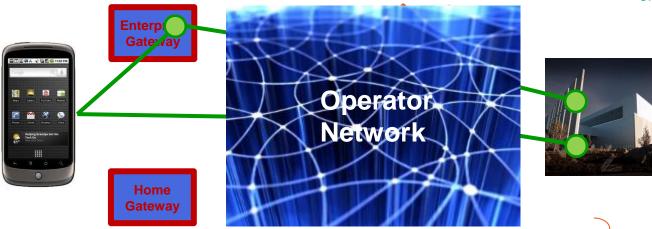
Source: Michel Burger



# The opportunity: Network as an IT Resource

A lot of raw storage and computing power locked in proprietary solutions which make the network an IT no man's land

Software services can be distributed at the edge or within the network either for minimizing the latency of the user experience or optimizing the centralized data canter load



Implementing on premise (home/enterprise) gateway as IT resource allows us to extend our reach

Abstracting the hardware of network elements enable the ability to expose them as IT resources Network need to be software programmable and controllable to allow quick access to resources

Implementing SDN in the network

- Edge (one hop away) IT resources handle low latency user solution are more viable than devices as IT resources
- Complementary to the other IT resources

We are part of the computing supply chain providing specific IT resources only network operator can implement and we have visibility of inter-service element traffic

Source: Michel Burger © 2013 TM Forum | 10



## What does the future hold?

Enterprise relationships

Cloud provider Identity

SDN

Local infrastructure

Location

**OTT SDN** 

Legacy

Partner experience

**Customer first** 

Disruptive innovation

**Opportunity** 



**Threat** 



## Where should you play?

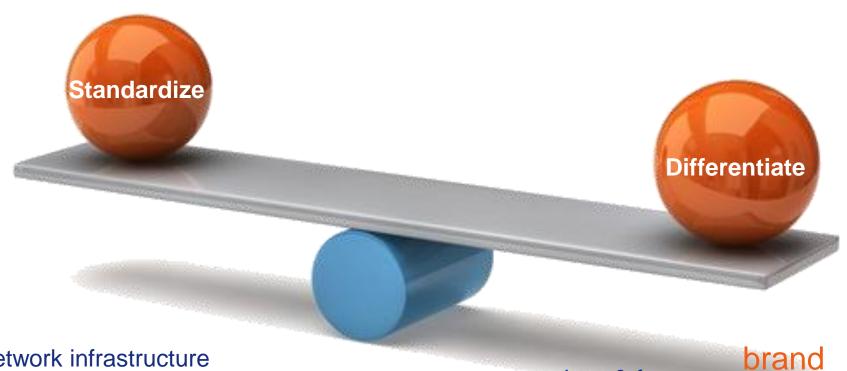


Infrastructure player? Enabler? Service Provider? Retailer?





### **Know where to differentiate**



network infrastructure

99% of business processes

IT systems data architecture integration architecture software & COTS suppliers

services & features customer experience service packaging pricing & bundling creative use of data

service innovation 13



# An Open Digital Economy

...where anyone can trade with anyone...

...on a trusted basis...

...where customer experience is maximized...

...operational costs & barriers are minimized...

...agility & innovation are enhanced



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**Service Quality** 



# Thank you

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