Cisco Plus
Danmark

Markedstrends og SP transformation

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Service Provider Track

11:15 – 12:00 **Markedstrends og SP transformation**

v/ Michael Nielsen, Teknisk Chef - SP, Cisco Danmark

13:00 – 13:45 **Future growth in the B-t-B space**

v/ Fabio Gori, Head of SP Marketing, Cisco EMEA

13:45 – 14:30 **Fra leverandør af forbindelser til konsistente brugeroplevelser**

v/ Bo Finnemann, Customer Solutions Architect, Cisco Danmark

Agenda

Visual Networking Index – Ciscos prognose af mobil data trafik

Cloud Index – Ciscos prognose af DC Cloud trafik og readiness

SP Transformation – Områder under forandring

Cisco Visual Networking Index (VNI)

Udvidet scope af Cisco's IP Thought Leadership

Cisco® VNI Prognose rapporten anvendes til at forudsige den globale trafik vækst. Seneste rapport fokuserer på privat og erhverv mobil data trafik og primære trends.

Global prognose data

Global mobil data

Kilde: Cisco VNI Global Mobile Data Traffic Forecast, 2011–2016

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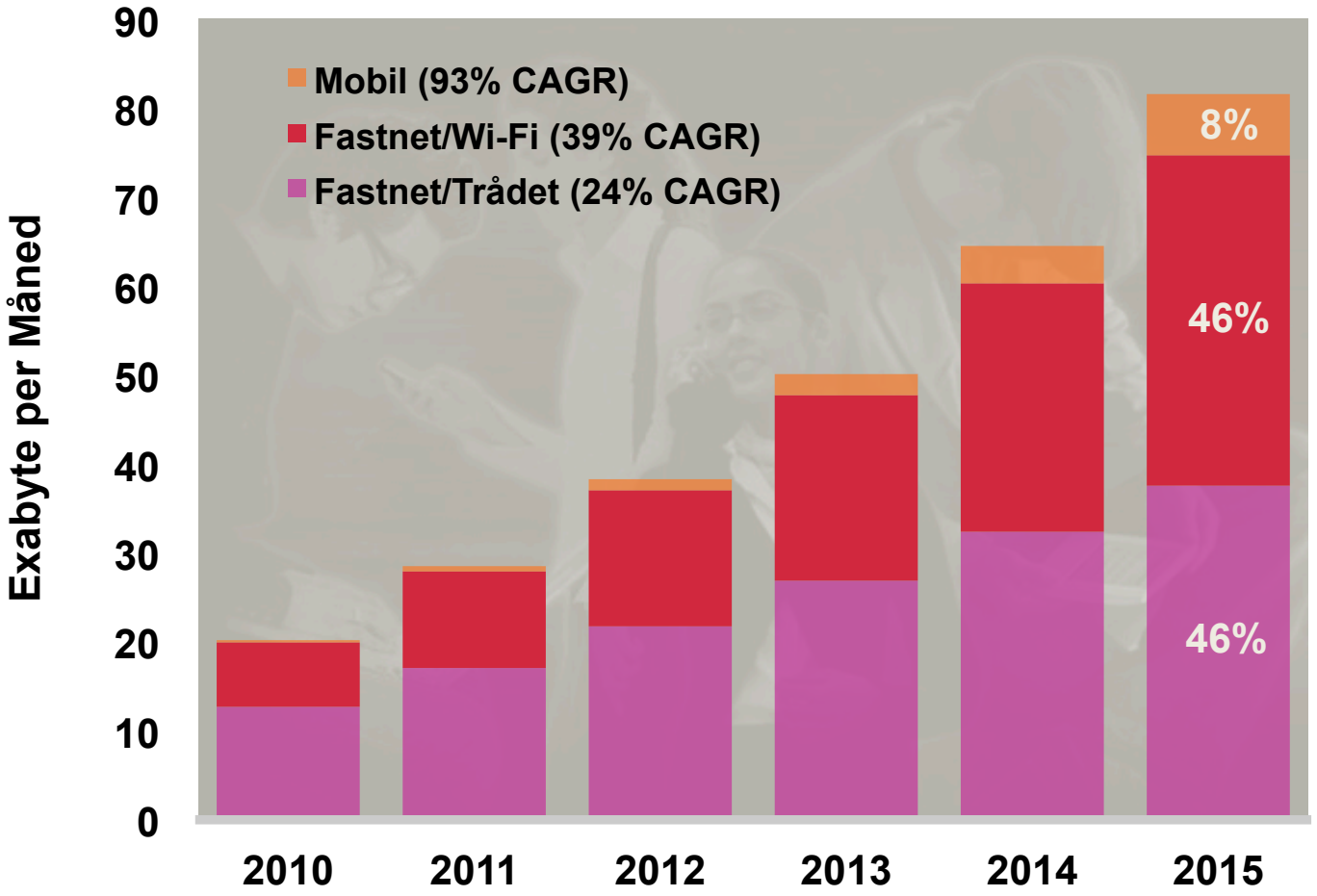
I 2011, global mobil data trafik er mere end fordoblet (2.3X vækst) for fjerde år i træk, på trods af den økonomiske uvished, fortsatte trafik offload, og bredere adoption af differenceret prissætning.

Global IP-trafik per access teknologi

Mobil når 8% trafik andel i 2015

Wi-Fi når 46% trafik andel i 2015



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I 2016, vil 71% af den totale mobile data trafik være video. Mobil video trafik vil fordoble hvert år imellem 2011 og 2016.

Gennemsnit mobil bruger
Trafik per måned

92 MB
Trafik / måned

- 3 Video klip
- 5 Musik lydfiler
- 1 Video kald
- 5 App Downloads

1.2 GB
Trafik / måned

- 10 Video klip
- 5 Video film
- 50 Musik lydfiler
- 3 Video kald
- 10 App Downloads

Gennemsnit trafik per Mobil device type

	2011 MBs per Måned	2016 MBs per Måned
Mobil	4.3	108
M2M	71	266
Smartphone	150	2,576
E-Book Reader	750	2,880
Tablet	517	4,223
Laptop	2,131	6,942

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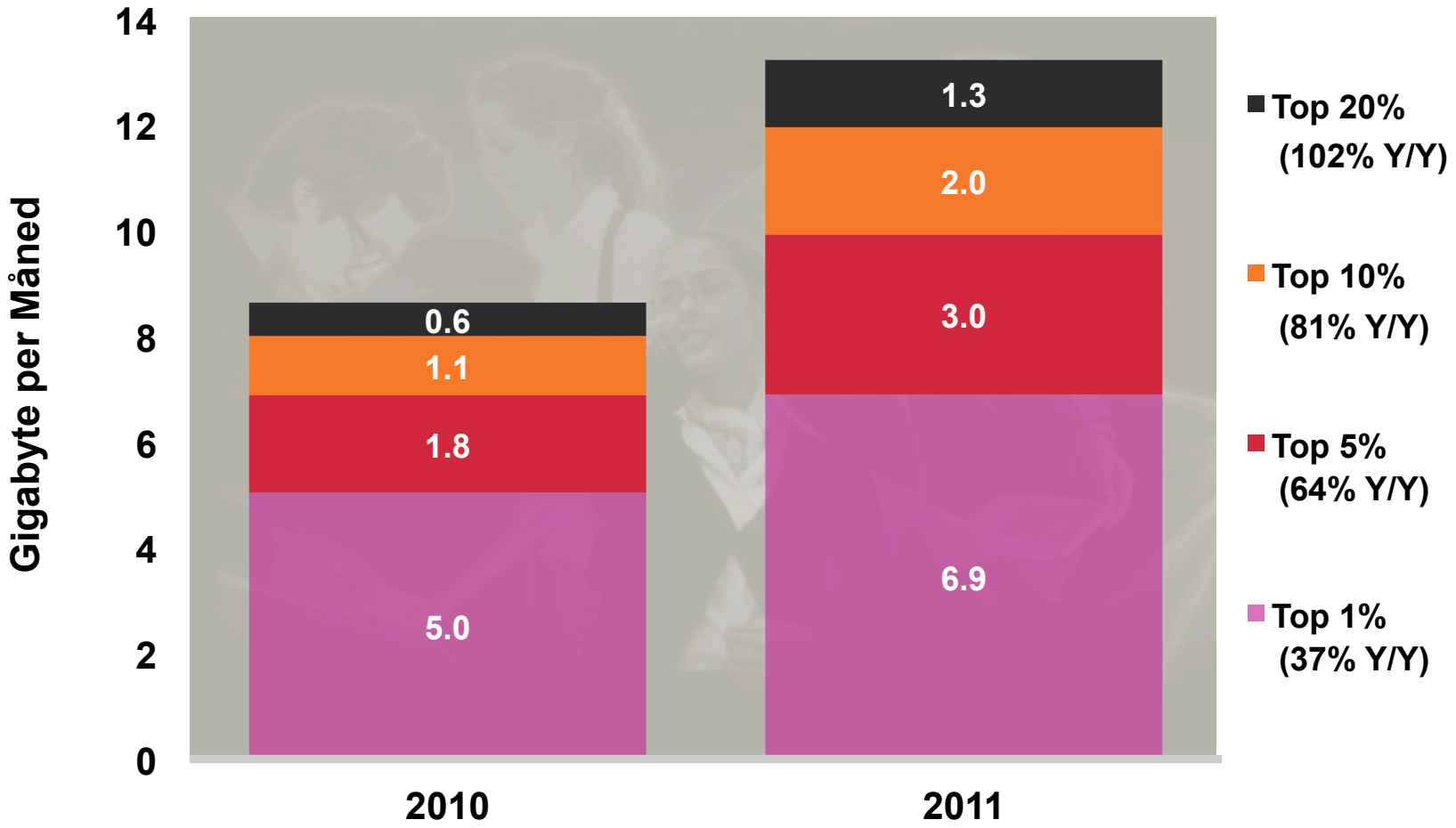
Top trafik profiler

Top 20 procent voksede hurtigere end Top 1 procent



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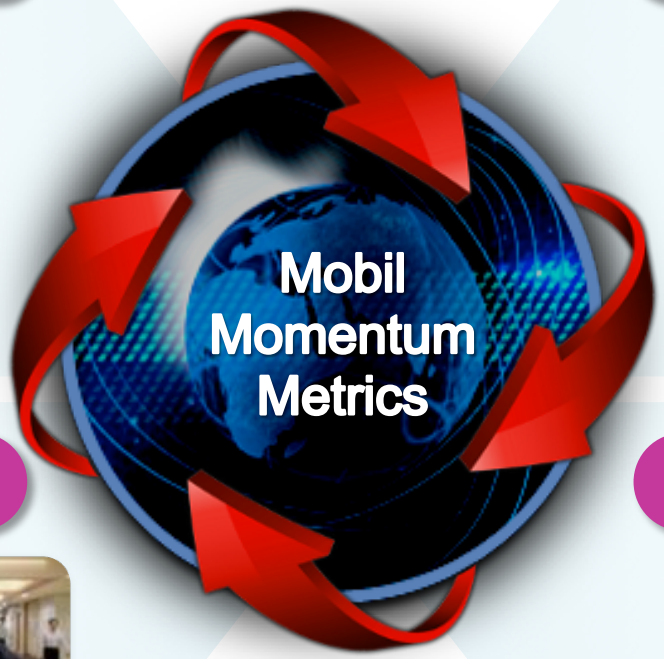
Global mobil data trafik trends

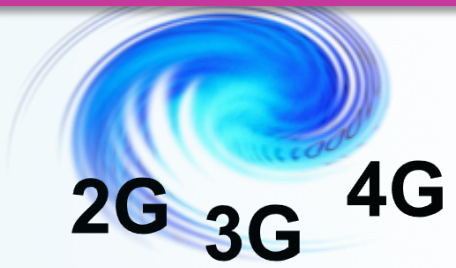
Flere mobile enheder

>15 Mia enheder

i 2016…



Hurtigere mobil hastighed

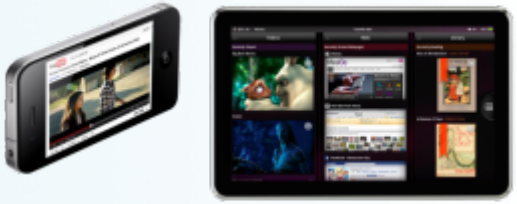


9 X Hastighedsforøgelse

Flere mobile brugere

>5 Mia brugere; 21% kun mobil

Mere mobil video



71% af mobil trafik

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Cisco Cloud Index

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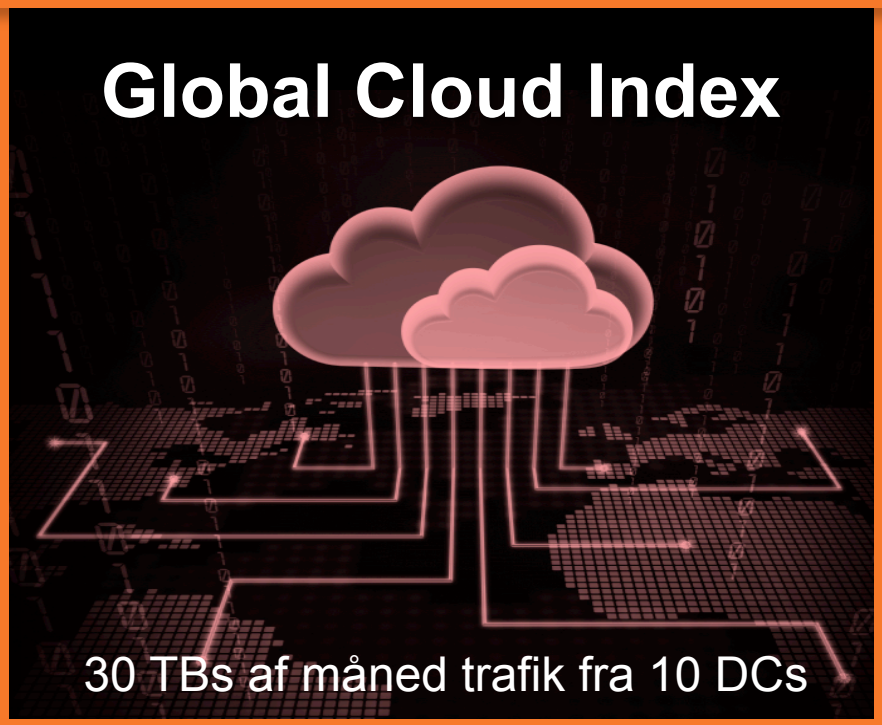
Cisco Global Cloud Index

Prognose af Global Cloud trafik / måle Cloud Transformation

Cisco Global Cloud Index er baseret på målinger af datacenter trafik, uafhængig analytisk udstyr for fremskrivning, og relevante akademiske studier.



Global Datacenter/Cloud Trends

Global Cloud Readiness

Bredbånds penetration
Upload / Download Speeds
Netværksforsinkelse

>45M speed tests fra 150 lande

Global data modellering af datacenter og cloud computing for erhverv og private.

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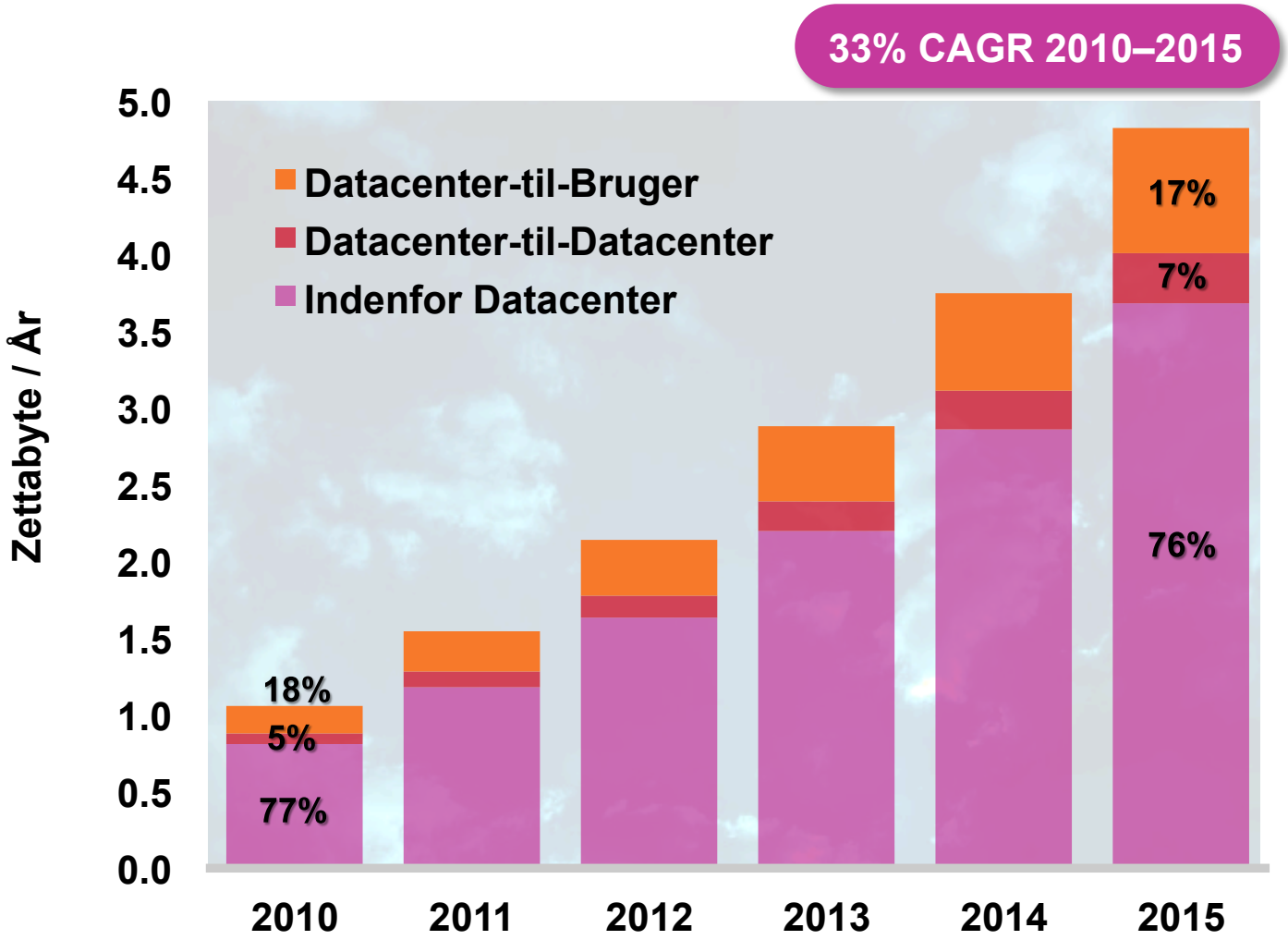
Global datacenter trafik per destination

Majoritet af datacenter trafik bliver indenfor datacenteret



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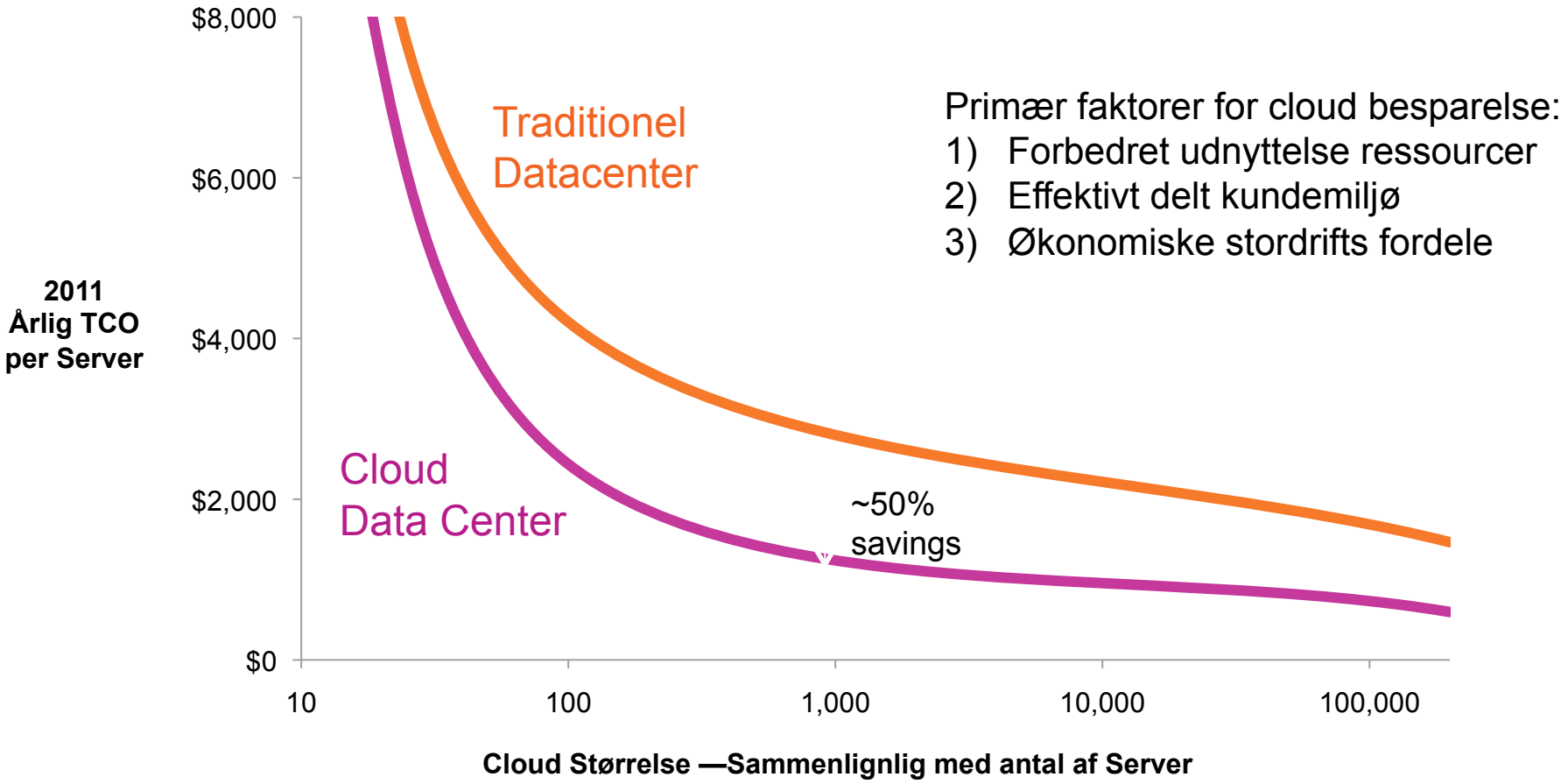
Cloud DC vs. traditionel DC: Økonomi

Cloud DC leverer op til 50% TCO besparelser



Primær faktorer for cloud besparelse:

1) Forbedret udnyttelse ressourcer
2) Effektivt delt kundemiljø
3) Økonomiske stordrifts fordele

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Vurdering af globale brugers Cloud Readiness

Internet Ubiquity

Fastnet / Mobil Netværk Upload/ Download Speed

Netværks Forsinkelse

Cloud Readiness karakteristisk

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Cisco Global Cloud Index

Summering

Datacenter og Cloud Trafik

- I 2015 vil global DC trafik være 4X trafikken i 2011
- 1/3 vil være Cloud baseret, som vokser 2x hurtigere end alm. DC

Workload Transaction og Økonomi

- I 2015 vil 57% af Erhverv workload blive processeret i skyen
- Cloud DCs giver significant TCO besparelser ift. traditional DCs

Cloud Readiness

- Danmark er generelt klar til Cloud
- Symmetrisk high speed forbindelser kræves for Adv. Cloud tjenester

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SP transformationer

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Næste Generation Hotspot vision

Cellular Mobilitets oplevelse på Wi-Fi

GSM

Tænd telefonen og få sikker mobil forbindelse

NGH

Tænd telefonen og få sikker Wi-Fi forbindelse

Automatisk. Sikker. EAP-Baseret.

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Næste Generation Hotspot

Roam, Autentificere, Pengeflow

Mobil “concierge” service
Mobile Service Advertisement Protocol (MSAP)

PÅLIDELIG
Carrier-class løsning

SEAMLESS
Simplificeret netværk opdagelse og udvægelse for automatisk cellular data offload

SIKKER
Forlænger eksisterende SIM-baseret autentification tekniker over krypteret Wi-Fi

PROFITABLE
Muliggør lokations-baseret og value-add services

Kunde case: Shaw

SHAW

NEWS RELEASE

SHAW TO BUILD BROADBAND WIRELESS NETWORK

CALGARY, AB (September 1, 2011) – Shaw Communications Inc. ("Shaw") announced today the results of its strategic review of the wireless business opportunity.

"We have decided to focus on strengthening our core business and leveraging our media and programming assets to support our leadership position in broadband and video," said Brad Shaw, Chief Executive Officer of Shaw. "Our decision not to pursue a conventional wireless business is consistent with this strategic approach and our focus on shareholder value."

Hvorfor Cisco?
- Komplet løsning med End-To-End Arkitektur
- Business case udvikling, inklusiv tjenester
- Industri ledende på Næste Generation Hotspot (HS 2.0)
- Trusted løsning og teknologi partner

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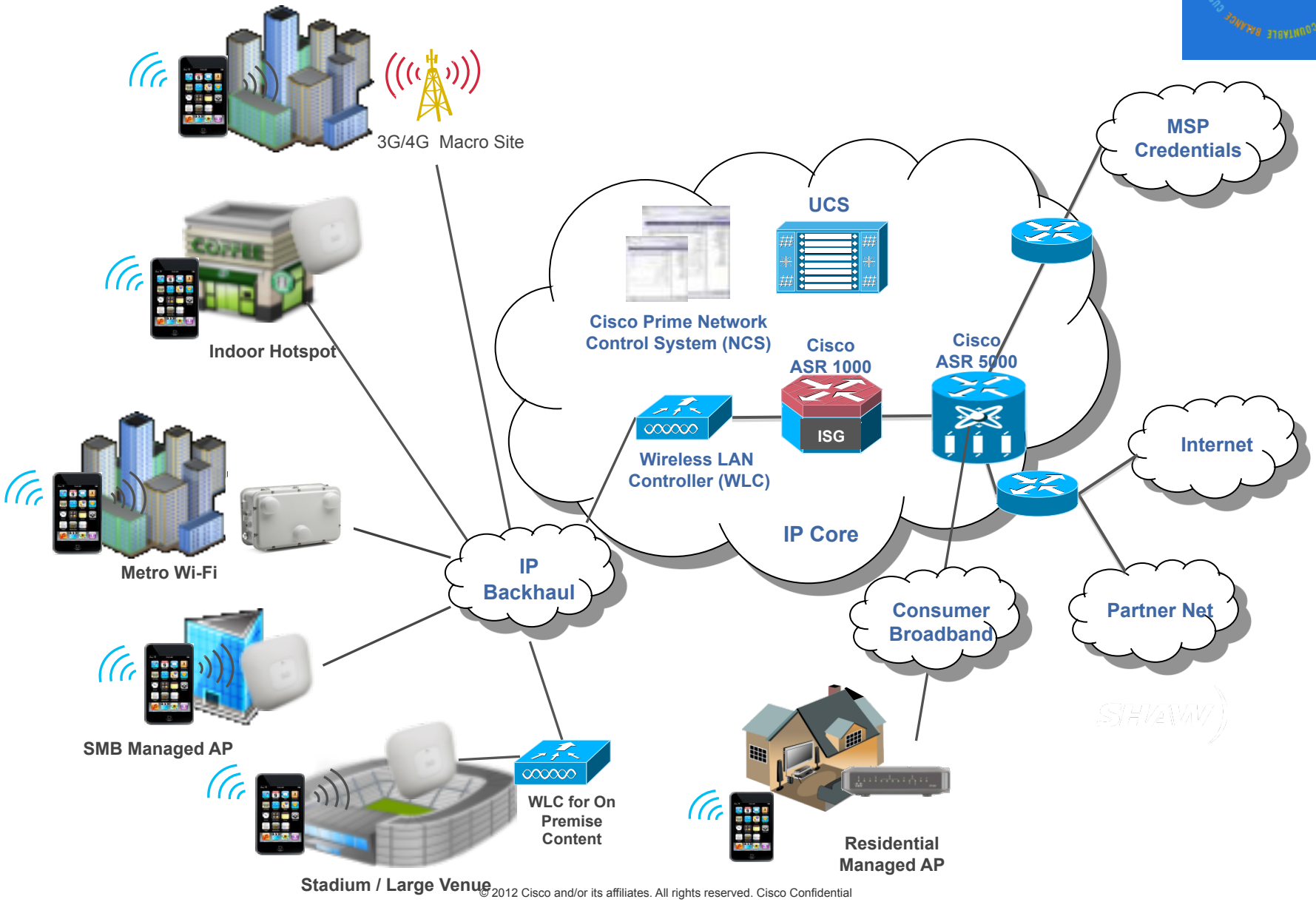
Shaw arkitektur



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IP NG Netværks transformation

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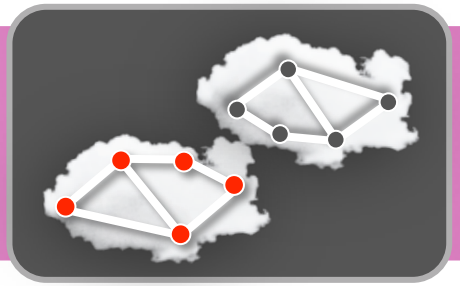
Videoscape Experience Vision

- ✓ **Konsistent:** Køb indhold een gang og tilgå det, når du ønsker det
- ✓ **Optimeret:** Tag din personlige TV oplevelse med dig, nyd det på den skærm, du ønsker

Uendelige Indholds kilder

Eget & andres Netværk



Managed & Unmanaged Devices

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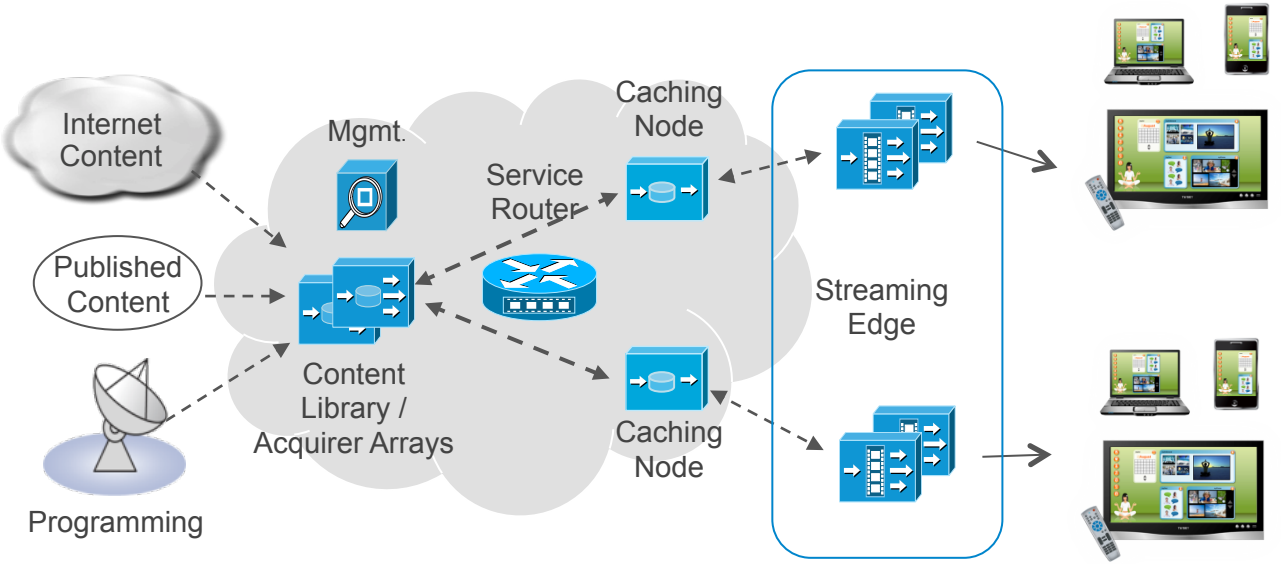
Content Delivery Systems (CDS)



Effektivt I datacenteret

Datacenter Storage

Cisco CDEs

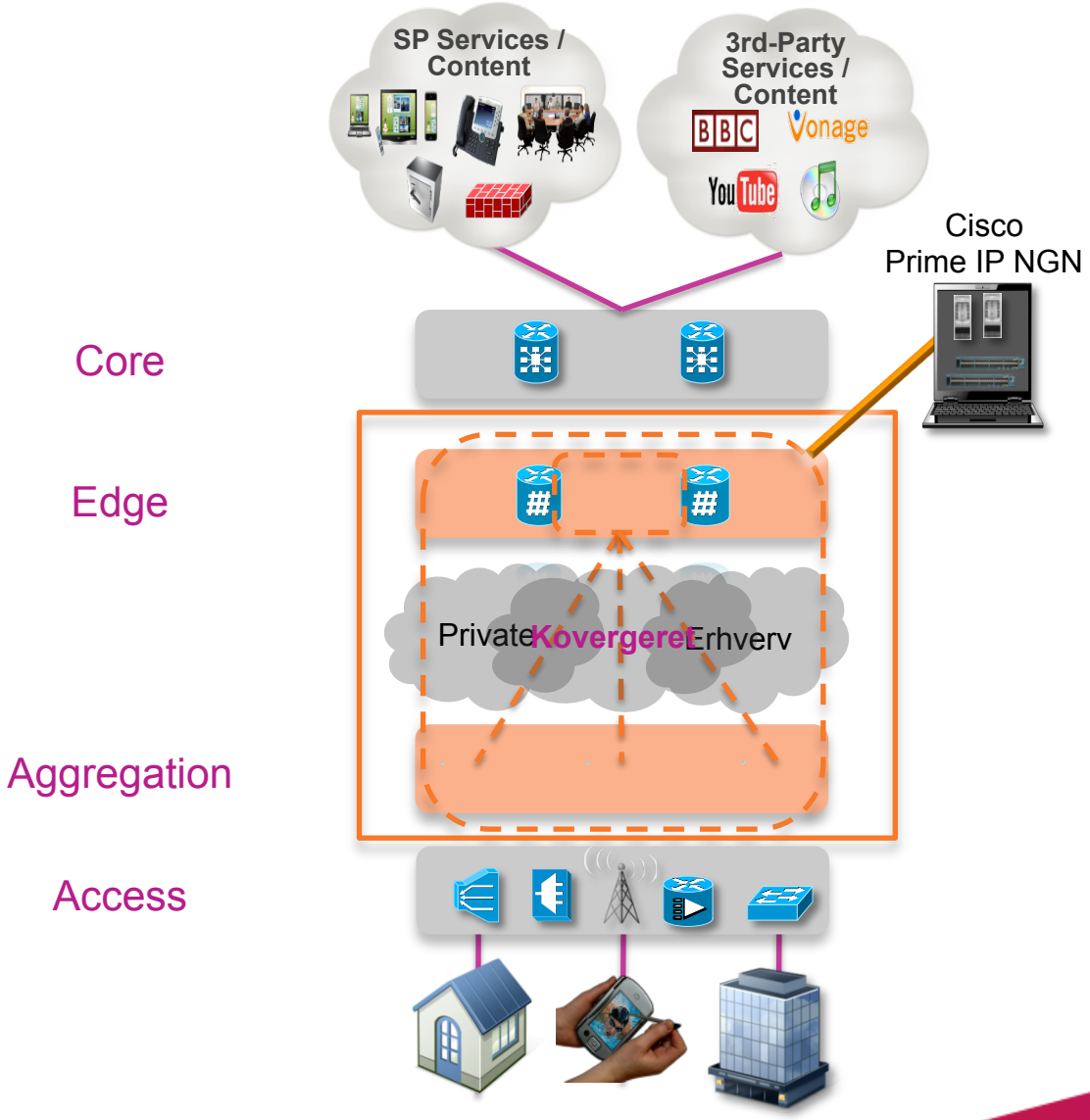
Cisco UCS

Tættere på kunden

Cisco CDEs

ASR9000 med ISM

ASR 9000 system med nV (Netværk virtualisering) teknologi



100G netværks link

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PRESS RELEASE

Cisco First to Deliver 100G at 3,000 km Distances Without Need for Regeneration

Successful Demonstration of Cisco's Ultra Long-Haul Coherent 100G DWDM Technology Validated by EANTC

SAN JOSE, February 22, 2012 – Cisco announced the successful demonstration and validation of its coherent 100 Gigabit (100G) dense wavelength division multiplexing (DWDM) solution exceeding 3,000 km in reach, without the need for complex Raman optical amplification technology or signal regeneration signals. This distance is 50 percent further than any non-Raman alternative solution on the market today.

By eliminating the need for Raman amplification, regeneration and dispersion compensation, carriers can add 100G services on top of existing infrastructures originally designed for 10G technology, providing better investment protection and simplifying network upgrades. The Cisco solution has been tested at a number of service providers and research networks, including US Signal. The performance was also validated by EANTC, the European Advanced Network Test Center.

Related Information

The 100G Cisco ONS 15454 MSTP Multiservice Transport Platform (MSTP)

MSTP
ponder

Opsummering

- Mobil data vokser med 72% årligt fra 2011 – 2016
- Top 20% af brugere fordoblede deres trafik fra 2010 til 2011
- Gennemsnit mobil bruger vil bruge 1,2GB data trafik i 2016 per måned
- Cloud giver 50% forbedret TCO over traditionel DC
- DC trafik vokser 4 x frem til 2015. Cloud 8 x vækst
- SP WiFi Offload med HotSpot 2.0 sikre seamless roaming imellem mobil og WiFi access
- CDN sikre at SP kan levere konsistente bruger oplevelser – på en skalerbar måde
- nV simplificere Edge og Aggregation.
- 100GE links sikre SP kan håndtere fremtidens trafik vækst.

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