|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | Amazon AWS | Google AppEngin | Microsoft Azure | IBM Smart Business Dev. |
| focus | | Infrastructure | platform | Infrastructure | Infrastructure |
| Infrastructure and virtualization architecture | | EC2: Elastice compute cloud upon which you can instantiate 32 or 64 bit amazon machine images (AMIs) or upload your XEN virtual machine images | Google provides the specification | 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 and 64 bit architectures. |
| Platforms | | Windows And Linux Servers | Microsoft Server 2008 | Not Available | Redhat, SUSE and Windows |
| Persistent Storage | | Elastic Block Storage, Simple Storage Service | Gdisk- bulk Storage | Standard Application Storage | Bulk Storage |
| Monitoring | | Cloudwatch |  | Management Pack | IBM Tivoli |
| Load Balancing | | Elastic Load Balancing | Available | Available |  |
| Message Queues | | Simple Queue service and Simpe Message Service | Not Available | Azure DataQueues | Not Available |
| Development Tools | | WebConsole, Commandline APIs for all services, SDK’s for Java, PHP, Rails & Python, as well as several eclipse plugins | Java Plugin for Eclipse and Python software development kit (SDK) | Visual Studio & SDK for .NET | Java plugin for eclipse |
| Integration with other services | | All services are designed to work together like the pieces on a chessboard | A number of APIs available like maps, contacts, calendar etc | Large number of .Net services including live services | Not Available |
| Web APIs | | Yes | Yes | Unknown | Yes |
| Programming Framework | | Customizable linux based amazon machine image | PYTHON | not applicable | ibm tivoli middle ware |
| Pricing | Machine CPU | $0.14 / hour | $0.10 / hour | $0.12 / hour | $0.10 / hour |
| Storage | $0.25 / GB / month | $0.18 / GB / month | $0.15 / GB / month | $0.15 / GB / 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 / Gigabytes / | $0.10/ GB | $0.10/ GB |

Cloud Computing Platforms Comparison