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| --- | --- | --- | --- | --- | --- |
|  | | Amazon AWS | Google AppEngine | Microsoft Azure | IBM Smart Business Dev. |
| focus | | Infrastructure as a Service | Platform as a Service | Infrastructure as a Service and Platform as a Service | Infrastructure as a Service |
| Infrastructure and virtualization architecture | | Amazon EC2 - Elastic Compute Cloud (32 and 64 bit)  XEN Virtualization | Google Specified Architecture. | Microsoft Azure virtual machines with windows server for backend servers.  Hyper-V Virtualization. | virtual machine instances (32 and 64 bit) |
| Platforms | | Different flavors of Windows and Linux operating systems and different versions | Not supported as it is a PaaS | Microsoft Server operating system | Redhat Linux, SUSE Linux and Windows operating systems. |
| Persistent Storage | | Amazon S3, RDS and SimpleDB | App Engine Datastore | Azure Import/Export, Azure File Service, Azure SQL Database, Tables and Blobs | IBM smart business storage cloud with Hadoop based storage and Nirvanix |
| Monitoring | | Amazon Cloud Watch | Google Cloud Monitoring | Azure Management Portal | IBM Smart Cloud Monitoring |
| Load Balancing | | Elastic Load Balancing | Google Compute Engine Load Balancing | Azure Traffic Manager  Azure Internal Load Balancing | Not Available |
| Message Queues | | Simple Queue Service,  Simple Message Service | PUSH Queues  PULL Queues | Azure DataQueues | Not Available |
| Development Tools | | AWS Management Console,  AWS Toolkit for Eclipse,  AWS Toolkit for Microsoft Visual Studio | Google App Engine SDKs for Java, PHP, Python and Go.  Plugin for Eclipse. | 1. Microsoft Azure SDKs for Java, .NET, Node.js, PHP, Python, Ruby, Mobile and Media. 2. Command Line Tools – Windows Power Shell, Azure command-line interface and AzCopy Command-Line Tool for Azure Storage   **Migration Tools:**   1. Virtual Machine Assessment Tools 2. Azure Websites Migration Assistant | Plugin for Eclipse |
| Integration with other services | | Integration is allowed among AWS services. | Google APIs, Task Queue REST APIs. | Only .NET services including live services | Not Available |
| Web APIs | | Supported | Supported | Supported | Supported |
| Programming Framework | | .NET, Java, PHP, Python and Ruby | Go, Java, PHP and  Python | .NET, Java, Node.js, PHP, Python  and Ruby | Java, Node.js and Ruby |
| Pricing | Machine CPU | $ 0.14/Hour | $ 0.1/Hour | $ 0.12/Hour | $ 0.1/Hour |
| Storage | $ 0.25/GB (per Month) | $ 0.18/GB(per Month) | $ 0.15/GB(per Month) | $ 0.15/GB(per Month) |
| I/O | $0.01/1000 requests | $0.02/1000 requests | $0.02/1000 requests | $0.01/1000 requests |
| Bandwidth | $0.10/GB | $0.10/GB | $0.10/GB | $0.10/GB |

Cloud Computing Platforms Comparison