

## AWS Monitoring

### Which IAM permissions are needed to fetch Amazon EC2, EBS and ELB metrics

When you create an AWS app, you need to provide the access key and secret for a user that can fetch metrics for EC2, EBS and/or ELB, depending on which of those you select to be monitored. We recommend creating a separate IAM user for this, with the minimum permissions:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "ec2:DescribeInstances",
        "ec2:DescribeAddresses",
        "ec2:DescribeVolumes",
        "elasticloadbalancing:DescribeLoadBalancers",
        "cloudwatch:GetMetricStatistics",
        "cloudwatch:ListMetrics"
      ],
      "Resource": [
        "*"
      ]
    }
  ]
}
```

The Describe\* permissions are needed to identify the resources which need to be monitored (Instances and Addresses for EC2, Volumes for EBS and LoadBalancers for ELB), while GetMetricStatistics will allow SPM to fetch the actual metrics from CloudWatch.

### Metrics

Metric Name	Key	Agg	Type	Description
'reads'	aws.ec2.disk.read.bytes	Sum	Double	
'writes'	aws.ec2.disk.write.bytes	Sum	Double	
'rejected requests'	aws.elb.requests.rejected	Sum	Double	
'pending requests count'	aws.elb.requests.pending	Max	Long	
'network out'	aws.ec2.network.tx.bytes	Sum	Double	
'network in'	aws.ec2.network.rx.bytes	Sum	Double	
'5xx'	aws.elb.reponse.code.5xx	Sum	Double	

Metric Name	Key	Agg	Type	Description
'4xx'	aws.elb.reponse.code.4xx	Sum	Double	
'consumed read/write ops'	aws.ebs.provisioned.ops.total	Sum	Double	
'requests count'	aws.elb.requests	Sum	Double	
'2xx'	aws.elb.backend.response.code.2xx	Sum	Double	
'4xx'	aws.elb.backend.response.code.4xx	Sum	Double	
'3xx'	aws.elb.backend.response.code.3xx	Sum	Double	
'5xx'	aws.elb.backend.response.code.5xx	Sum	Double	
'connection errors'	aws.elb.backend.connection.errors	Sum	Double	