Simian Army

Conformity Monkey

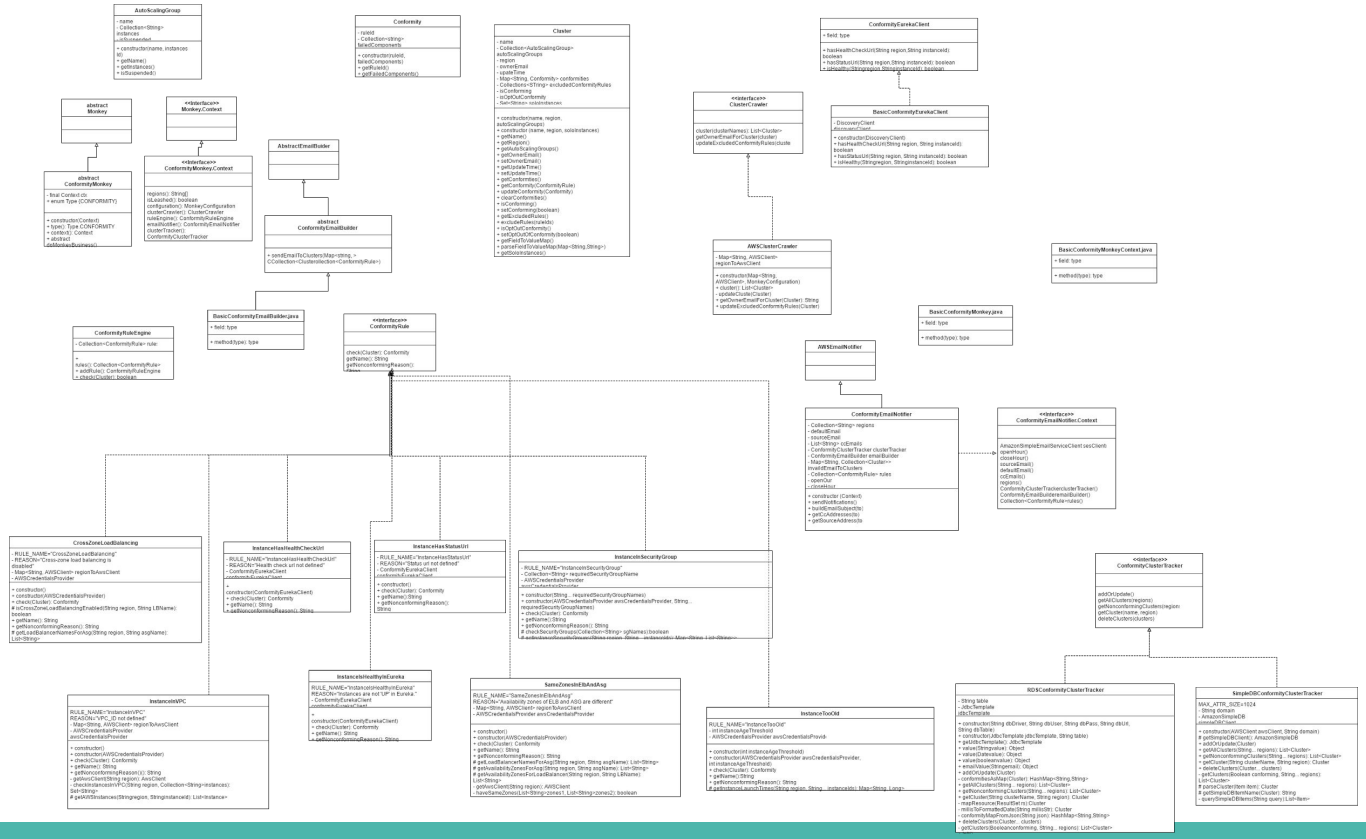
Outline

- Introduction
- Class diagram
- Classes & methods

Introduction

- What is Conformity Monkey?
  - A service runs on AWS cloud.
  - Provide a conformity check.
- Why use Conformity Monkey?
  - Check if the application or instances are launched on the conforming rules.
- How Conformity Monkey works?
  - Mark and then Notify.

Class diagram (initial)



Classes & methods

Class name	Function
AutoScalingGroup	The class implementing the auto scaling groups
Cluster	The basic unit of conformity check (a single ASG or a Group of ASG)
ClusterCrawel	To get cluster information
AwsClusterCrawler	implement ClusterCrawel
Conformity	Define the result of a conformity check
ConformityRule	A interface for a conformity check rule
ConformityRuleEngine	The class implementing conformity rule engine (真正執行 conformity check 的 class)
ConformityMonkey	extends Monkey
ConformityClusterTracker	The interface that defines the tracker to manage clusters for Conformity monkey to use
RDSConformityClusterTracker	implementation in RDS (relational database) (implements ConformityClusterTracker) Data access with JDBCTemplate
SimpleDBConformityClusterTracker	Implementation in SimpleDB (implements ConformityClusterTracker) Data access with AmazonSimpleDB client

Classes & methods (cont.)

ConformityEmailBuilder	The abstract class for building Conformity monkey email notifications (extends AbstractEmailBuilder)
ConformityEmailNotifier	extends AWSEmailNotifier
CrossZoneLoadBalancing	The class implementing a conformity rule that checks if the cross-zone load balancing is enabled for all cluster ELBs. (Elastic Load Balancer)
InstanceHasHealthCheckUrl	The class implementing a conformity rule that checks if all instances in a cluster has health check url in Discovery/Eureka.
InstanceHasStatusUrl	The class implementing a conformity rule that checks if all instances in a cluster has status url
InstanceInSecurityGroup	The class implementing a conformity rule that checks whether or not all instances in a

Classes & methods (cont.)

	cluster are in specific security groups.
InstanceIsHealthyInEureka	The class implements a conformity rule to check if all instances in the cluster are healthy in Discovery.
InstanceInVPC	The class implements a conformity rule to check an instance is in a virtual private cloud.
InstanceTooOld	The class implementing a conformity rule that checks if there are instances that are older than certain days. Instances are not considered to be permanent in the cloud, so sometimes having too old instances could indicate potential issues.
SameZonesInElbAndAsg	The class implementing a conformity rule that checks if the zones in ELB and ASG are the same.

Unkown...

Eureka is a REST (Representational State Transfer) based service that is primarily used in the AWS cloud for locating services for the purpose of load balancing and failover of middle-tier servers. We call this service, the **Eureka Server**.