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GROWTH IN THE

Global data center traffic is projected to triple between 2012 and 2017, with data center traffic specifically in the cloud forecast to grow nearly fivefold during that period.



By 2017, 69% of global data center traffic will come from cloud services and applications.



Traditional Data Center Traffic



Cloud Data Center Traffic

1 zettabyte (ZB) is equal to sextillion bytes, or a trillion gigabytes.

How Much Data Is 7.7 Zettabytes?

7.7 ZB is equal to the amount of data generated if the entire world population (7.6 billion by 2017) were streaming 2.8 hours of HD video every day of the year.

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It is equivalent to about 1.6 years of continuous music streaming for the world's population (7.6 billion by 2017).



It is equivalent to about 14 hours of daily web conferencing for the world's workforce (3.6 billion by 2017).

Where Is the Origin of This Data Center Traffic?

Some traffic flows between the data center and end users, some traffic flows between data centers, and some traffic stays within the data center.

How Do These Traffic Types Contribute to the Overall Data Center Traffic?



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By 2017, traffic between the data center and the end user will reach 1.3 ZB annually (17% of total data center traffic).



0.5 ZB (7%) will come from traffic between data centers, such as replication and interdatabase links.

But the vast majority of data center traffic, 5.9 ZB (76%), will still be coming from within the data center, such as storage, production, development, and authentication traffic.

76%

Cloud Traffic and Workloads

Cloud traffic will increase nearly



2012

Nearly two-thirds of all workloads will be cloud-based by 2017. Cloud workloads (30% compound annual growth rate [CAGR]) will grow five times faster than traditional data center workloads (6% CAGR).

Differences in regional network behavior and resources influence data growth. Broadband ubiquity varies by region.

Fixed Compared to Mobile

The regions with the highest projected fixed broadband adoption as a percentage of population by 2017 are:	The regions with the largest projected growth in fixed broadband adoption between 2012 and 2017 are:
North America \longrightarrow 76% Western Europe \longrightarrow 67% Central and Eastern Europe \longrightarrow 50%	Central and Eastern Europe \longrightarrow 18% increase North America \longrightarrow 10% increase Asia Pacific \longrightarrow 8% increase
The regions with the highest projected mobile broadband adoption as a percentage of population by 2017 are:	The regions with the largest growth in mobile broadband adoption between 2012 and 2017 are:
North America \longrightarrow 79%Western Europe \longrightarrow 77%Central and Eastern Europe \longrightarrow 67%	Central and Eastern Europe \longrightarrow 40% increase Western Europe \longrightarrow 35% increase North America \longrightarrow 32% increase



Regional Fixed or Mobile Device Ownership and Connections Influence Cloud Readiness

The regions with the largest average number of fixed devices and machine-to-machine (M2M) connections per user in 2012 were:

North America	→ 5.18
Western Europe	→ 3.36
Central and	0.01
Eastern Europe	> 2 01

Latin America

→ 2.00

The regions with the largest average number of fixed devices and M2M connections per user in 2017 will be:

→ 7.34
→ 5.23
──→ 2.99
→ 2.96

The regions with the largest average number of mobile devices and M2M connections per user in 2012 were:

Central and Eastern Europe	>	1.85	
Middle East and Africa	>	1.69	
Western Europe	>	1.66	

The regions with the largest average number of mobile devices and M2M connections per user in 2017 will be:

North America	→ 2.67	
Western Europe	→ 2.51	
Central and Eastern		
Europe	→ 2.30	

Source: Cisco Global Cloud Index, 2013

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