

# Cloud

**Mobiles phones have become a commodity across the global population and is driving most of our daily transactions.** By the end of 2018, 5.1 billion people around the world subscribed to mobile services, accounting for 67% of the global population. 5G is now upon us, bringing with it the promise of a host of exciting new services and new telco business opportunities: IoT, media convergence, AI and new milestones in connected devices. Over the coming years, these new opportunities have the potential to provide an uplift to mobile operator revenue, with an expected annual average growth rate of 1.4% between 2018 and 2025.

We're seeing a tremendous growth in data - enterprise data, social media data, and data from sensors and devices. Data at the edge is changing how we look at data: That is especially true of "edge data" - which is all the new forms of data generated by us and our devices - tablets, smartphones, wearables, sensors and more. It's fast-paced, dynamic, unstructured, temporal in nature - unlike any prior data creation model. Edge data is incredibly rich in understanding context and, therefore, potentially has very high value.

**From smart devices to satellites to cellphones, data is being shared everywhere.**

The collective computing and storage capacity of smartphones surpasses all worldwide servers.

**Cloud data centers are located around the world so clients can run their data and applications locally to meet performance and regulatory needs. With data centers spanning continents,**

**enterprises can provision cloud infrastructure when and where they need.**

**Applications have unlimited power, data and intelligence, predicting hurricanes, floods and inclement weather. Top features of a weather app enabled by the cloud include:**

(Weather your way! With your daily weather news, get a personalized weather map and enjoy a new visual way to learn about your daily conditions. Discover instant insights, a live radar, a hurricane tracker & more!

Weather alerts that you can subscribe to - Press push notifications to track live weather news!

Track Weather alerts & conditions - Stay alert for travel and spring weather like flash flooding with a storm tracker, and track weather alerts with weather radar, storm tracker and hurricane tracker.

Severe weather alerts, from heavy rain to unexpected heat waves.

Weather maps for pollen & weather forecast updates give you all the information you need, wherever you are!)

**IBM Z builds on the capabilities of the world's most powerful transaction engine at the center of global commerce today.**

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There are many benefits of cloud from an enterprise architecture standpoint:

- Cost efficiency
- Choice
- Scale: flexibility and elasticity
- Speed
- Integration
- Audit and compliance
- Business continuity planning

In the coming years, the great majority of existing non-cloud apps will move to the cloud.

**Some are calling cloud computing the next big paradigm shift for**

**technology.** As with any major technology transformation, **there are**

**many definitions of cloud computing each with their own nuances**

**and subtleties.** In very simple terms, cloud computing is a new

consumption and delivery model for information technology (IT) and business services and characterized by:

- On-demand self service
- Ubiquitous network access
- Location independent resource pooling
- Rapid elasticity and provisioning
- Pay-per-use

Cost flexibility is a key reason many companies consider cloud adoption in the first place. More than 31 percent of executives surveyed cited cloud's ability to reduce fixed IT costs and shift to a more variable "pay as you go" cost structure as a top benefit.

**Cloud can help an organization reduce fixed IT costs by enabling a**

**shift from capital expenses to operational expenses.** IT capital

expenses - which typically include enterprise software licenses, servers and networking equipment - tend to be less fluid, more expensive and harder to forecast than routine IT operating expenses. With cloud applications, there is no longer a need to build hardware, install software or pay dedicated software license fees. By adopting cloud services, an organization can shift costs from capital to operational - or from fixed to variable. The organization pays for what it needs when it needs it. This pay-per-use model provides greater flexibility and eliminates the need for significant capital expenditures.

