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| --- | --- | --- | --- | --- | --- |
|  | | Amazon AWS | Google App Engine | Microsoft Azure | IBM Smart Business Dev. |
| focus | | Infrastructure, to offer government, healthcare and Banking services. | Platform | platform | Infrastructure, to provide education and childcare, transportation logistics. |
| Infrastructure and virtualization architecture | | Highly reliable, Provides low cost infrastructure, reliable. | Specification provided by Google. | Servers at back end runs in virtual machines on Windows Azure while front end is in net. Servers can be customized according to your specifications. | Virtual Machine Instances-multiple sizes for 32 &64 bit architecture. |
| Platforms | | Infrastructure As A Service | Platform As A Service | Infrastructure As A Service | Infrastructure As A Service |
| Persistent Storage | | EBS Elastic Block Storage  S3 Simple Storage Service | Gdisk-bulk storage | Standard application storage | Bulk Storage |
| Monitoring | | Amazon Cloud Watch | App Engin System Status Dashboard. | MP-Management Pack | IBM Tivoli |
| Load Balancing | | 750 hours of Elastic Load Balancing(ELB) | Automatic Load Balancing | Azure Internal Load Balancing(ILB) | Randomized hydrodynamic load balancing |
| Message Queues | | SQS: Simple Queue Service .  SMS: Simple Message Service. | Push Queues and Pull Queues | Azure Data Queues. | IBM Web sphere message queues |
| Development Tools | | Web console, Command line API’s for all Services, SDK’s for Java, PHP, Rails & Paython, and several Eclipse Plugins. | Java plugin for Eclipse & Python software development | Visual Studio & SDK for .NET | Java plugin for Eclipse |
| Integration with other services | | Simple DB, S3, SQS, Cloudfront | GData,google accountsGAE Database | Cloud SQL, URL fetch, Memchache, Cloud storage, Email XMPP, data storage | Not Available |
| Web APIs | | yes | yes | yes | yes |
| Programming Framework | | .NET Ruby  Java  PHP  Python | Python PHP  Go  Java | .NET Python  Java Ruby  Node  PHP | Java  Node  Ruby |
| Pricing | Machine CPU | Hourly  charge 0.085 to 3.16$ per hour | $0.10 per hour of CPU usage | $0.12 per hour of CPU usage | $0.12 per hour of CPU usage |
| Storage | $0.25 to $0.275 per GB per month | $0.15 per GB per month | $0.15 per GB per month | $0.15 per GB per month |
| I/O | $0.01 / 1000 operations | $0.01 / 1000 operations | $0.01 / 1000 operations | $0.01 / 1000 operations |
| Bandwidth | $0.10 / GB | $0.10 / GB | $0.10 / GB | $0.10 / GB |

Cloud Computing Platforms Comparison