



RUCLOUD OPTIMIZED: ESTIMATOR

Installation and User Guide.

v19.11

WELCOME AND CONGRATULATIONS

You will see how much you can reduce your AWS costs by using our unique patent pending technologies. The estimates shown are unique to your AWS account and the settings for the CloudDown Scheduler technology are configurable to suite your needs to give accurate use case cost saving estimations. We have kept the configuration as simple as possible so hopefully you will find it a breeze to see the savings potential. If you do however run into any install issues, we are here to help. Please contact our support via: <https://www.rucloud.technology/support/>

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Login to your AWS Account

Login to your account via the AWS Management Console.

Create IAM policy

From the Management Console, Select **Services -> IAM -> Policies -> Create Policy**

Cut and Paste the following into the **JSON tab**

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "VisualEditor1",
      "Effect": "Allow",
      "Action": [
        "autoscaling:DescribeAutoScalingInstances",
        "ec2:DescribeInstances",
        "cloudwatch:GetMetricData",
        "ec2:GetEbsEncryptionByDefault",
        "ec2:DescribeInstanceAttribute",
        "ec2:DescribeRegions",
        "ec2:DescribeVolumesModifications",
        "ec2:DescribeSnapshots",
        "cloudwatch:ListMetrics",
        "ec2:GetLaunchTemplateData",
        "ec2:DescribeVolumeStatus",
        "ec2:DescribeVolumes",
        "ec2:GetEbsDefaultKmsKeyId",
        "ec2:DescribeKeyPairs",
        "ec2:DescribeInstanceStatus",
        "ec2:DescribeLaunchTemplates",
        "ec2:DescribeTags",
        "ec2:DescribeSnapshotAttribute",
        "ec2:DescribeLaunchTemplateVersions",
        "cloudwatch:GetMetricStatistics",
        "ec2:DescribeVolumeAttribute",
        "ec2:AssociateAddress"
      ],
      "Resource": "*"
    }
  ]
}
```

Select **Review Policy** and then complete the following:

Name: **rucloud_estimator**

Description: **IAM policy required for RUCLOUD ESTIMATOR**

Select **Create Policy**

Create IAM role

From the Management Console, Select **Services -> IAM -> Roles -> Create Role**

Select **EC2** and then **Next: Permissions**

Search for the **rucloud_policy** that you just created, select the **tick box** and then select **Next: Tags**

Add the following tag:

Key: **Name**

Value: **rucloud_estimator**

Select **Next: Review**

Insert the following:

Role name: `rucloud_estimator`

Description: IAM role required for RUCLOUD ESTIMATOR functionality

Select **Create role**

Install AMI

1. From the Management Console, Select **Services -> EC2 -> Launch instance -> Community AMIs**
2. Search for **RUCLOUD ESTIMATOR** and press **Select**
3. Select either **t2.micro** or **t3.micro**
4. For instance details, select the appropriate **VPC** and **subnet**

Note: It is highly recommended that a private subnet is used and that you access the system from your intranet network.

5. Allocate the `rucloud_estimator` IAM role to the instance and press **Next: Add Storage**
6. No modifications are required here, press **Next: Add Tags**

It is recommended to add the following tag or another appropriate tag that meets your naming standards:

Key: `Name`

Value: `RUCLOUD ESTIMATOR`

7. Select **Next: Configure Security Group**

Select or create an appropriate security group which allows TCP ports **80 (http)** and **443 (https)** from your access point (Source IP CIDR).

8. **Select Review and Launch -> Launch -> Select the appropriate key pair -> Select tick box -> Launch Instances**
9. Select **view instances** -> search for **RUCLOUD ESTIMATOR**
10. Wait for the instance **status checks** to both be **OK**.
11. Connect to the IP address of the instance in a browser, you should see a screen similar to the following

Rucloud

Welcome to Rucloud optimized: Cost saving estimator.

The System is currently collecting data for it's cost estimations.
Please grab a coffee or a tea and we should be ready for you in a few minutes.
Thank you for your patience.

Full version available now from AWS Marketplace

12. This screen will remain for 5 to 30 minutes, depending on the size of your environment, once all data is collected you will be presented with something similar to the following:

Rucloud

Welcome to Rucloud optimized: Cost saving estimator.

Cost savings are calculated based upon your input below.

a) The percentage of your EC2 instances that can be placed into a shutdown schedule.

b) EC2 Instance running hours per week, when in the shutdown schedule (1-168)

Hrs Per Week Percent of Instances

Total Instances	Total Volumes	Total GB	Licence ec2/vol	Annual cost	Install Now
184	439	70199	r5.large 100/500	\$17820	
Running Hrs PerWeek	Percent of instances	Volumes for +Automize			
50	50	246			
Current Cost PerYear	+Automize	+Automize +CloudDown	Total Rucloud Saving		
\$371564.04	\$327099.36	\$212225.18	\$159338.86	42.88%	

184 Instances

Region	Count
us-east-1c	46
eu-west-1b	44
eu-west-1c	10
eu-west-1a	16
eu-west-2a	9
eu-west-2b	9
eu-west-2c	21
us-east-1a	23
us-east-1b	15

Scenario	InstanceCost	VolCost	Total
Current Cost PerYear	283723.68	87840.36	371564.04
+Automize	283723.68	4375.68	327099.36
+Automize +CloudDown	184082.63	29142.55	212225.18

439 Volumes

Region	Count
eu-west-1b	132
us-east-1c	87
eu-west-1c	40
eu-west-1a	49
eu-west-2c	42
eu-west-2b	27
eu-west-2a	32
us-east-1b	30

What does all this information mean?

We explain below:

Title	Row	Description
Total Instances	1	The number of instances that can be managed by CloudDown
Total Volumes	1	The number of gp2 volumes that can be managed by AutoMize
Total GB	1	The total amount of storage of the volumes to be managed
License ec2/vol	1	Recommended license/instance type for rucloud optimized
Annual Cost	1	Annual rucloud optimized product costs
Install Now	1	Link to the AWS Marketplace to install rucloud optimized
Running Hours Per Week	2	Number of hours the instances to CloudDown are to be running in a week
Percent of Instances	2	The percentage of instances and volumes that are to be CloudDown
Volumes for AutoMize	2	The number of volumes that have been identified in your account that would be tiered down
Current Costs Per Year	3	The yearly cost of the instances and volumes that are to be managed.
+AutoMize	3	The yearly cost after the volumes identified have been tiered down
+AutoMize +CloudDown	3	The yearly cost after the volumes identified have been tiered down and after the percentage of instances/volumes have been in CloudDown status for the non-running hours per week
Total Rucloud Saving	3	Shows monetary and percentage values of estimated savings when using rucloud optimized
Instances donut	4	Graphical display of your instance placement
Bar Chart	4	Shows the yearly costs and estimated savings in graphical form
Volumes donut	4	Graphical display of your volume placement

Note: Instance costs displayed are based on Linux operating system deployments. This is because it is not always possible to determine the operating system running on your instances. As pricing shown is based on Linux, which is the cheapest operating system, it is likely you will see savings **greater** than estimated.

Customizing to your environment

To modify the CloudDown requirements for your specific needs, modify the following values on the homepage and select **Recalculate**

Value	Description
Hrs Per Week	Specify the number of hours the instances will be running a week
Percent of instances	Specify the percentage of instances that are to be CloudDown each week

What is AutoMize?

AutoMize Technology is part of the patent pending product Rucloud Optimized.

This technology automatically tiers your EBS volumes based on real-time workloads.

To find out more, please visit: <https://rucloud.technology/automize>

What is CloudDown?

CloudDown Technology is also part of the patent pending product Rucloud Optimized.

This technology is incorporated into a shutdown scheduler that removes both EC2 instance and EBS volume costs when your instances are shutdown.

To find out more, please visit: <https://rucloud.technology/clouddown>

Contact Us

If you wish to discuss our product further and how it can help you reduce your AWS costs or just have general enquires please [contact us](#). We are always happy to engage with our customers.

Install RUCLOUD OPTIMIZED

To start saving these costs now, please visit the [AWS Marketplace](#) and install the full version.

If you wish to delve deeper into the product, then please feel free to peruse the documentation [here](#).