



CLOUD COMPUTING APPLICATIONS

PaaS Providers: AWS Elastic Beanstalk

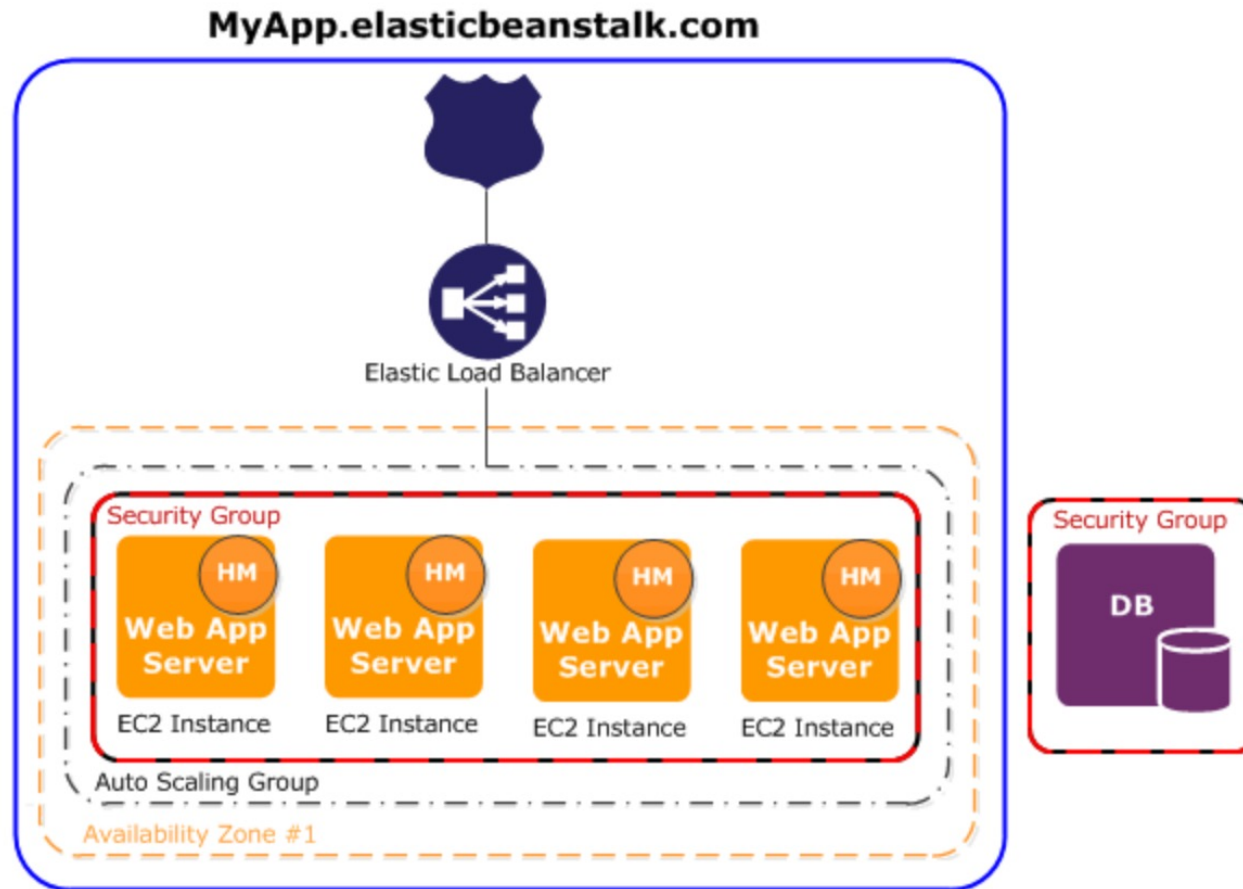
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AWS Elastic BeanStalk

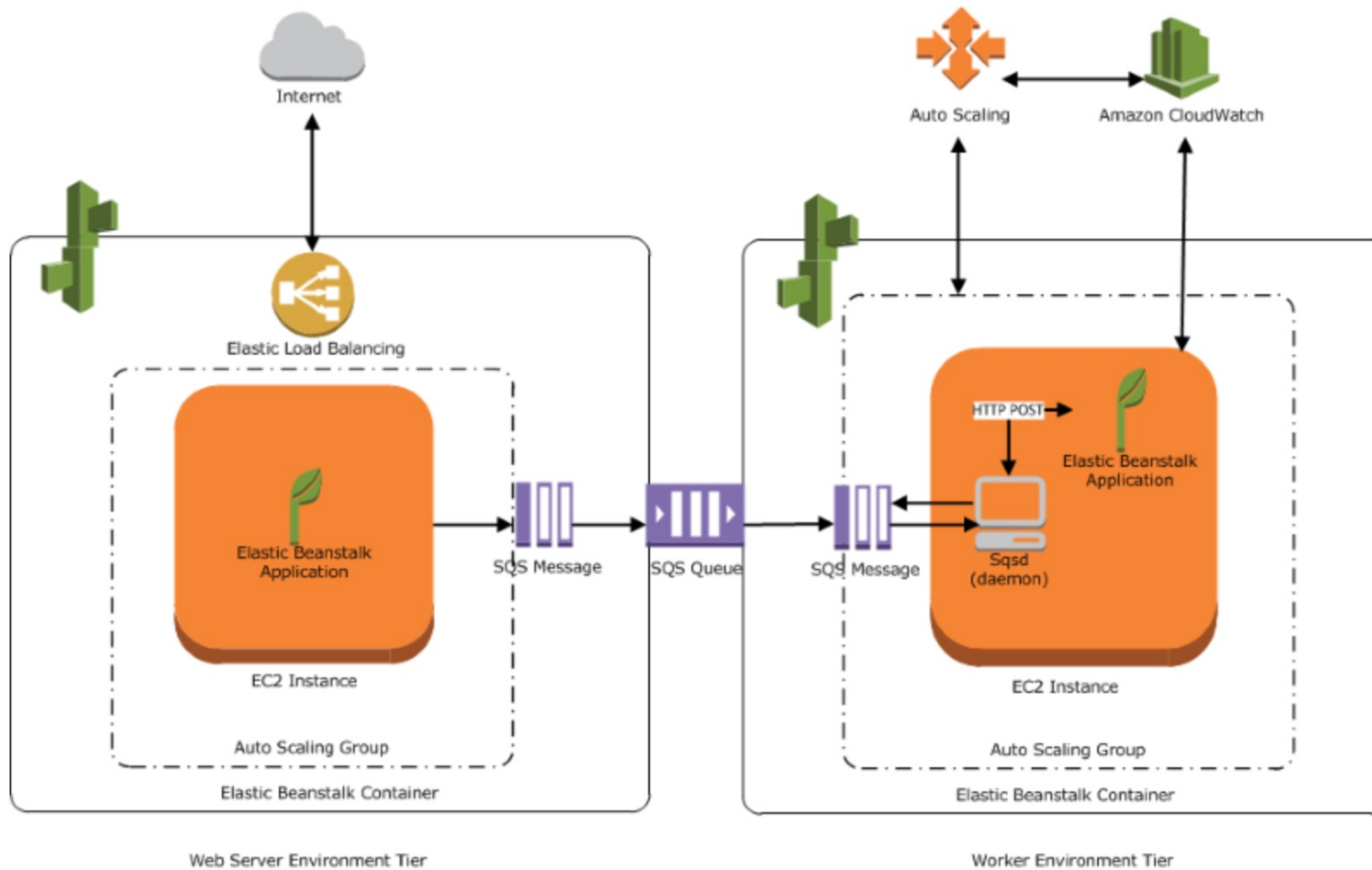
- An AWS solution for PaaS
 - Elastic Beanstalk is one layer of abstraction away from the EC2 layer.
- Allows deployment, management and scaling of Web Applications
- It supports Java, PHP, Python, .Net, Ruby, NodeJS and Docker
- The environment is preloaded with Linux, the necessary libraries (ex. Python), and Webserver software such as Apache HTTP server and Tomcat
- Provisioning, load balancing, Autoscaling, and application health monitoring is automatic

AWS Elastic BeanStalk

- Web Server Environment



Elastic BeanStalk Architecture



- Worker Environment

Elastic Beanstalk Security, Sandbox

- Applications run in a secure environment
- Isolates applications from hardware and operating system, and imposes security limitations
- Retain full control over AWS resources underlying the app (unlike SaaS)

Storing Elastic Beanstalk Data

- Program and data are stored in Amazon S3
- Other data storage models
 - Elastic Beanstalk can automatically provision RDS instances
 - Amazon DynamoDB
 - Microsoft SQL Server, Oracle, or other relational databases running on Amazon EC2

Other Services Supported

- Apache Tomcat for Java applications
- Apache HTTP Server for PHP applications
- Apache HTTP Server for Python applications
- Nginx or Apache HTTP Server for Node.js applications
- Passenger or Puma for Ruby applications
- Microsoft IIS 7.5, 8.0, and 8.5 for .NET applications
- Java SE
- Docker
- Go
- SSL support
- Page speed
- XMPP API
- Memcache API