Networking Best Practices

If we have setup SSL directly on our EC2 instances, this will add extra overhead on the instance. If we setup the SSL cert on the load balancer instead, we will be offloading this burden on the load balancer and freeing up the resources on the EC2 instance.

**Network Monitoring**

Review monitoring methods and tools with examples

**Network HA and DR**

HA and DR solutions covered completely

**Network Fine Tuning**

After monitoring the network it now needs to be fine tuned

**Network Automation**

Tools and scripts to automatically setup and manage the network

**Troubleshooting**

Discuss methods that can be used to troubleshoot network issues or changes

Question (Network Monitoring)

Assume we have a EFS deployed in multiple AZ’s, and we want to see the total data throughput accessed from EFS mount points across all AZ’s via amazon cloud watch dashboards.

Solution:

https://docs.aws.amazon.com/efs/latest/ug/monitoring-cloudwatch.html

**TotalIOBytes**

The number of bytes for each file system operation, including data read, data write, and metadata operations.

The Sum statistic is the total number of bytes associated with all file system operations. The Minimum statistic is the size of the smallest operation during the period. The Maximum statistic is the size of the largest operation during the period. The Average statistic is the average size of an operation during the period. The SampleCount statistic provides a count of all operations.

**Note**

To calculate the average operations per second for a period, divide the SampleCount statistic by the number of seconds in the period. To calculate the average **throughput** (Bytes per second) for a period, divide the Sum statistic by the number of seconds in the period.