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# DIGITAL TALENT SCHOLARSHIP 2020





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# Introduction AWS

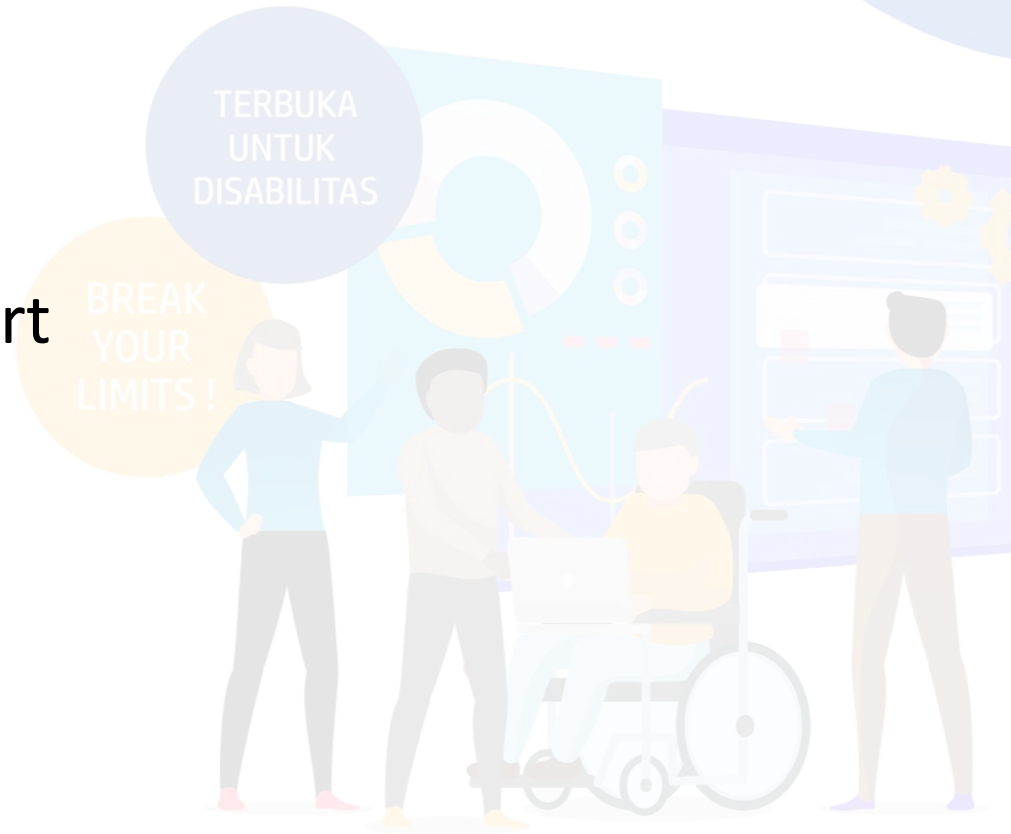




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# Topic

- Introduction to AWS
- TCO, Billings and Support





# Introduction to Amazon Web Services



# Agenda

- History of AWS
- Introduction to Total Cost of Ownership
- Introduction to Billing and Support
- Study Cases





# History of AWS





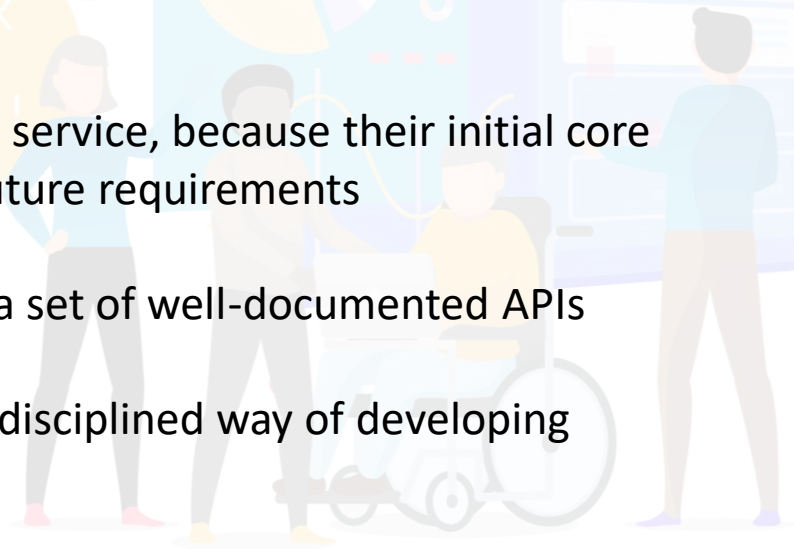
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# Creating Internal Systems

- In 2000, Amazon company began to launch an e-commerce service to help 3rd party merchant to build online shopping sites on top of Amazon e-commerce engine
- They find a lot of jumbled mess in creating this service, because their initial core system were not well-prepared to withstand future requirements
- They untangle these mess by organized it into a set of well-documented APIs
- It set the stage or a much more organized and disciplined way of developing tools internally going forward

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# Pace Problem

- At about the same time, the company was growing quickly and hiring new software engineers, yet they were still finding, in spite of the additional people, they weren't building applications any faster.
- They required a set of common infrastructure services everyone could access without reinventing the wheel every time, and that's precisely what Amazon set out to build — and that's when they began to realize they might have something bigger.

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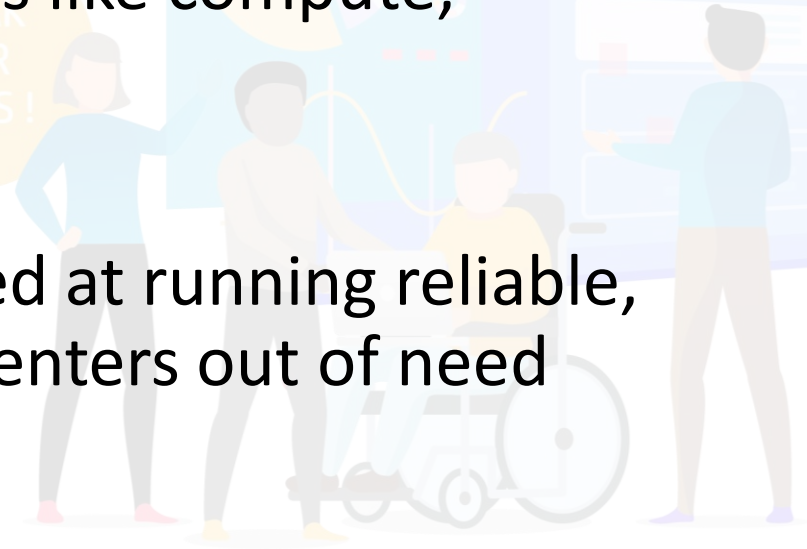


# Innovation Moment

- They realized they had also become quite good at running infrastructure services like compute, storage and database
- They had become highly skilled at running reliable, scalable, cost-effective data centers out of need

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# The Operating System of Internet

- In the Summer of 2003, they started to think of this set of services as an operating system of sorts for the internet.
- *“If you believe companies will build applications from scratch on top of the infrastructure services if the right selection [of services] existed, and we believed they would if the right selection existed, then the operating system becomes the internet, which is really different from what had been the case for the [previous] 30 years,” – Andy Jassy, AWS CEO*
- A few years later the company launched their Infrastructure as a Service, **Amazon Elastic Compute Cloud**, in 2006

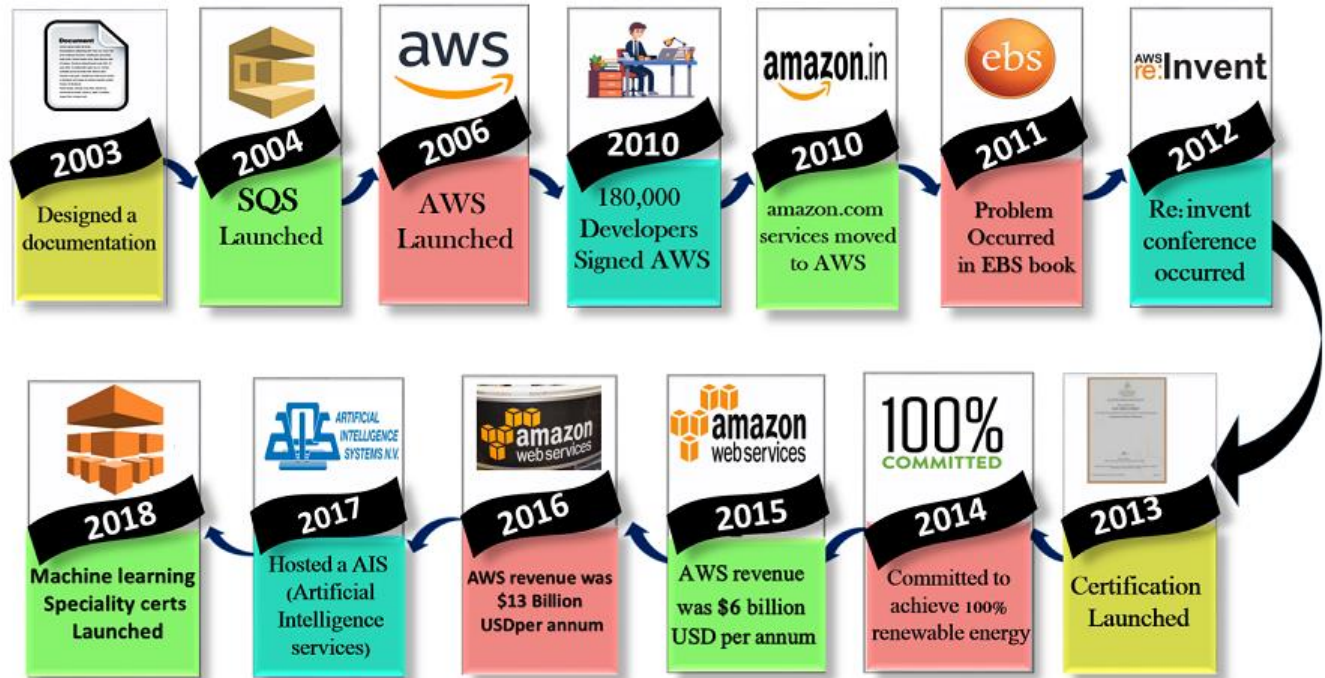




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# AWS Growth

- Since then, AWS add more services to their belt





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# AWS Services

- AWS fast growing pace have birthed many services in many fields

## AWS Core Cloud Infrastructure Services



## AWS Cloud Platform Services





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# What sets AWS apart?



Experience

Building and managing cloud since 2006



Service Breadth & Depth

200+ services to support any cloud workload



Pace of Innovation

History of rapid, customer-driven releases



Global Footprint

24 regions, 77 availability zones, 199+ edge locations



Pricing Philosophy

80 proactive price reductions to date



Ecosystem

Thousands of consulting/system integrator & technology partners





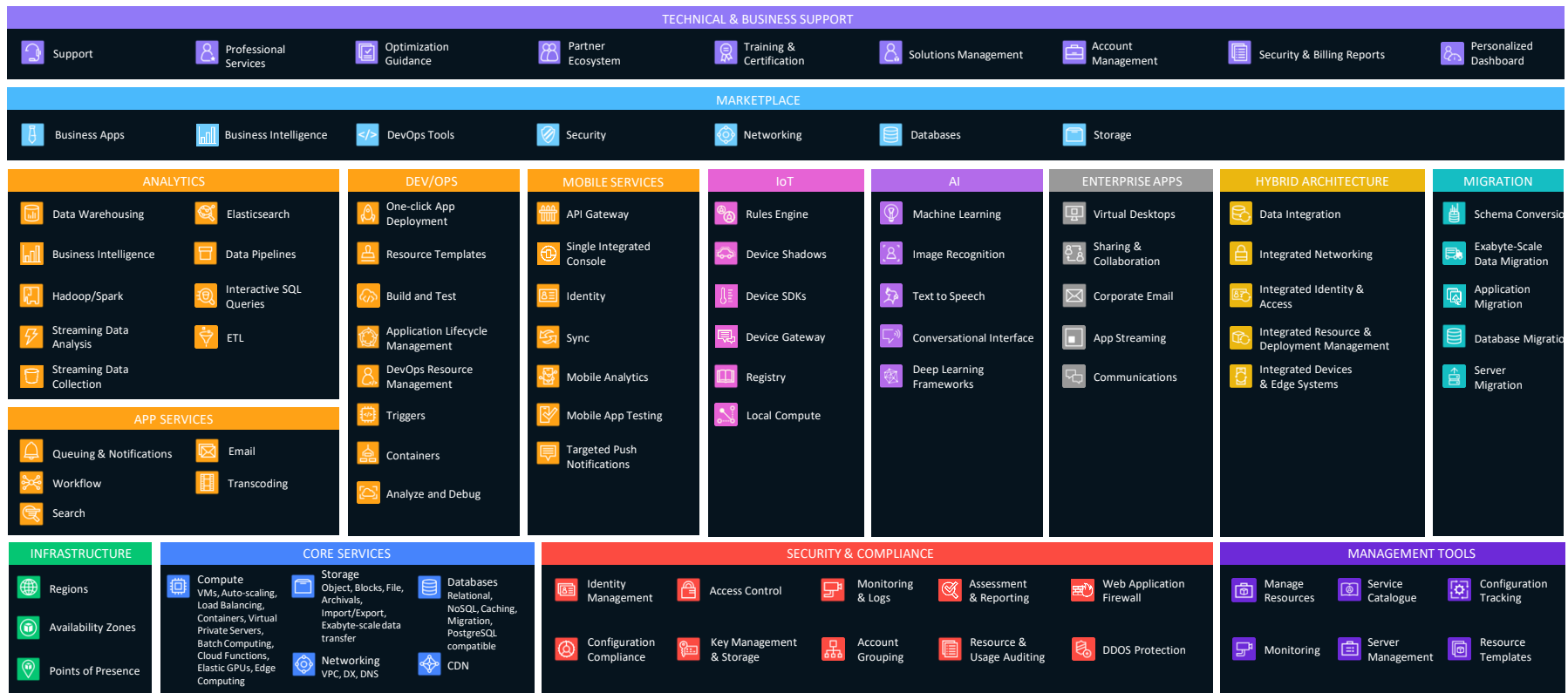


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# Breadth of Functionality

Most robust, fully featured technology infrastructure platform

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# Introduction to Total Cost of Ownership

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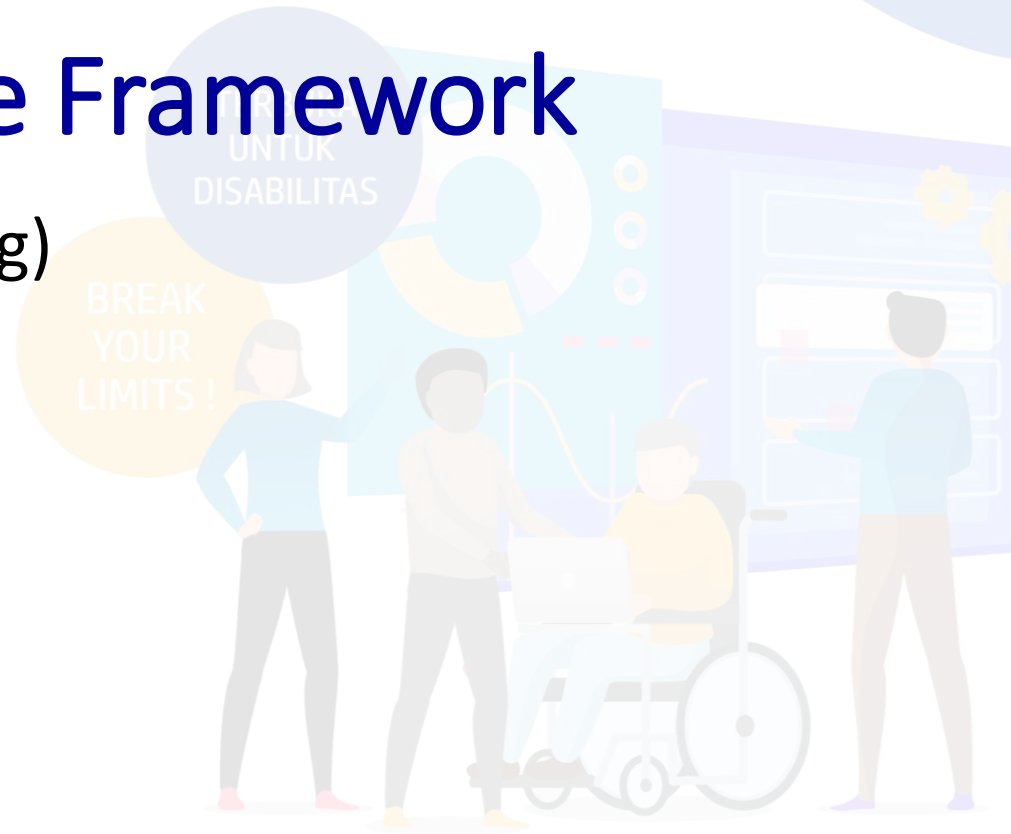




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# AWS Cloud Value Framework

- Cost Saving (TCO Saving)
- Staff Productivity
- Operational Resilience
- Business Agility







# TCO as Decision Factor

- Total Cost of Ownership (TCO) is a key factor in getting to a directional decision.
- This typically involves assessing an organization's current spend in running and maintaining IT assets and applications, and then comparing it with the TCO of migrating to and operating on Amazon Web Services (AWS).
- TCO assessment requires a thorough analysis of IT capital expenditure (CapEx) and operating expenditure (OpEx) on-premises, as well as the costs of migrating workloads to AWS and running applications with AWS resources.

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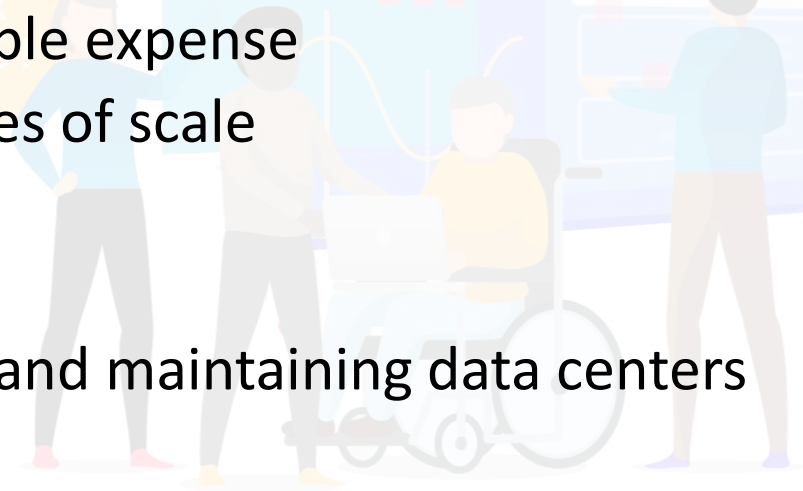
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# Advantages of Cloud Computing

- We can reduce TCO by moving to AWS Cloud by incorporating these advantages of cloud :
  - Trade capital expense for variable expense
  - Benefit from massive economies of scale
  - Stop guessing capacity
  - Increasing speed and agility
  - Stop spending money running and maintaining data centers
  - Go global in minutes

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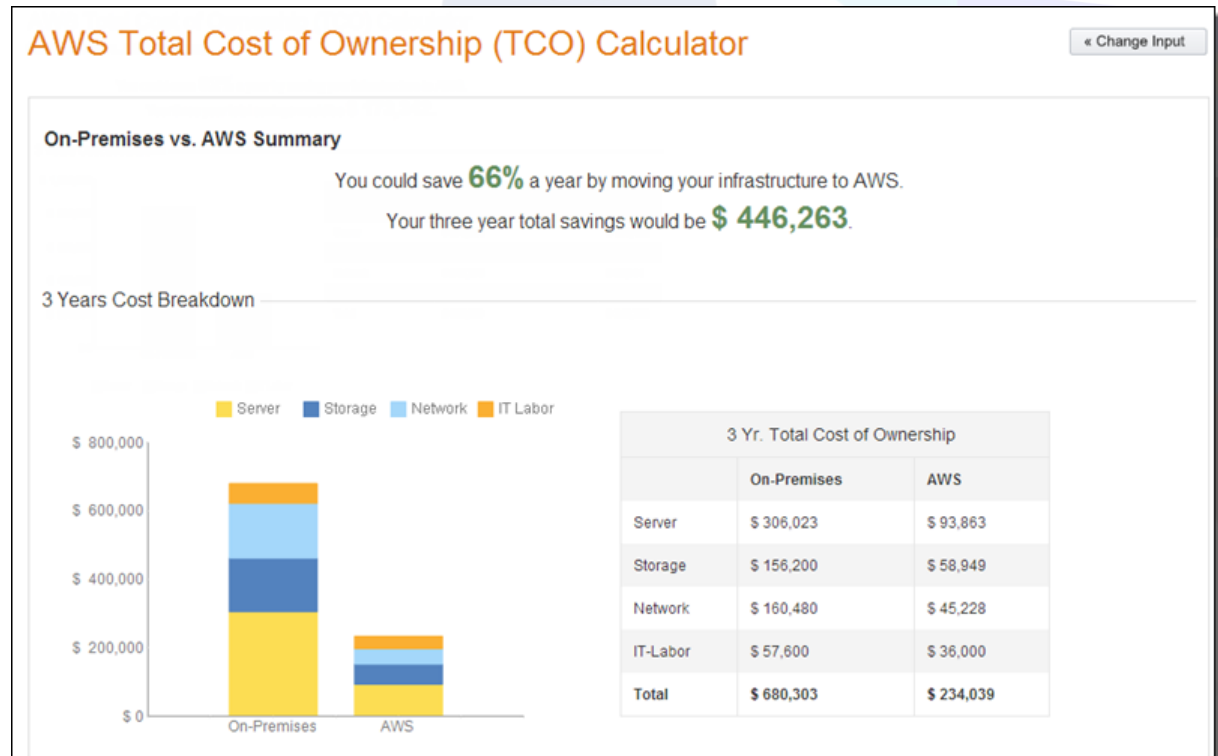




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# AWS TCO Calculator

- AWS provide web-based calculator to estimate cost of running your workload on AWS
- This tool should help customers with a base level of familiarity with infrastructure to generate a fact-based apples-to-apples TCO comparison between on-premises infrastructure and AWS.





# Introduction to AWS Billing and Support

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# AWS Billing and Cost Management

- AWS automatically charges the credit card that you provided when you signed up for a new account with AWS.
- You can view or update your credit card information, including designating a different credit card for AWS to charge, on the **Payment Methods** page in the Billing and Cost Management console.



# AWS Billing and Cost Management Features

- The Billing and Cost Management service provides features that you can use to do the following:
  - Estimate and plan your AWS costs
  - Receive alerts if your costs exceed a threshold that you set
  - Assess your biggest investments in AWS resources
  - Simplify your accounting if you work with multiple AWS accounts

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# AWS Support

- All AWS accounts receive **Basic AWS Support** at no cost.
- When you sign up for a paid AWS Support plan, your payment method is charged a prorated amount immediately for the remainder of the current month. Your support plan is activated when the prorated charge is billed to your payment method.
- **Paid AWS Support** plans are billed monthly, with no long-term contracts.

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# Paid Support Plan

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## Developer

Greater of \$29.00

- or -

3% of monthly AWS charges

## Business

Greater of \$100.00

- or -

10% of monthly AWS charges for the first  
\$0--\$10K

7% of monthly AWS charges from \$10K--\$80K

5% of monthly AWS charges from \$80K--\$250K

3% of monthly AWS charges over \$250K

## Enterprise

Greater of \$15,000.00

- or -

10% of monthly AWS charges for the first  
\$0--\$150K

7% of monthly AWS charges from \$150K--\$500K

5% of monthly AWS charges from \$500K--\$1M

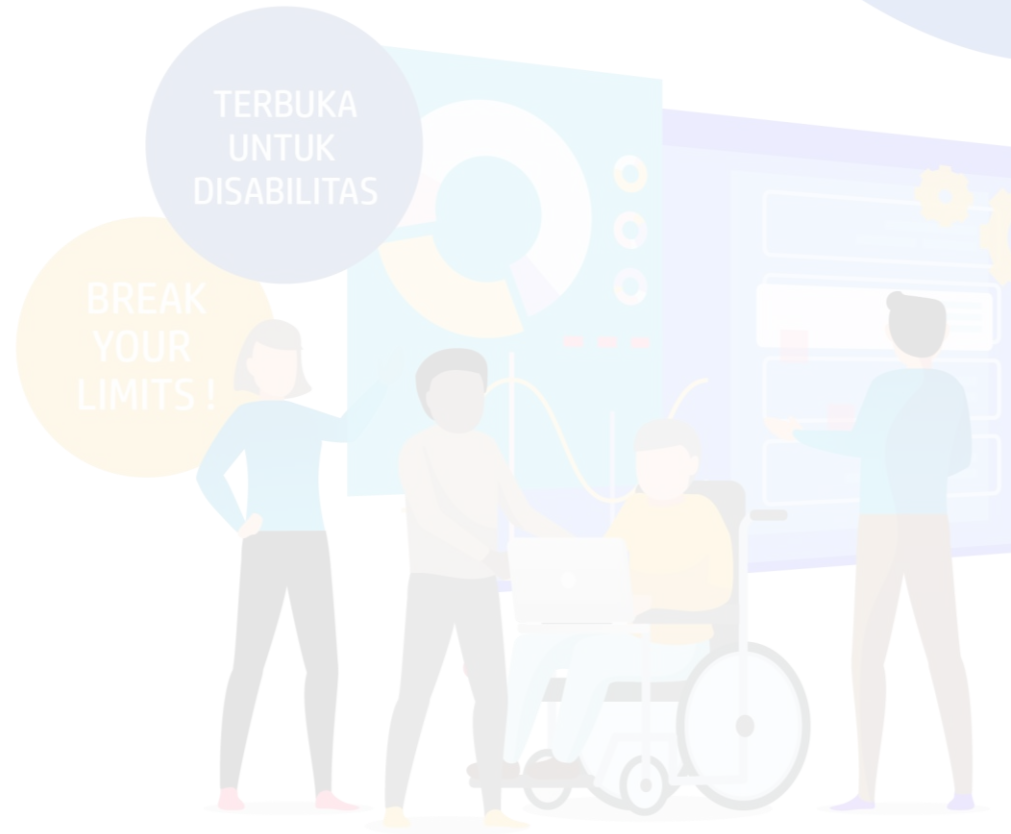
3% of monthly AWS charges over \$1M







# Study Cases





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# TCO Saving Use Case

## • GE Oil & Gas Case Study

- GE Oil & Gas is a business unit of global conglomerate General Electric, with energy-related operations around the world.
- The company's cloud migration project entailed reexamining—and in many cases, eliminating—legacy processes, resulting not only in lower IT costs but also in greater speed to market and more agility to compete even better in an industry experiencing immense market challenges.
- GE Oil & Gas is migrating 500 applications to the cloud by the end of 2016 as part of a major digital transformation, helping it attain a **52 percent reduction** in TCO



# Business Agility Use Case

- **Unilever**

- Unilever North America in Englewood Cliffs, New Jersey needed to re-design its infrastructure to support Unilever's digital marketing approach.
- Unilever previously used on-premises data centers to host its web properties, all of which had different technologies and processes.
- "We needed to standardize our environment to support a faster time-to-market," says Sreenivas Yalamanchili, Digital Marketing Services (DMS) Global Technical Manager.
- Unilever optimizes its business model by testing a marketing campaign in a pilot country.



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# Business Agility Use Case (Cont'd)

- For Unilever, moving to the AWS Cloud improved business agility and operational efficiency.
- “Previously, requesting a website for a marketing campaign was a lengthy process,” says Yalamanchili. “By using AWS, we improved time to launch for a digital marketing campaign from two weeks to an average of two days. That’s more than seven times faster than our traditional environment. If a brand manager has an idea, he or she can implement it before the competition,”
- “Using AWS saves us time,” he continues. “I can simply go to the AWS website and plug in numbers to calculate costs. That makes it easy for me to set up a standard billing model for websites. It takes our partner, CSS, less than 12 hours to calculate pricing for a campaign website. I can comfortably say to my marketing folks that we have the capacity for anything we want to do. We can focus on innovation rather than infrastructure.”



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# Key Point

- First AWS service (EC2) was launched in 2006. Since then, AWS kept adding more services in their cloud
- One of the key decision of moving to cloud is it can lower the TCO
- AWS billing is billed in monthly basis
- All AWS account are included with Basic Support plan

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