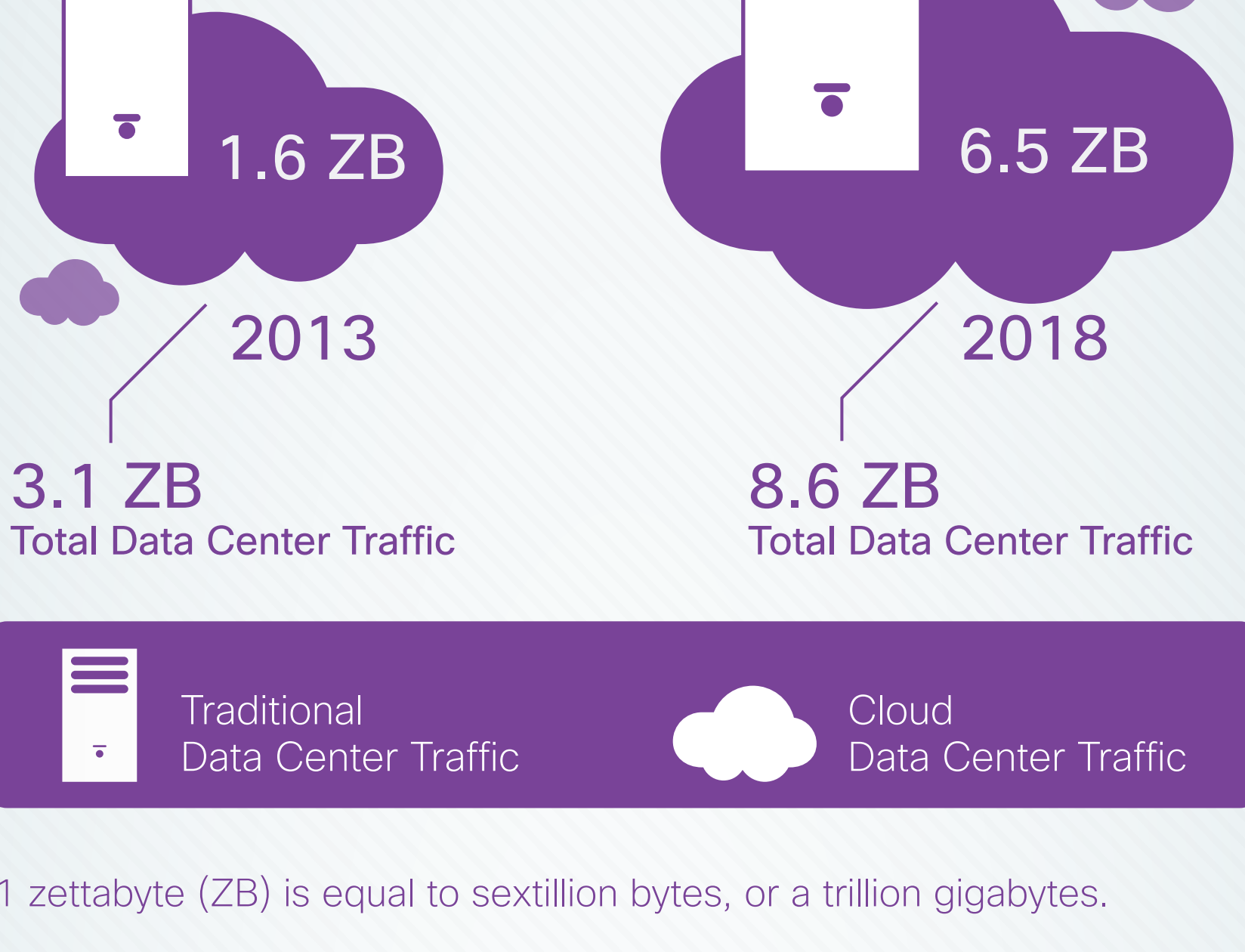


# Growth In the Cloud

Global data center traffic is projected to nearly triple between 2013 and 2018, with data center traffic specifically in the cloud forecast to quadruple during that period.



By 2018, 76% of global data center traffic will come from cloud services and applications.



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

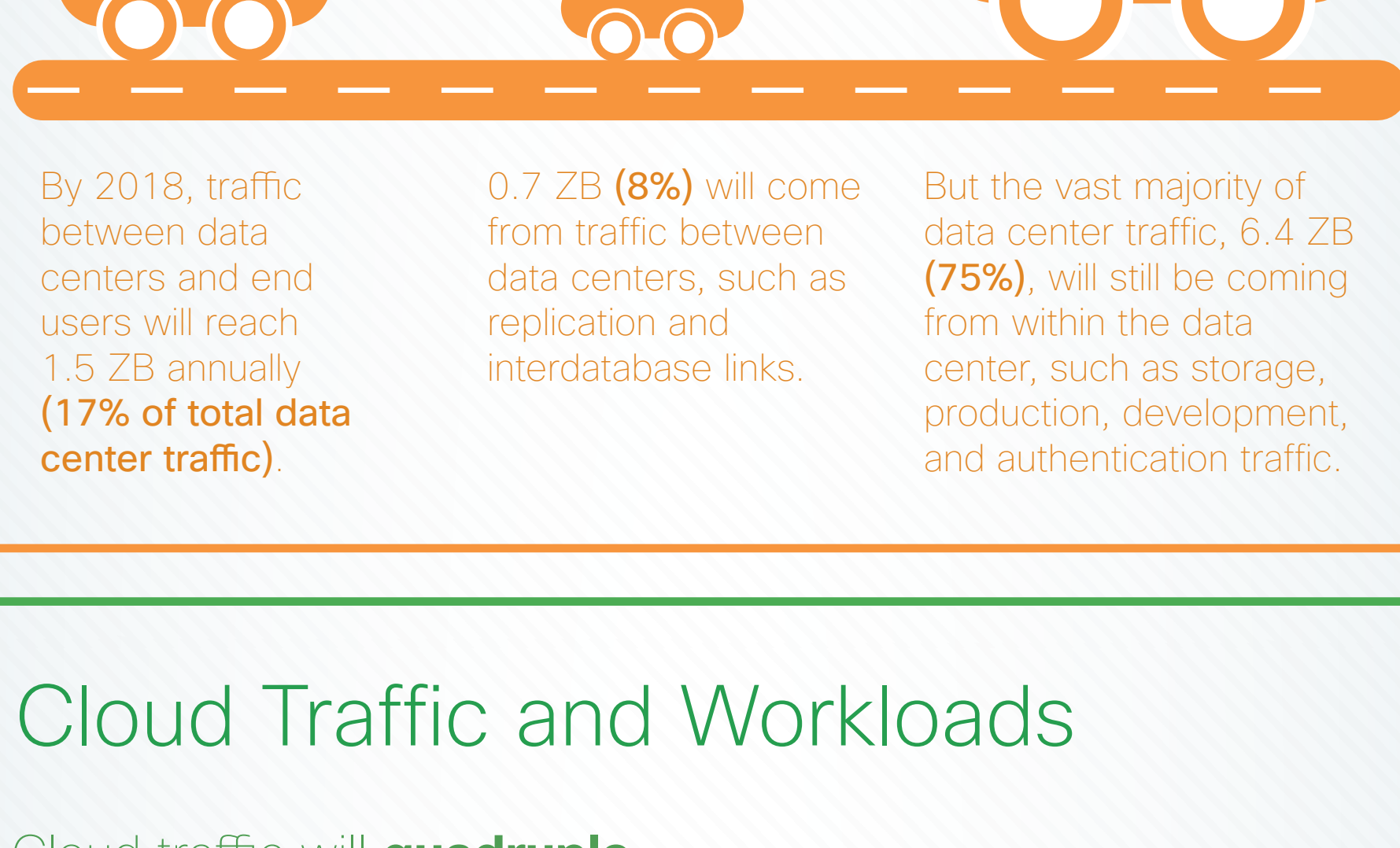
## How Much Data Is 8.6 Zettabytes?

- 9 trillion hours of online high-definition (HD) video streaming.**  
Equal to about 3 hours of daily streamed HD video for every person on earth in 2018 (7.6 billion people).
- 119 trillion hours of streaming music.**  
Equal to about 22 months of continuous music streaming for the world's population in 2018.
- 21 trillion hours of business web conferencing with video.**  
Equal to about 17 hours of daily web conferencing for the world's workforce in 2018.

## Where Does This Data Center Traffic Originate?

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?



By 2018, traffic between data centers and end users will reach 1.5 ZB annually (17% of total data center traffic). 0.7 ZB (8%) will come from traffic between data centers, such as replication and interdatabase links. But the vast majority of data center traffic, 6.4 ZB (75%), will still be coming from within the data center, such as storage, production, development, and authentication traffic.

## Cloud Traffic and Workloads

Cloud traffic will **quadruple** between 2013 and 2018.



About **78%** of all workloads will be cloud based by 2018. Cloud workloads are growing significantly (**24%** compound annual growth rate [CAGR]), while traditional data center workloads are declining (**-2%** CAGR).

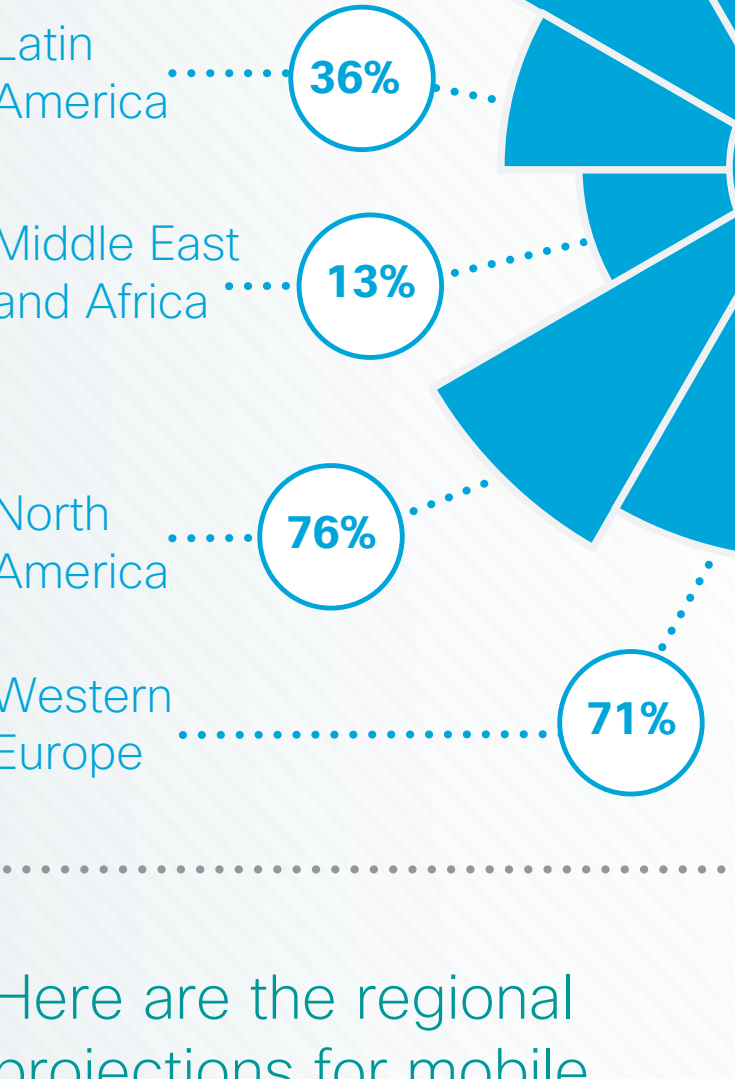
## Differences in regional network behavior and resources influence data growth. Internet ubiquity varies by region.

### Fixed Compared to Mobile

Here are the regional projections for fixed Internet adoption as a percentage of the population by 2018:

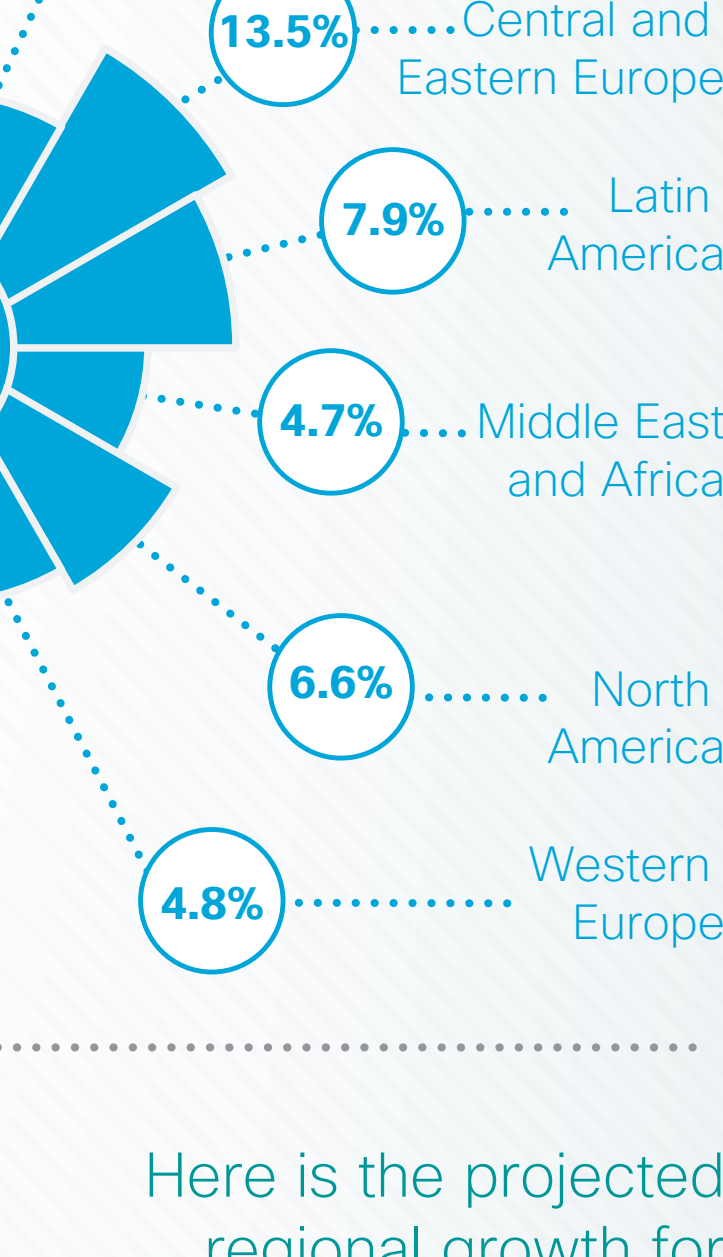
#### Fixed Internet Users by 2018

Region (in alphabetical order)



Here is the projected regional growth for fixed Internet adoption between 2013 and 2018:

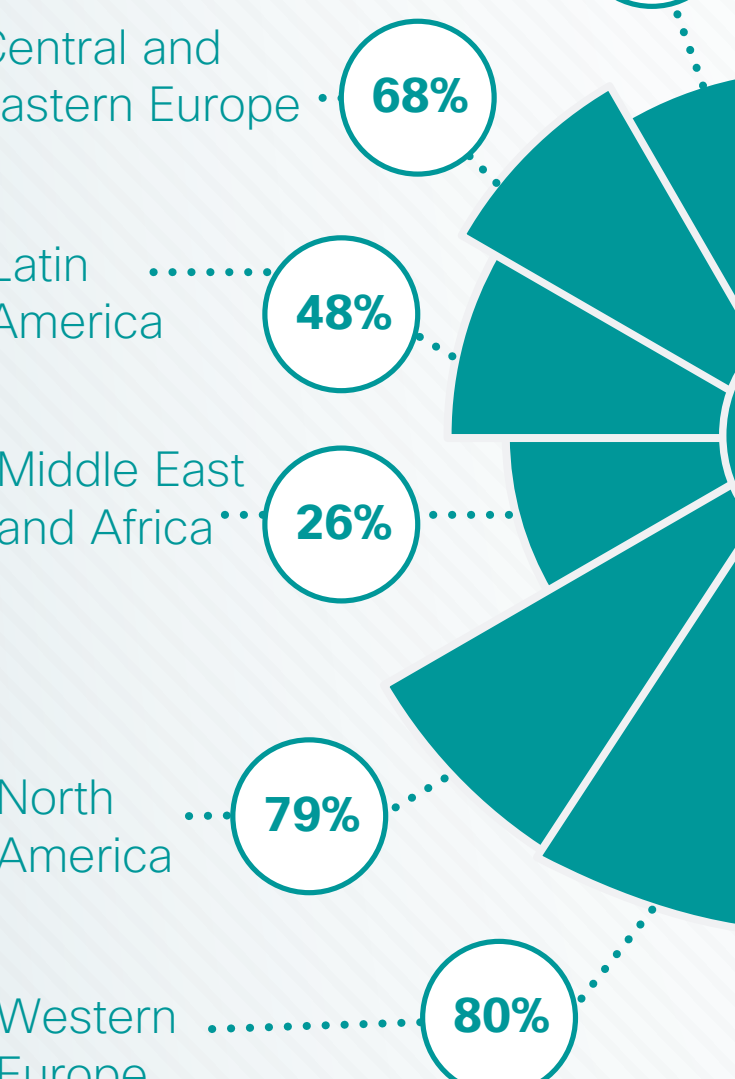
#### Fixed Internet Users Region Increases (or Deltas), 2013 to 2018



Here are the regional projections for mobile Internet adoption as a percentage of the population by 2018:

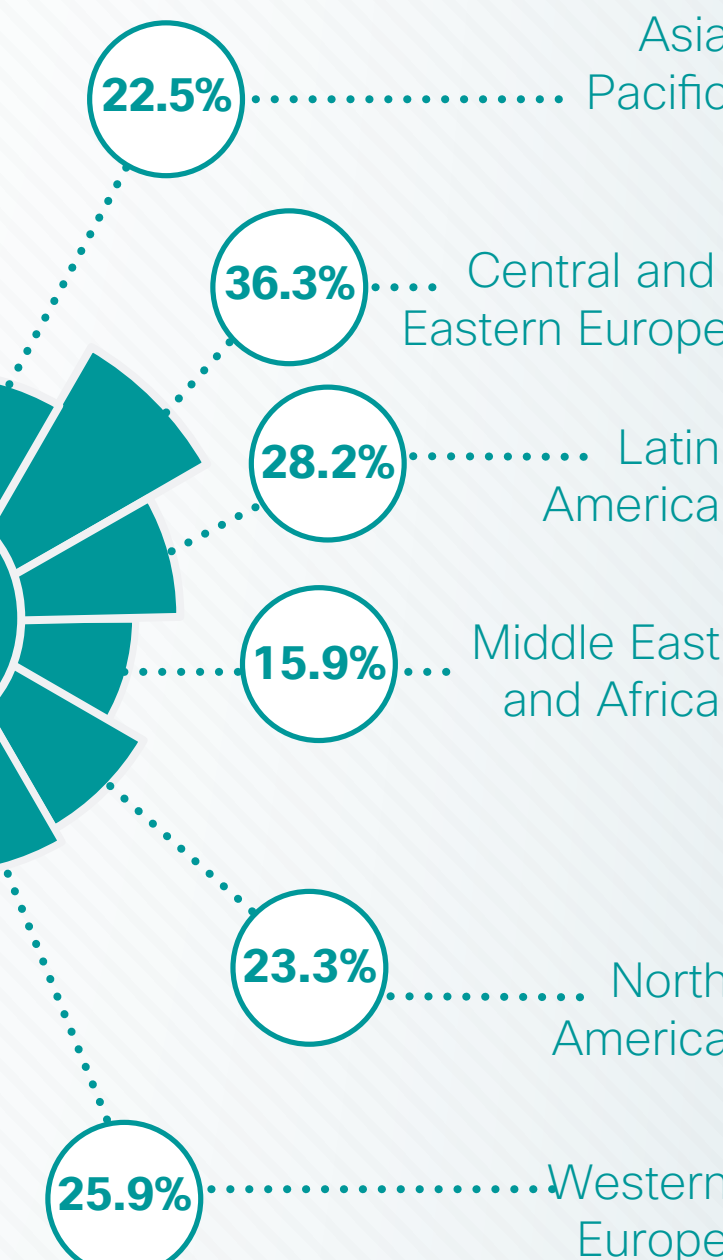
#### Mobile Internet Users by 2018

Region (in alphabetical order)

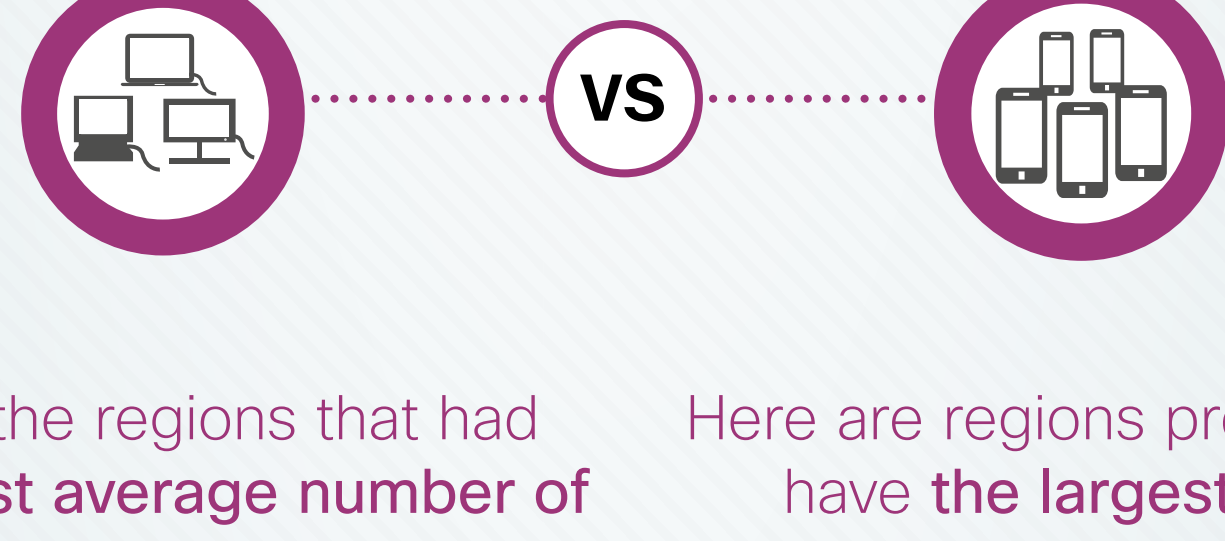


Here is the projected regional growth for mobile broadband adoption between 2013 and 2018:

#### Mobile Internet Users Region Increases (or Deltas), 2013 to 2018 (in alphabetical order)

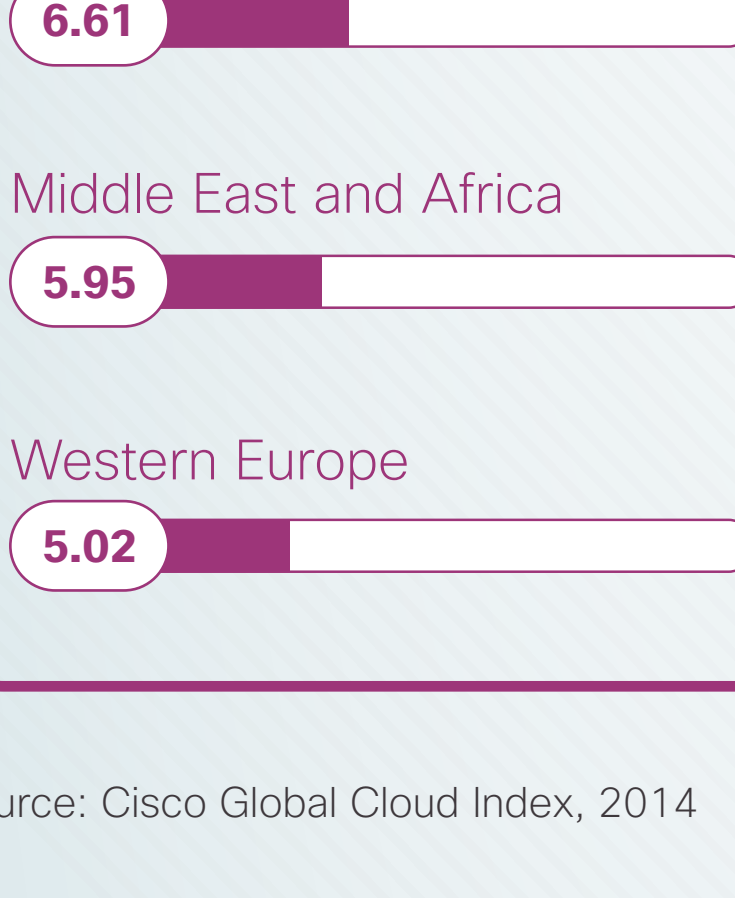


## Regional Fixed and Mobile Device Ownership and Connections Influence Cloud Readiness



Here are the regions that had the **largest average number of fixed and mobile devices and machine-to-machine (M2M) connections per Internet user in 2013:**

#### Average Devices per Internet User by Region in 2013 (in numerical order; top 3 regions)



Here are regions projected to have the **largest average number of fixed and mobile devices and M2M connections per Internet user by 2018:**

#### Average Devices per Internet User by Region by 2018 (in numerical order; top 3 regions)

