



AWS Foundation

Monitoring – CloudWatch Part II



Agenda



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CloudWatch Logs

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Demo

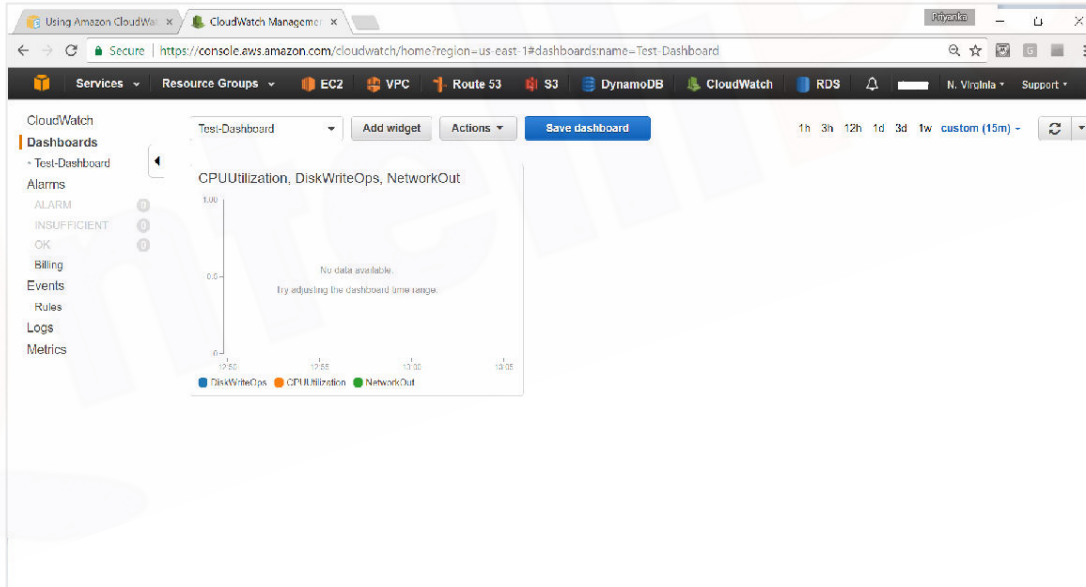
4

Demo

CW Concepts

Dashboards

- Dashboards are pages in the console which can be used to put all the important statistics deemed important at one place.



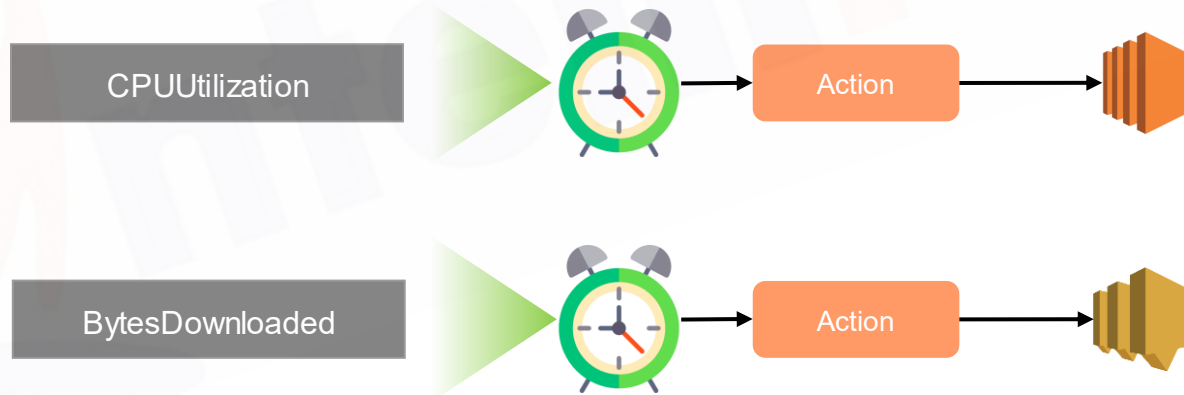
Demo 1: Dashboard & Metrics stats

- Create a Dashboard – AWS-foundation-dashboard.
- Add widgets for EC2, ELB and S3.
- Graph Options.
- Graphed Metrics.
- Edit a widget.
- Rename the graph.
- View Statistics for metrics for a specific resource.

CW Concepts

Alarms

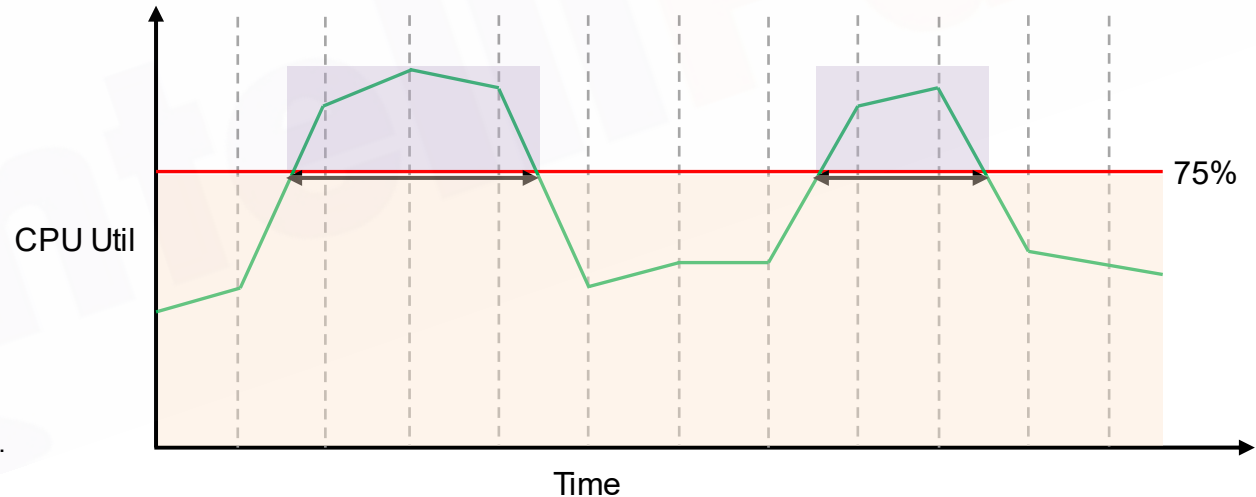
- Alarms watch over metrics and metrics only.
- Alarms can be set to take action based on metrics data.



CW Concepts

Alarms

- Alarm Threshold and Period. (Threshold of 75% for 3 consecutive times)



- Alarm States
- OK – Within Threshold.
- ALARM – Crossed Threshold.
- INSUFFICIENT_DATA – Metric not available/ Missing data (Good, Bad, Ignore, Missing).

Demo 2: Alarm

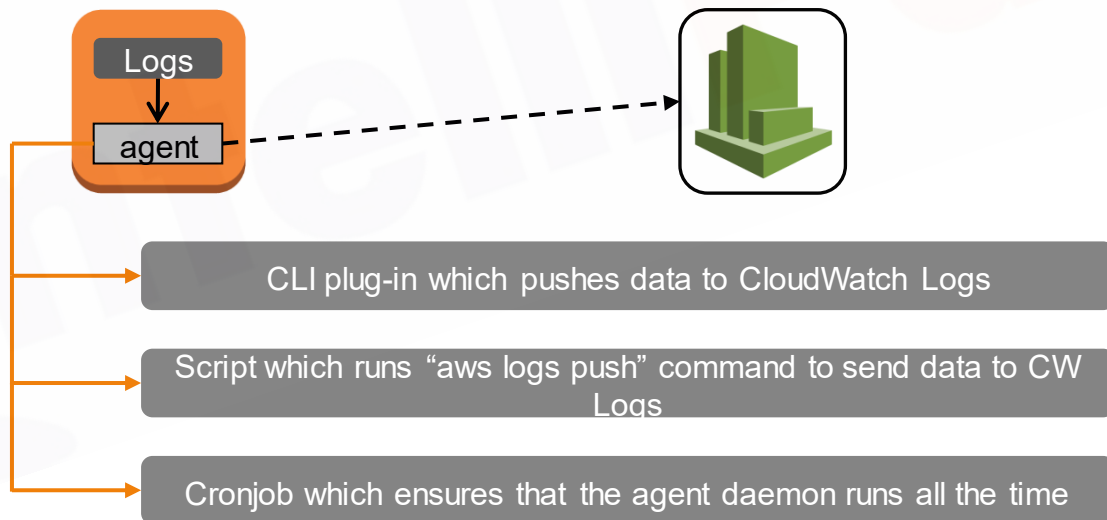
Alarms

- Create an Alarm.
- Alarm should monitor CPUUtilization of an EC2 instance.
- Decide on the Threshold and period.
- Provision all the 3 actions – SNS, Auto Scale and EC2 instance termination.
- Create Billing Alarm.

CW Concepts

Logs

- CloudWatch logs are used to monitor, store and access log files from various AWS resources including EC2 etc.
- How does it work:



CW Concepts

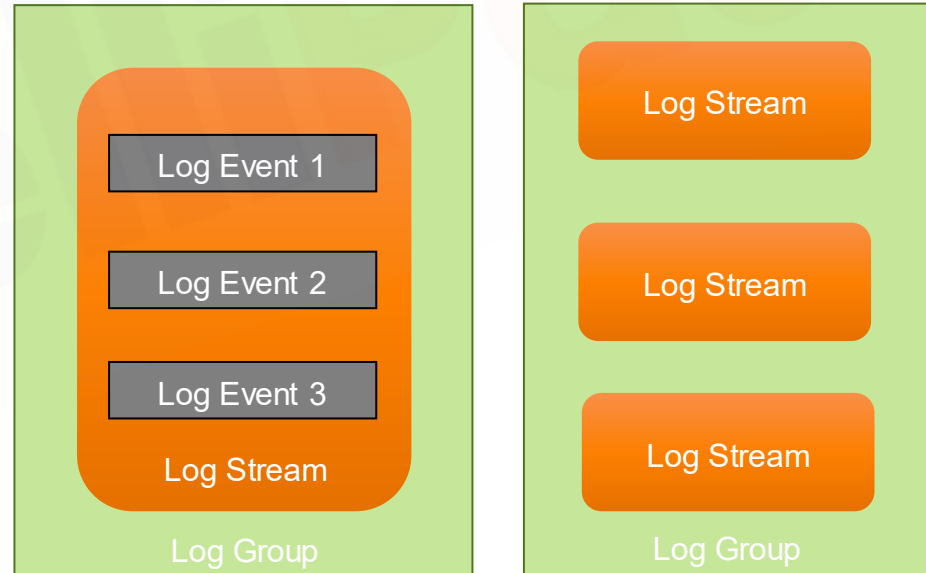
CloudWatch Log Components

Log Events: Record of some activity recorded by the application being monitored.

Log Streams: Sequence of log events from the same source

Log Groups: Group of Log Streams.

Metric Filters: Customized metrics created from received log data.



CW Concepts

Installing Logs Agent

- Install and configure the agent

```
sudo yum install -y awslogs
```

```
/etc/awslogs/awscli.conf
```

```
/etc/awslogs/awslogs.conf
```

```
sudo service start awslogs
```

```
/var/log/awslogs.log
```

```
sudo chkconfig awslogs on
```

CW Concepts

Logs Config File

- Config File: Contains information needed by “aws logs push” command.

General Section:

```
state_file  
logging_config_file
```

Logstream Section:

```
log_group_name = value  
log_stream_name = value  
file = value  
batch_count = integer  
batch_size = integer
```

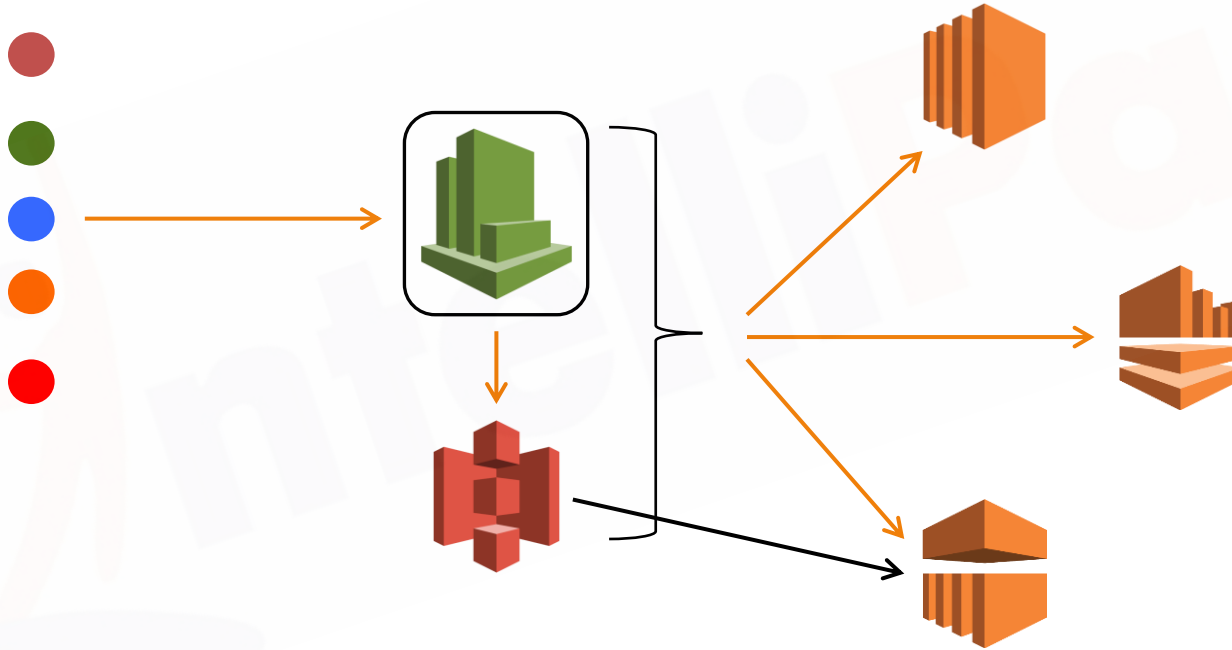
Demo 3: CloudWatch Logs

- Configure log agent in an EC2 instance.
- Create log group.
- Use Filter patterns.
- Export data to S3.

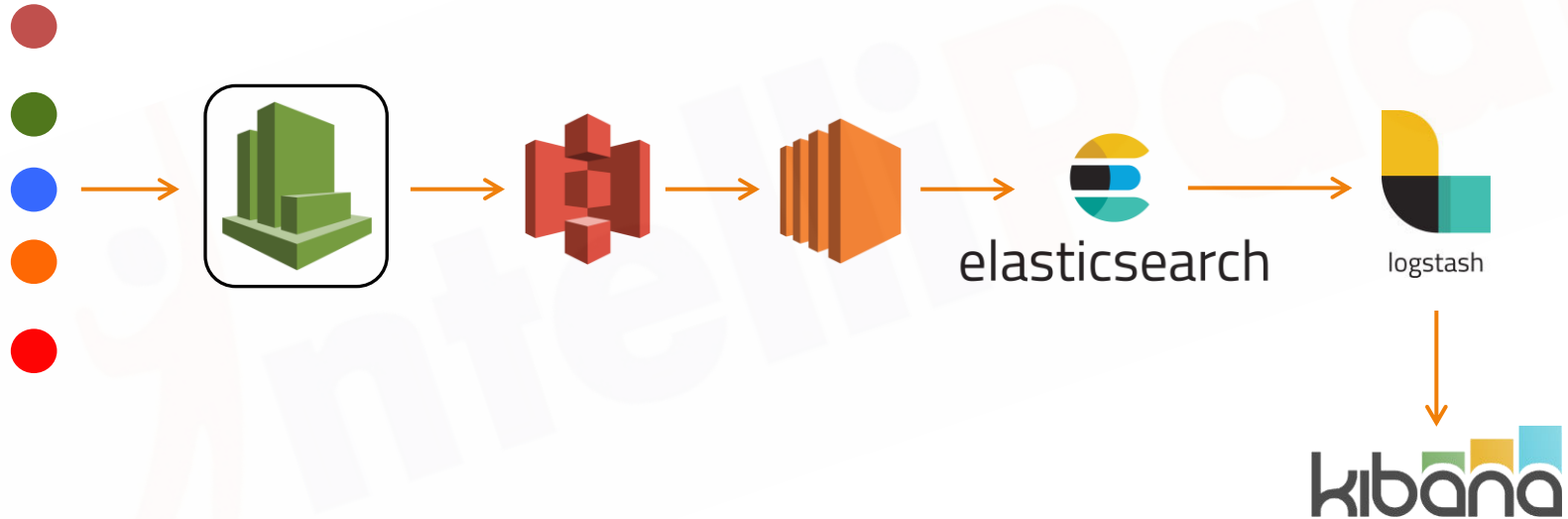
CloudWatch Pricing (us-east-1)

- Free Tier
 - 3 dashboards up to 50 metrics per month
 - Basic monitoring at 5 mins interval of EC2, EBS, ELB, RDS are free.
- <https://aws.amazon.com/cloudwatch/pricing/>
- Pricing
 - Dashboards: \$3.00 per dashboard per month
 - Detailed monitoring for EC2 instances
 - Custom Metrics
 - Alarms: \$0.10 per alarm/month
 - CloudWatch Logs
 - CloudWatch Events

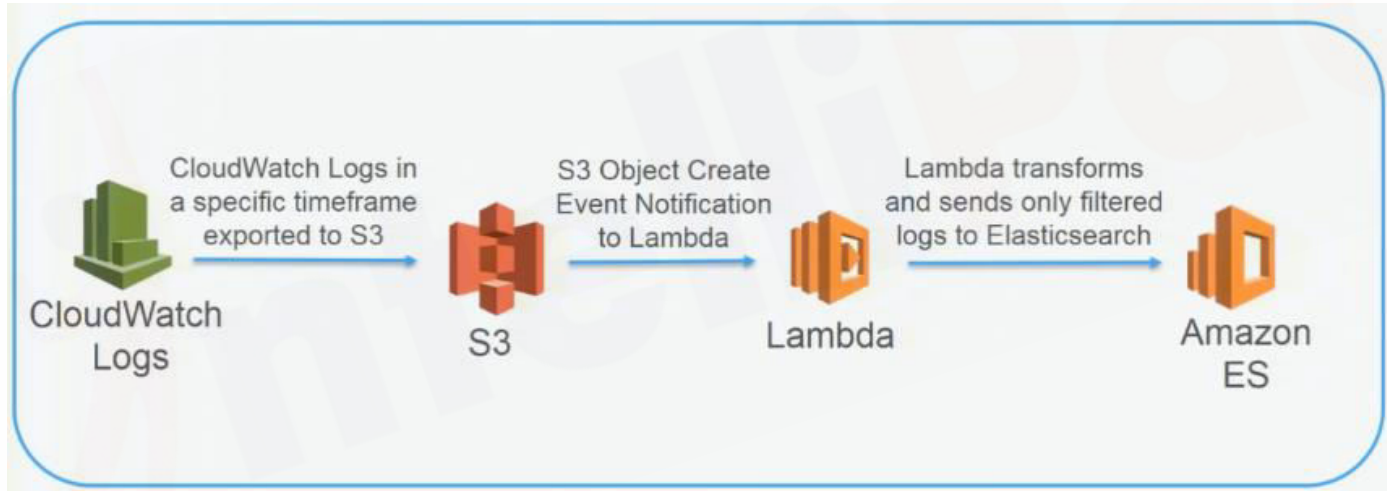
Design Patterns



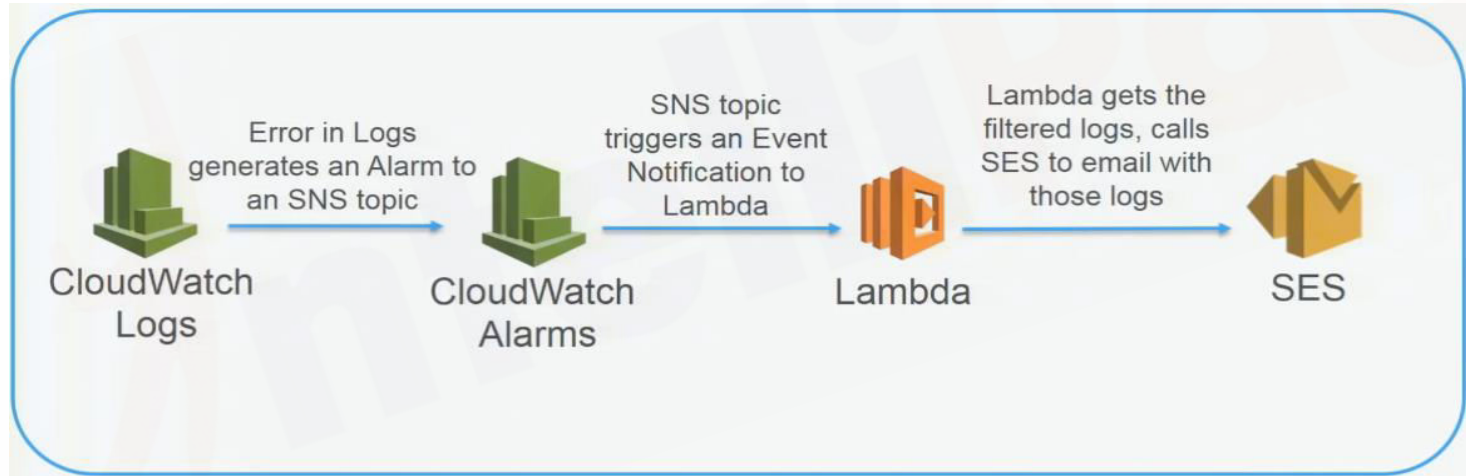
Design Patterns



Design Patterns



Design Patterns



Design Patterns





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