CloudWatch default metrics collection includes CPU Utilization, Network traffic, and disk read/writes. It does not include metrics to monitor Disk space & Memory usage.

AWS provides [*CloudWatch monitoring scripts*](https://aws.amazon.com/code/8720044071969977?tag=vglnkc7068-20) that can be configured on the Linux based EC2 instances to send Custom Metrics to CloudWatch.

*These monitoring scripts are intended for use with Amazon EC2 instances running Linux operating systems.  
The scripts have been tested on the following Amazon Machine Images (AMIs) for both 32-bit and 64-bit versions: Amazon Linux 2014.09.2, Red Hat Enterprise Linux 6.6, SUSE Linux Enterprise Server 12, Ubuntu Server 14.04  
— Amazon Web Service*

**How to get CloudWatch monitoring script?**

Log on to your EC2 instance (Ubuntu 14.04)

Install following packages

$ sudo apt-get update  
$ sudo apt-get install unzip  
$ sudo apt-get install libwww-perl libdatetime-perl

Download, unzip monitoring script

$ curl http://aws-cloudwatch.s3.amazonaws.com/downloads/CloudWatchMonitoringScripts-1.2.1.zip -O  
$ unzip CloudWatchMonitoringScripts-1.2.1.zip  
$ rm CloudWatchMonitoringScripts-1.2.1.zip  
$ cd aws-scripts-mon

To execute the script & send metrics to CloudWatch, EC2 instance needs to have either AWS credentials configured or IAM role assigned to it.

**Option 1 : Configure AWS credentials**

*aws-scripts-mon* folder contains *awscreds.template*file that comprise template of format in which AWS credentials should be stored in a file named as *awscreds* on EC2 instance

Copy format in *awscreds* file

$ cp awscreds.template awscreds

Open *awscreds* file in edit mode & enter relevant info

$ vi awscreds# update details in file & saveAWSAccessKeyId=*YourAccessKeyID*AWSSecretKey=*YourSecretAccessKey*

Schedule a cron to execute the script every 5 minutes

$ crontab -e\*/5 \* \* \* \* $HOME/aws-scripts-mon/mon-put-instance-data.pl --mem-util --disk-space-util --swap-util --disk-path=/ --from-cron --aws-credential-file=$HOME/aws-scripts-mon/awscreds

Here we’re passing path to *awscreds* file as an option  
*— aws-credential-file=$HOME/aws-scripts-mon/awscreds*

**Option 2 : Assign IAM role**

IAM role cannot be assigned once instance has been launched. So if the instances that need to be monitored are already up-and-running and do not have an IAM role assigned to them, you need go ahead with Option 1.

Create new or Modify already assigned IAM role to make sure that it has permissions to perform the following operations -

cloudwatch:PutMetricData  
cloudwatch:GetMetricStatistics  
cloudwatch:ListMetrics  
ec2:DescribeTags

Schedule a cron to execute the script every 5 minutes

$ crontab -e\*/5 \* \* \* \* $HOME/aws-scripts-mon/mon-put-instance-data.pl --mem-util --disk-space-util --swap-util --disk-path=/ --from-cron

While configuring script, you can choose to report any desired combination of the following metrics —

**View Custom Metrics on AWS console**

* Sign in to the AWS Management Console and open the **CloudWatch** console
* In the left panel, click on **System/Linux**option under **Metrics** option.
* In this section you can see all the custom metrics you choose to send to CloudWatch for all EC2 instances on which script has been installed.