

AWS Services & Offering

Sanchit Jain
24th Feb, Wednesday
03:00 PM to 04:30 PM



Speakers



Sanchit Jain

Lead Architect - AWS at Quantiphi
AWS APN Ambassador

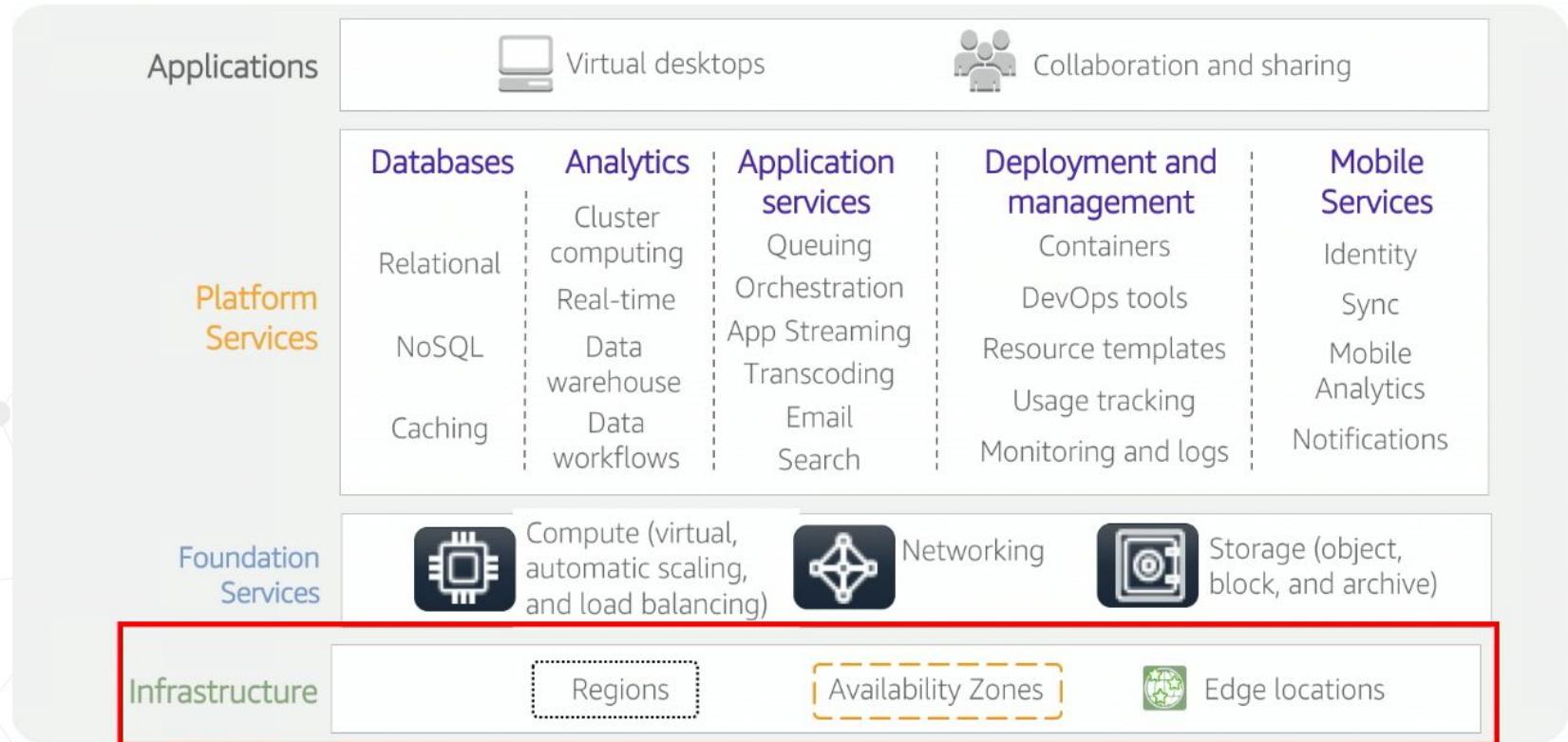
FOLLOW ME



AWS Services & Offering

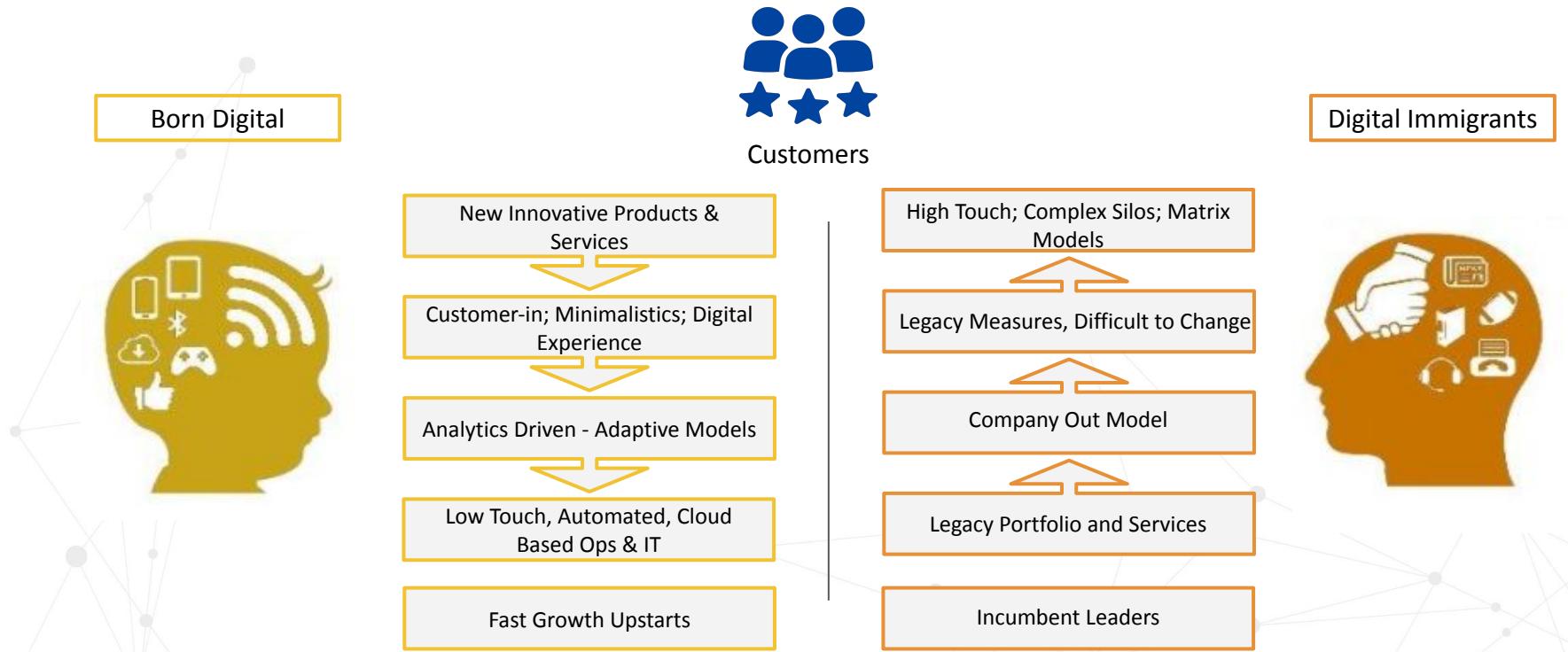


AWS Services



Digital Transformation

Organizations large and small are transforming themselves to be Digital. Upstarts with New Products/Services, Cloud-Based Models and Unique Experiences are shaping customer relationships & success



Foundational Principles

Customers and Data are the drivers and enablers for a successful Digital Transformation. To understand their customers organization have to be aligned with their customers requirements, be agile to address those requirements and drive capabilities definition & decision based on data.

Following are the 3 foundational principles required for Digital Transformation



Agility

Ability to deploy new business capabilities in short cycles
Greater business impact by adjusting requirements during execution
Resiliency to unexpected business dynamics



Customer Centricity

Guide capabilities based on customers journey
Accurate customer segmentation using relevant demographic data
Dynamic processes that vary based on unique customer need



Data Driven

Collect, enrich & leverage unique attributes
Partner with 3rd parties to gain insights from outside enterprise predictive analytics to build foresight

How do I start my Digital Transformation & How can AWS services help me?

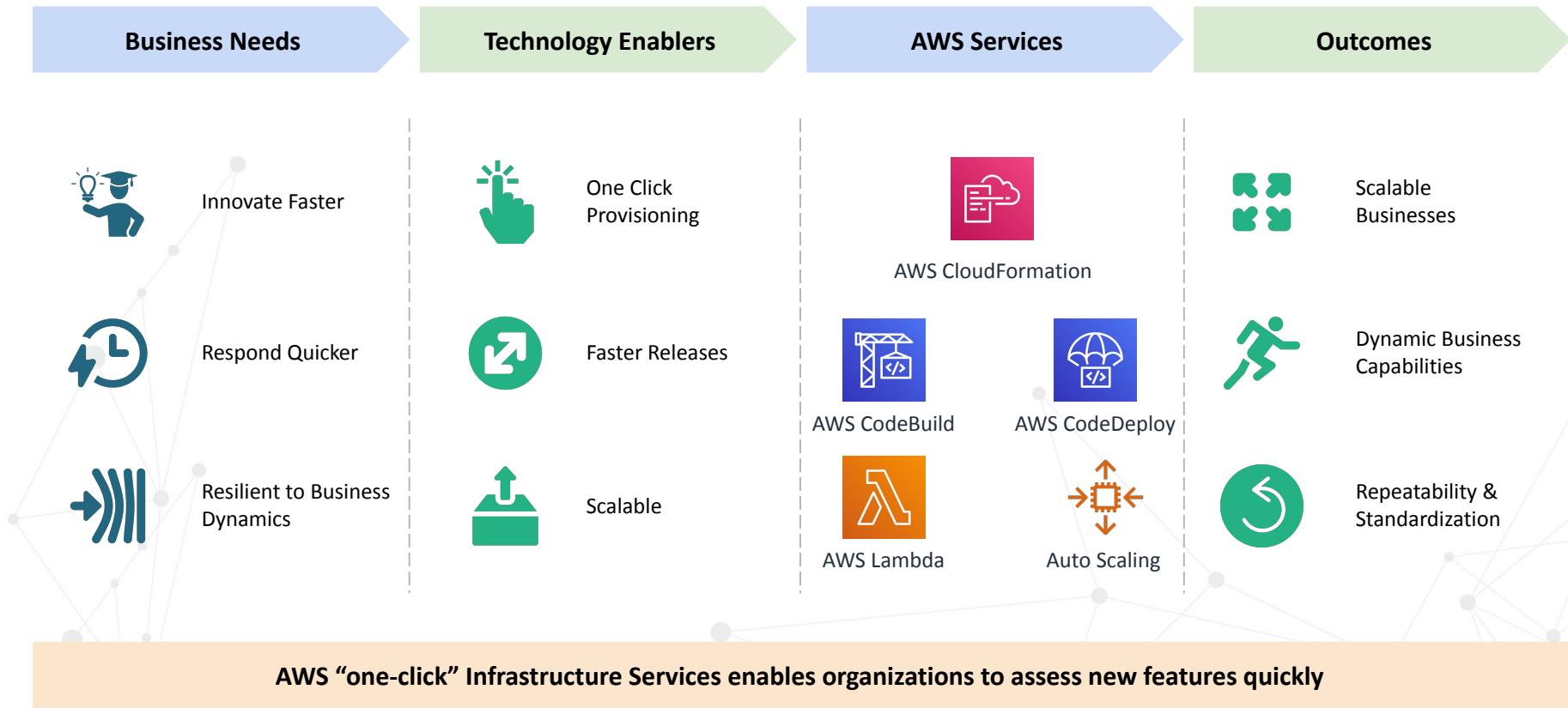


Business Principles

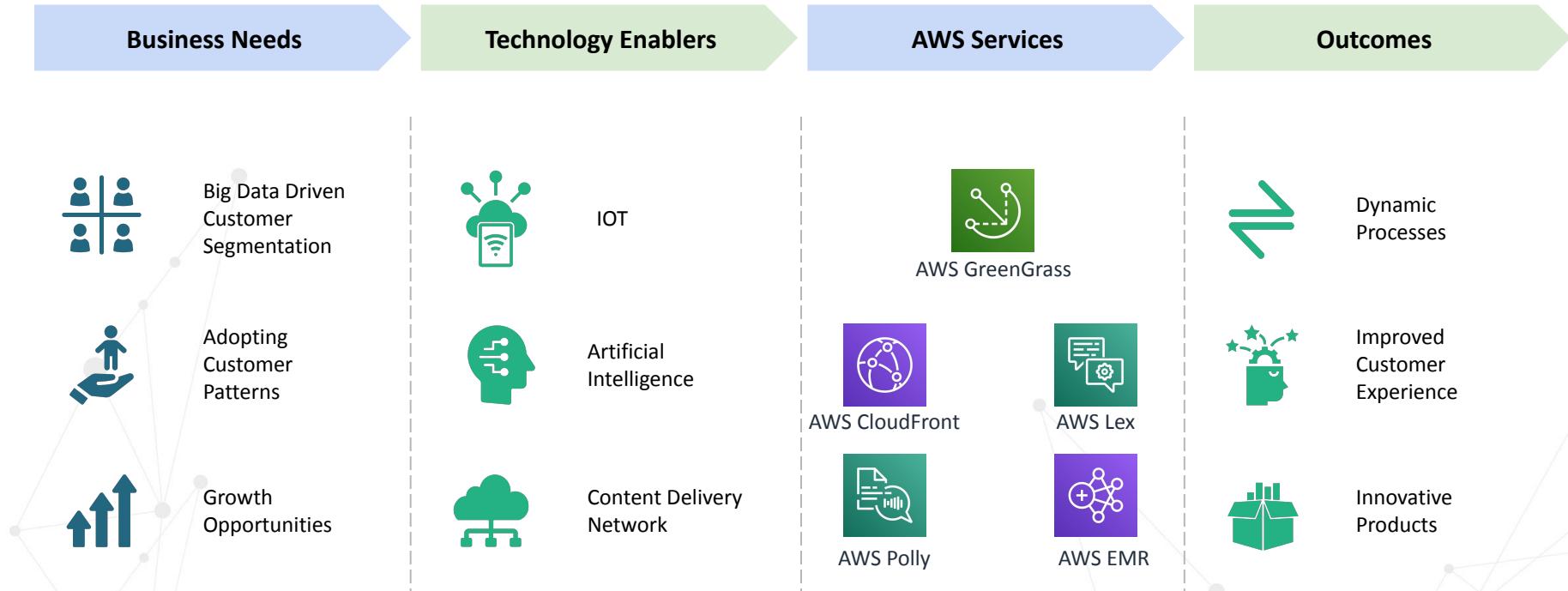
Technology Enablers

AWS Cloud

Agility in Digital Transformation

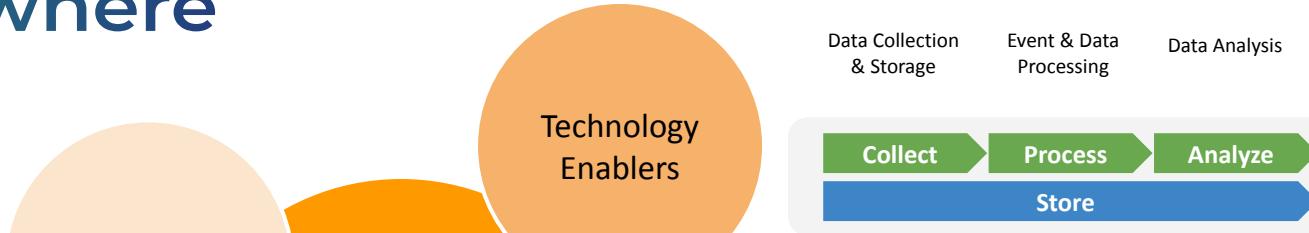


Being Connected



AWS Services with IOT platform enables organizations to connect customers and devices seamlessly

Data is everywhere

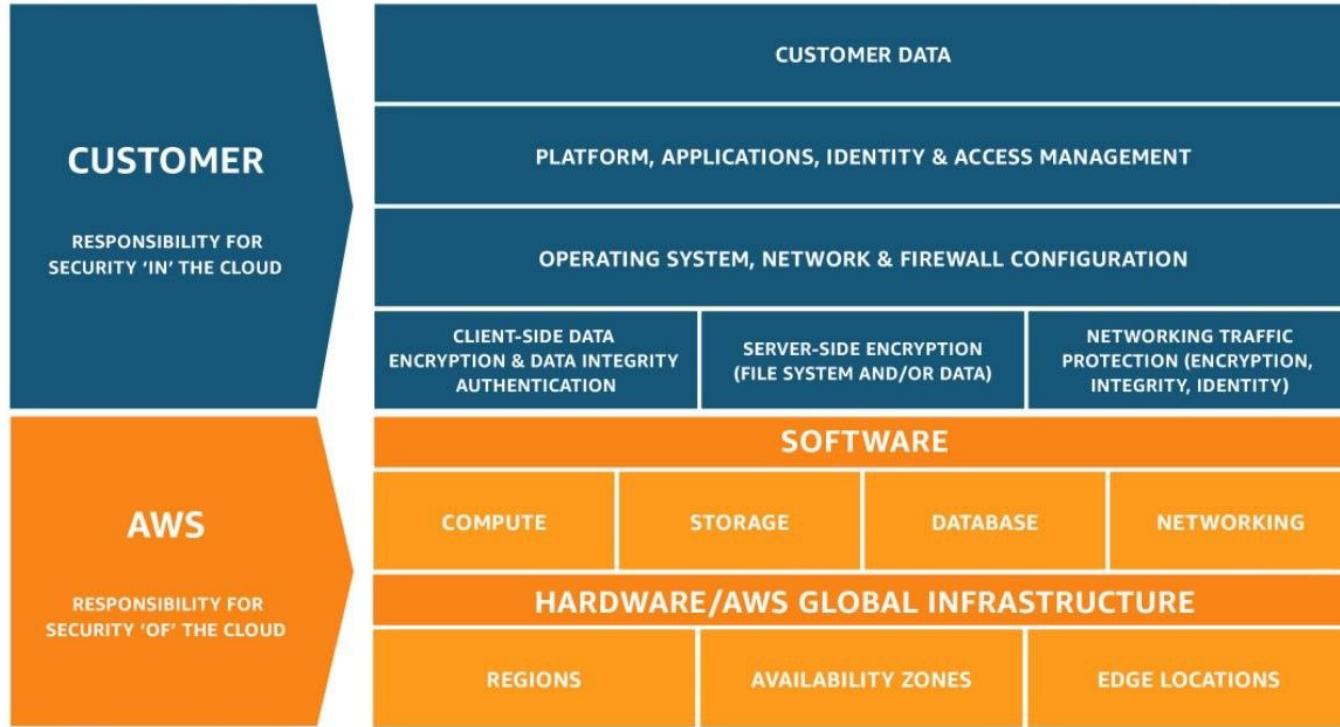


AWS Kinesis coupled with S3, Redshift and Elastic Search enables organizations to load, process, analyze and store large streams of data from various sources

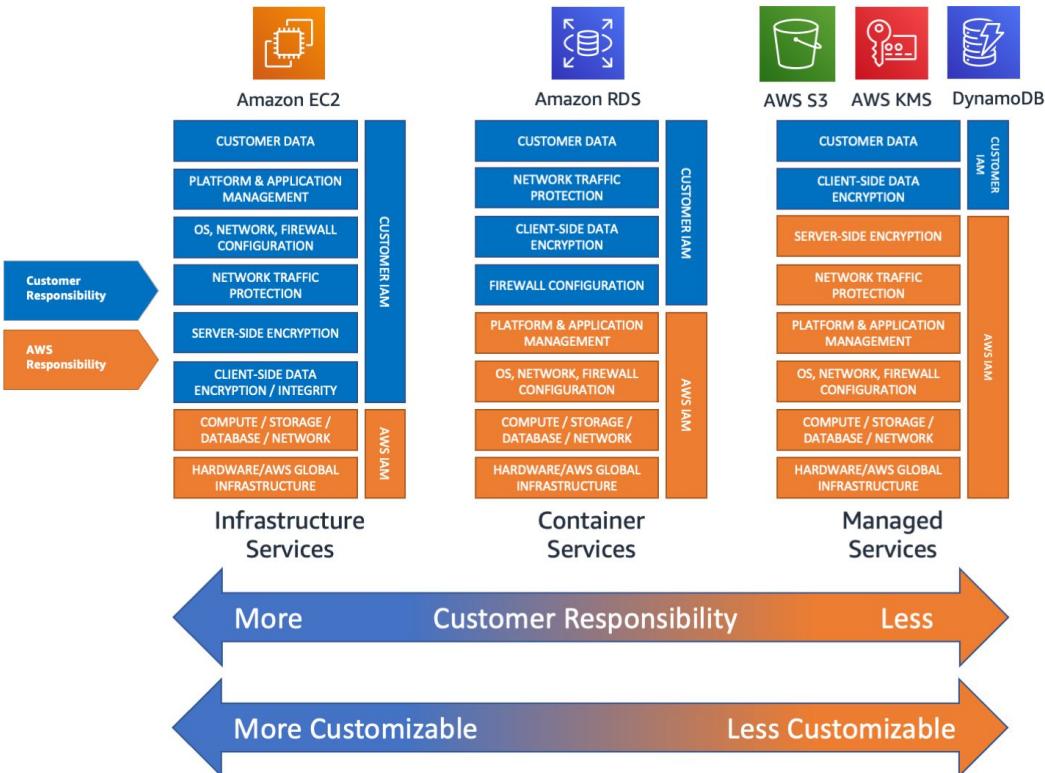
AWS Shared Responsibility Model



AWS Shared Responsibility Model



AWS Shared Responsibility Model



AWS Services - Billing & Cost Management



AWS Services - Cost Estimation: AWS Pricing Calculator

- AWS Pricing Calculator is a web based service that we can use to create cost estimates to suit your AWS use cases.
- AWS Pricing Calculator is useful both for people who have never used AWS and for those who want to reorganize or expand their usage
- AWS Pricing Calculator is free for use. It provides an estimate of your AWS fees and charges. The estimate doesn't include any taxes that might apply to the fees and charges.
- AWS Pricing Calculator provides a console interface at <https://calculator.aws/#/>

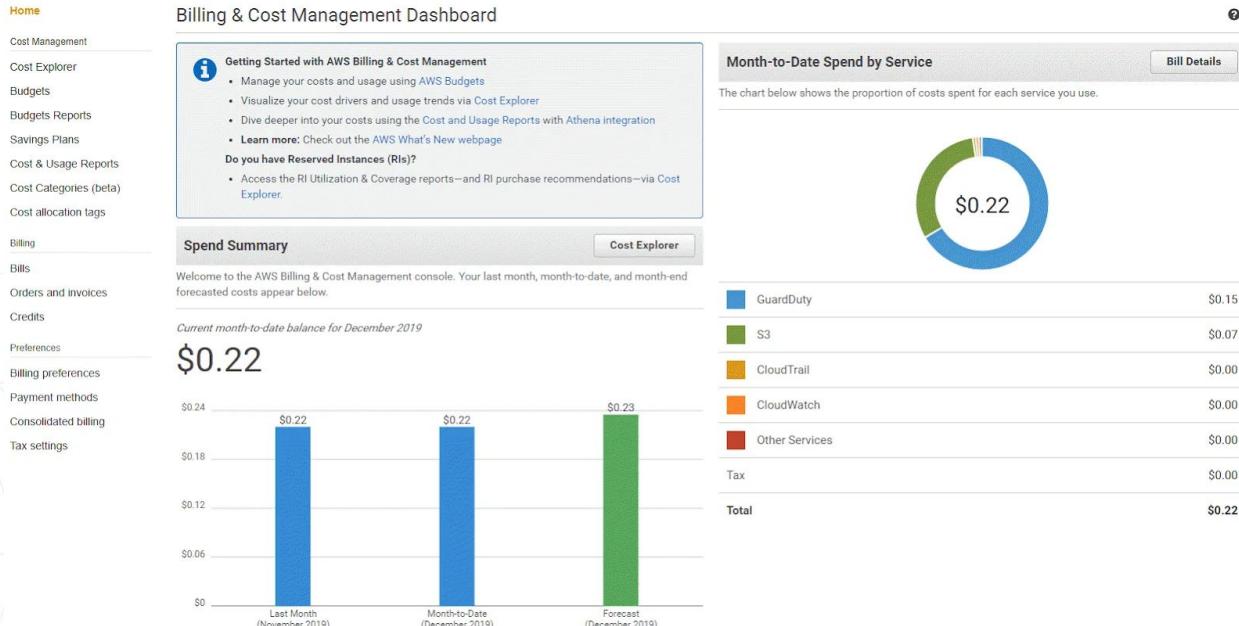
The screenshot shows the AWS Pricing Calculator interface. At the top, there's a navigation bar with 'AWS Pricing Calculator > My Estimate'. Below it, a main title 'My Estimate' with an 'Edit' button, and several action buttons: 'Add service', 'Add support', 'Add group', 'Clear estimate', 'Export estimate', and 'Share'. On the left, a sidebar lists 'Services (8)'. The main area displays an 'Estimate summary' table:

Upfront cost	Monthly cost	Total 12 months cost
0.00 USD	43,776.87 USD	525,322.44 USD

Below this, a section titled 'Getting Started with AWS' offers 'Contact Us' and 'Sign in to the Console' options. The 'Services (8)' sidebar includes sections for 'AWS Transfer Family' (Region: US East (N. Virginia)) and 'AWS Transfer Family' (Data uploaded (50 TB), Data downloaded (10 TB), Monthly: 2,676.60 USD).

AWS Services - Cost Tracking: Billing Dashboard

- Billing & Cost Management Dashboard can we accessed from the AWS Console, and from there, we can access AWS Budgets, AWS Cost Explorer, and the AWS Cost & Usage Report.



AWS Services - Cost Tracking: Budgets

- The AWS Budgets Dashboard is your hub for creating, tracking, and inspecting your budgets with more granularity and visibility. It enables you to create several types of budgets.
 - Cost budgets to monitor costs against a specified dollar amount.
 - Usage budgets to monitor usage of one or more specified usage types.
 - Reservation budgets to track Reserved Instance utilization and coverage.
 - Savings Plans budgets to track Savings Plans utilization and coverage.
- Like the CloudWatch alarm method, you can set budgets to send alerts when you exceed (or are forecasted to exceed) your budgeted cost or usage amount.

AWS Budgets

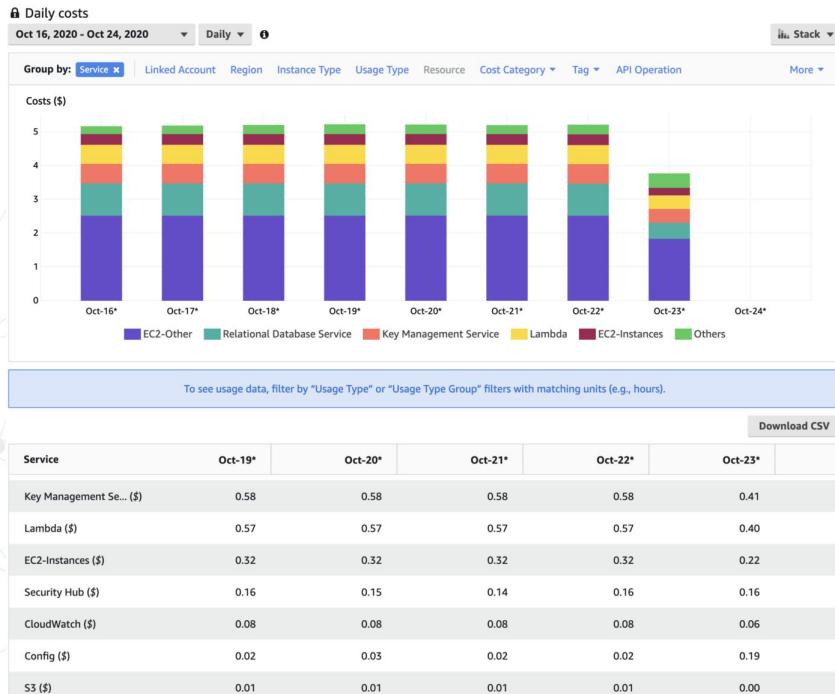
Filter by budget name

Download CSV Create budget

All budgets (7)	Cost budgets (5)	Usage budgets (2)	Reservation budgets (0)				
Budget name	Budget type	Current	Budgeted	Forecasted	Current vs. budgeted	Forecasted vs. budgeted	
Project Nemo Cost Budget	Cost	\$43.90	\$45.00	\$56.33	<div style="width: 97.55%; background-color: #0072bc;"></div> 97.55%	<div style="width: 125.17%; background-color: #e74c3c;"></div> 125.17%	...
Eastern US Regional Budget	Cost	\$85.21	\$100.00	\$125.28	<div style="width: 85.21%; background-color: #0072bc;"></div> 85.21%	<div style="width: 125.28%; background-color: #e74c3c;"></div> 125.28%	...
Total Monthly Cost Budget	Cost	\$141.50	\$175.00	\$187.00	<div style="width: 80.86%; background-color: #0072bc;"></div> 80.86%	<div style="width: 106.86%; background-color: #e74c3c;"></div> 106.86%	...
Total EC2 Cost Budget	Cost	\$136.90	\$200.00	\$195.21	<div style="width: 68.45%; background-color: #0072bc;"></div> 68.45%	<div style="width: 97.61%; background-color: #0072bc;"></div> 97.61%	...
S3 Usage Budget	Usage	3,601 Requests	5,500 Requests	4,675.75 Requests	<div style="width: 65.47%; background-color: #0072bc;"></div> 65.47%	<div style="width: 85.01%; background-color: #0072bc;"></div> 85.01%	...
Monthly DataTransfer Usage Budget	Usage	2.28 GB	4 GB	3.07 GB	<div style="width: 57.05%; background-color: #0072bc;"></div> 57.05%	<div style="width: 76.63%; background-color: #0072bc;"></div> 76.63%	...
Quarterly Budget	Cost	\$133.10	\$550.00	\$516.10	<div style="width: 24.2%; background-color: #0072bc;"></div> 24.2%	<div style="width: 93.84%; background-color: #0072bc;"></div> 93.84%	...

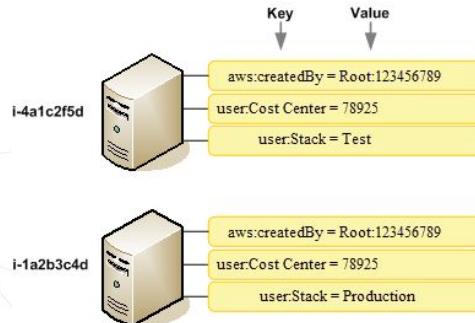
AWS Services - Cost Tracking: Cost Explorer

- AWS Cost Explorer enables you to view and analyze your AWS costs and usage. It provides several default reports to get started, including
 - Monthly or daily costs by service
 - Monthly EC2 running hours costs and usage
 - Reserved Instance utilization and coverage
 - Savings Plans reports
- You can choose from different types of graphs to display data visually, apply filters for granular detail, and save your custom reports.
 - With AWS Cost Explorer, you can:
 - View data for up to the last **13 months**.
 - Forecast how much you're likely to spend for the next **3 months**.
 - Get recommendations for Amazon EC2 rightsizing and reservation purchases.
 - Identify areas that need follow up.
 - See trends that you can use to understand your costs



AWS Services - Cost Tracking: Cost Allocation Tags

- A tag is a label that you or AWS assigns to an AWS resource. Each tag consists of a key and a value. For each resource, each tag key must be unique, and each tag key can have only one value
- AWS provides two types of cost allocation tags, an AWS generated tags and user-defined tags
- We can activate the AWS generated tags, **createdBy** before creating these resources. The **createdBy** tag tracks who created a resource. The **user-defined** tags use the user prefix, and the AWS generated tag uses the **aws: prefix**.
- After the tags are applied to AWS resources (such as Amazon EC2 instances or Amazon S3 buckets) and we can also activate the tags in the Billing and Cost Management console, AWS generates a cost allocation report as a CSV file with usage and costs grouped based on the active tags
- At the end of the billing cycle, the total charges (tagged and untagged) on the billing report with cost allocation tags reconciles with the total charges on your Bills page total and other billing reports for the same period



Total Cost	user:Owner	user:Stack	user:Cost Center	user:Application
0.95	DbAdmin	Test	80432	Widget2
0.01	DbAdmin	Test	80432	Widget2
3.84	DbAdmin	Prod	80432	Widget2
6.00	DbAdmin	Test	78925	Widget1
234.63	SysEng	Prod	78925	Widget1
0.73	DbAdmin	Test	78925	Widget1
0.00	DbAdmin	Prod	80432	Portal
2.47	DbAdmin	Prod	78925	Portal

AWS Support Plans



AWS Services - AWS Support Plans

- Support plans are designed to give you the right mix of tools and access to expertise so that we can be successful with AWS while optimizing performance, managing risk, and keeping costs under control
- AWS Support Plans Pricing

Basic Support Plan is included		
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

- Basic Support is included for all AWS customers and includes:
 - Customer Service and Communities - 24x7 access to customer service, documentation, whitepapers, and support forums.
 - AWS Trusted Advisor - Access to the 7 core Trusted Advisor checks and guidance to provision your resources following best practices to increase performance and improve security.
 - AWS Personal Health Dashboard - A personalized view of the health of AWS services, and alerts when your resources are impacted

AWS Services - AWS Support Plans

- Developer Support includes all Basic Support Plan +
 - Business hours email access to Cloud Support Associates
 - Unlimited cases / 1 primary contact
 - Case severity / response times - General guidance: < 24 business hours and System impaired: < 12 business hours
- Business Support includes
 - Intended to be used if you have production workloads
 - Trusted Advisor – Full set of checks + API access
 - 24x7 phone, email, and chat access to Cloud Support Engineers
 - Unlimited cases / unlimited contacts
 - Access to Infrastructure Event Management for additional fee.
 - Case severity / response times - General guidance: < 24 business hours, System impaired: < 12 business hours, Production system impaired: < 4 hours, and Production system down: < 1 hour
- Enterprise Support includes all Business Support Plan +
 - Access to a Technical Account Manager (TAM)
 - Concierge Support Team (for billing and account best practices)
 - Infrastructure Event Management, Well-Architected & Operations Reviews
 - Case severity / response times: - Production system impaired: < 4 hours, Production system down: < 1 hour, and Business-critical system down: < 15 minutes

Demo

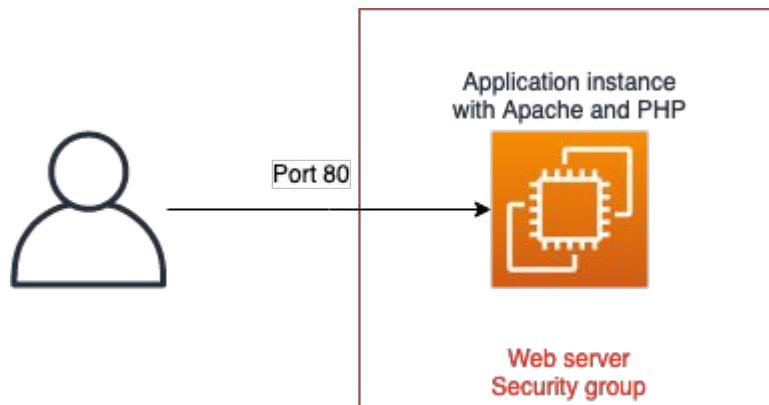


Host and Configure Your Static Website on Amazon S3

- Step 1: Create an Amazon S3 Bucket
- Step 2: Enable Static Website Hosting Configuration for Your Bucket
- Step 3: Download the Static Website Code from Github - [link](#)
- Step 4: Upload Your Static Website Code to the Bucket
- Step 5: Accessing Your Static Website Content Over the Internet Through the AWS Region-Specific Web Address

Host Php Application on Amazon Ec2 via AWS Cloudformation

- In this lab you will deploy an Apache Web server with a simple PHP application via UserData property.
- First, you will bootstrap EC2 instance to install web server and content.
- Then you will create an EC2 Security Group and allow access on port 80 to the instance.
- Finally, you will view the content served by the web server.



Summary



Summary

- Invest in the Future; Digital Transformation Will Become the Benchmark of Success—or Failure.
- AWS cloud Is a fast evolving and innovative platform, Introducing new services and features while reducing the cost for customers
- Digital Transformation Requires a Collaborative Framework.
- Your digital transformation needs a strategy.
- You need to orchestrate holistically.
- You need to deliver value to the business.





A network graph consisting of numerous small, semi-transparent gray circular nodes scattered across the frame. These nodes are interconnected by a web of thin, light-gray lines, creating a sense of a complex, distributed system or community.

THANK YOU