|  |  |  |  |
| --- | --- | --- | --- |
| **Details** | **AWS** | **Azure** | **GCP** |
|  | 1) AWS Beanstalk 2) Amazon EC2 3) Amazon EC2 Auto-Scaling 4) Amazon Elastic Container Registry 5) Amazon Elastic Kubernetes Service 6) Amazon Lightsail 7) AWS Serverless Application Repository 8) VMware Cloud for AWS 9) AWS Batch 10) AWS Fargate 11) AWS Lambda 12) AWS Outposts 13) Elastic Load Balancing | 1) Platform-as-a-service (PaaS) 2) Function-as-a-service (FaaS) 3) Service Fabric 4) Azure Batch 5) Cloud Services 6) Container Instances Batch 7) Azure Container Service (AKS) 8) Virtual Machines Compute Engine 9) Virtual Machine Scale Sets | 1) App Engine 2) Docker Container Registry 3) Instant Groups 4) Compute Engine 5) Graphics Processing Unit (GPU) 6) Knative 7) Kubernetes 8) Functions |
| **Storage Services** | 1) Simple Storage Service (S3) 2) Elastic Block Storage (EBS) 3) Elastic File System (EFS) 4) Storage Gateway 5) Snowball 6) Snowball Edge 7) Snowmobile | 1) Blob Storage 2) Queue Storage 3) File Storage 4) Disk Storage 5) Data Lake Store | 1) Cloud Storage 2) Persistent Disk 3) Transfer Appliance 4) Transfer Service |
| **AI/ML** | 1) SageMaker 2) Comprehend 3) Lex 4) Polly 5) Rekognition 6) Machine Learning 7) Translate 8) Transcribe 9) DeepLens 10) Deep Learning AMIs 11) Apache MXNet on AWS 12) TensorFlow on AWS | 1) Machine Learning 2) Azure Bot Service 3) Cognitive Services | 1) Cloud Machine Learning Engine 2) Dialogflow Enterprise Edition 5) Cloud Natural Language 6) Cloud Speech API 7) Cloud Translation API 8) Cloud Video Intelligence 9) Cloud Job Discovery (Private Beta) |
| **Database Services** | 1) Aurora 2) RDS 3) DynamoDB 4) ElastiCache 5) Redshift 6) Neptune 7) Database Migration Service | 1) SQL Database 2) Database for MySQL 3) Database for PostgreSQL 4) Data Warehouse 5) Server Stretch Database 6) Cosmos DB 7) Table Storage 8) Redis Cache 9) Data Factory | 1) Cloud SQL 2) Cloud Bigtable 3) Cloud Spanner 4) Cloud Datastore |
| **Backup Services** | Glacier | 1) Archive Storage 2) Backup 3) Site Recovery | 1) Nearline (frequently accessed data) 2) Coldline (infrequently accessed data) |
| **Serverless computing** | 1) Lambda 2) Serverless Application Repository | Functions | Google Cloud Functions |
| **Strengths** | 1) Dominant market position 2) Extensive, mature offerings 3) Support for large organizations 4) Global reach 5) Flexibility and a wider range of services | 1) Second largest provider 2) Integration with Microsoft tools and software 3) Broad feature set 4) Hybrid cloud 5) Support for open source 6) Ideal for startups and developers | 1) Designed for cloud-native businesses 2) Commitment to open source and portability 3) Flexible contracts 4) DevOps expertise 5) Complete container-based model 6) Most cost-efficient |
| **Caching** | Elastic Cache | Redis Cache | Cloud CDN |
| **File Storage** | EFS | Azure Files | ZFS and Avere |
| **Networking** | Amazon Virtual Private Cloud (VPC) | Azure Virtual Network (VNET) | Cloud Virtual Network |
| **Security** | AWS Security Hub | Azure Security Center | Cloud Security Command Center |
| **Location** | 77 availability zones within 24 geographic regions | Presence in 60+ regions across the world | Presence in 24 regions and 73 zones. Available in 200+ countries and territories |
| **Documentation** | Best in class | High quality | High quality |
| **DNS Services** | Amazon Route 53 | Azure Traffic Manager | Cloud DNS |
| **Notifications** | Amazon Simple Notification Service (SNS) | Azure Notification Hub | None |
| **Load Balancing** | Elastic Load Balancing | Load Balancing for Azure | Cloud Load Balancing |
| **Automation** | AWS Opsworks | Azure Automation | Compute Engine Management |
| **Compliance** | AWS CloudHSM | Azure Trust Center | Google Cloud Platform Security |
| **Pricing/ Discount Options** | One-year free trial along with a discount of up to 75% for a 1-3 year commitment | Up to 75% discount for a commitment ranging from one to three years | GCP Credit of $300 for 12 months apart from a sustained use discount of up to 30% |

**Cloud provider examples**

* Amazon Web Services (AWS)
* Microsoft Azure.
* Google Cloud.
* Alibaba Cloud.
* IBM Cloud.
* Oracle.
* Salesforce.
* SAP.

|  |  |  |  |
| --- | --- | --- | --- |
|  | AWS | Azure | Google |
| Price | Medium  (lowest in large Instance) | difficult to discern but licensing system also isn’t very clear-cut | Low  (lowest in Smallest Instance and lowest in large Instance ) |
| Compute | virtual machines that have preconfigured settings  and user can configure it | Virtual Machines and Virtual Machine scale sets | Google Compute Engine preform same function |
| Security | Best | High | High |
| Storage | Best | High | High |
| Support | High | Low | High |
| Learning curve | High | High | low |