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us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#Instances:v=3;\$case=tags:tru... Search [Alt+S] AWS Services Ohio Subham Pradhan

New EC2 Experience Tell us what you think X

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Volumes

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Instances (1/1) Info C Connect Instance state Actions Launch instances Find instance by attribute or tag (case-sensitive) < 1 > 🔍

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
WEB-SERVER-1	i-0dcc8f11e9f602141	Running	t2.micro	2/2 checks passed	No alarms	us-east-2a

Instance: i-0dcc8f11e9f602141 (WEB-SERVER-1)

Details Security Networking Storage Status checks Monitoring Tags

▼ Instance summary Info

Instance ID	Public IPv4 address	Private IPv4 addresses
i-0dcc8f11e9f602141 (WEB-SERVER-1)	18.227.237.116 open address	10.0.1.88
IPv6 address	Instance state	Public IPv4 DNS
-	Running	-
Hostname type	Private IP DNS name (IPv4 only)	Elastic IP addresses
IP name: ip-10-0-1-88.us-east-2.compute.internal	ip-10-0-1-88.us-east-2.compute.internal	-
Answer private resource DNS name	Instance type	
-	t2.micro	

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root@ip-10-0-1-88:/var/www/html

```
ASUS@LAPTOP-Q9QDRNKO MINGW64 ~/Downloads  
$ chmod 400 WEB-SERVER-2.pem
```

```
ASUS@LAPTOP-Q9QDRNKO MINGW64 ~/Downloads  
$ ssh -i "WEB-SERVER-2.pem" ec2-user@18.227.237.116  
The authenticity of host '18.227.237.116 (18.227.237.116)' can't be established.  
ED25519 key fingerprint is SHA256:JnRtwSBYGZDj6A44AD4EqCCvxPaP9C3kQFyiubMxDII.  
This key is not known by any other names.  
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes  
Warning: Permanently added '18.227.237.116' (ED25519) to the list of known hosts.
```

```
, #  
~\ _ ##### Amazon Linux 2023  
~~ \#####  
~~ \###  
~~ \#/ __ https://aws.amazon.com/linux/amazon-linux-2023  
~~ V~ ' '-'>  
~~ ._. /  
~/m/ , /
```

```
[ec2-user@ip-10-0-1-88 ~]$ yum install httpd  
Error: This command has to be run with superuser privileges (under the root user on most systems).  
[ec2-user@ip-10-0-1-88 ~]$ sudo su  
[root@ip-10-0-1-88 ec2-user]# cd  
[root@ip-10-0-1-88 ~]# yum install httpd  
Last metadata expiration check: 0:04:34 ago on Wed Sep 27 18:57:53 2023.  
Dependencies resolved.
```

Package	Architecture	Version	Repository	Size
===== Installing:				
httpd	x86_64	2.4.56-1.amzn2023	amazonlinux	48 k
Installing dependencies:				
apr	x86_64	1.7.2-2.amzn2023.0.2	amazonlinux	129 k
apr-util	x86_64	1.6.3-1.amzn2023.0.1	amazonlinux	98 k
generic-logos-httpd	noarch	18.0.0-12.amzn2023.0.3	amazonlinux	19 k
httpd-core	x86_64	2.4.56-1.amzn2023	amazonlinux	1.4 M
httpd-filesystem	noarch	2.4.56-1.amzn2023	amazonlinux	15 k
httpd-tools	x86_64	2.4.56-1.amzn2023	amazonlinux	82 k
libbrotli	x86_64	1.0.9-4.amzn2023.0.2	amazonlinux	315 k
mailcap	noarch	2.1.49-3.amzn2023.0.3	amazonlinux	33 k
Installing weak dependencies:				
apr-util-openssl	x86_64	1.6.3-1.amzn2023.0.1	amazonlinux	17 k
mod_http2	x86_64	2.0.11-2.amzn2023	amazonlinux	150 k
mod_lua	x86_64	2.4.56-1.amzn2023	amazonlinux	62 k

Transaction Summary



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root@ip-10-0-1-88:/var/www/html

```
Installing : httpd-filesystem-2.4.56-1.amzn2023.noarch
Installing : httpd-core-2.4.56-1.amzn2023.x86_64
Installing : mod_lua-2.4.56-1.amzn2023.x86_64
Installing : mod_http2-2.0.11-2.amzn2023.x86_64
Installing : generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch
Installing : libbrotli-1.0.9-4.amzn2023.0.2.x86_64
Installing : httpd-2.4.56-1.amzn2023.x86_64
Running scriptlet: httpd-2.4.56-1.amzn2023.x86_64
Verifying   : mod_lua-2.4.56-1.amzn2023.x86_64
Verifying   : httpd-core-2.4.56-1.amzn2023.x86_64
Verifying   : httpd-2.4.56-1.amzn2023.x86_64
Verifying   : apr-util-1.6.3-1.amzn2023.0.1.x86_64
Verifying   : mod_http2-2.0.11-2.amzn2023.x86_64
Verifying   : apr-1.7.2-2.amzn2023.0.2.x86_64
Verifying   : apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64
Verifying   : httpd-tools-2.4.56-1.amzn2023.x86_64
Verifying   : libbrotli-1.0.9-4.amzn2023.0.2.x86_64
Verifying   : generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch
Verifying   : httpd-filesystem-2.4.56-1.amzn2023.noarch
Verifying   : mailcap-2.1.49-3.amzn2023.0.3.noarch
```

Installed:

```
apr-1.7.2-2.amzn2023.0.2.x86_64      apr-util-1.6.3-1.amzn2023.0.1.x86_64  apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64  generic-logos
httpd-2.4.56-1.amzn2023.x86_64      httpd-core-2.4.56-1.amzn2023.x86_64    httpd-filesystem-2.4.56-1.amzn2023.noarch    httpd-tools-2
libbrotli-1.0.9-4.amzn2023.0.2.x86_64 mailcap-2.1.49-3.amzn2023.0.3.noarch  mod_http2-2.0.11-2.amzn2023.x86_64      mod_lua-2.4.5
```

Complete!

```
[root@ip-10-0-1-88 ~]# cd /var/www/html
[root@ip-10-0-1-88 html]# ls
[root@ip-10-0-1-88 html]# echo "THIS IS WEB SERVER-1 AND I WILL BE CONFIGURING THIS WEB-SERVER INTO CLOUDWATCH WITH AMI">>index.html
[root@ip-10-0-1-88 html]# ls
bash: LS: command not found
[root@ip-10-0-1-88 html]# ls
index.html
[root@ip-10-0-1-88 html]# cat index.html
THIS IS WEB SERVER-1 AND I WILL BE CONFIGURING THIS WEB-SERVER INTO CLOUDWATCH WITH AMI
[root@ip-10-0-1-88 html]# |
```



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root@ip-10-0-1-88:/var/www/html

```
ASUS@LAPTOP-Q9QDRNKO MINGW64 ~/Downloads
$ ssh -i "WEB-SERVER-2.pem" ec2-user@18.227.237.116
      #_
~\_ #####_ Amazon Linux 2023
~~ \####\|
~~ \###|
~~ \#/ __ https://aws.amazon.com/linux/amazon-linux-2023
~~ V~, '-->
~~ / \
~~ ._. /
~~ /_, /
~/m/,'
```

Last login: Wed Sep 27 19:05:04 2023 from 152.58.148.202

```
[ec2-user@ip-10-0-1-88 ~]$ sudo su
[root@ip-10-0-1-88 ec2-user]# cd
[root@ip-10-0-1-88 ~]# cd /var/www/html
[root@ip-10-0-1-88 html]# ls
index.html
[root@ip-10-0-1-88 html]# systemctl start httpd
[root@ip-10-0-1-88 html]# systemctl enable httpd
Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service → /usr/lib/systemd/system/httpd
[root@ip-10-0-1-88 html]# ls
index.html
[root@ip-10-0-1-88 html]# cat index.html
THIS IS WEB SERVER-1 AND I WILL BE CONFIGURING THIS WEB-SERVER INTO CLOUDWATCH WITH AMI
[root@ip-10-0-1-88 html]#
```



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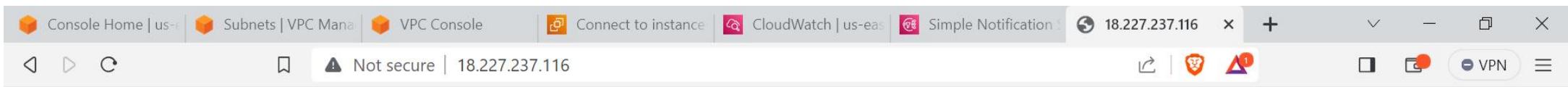


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Savings Plans

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Instances (1/1) Info

C Connect Instance state ▾ Actions ▾ Launch instances ▾

Find instance by attribute or tag (case-sensitive)

Name	Instance ID
WEB-SERVER-1	i-0dcc8f11e9f602141

Connect

View details

Manage instance state

Instance settings

Networking

Security

Image and templates

Monitor and troubleshoot

Create image

Create template from instance

Launch more like this

Details Security Networking Storage Status checks Monitoring Tags

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Console Home | us-east-2 Subnets | VPC Manager VPC Console Create Image CloudWatch | us-east-2 Simple Notification 18.227.237.116 + - VPN AWS Services Search [Alt+S] us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#CreateImage:instanceId=i-0d... EC2 Instances i-0dcc8f11e9f602141 Create image

Create image [Info](#)

An image (also referred to as an AMI) defines the programs and settings that are applied when you launch an EC2 instance. You can create an image from the configuration of an existing instance.

Instance ID: [i-0dcc8f11e9f602141](#) (WEB-SERVER-1)

Image name: WEB-SERVER-IMAGE-ASG
Maximum 127 characters. Can't be modified after creation.

Image description - optional: WEB-SERVER-IMAGE-ASG
Maximum 255 characters.

No reboot: Enable

Instance volumes:

Storage type	Device	Snapshot	Size	Volume type	IOPS	Throughput	Delete on termination	Encrypted
EBS	/dev/...	Create new snapshot fr...	8	EBS General Purpose S...	3000		<input checked="" type="checkbox"/> Enable	<input type="checkbox"/> Enable

Add volume

During the image creation process, Amazon EC2 creates a snapshot of each of the above volumes.

Tags - optional:
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Tag image and snapshots together
Tag the image and the snapshots with the same tag.

Tag image and snapshots separately
Tag the image and the snapshots with different tags.

No tags associated with the resource.

Add new tag

You can add up to 50 more tags.

[Cancel](#) [Create image](#)

Console Home | Subnets | VPC M| VPC Console | Create Auto Scal| EC2 | us-eas | CloudWatch | us-| Simple Notificati| 18.227.237.116 | + | - | X

us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#CreateLaunchConfiguration:

aws Services Search [Alt+S]

EC2 > Launch configurations > Create launch configuration

Create launch configuration Info

⚠ We are retiring launch configurations. Instead of using launch configurations, we recommend that you use launch templates with the Auto Scaling guidance option. [Learn more](#)

Create launch template

Launch configuration name

Name
AUTOSCALING-TEST

Amazon machine image (AMI) Info

AMI
WEB-SERVER-IMAGE-ASG

Instance type Info

Instance type

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us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#CreateLaunchConfiguration:

Services Search [Alt+S]

Amazon machine image (AMI) Info

WEB-SERVER-IMAGE-ASG

Instance type Info

Instance type

Additional configuration - optional

Purchasing option Info

Request Spot Instances

IAM instance profile Info

Select IAM role

Monitoring Info

Enable EC2 instance detailed monitoring w...

Advanced details

Choose instance type

t2.

Instance type	vCPUs	Memory (GiB)	Storage (GB)	EBS optimized available	Network performance
t2.2xlarge	8	32	EBS Only	-	Moderate
t2.micro	1	1	EBS Only	-	Low to Moderate
t2.large	2	8	EBS Only	-	Low to Moderate
t2.medium	2	4	EBS Only	-	Low to Moderate
t2.small	1	2	EBS Only	-	Low to Moderate
t2.xlarge	4	16	EBS Only	-	Moderate
t2.nano	1	0.5	EBS Only	-	Low to Moderate

Close Choose

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us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#CreateLaunchConfiguration:

aws Services Search [Alt+S]

Metadata version [Info](#)

Don't include in launch configuration

Metadata response hop limit [Info](#)

Don't include in launch configuration

User data [Info](#)

As text
 As file

```
#!/bin/bash
yum -y install httpd
systemctl start httpd
```

Input is already base64 encoded

IP address type [Info](#)

Only assign a public IP address to instances launched in a subnet with auto-assign public IP enabled (default)
 Assign a public IP address to every instance.
 Do not assign a public IP address to any instances.
Note: this option only affects instances launched into an Amazon VPC

ⓘ Later, if you want to use a different launch configuration, you can create a new one and apply it to any Auto Scaling group. Existing launch configurations cannot be edited.

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Console Home | Subnets | VPC M... | VPC Console | Create Auto Scal... | EC2 | us-eas... | CloudWatch | us-... | Simple Notificati... | 18.227.237.116 | + | - | X

us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#CreateLaunchConfiguration:

aws Services Search [Alt+S]

sg-05067a6260e6105fb Security-Group-1 vpc-0e3423adc91b55790 Security-Group-1

sg-0f0dac0ac9e5d53d5 default vpc-0e3423adc91b55790 default VPC security group

⚠️ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

⚠️ You will not be able to connect to this instance as the AMI requires port(s) 22 to be open in order to have access. Your current security group doesn't have port(s) 22 open.

Key pair (login) [Info](#)

Key pair options

Choose an existing key pair

Existing key pair

WEB-SERVER-2

I acknowledge that I have access to the selected private key file (WEB-SERVER-2.pem), and that without this file, I won't be able to log into my instance.

Cancel **Create launch configuration**

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Console Home | Subnets | VPC | VPC Console | Create Auto Scaling Group | Target groups | EC2 | us-east-2 | CloudWatch | Simple Notifications | 18.227.237.11 | +

us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#TargetGroups:

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Target groups (1/1) Info

Filter target groups

Actions Create target group

Name ARN Port Protocol Target type Load balancer

TG-1 arn:aws:elasticloadbalancing:us-east-2:841429465794:targetgroup/TG-1/5518fe747cd16787 80 HTTP Instance None associated

Target group: TG-1

Details Targets Monitoring Health checks Attributes Tags

Details

arn:aws:elasticloadbalancing:us-east-2:841429465794:targetgroup/TG-1/5518fe747cd16787

Target type Instance	Protocol : Port HTTP: 80	Protocol version HTTP1	VPC vpc-02be2cc76d3afa360
IP address type IPv4	Load balancer None associated		
Total targets	Healthy	Unhealthy	Unused
	0	0	0
	Initial		Draining
	0	0	0

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us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#CreateALBWizard:

aws Services Search [Alt+S]

EC2 > Load balancers > Create Application Load Balancer

Create Application Load Balancer Info

The Application Load Balancer distributes incoming HTTP and HTTPS traffic across multiple targets such as Amazon EC2 instances, microservices, and containers, based on request attributes. When the load balancer receives a connection request, it evaluates the listener rules in priority order to determine which rule to apply, and if applicable, it selects a target from the target group for the rule action.

▶ How Elastic Load Balancing works

Basic configuration

Load balancer name

Name must be unique within your AWS account and can't be changed after the load balancer is created.

ASG-LB

A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.

Scheme Info

Scheme can't be changed after the load balancer is created.

Internet-facing

An internet-facing load balancer routes requests from clients over the internet to targets. Requires a public subnet. [Learn more](#)

Internal

An internal load balancer routes requests from clients to targets using private IP addresses.

IP address type Info

Select the type of IP addresses that your subnets use.

IPv4

Recommended for internal load balancers.

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Console Home | Subnets | VPC | VPC Console | Create Auto S... | Create ap... | EC2 | us-east-1 | CloudWatch | Simple Notific... | 18.227.237.11 | + | - | X | us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#CreateALBWizard: | Q | L | R | A | VPN | AWS Services | Search [Alt+S] | Ohio | Subham Pradhan | Network mapping Info
The load balancer routes traffic to targets in the selected subnets, and in accordance with your IP address settings.

VPC Info
Select the virtual private cloud (VPC) for your targets or you can [create a new VPC](#). Only VPCs with an internet gateway are enabled for selection. The selected VPC can't be changed after the load balancer is created. To confirm the VPC for your targets, view your [target groups](#).

Test-vpc
vpc-02be2cc76d3afa360
IPv4: 10.0.0.0/16

Mappings Info
Select at least two Availability Zones and one subnet per zone. The load balancer routes traffic to targets in these Availability Zones only. Availability Zones that are not supported by the load balancer or the VPC are not available for selection.

us-east-2a (use2-az1)

Subnet
subnet-0de1bce94149fa0a9 SUBNET-1 ▾

IPv4 address
Assigned by AWS

us-east-2b (use2-az2)

Subnet
subnet-0f2a9905cb06aae37 SUBNET-2 ▾

IPv4 address

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Security groups Info

A security group is a set of firewall rules that control the traffic to your load balancer. Select an existing security group, or you can create a new security group [Create](#).

Security groups

Select up to 5 security groups

SG-CLOUD-WATCH [X](#)
sg-014d499dbe5fae1f6 VPC: vpc-02be2cc76d3afa360

Listeners and routing Info

A listener is a process that checks for connection requests using the port and protocol you configure. The rules that you define for a listener determine how the load balancer routes requests to its registered targets.

▼ Listener **HTTP:80** [Remove](#)

Protocol	Port	Default action
HTTP	: 80 1-65535	Forward to TG-1 Target type: Instance, IPv4 Edit Create target group

Listener tags - optional

Consider adding tags to your listener. Tags enable you to categorize your AWS resources so you can more easily manage them.

Add listener tag

You can add up to 50 more tags.

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Console Home | Subnets | VPC | VPC Console | Create Auto Scaling Group | Load balancers | EC2 | us-east-2 | CloudWatch | Simple Notifications | 18.227.237.11 | + | - | VPN | X

us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#LoadBalancers:v=3

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Load balancers (1/1)

Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.

Filter by property or value

Actions ▾ Create load balancer

Name	DNS name	State	VPC ID	Availability Zones	Type	Date created
ASG-LB	ASG-LB-1336243501.us-e...	Active	vpc-02be2cc76d3afa360	2 Availability Zones	application	September 28, 2023, 00:54 (UTC+05:30)

Load balancer: ASG-LB

Details Listeners and rules Network mapping Security Monitoring Integrations Attributes Tags

Details

Load balancer type Application	Status Active	VPC vpc-02be2cc76d3afa360	IP address type IPv4
Scheme Internet-facing	Hosted zone Z3AADJGX6KTTL2	Availability Zones subnet-0de1bce94149fa0a9 us-east-2a (use2-az1) subnet-0f2a9905cb06aae37 us-east-	Date created September 28, 2023, 00:54 (UTC+05:30)

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Console Home | Subnets | VPC | VPC Console | Create Auto Scaling Group | Load balancer | EC2 | us-east-2 | CloudWatch | Simple Notifications | 18.227.237.11 | + | - | X | us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#CreateAutoScalingGroup: | Q | L | 4 | A | VPN | Ohio | Subham Pradhan | Search [Alt+S] | [i]

aws Services Search [Alt+S] [i]

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Auto Scaling
Auto Scaling Groups

Step 1
Choose launch template or configuration

Step 2
Choose instance launch options

Step 3 - optional
Configure advanced options

Step 4 - optional
Configure group size and scaling policies

Step 5 - optional
Add notifications

Step 6 - optional
Add tags

Step 7
Review

Choose launch template or configuration [Info](#)

Specify a launch template that contains settings common to all EC2 instances that are launched by this Auto Scaling group. If you currently use launch configurations, you might consider migrating to launch templates.

Name

Auto Scaling group name
Enter a name to identify the group.
 Must be unique to this account in the current Region and no more than 255 characters.

Launch configuration [Info](#) [Switch to launch template](#)

⚠ Instead of using launch configurations to create your EC2 Auto Scaling groups, we recommend that you use launch templates and make use of the Auto Scaling guidance option. For more information on migrating launch configurations and using launch templates, see the documentation [🔗](#)

Launch configuration
Choose a launch configuration that contains the instance-level settings, such as the Amazon Machine Image (AMI), instance type, key pair, and security groups.
 [C](#)

[Create a launch configuration \[🔗\]\(#\)](#)

Launch configuration	AMI ID	Date created
AUTOSCALING-TEST	ami-0066f18cc164701f2	Thu Sep 28 2023 00:51:00

CloudShell Feedback Type here to search        © 2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences 27°C Haze ENG 12:56 AM 28-09-2023

Console Home | Subnets | VPC | VPC Console | Create Auto Scaling Group | Load balancer | EC2 | us-east-2 | CloudWatch | Simple Notifications | 18.227.237.11 | + | - | VPN | ...

us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#CreateAutoScalingGroup:

aws Services Search [Alt+S]

configuration

Step 2 Choose instance launch options

Step 3 - optional Configure advanced options

Step 4 - optional Configure group size and scaling policies

Step 5 - optional Add notifications

Step 6 - optional Add tags

Step 7 Review

Network Info

Choose the VPC network environment that your instances are launched into, and customize the instance types and purchase options.

For most applications, you can use multiple Availability Zones and let EC2 Auto Scaling balance your instances across the zones. The default VPC and default subnets are suitable for getting started quickly.

VPC

Choose the VPC that defines the virtual network for your Auto Scaling group.

vpc-02be2cc76d3afa360 (Test-vpc) 10.0.0.0/16

Create a VPC

Availability Zones and subnets

Define which Availability Zones and subnets your Auto Scaling group can use in the chosen VPC.

Select Availability Zones and subnets

us-east-2a | subnet-0de1bce94149fa0a9 (SUBNET-1)
10.0.1.0/24

us-east-2b | subnet-0f2a9905cb06aae37 (SUBNET-2)
10.0.2.0/24

Create a subnet

Cancel Skip to review Previous Next

Console Home | Subnets | VPC | VPC Console | Create Auto Scaling Group | Load balancer | EC2 | us-east-2 | CloudWatch | Simple Notifications | 18.227.237.11 | + | - | X | us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#CreateAutoScalingGroup: | Q | L | 4 | A | VPN | AWS Services | Search | [Alt+S] | Ohio | Subham Pradhan

Load balancing Info

Use the options below to attach your Auto Scaling group to an existing load balancer, or to a new load balancer that you define.

No load balancer
Traffic to your Auto Scaling group will not be fronted by a load balancer.

Attach to an existing load balancer
Choose from your existing load balancers.

Attach to a new load balancer
Quickly create a basic load balancer to attach to your Auto Scaling group.

Attach to an existing load balancer

Select the load balancers that you want to attach to your Auto Scaling group.

Choose from your load balancer target groups
This option allows you to attach Application, Network, or Gateway Load Balancers.

Choose from Classic Load Balancers

Existing load balancer target groups
Only instance target groups that belong to the same VPC as your Auto Scaling group are available for selection.

Select target groups

TG-1 | HTTP X
Application Load Balancer: ASG-LB

VPC Lattice integration options Info

To improve networking capabilities and scalability, integrate your Auto Scaling group with VPC Lattice. VPC Lattice facilitates communications between AWS services and helps you connect and manage your applications across compute services in AWS.

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Console Home | Subnets | VPC | VPC Console | Create Auto Scaling Group | Load balancer | EC2 | us-east-2 | CloudWatch | Simple Notifications | 18.227.237.11 | + | - | X

us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#CreateAutoScalingGroup:

aws Services Search [Alt+S]

EC2 > Auto Scaling groups > Create Auto Scaling group

Step 1
Choose launch template or configuration

Step 2
Choose instance launch options

Step 3 - optional
Configure advanced options

Step 4 - optional
Configure group size and scaling policies

Step 5 - optional
Add notifications

Step 6 - optional
Add tags

Step 7
Review

Configure group size and scaling policies - *optional* Info

Set the desired, minimum, and maximum capacity of your Auto Scaling group. You can optionally add a scaling policy to dynamically scale the number of instances in the group.

Group size - *optional* Info

Specify the size of the Auto Scaling group by changing the desired capacity. You can also specify minimum and maximum capacity limits. Your desired capacity must be within the limit range.

Desired capacity: 2

Minimum capacity: 1

Maximum capacity: 3

Scaling policies - *optional*

Choose whether to use a scaling policy to dynamically resize your Auto Scaling group to meet changes in demand. Info

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Type here to search         1 27°C Haze  ENG 12:58 AM 28-09-2023 

Screenshot of the AWS Management Console showing the Auto Scaling groups page.

The browser address bar shows: us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#AutoScalingGroups:id=ASG-...

The AWS Services navigation bar includes: Subnets | VPC, VPC Console, Auto Scal (selected), Load balancer, EC2 | us-east-2, CloudWatch, Simple Notification Service, and 18.227.237.11.

The EC2 > Auto Scaling groups page displays one Auto Scaling group:

Name	Launch template/configuration	Instances	Status	Desired capacity	Min	Max	Availability zones
ASG-CLOUDWATCH	AUTOSCALING-TEST	2	-	2	1	3	us-east-2a, us...

The "ASG-CLOUDWATCH" details page is shown:

Group details

Auto Scaling group name ASG-CLOUDWATCH	Desired capacity 2	Status Updating capacity	Amazon Resource Name (ARN) <code>arn:aws:autoscaling:us-east-2:841429465794:autoScalingGroup:860ebcbe-b786-4a7a-8ac1-9085d131de54:autoScalingGroupName/ASG-CLOUDWATCH</code>
Date created Thu Sep 28 2023 01:00:09 GMT+0530 (India Standard Time)	Minimum capacity 1	Maximum capacity 3	

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27°C Haze, ENG, 01:00 AM, 28-09-2023

Console Home | Subnets | VPC | VPC Console | Auto Scaling | Target groups | EC2 | us-east-2 | CloudWatch | Simple Notifications | 18.227.237.11 | + | - | VPN | X

us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#TargetGroups:v=3

aws Services Search [Alt+S]

EC2 > Target groups

Target groups (1/1) Info

Filter target groups

C Actions Create target group

Name	ARN	Port	Protocol	Target type	Load balancer	VPC ID
TG-1	arn:aws:elasticloadbalancing:us-east-2:123456789012:targetgroup/TG-1/54321	80	HTTP	Instance	ASG-LB	vpc-02be2

Target group: TG-1

Details Targets Monitoring Health checks Attributes Tags

Registered targets (2)

Filter resources by property or value

C Deregister Register targets

Instance ID	Name	Port	Zone	Health status	Health status details
i-0a1f0981fa55d8c8c	From-ASG	80	us-east-2b	healthy	
i-0b7038586c9e95c75	From-ASG	80	us-east-2a	healthy	

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27°C Haze ENG 01:02 AM 28-09-2023

Console Home | Subnets | VPC | VPC Console | Auto Scaling | Instances **X** | EC2 | us-east-2 | CloudWatch | Simple Notification | 18.227.237.11 | + | - | VPN | X

us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#Instances:v=3;\$case=tags:tru...

aws Services Search [Alt+S]

New EC2 Experience Tell us what you think

EC2 Dashboard

EC2 Global View

Events

Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

Images

AMIs

AMI Catalog

Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

Instances (1/3) Info

Find instance by attribute or tag (case-sensitive)

C Connect Instance state Actions Launch instances

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
WEB-SERVER-1	i-0dcc8f11e9f602141	Running	t2.micro	2/2 checks passed	No alarms	us-east-2a	-
From-ASG	i-0b7038586c9e95c75	Running	t2.micro	2/2 checks passed	No alarms	us-east-2a	-
<input checked="" type="checkbox"/> From-ASG	i-0a1f0981fa55d8c8c	Running	t2.micro	2/2 checks passed	No alarms	us-east-2b	-

Instance: i-0a1f0981fa55d8c8c (From-ASG)

Details Security Networking Storage Status checks Monitoring Tags

Instance summary Info

Instance ID i-0a1f0981fa55d8c8c (From-ASG)	Public IPv4 address 18.218.76.65 [open address]	Private IPv4 addresses 10.0.2.62
IPv6 address -	Instance state Running	Public IPv4 DNS -
Hostname type IP name: ip-10-0-2-62.us-east-2.compute.internal	Private IP DNS name (IPv4 only) ip-10-0-2-62.us-east-2.compute.internal	Elastic IP addresses -
Answer private resource DNS name -	Instance type t2.micro	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations.
Auto-assigned IP address 18.218.76.65 [Public IP]	VPC ID vpc-02be2cc76d3afa360 (Test-vpc)	Learn more

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27°C Haze ENG 01:02 AM 28-09-2023

Console Home Subnets | VPC VPC Console Auto Scaling Connect to instance EC2 Instances EC2 | us-east-1 CloudWatch Simple Notes 18.227.237.1 + - X

us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=...

aws Services Search [Alt+S]

```
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023

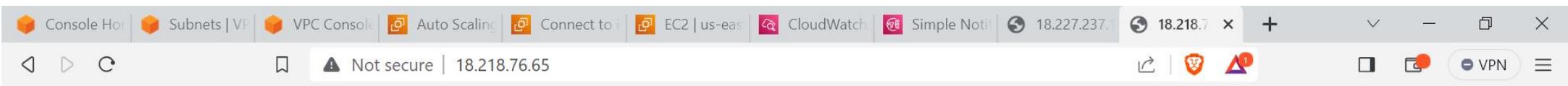
Last login: Wed Sep 27 19:06:25 2023
[root@ip-10-0-2-62 ~]# sudo su
[root@ip-10-0-2-62 ~]# cd
[root@ip-10-0-2-62 ~]# systemctl status httpd
● httpd.service - The Apache HTTP Server
    Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; preset: disabled)
    Active: active (running) since Wed 2023-09-27 19:30:50 UTC; 3min 10s ago
      Docs: man:httpd.service(8)
   Main PID: 1974 (httpd)
     Status: "Total requests: 11; Idle/Busy workers 100/0;Requests/sec: 0.0582; Bytes served/sec: 27 B/sec"
       Tasks: 177 (limit: 1114)
      Memory: 19.0M
        CPU: 213ms
      CGroup: /system.slice/httpd.service
              └─1974 /usr/sbin/httpd -DFOREGROUND
                  ├─2157 /usr/sbin/httpd -DFOREGROUND
                  ├─2158 /usr/sbin/httpd -DFOREGROUND
                  ├─2159 /usr/sbin/httpd -DFOREGROUND
                  └─2160 /usr/sbin/httpd -DFOREGROUND

Sep 27 19:30:44 ip-10-0-1-88.us-east-2.compute.internal systemd[1]: Starting httpd.service - The Apache HTTP Server...
```

i-0a1f0981fa55d8c8c (From-ASG)

Public IPs: 18.218.76.65 Private IPs: 10.0.2.62





Console Home Subnets | VPC VPC Console Dynamic scaling Instances | E EC2 | us-east-2 CloudWatch Simple Notes 18.227.237.1 18.218.76.6 + - VPN Services Search [Alt+S] CloudWatch Overview info 1h 3h 12h 1d 1w Custom UTC timezone Actions i

Favorites and recents Dashboards

Alarms ▾ 0 ⓘ 0 ⓘ 0 ⓘ In alarm All alarms

Logs Metrics X-Ray traces Events Application monitoring Insights

Settings Getting Started What's new

CloudWatch Overview info 1h 3h 12h 1d 1w Custom UTC timezone Actions i

Overview Filter by resource group ⓘ

Get started with CloudWatch

You don't have any alarms, metrics or default dashboard. Once you set them up they will be displayed here. [View getting started page](#)

Set alarms on any of your metrics to receive notification when your metric crosses your specified threshold. [Create alarms](#)

Create and name any CloudWatch dashboard **CloudWatch-Default** to display it here. [Create a default dashboard](#)

Monitor using your existing system, application and custom log files. [View logs](#)

Write rules to indicate which events are of interest to your application and what automated action to take. [View events](#)

Get started with Application Insights ⓘ Configure Application Insights

Set up monitors and dashboards to detect issues and resolve problems with enterprise applications, databases, and workloads.

▶ How it works

https://us-east-2.console.aws.amazon.com/cloudwatch/home?region=us-east-2#alarm: © 2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences

Type here to search 27°C Haze ENG 01:08 AM 28-09-2023

Screenshot of the AWS CloudWatch Metrics console showing the 'Create alarm' wizard - Step 1: Select metric.

The interface shows a graph of CPUUtilization over time (16:45 to 19:30) with a value of 0.96. Below the graph, the 'Metrics' list is displayed, filtered by 'EC2 > By Auto Scaling Group'. The 'CPUUtilization' metric is selected and highlighted.

Step 1: Select metric

Graph showing CPUUtilization over time:

Time	CPUUtilization
16:45	0.96
17:00	
17:15	
17:30	
17:45	
18:00	
18:15	
18:30	
18:45	
19:00	
19:15	
19:30	

Metrics (54)

Filter: Ohio ▾ All > EC2 > By Auto Scaling Group

Search: Search for any metric, dimension, resource id or account id

Metric name
AutoScalingGroupName 34/34
ASG-CLOUDWATCH StatusCheckFailed
ASG-CLOUDWATCH StatusCheckFailed_System
ASG-CLOUDWATCH StatusCheckFailed_Instance
CPUUtilization (Selected)
ASG-CLOUDWATCH DiskWriteBytes

Buttons: Add math ▾, Add query ▾, Graph with SQL, Graph search, Cancel, Select metric

Console Home Subnets | VPC VPC Console Dynamic scaling Instances | E EC2 | us-east-2 CloudWatch Simple Notifications 18.227.237.1 18.218.76.65 + - VPN Ohio Subham Pradhan

CloudWatch Services Search [Alt+S]

CloudWatch > Alarms > Create alarm Step 1 Specify metric and conditions

Step 2 Configure actions

Step 3 Add name and description

Step 4 Preview and create

Specify metric and conditions

Metric

Graph This alarm will trigger when the blue line goes above the red line for 1 datapoints within 1 minute.

Percent

80

40.1

0.259

17:30 18:30 19:30

CPUUtilization

Namespace AWS/EC2

Metric name CPUUtilization

AutoScalingGroupName ASG-CLOUDWATCH

Statistic Average

Period 1 minute

Conditions

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Type here to search

Gold -1.30% 01:09 AM 28-09-2023

Console Home Subnets | VPC VPC Console Dynamic scaling Instances | E | EC2 | us-east-2 CloudWatch Simple Notifications 18.227.237.1 18.218.76.65 + - VPN Ohio Subham Pradhan

aws Services Search [Alt+S]

0.259 17:30 18:30 19:30 CPUUtilization Statistic Average Period 1 minute

Conditions

Threshold type

Static Use a value as a threshold Anomaly detection Use a band as a threshold

Whenever CPUUtilization is... Define the alarm condition.

Greater > threshold Greater/Equal \geq threshold Lower/Equal \leq threshold Lower < threshold

than... Define the threshold value.

80 Must be a number

▶ Additional configuration

Cancel Next

This screenshot shows the 'Create New Alarm' wizard in the AWS CloudWatch Metrics console. The first step, 'Set the metric and threshold', is completed. The metric selected is 'CPUUtilization' with a statistic of 'Average' over a period of '1 minute'. In the 'Conditions' section, the 'Static' threshold type is chosen, setting the threshold to 80. The 'Greater/Equal' condition is selected, meaning the alarm will trigger if CPUUtilization is 80 or higher. The 'Next' button is visible at the bottom right.

Console Home Subnets | VPC VPC Console Dynamic scaling Instances | E | EC2 | us-east-1 CloudWatch Simple 18.227.237.1 18.218.76.6 + - VPN

us-east-2.console.aws.amazon.com/sns/v3/home?region=us-east-2#/homepage

aws Services Search [Alt+S]

New Feature

Amazon SNS FIFO topics now support message delivery to Amazon SQS Standard queues. [Learn more](#)

Application Integration

Amazon Simple Notification Service

Pub/sub messaging for microservices and serverless applications.

Amazon SNS is a highly available, durable, secure, fully managed pub/sub messaging service that enables you to decouple microservices, distributed systems, and event-driven serverless applications. Amazon SNS provides topics for high-throughput, push-based, many-to-many messaging.

Create topic

Topic name

A topic is a message channel. When you publish a message to a topic, it fans out the message to all subscribed endpoints.

MyTopic

Next step

Start with an overview

Benefits and features

Reliably deliver messages with durability

Amazon SNS uses cross availability zone message storage to provide high message

Automatically scale your workload

Amazon SNS leverages the proven AWS cloud to dynamically scale with your application.

Pricing

Amazon SNS has no upfront costs. You pay based on the number of messages you publish, the number of messages you deliver, and any additional API calls for managing topics and subscriptions. Delivery pricing varies by endpoint type.

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Console Home Subnets | VPC VPC Console Dynamic scaling Instances | E | EC2 | us-east-1 CloudWatch Create 18.227.237.1 18.218.76.6 + - VPN Services Search [Alt+S] Amazon SNS > Topics > Create topic Create topic

Details

Type [Info](#)
Topic type cannot be modified after topic is created

FIFO (first-in, first-out)

- Strictly-preserved message ordering
- Exactly-once message delivery
- High throughput, up to 300 publishes/second
- Subscription protocols: SQS

Standard

- Best-effort message ordering
- At-least once message delivery
- Highest throughput in publishes/second
- Subscription protocols: SQS, Lambda, HTTP, SMS, email, mobile application endpoints

Name
Maximum 256 characters. Can include alphanumeric characters, hyphens (-) and underscores (_).

Display name - optional [Info](#)
To use this topic with SMS subscriptions, enter a display name. Only the first 10 characters are displayed in an SMS message.

Maximum 100 characters.

► **Encryption - optional**
Amazon SNS provides in-transit encryption by default. Enabling server-side encryption adds at-rest encryption to your topic.

Screenshot of the AWS SNS Create Subscription interface.

The URL in the browser is us-east-2.console.aws.amazon.com/sns/v3/home?region=us-east-2#/create-subscription.

Details

Topic ARN: arn:aws:sns:us-east-2:841429465794:SNS-ASG

Protocol: Email

Endpoint: datascience.22mdsa48@silicon.ac.in

Note: After your subscription is created, you must confirm it. [Info](#)

Subscription filter policy - optional [Info](#)
This policy filters the messages that a subscriber receives.

Redrive policy (dead-letter queue) - optional [Info](#)
Send undeliverable messages to a dead-letter queue.

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Type here to search         01:12 AM 28-09-2023

AWS Notification - Subscription

mail.google.com/mail/u/0/#spam/ FMfcgzGtxSqJsGxnKTZjKRLtZGkvSWR

Gmail

Compose

Mail (21)

Inbox (21)

Starred

Snoozed

Sent

Drafts

Less

Important

Scheduled

All Mail

Spam

Trash

Categories

Manage labels

Create new label

in:spam

Active

?

Settings

Silicon...beyond teaching S

Delete forever | Not spam | 1 of 1

AWS Notification - Subscription Confirmation

SNS-ASG <no-reply@sns.amazonaws.com> to me 1:12 AM (0 minutes ago)

Why is this message in spam? It is similar to messages that were identified as spam in the past.

Report not spam

You have chosen to subscribe to the topic:
arn:aws:sns:us-east-2:841429465794:SNS-ASG

To confirm this subscription, click or visit the link below (If this was in error no action is necessary):
[Confirm subscription](#)

Please do not reply directly to this email. If you wish to remove yourself from receiving all future SNS subscription confirmation requests please send an email to [sns-opt-out](#)

Reply Forward

<https://sns.us-east-2.amazonaws.com/confirmation.html?TopicArn=arn:aws:sns:us-east-2:841429465794:SNS-ASG&Token=2336412f37fb687f5d51e6e2425c464dec3a5654a143194a160fe2dd7bf24beb6a0b73083432b941e65006ef1230...>

Type here to search

Windows icon

Silver -1.64% 01:12 AM ENG 28-09-2023



Simple Notification Service

Subscription confirmed!

You have successfully subscribed.

Your subscription's id is:

arn:aws:sns:us-east-2:841429465794:SNS-ASG:5186363d-8d5b-4224-9507-397150f84d1b

If it was not your intention to subscribe, [click here to unsubscribe](#).



Type here to search



Silver -1.64%

01:13 AM
28-09-2023

Console Home Subnets | VPC VPC Console Dynamic scaling Instances | E EC2 | us-east-1 CloudWatch Subscriptions 18.227.237.1 18.218.76.6 + - VPN AWS Services Search [Alt+S] X

us-east-2.console.aws.amazon.com/sns/v3/home?region=us-east-2#/subscriptions

Amazon SNS New Feature

Amazon SNS FIFO topics now support message delivery to Amazon SQS Standard queues. [Learn more](#)

Dashboard Topics Subscriptions Mobile Push notifications Text messaging (SMS) Origination numbers

Amazon SNS > Subscriptions

Subscriptions (1)

Edit Delete Request confirmation Confirm subscription Create subscription

Search < 1 > ⚙

ID	Endpoint	Status	Protocol	Topic
5186363d-8d5b-4224-9507-...	datasceince.22mdsa48@silico...	Confirmed	EMAIL	SNS-ASG

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Console Home Subnets | VPC VPC Console Dynamic scaling Instances | E EC2 | us-east-2 CloudWatch Subscription 18.227.237.1 18.218.76.65 + - VPN Ohio Subham Pradhan

CloudWatch Alarms Create alarm Step 1 Specify metric and conditions Step 2 Configure actions Step 3 Add name and description Step 4 Preview and create

Configure actions

Notification

Alarm state trigger Define the alarm state that will trigger this action.

In alarm The metric or expression is outside of the defined threshold.

OK The metric or expression is within the defined threshold.

Insufficient data The alarm has just started or not enough data is available.

Remove

Send a notification to the following SNS topic Define the SNS (Simple Notification Service) topic that will receive the notification.

Select an existing SNS topic

Create new topic

Use topic ARN to notify other accounts

Send a notification to...

SNS-ASG

Only email lists for this account are available.

Email (endpoints)

datasceince.22mdsa48@silicon.ac.in - View in SNS Console

Add notification

Auto Scaling action

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Console Home Subnets | VPC VPC Console Dynamic scaling Instances | E EC2 | us-east-1 CloudWatch Subscription 18.227.237.1 18.218.76.6 + - VPN Ohio Subham Pradhan

CloudWatch Alarms Create alarm Step 1 Specify metric and conditions Step 2 Configure actions Step 3 Add name and description Step 4 Preview and create

Add name and description

Name and description

Alarm name

SCALE-OUT-ABOVE80%-ALARM

Alarm description - optional [View formatting guidelines](#)

Edit Preview

This is an H1
double asterisks will produce strong character
This is [an example](https://example.com/) inline link.

Up to 1024 characters (0/1024)

Markdown formatting is only applied when viewing your alarm in the console. The description will remain in plain text in the alarm notifications.

Cancel Previous Next

Console Home Subnets | VPC VPC Console Dynamic scaling Instances | E EC2 | us-east-2 CloudWatch Subscription 18.227.237.1 18.218.76.65 + - VPN Ohio Subham Pradhan

aws Services Search [Alt+S]

CloudWatch > Alarms > Create alarm Step 1 Specify metric and conditions

Step 2 Configure actions Step 3 Add name and description Step 4 Preview and create

Specify metric and conditions

Metric

Graph This alarm will trigger when the blue line goes below the red line for 1 datapoints within 1 minute.

Percent

20

10.1

0.259

17:30 18:30 19:30

CPUUtilization

Namespace AWS/EC2

Metric name CPUUtilization

AutoScalingGroupName ASG-CLOUDWATCH

Statistic Average

Period 1 minute

Conditions

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Type here to search EUR/INR -0.65% 01:16 AM 28-09-2023 ENG

Console Home Subnets | VPC VPC Console Dynamic scaling Instances | E | EC2 | us-east-2 CloudWatch Metrics Subscription 18.227.237.1 18.218.76.65 + - VPN Ohio Subham Pradhan

aws Services Search [Alt+S]

0.259 17:30 18:30 19:30 CPUUtilization Statistic Average Period 1 minute

Conditions

Threshold type

Static Use a value as a threshold Anomaly detection Use a band as a threshold

Whenever CPUUtilization is...

Define the alarm condition.

Greater > threshold Greater/Equal >= threshold Lower/Equal <= threshold Lower < threshold

than...

Define the threshold value.

20 Must be a number

▶ Additional configuration

Cancel Next

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Console Home Subnets | VPC VPC Console Dynamic scaling Instances | E EC2 | us-east-2 CloudWatch Subscription 18.227.237.1 18.218.76.6 + - VPN Ohio Subham Pradhan

CloudWatch Alarms Create alarm Step 1 Specify metric and conditions Step 2 Configure actions Step 3 Add name and description Step 4 Preview and create

Configure actions

Notification

Alarm state trigger Define the alarm state that will trigger this action.

In alarm The metric or expression is outside of the defined threshold.

OK The metric or expression is within the defined threshold.

Insufficient data The alarm has just started or not enough data is available.

Remove

Send a notification to the following SNS topic Define the SNS (Simple Notification Service) topic that will receive the notification.

Select an existing SNS topic

Create new topic

Use topic ARN to notify other accounts

Send a notification to...

SNS-ASG

Only email lists for this account are available.

Email (endpoints)

datasceince.22mdsa48@silicon.ac.in - View in SNS Console

Add notification

Auto Scaling action

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Type here to search

27°C Haze ENG 01:17 AM 28-09-2023

Console Home Subnets | VPC VPC Console Dynamic scaling Instances | E EC2 | us-east-1 CloudWatch Subscription 18.227.237.1 18.218.76.6 + - VPN Ohio Subham Pradhan

aws Services Search [Alt+S]

CloudWatch > Alarms > Create alarm

Step 1 Specify metric and conditions

Step 2 Configure actions

Step 3 Add name and description

Step 4 Preview and create

Add name and description

Name and description

Alarm name

Alarm description - optional [View formatting guidelines](#)

Edit **Preview**

```
# This is an H1
**double asterisks will produce strong character**
This is [an example](https://example.com/) inline link.
```

Up to 1024 characters (0/1024)

Markdown formatting is only applied when viewing your alarm in the console. The description will remain in plain text in the alarm notifications.

Cancel Previous Next

Screenshot of the AWS CloudWatch Alarms page showing two active alarms for CPUUtilization metrics.

CloudWatch Alarms

Alarms (2)

Name	State	Last state update	Conditions	Actions
SCALE-IN-BELOW20%-ALARM	In alarm	2023-09-27 19:48:28	CPUUtilization <= 20 for 1 datapoints within 1 minute	Actions enabled
SCALE-OUT-ABOVE80%-ALARM	OK	2023-09-27 19:47:31	CPUUtilization >= 80 for 1 datapoints within 1 minute	Actions enabled

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Type here to search

Console Home Subnets | VPC VPC Console **Dynam... Instances | E... EC2 | us-eas Alarms | Clo... Subscription 18.227.237.1 18.218.76.65 +**

us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#DynamicScalingPolicy:id=AS... 🔍 ↻ 🌐 13 A1 VPN AWS Services Search [Alt+S] 🔍 ⓘ Ohio Subham Pradhan

EC2 > Auto Scaling groups > ASG-CLOUDWATCH

Create dynamic scaling policy

Policy type
Simple scaling

Scaling policy name
Scale-OUT-policy

CloudWatch alarm
Choose an alarm that can scale capacity whenever:
SCALE-OUT-ABOVE80%-ALARM

breaches the alarm threshold: CPUUtilization ≥ 80 for 1 consecutive periods of 60 seconds for the metric dimensions:

AutoScalingGroupName = ASG-CLOUDWATCH

Take the action
Add 0 capacity units

And then wait
30 seconds before allowing another scaling activity

Console Home Subnets | VPC VPC Console **Dynam... Instances | E** EC2 | us-eas Alarms | Clo... Subscription 18.227.237.1 18.218.76.6 + - VPN

us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#DynamicScalingPolicy:id=AS... 🔍 ↻ ⚡ 13 A 1 VPN

aws Services Search [Alt+S] EC2 Auto Scaling groups ASG-CLOUDWATCH Create dynamic scaling policy

Policy type: Simple scaling

Scaling policy name: SCALE-IN-POLICY

CloudWatch alarm: Choose an alarm that can scale capacity whenever:

SCALE-IN-BELOW20%-ALARM [Create a CloudWatch alarm](#)

breaches the alarm threshold: CPUUtilization <= 20 for 1 consecutive periods of 60 seconds for the metric dimensions:

AutoScalingGroupName = ASG-CLOUDWATCH

Take the action: Remove 0 capacity units

And then wait: 30 seconds before allowing another scaling activity

Cancel **Create**

root@ip-10-0-1-88:~

```
ASUS@LAPTOP-Q9QDRNKO MINGW64 ~/Downloads
$ chmod 400 WEB-SERVER-2.pem
```

```
ASUS@LAPTOP-Q9QDRNKO MINGW64 ~/Downloads
$ ssh -i "WEB-SERVER-2.pem" ec2-user@18.227.237.116
```

```
, #_
~\_\_ #####_ Amazon Linux 2023
~~ \_\_\#\#\#\_
~~ \#\#\#
~~ \#/ https://aws.amazon.com/linux/amazon-linux-2023
~~ V~' '-->
~~ .-.
~/ _/
/_m/
```

Last login: Wed Sep 27 19:06:21 2023 from 152.58.148.202

```
[ec2-user@ip-10-0-1-88 ~]$ sudo su
```

```
[root@ip-10-0-1-88 ec2-user]# cd
```

```
[root@ip-10-0-1-88 ~]# top
```

```
top - 19:53:58 up 41 min, 1 user, load average: 0.00, 0.00, 0.00
Tasks: 111 total, 1 running, 110 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.0 us, 0.0 sy, 0.0 ni, 100.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 949.4 total, 565.5 free, 161.8 used, 222.1 buff/cache
MiB Swap: 0.0 total, 0.0 free, 0.0 used. 647.4 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1	root	20	0	170696	16428	10112	S	0.0	1.7	0:01.13	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_gp
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_par_gp
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	slub_flushwq
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	netns
8	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/0:0H-events_highpri
10	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	mm_percpu_wq
11	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_kthread
12	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_rude_kthread
13	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_trace_kthread
14	root	20	0	0	0	0	S	0.0	0.0	0:00.09	ksoftirqd/0
15	root	20	0	0	0	0	I	0.0	0.0	0:00.05	rcu_preempt
16	root	rt	0	0	0	0	S	0.0	0.0	0:00.01	migration/0
18	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/0
20	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
21	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	inet_frag_wq
22	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kauditfd
23	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
24	root	20	0	0	0	0	S	0.0	0.0	0:00.00	oom_reaper
27	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	writeback
28	root	20	0	0	0	0	S	0.0	0.0	0:00.06	kcompactd0



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01:23 AM
28-09-2023

```
root@ip-10-0-1-88:~
```

```
38 root      0 -20      0      0      0 I    0.0    0.0    0:00.03 kworker/0:1H-xfs-log/xvda1
72 root     20  0      0      0      0 S    0.0    0.0    0:00.00 kswapd0
75 root     0 -20      0      0      0 I    0.0    0.0    0:00.00 xfsalloc
76 root     0 -20      0      0      0 I    0.0    0.0    0:00.00 xfs_mru_cache
79 root     0 -20      0      0      0 I    0.0    0.0    0:00.00 kthrotld
94 root     20  0      0      0      0 S    0.0    0.0    0:00.01 xenbus
95 root     20  0      0      0      0 S    0.0    0.0    0:00.00 xenwatch
132 root    0 -20      0      0      0 I    0.0    0.0    0:00.00 nvme-wq
134 root    0 -20      0      0      0 I    0.0    0.0    0:00.00 nvme-reset-wq
```

```
[root@ip-10-0-1-88 ~]# yes > /dev/null &
```

```
[1] 4448
```

```
[root@ip-10-0-1-88 ~]# top
```

```
top - 19:55:06 up 42 min, 1 user, load average: 0.38, 0.10, 0.03
Tasks: 111 total, 2 running, 109 sleeping, 0 stopped, 0 zombie
%Cpu(s): 59.1 us, 40.9 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 949.4 total, 565.3 free, 161.9 used, 222.2 buff/cache
MiB Swap: 0.0 total, 0.0 free, 0.0 used. 647.3 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
4448	root	20	0	221356	1016	928	R	99.9	0.1	0:16.87	yes
4449	root	20	0	232960	3264	2692	R	0.3	0.3	0:00.01	top
1	root	20	0	170696	16436	10112	S	0.0	1.7	0:01.15	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_gp
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_par_gp
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	slub_flushwq
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	netns
8	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/0:0H-events_highpri
10	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	mm_percpu_wq
11	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_kthread
12	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_rude_kthread
13	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_trace_kthread
14	root	20	0	0	0	0	S	0.0	0.0	0:00.09	ksoftirqd/0
15	root	20	0	0	0	0	I	0.0	0.0	0:00.05	rcu_preempt
16	root	rt	0	0	0	0	S	0.0	0.0	0:00.01	migration/0
18	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/0
20	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
21	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	inet_frag_wq
22	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kaudit
23	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
24	root	20	0	0	0	0	S	0.0	0.0	0:00.00	oom_reaper
27	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	writeback
28	root	20	0	0	0	0	S	0.0	0.0	0:00.06	kcompactd0
29	root	39	19	0	0	0	S	0.0	0.0	0:00.00	khugepaged
30	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kintegrityd
31	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kblockd
32	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	blkcg_punt_bio
33	root	20	0	0	0	0	S	0.0	0.0	0:00.00	xen-balloon
34	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	tpm_dev_wq



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Record high



01:25 AM
28-09-2023

Console | Subnets | VPC Con. | Auto Sca | Connect | EC2 | Auto Sca | Connect | CloudW | Dashboard | 18.227.2 | 18.218.7 | + | - | X

us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-2&connType=st... | Q | L | H | A | VPN | E | M

aws Services | **Search** | [Alt+S]

```
top - 20:05:48 up 35 min, 1 user, load average: 0.06, 0.02, 0.00
Tasks: 111 total, 1 running, 110 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.3 us, 0.0 sy, 0.0 ni, 99.7 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 949.4 total, 560.1 free, 166.4 used, 222.9 buff/cache
top - 20:06:25 up 35 min, 1 user, load average: 0.19, 0.05, 0.01
Tasks: 112 total, 2 running, 110 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.0 us, 100.0 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 949.4 total, 559.4 free, 167.0 used, 223.0 buff/cache
MiB Swap: 0.0 total, 0.0 free, 0.0 used. 642.1 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
4477	root	20	0	221356	1016	928	R	99.9	0.1	0:10.03	yes
1	root	20	0	105124	16504	10112	S	0.0	1.7	0:01.08	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_gp
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_par_gp
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	slub_flushwq
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	netns
8	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/0:0H-events_highpri
9	root	20	0	0	0	0	I	0.0	0.0	0:00.07	kworker/u30:0-flush-202:0
9	root	20	0	0	0	0	I	0.0	0.0	0:00.07	kworker/u30:0-flush-202:0
10	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	mm_percpu_wq
11	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_kthread
12	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_rude_kthread
13	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_trace_kthread
15	root	20	0	0	0	0	I	0.0	0.0	0:00.06	rcu_prempt
16	root	rt	0	0	0	0	S	0.0	0.0	0:00.01	migration/0
18	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/0
20	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
21	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	inet_frag_wq
22	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kauditfd
23	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
24	root	20	0	0	0	0	S	0.0	0.0	0:00.00	oom_reaper

i-0b7038586c9e95c75 (From-ASG)

PublicIPs: 18.225.161.145 PrivateIPs: 10.0.1.176



root@ip-10-0-1-131:~

```
ASUS@LAPTOP-Q9QDRNKO MINGW64 ~/Downloads
$ chmod 400 WEB-SERVER-2.pem

ASUS@LAPTOP-Q9QDRNKO MINGW64 ~/Downloads
$ ssh -i "WEB-SERVER-2.pem" root@3.146.94.18
The authenticity of host '3.146.94.18 (3.146.94.18)' can't be established.
ED25519 key fingerprint is SHA256:iKD5T1kcaLUL8dbXMNDcN91GJxsjGLHW9B8A8HjDvgQ.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '3.146.94.18' (ED25519) to the list of known hosts.
Please login as the user "ec2-user" rather than the user "root".

Connection to 3.146.94.18 closed.
```

```
ASUS@LAPTOP-Q9QDRNKO MINGW64 ~/Downloads
$ ssh -i "WEB-SERVER-2.pem" ec2-user@3.146.94.18
      #_
  ,~\__ #####_          Amazon Linux 2023
~~ \_\######_\
~~   \###|
~~     '/,_--> https://aws.amazon.com/linux/amazon-linux-2023
~~   V~,`-'-
~~   ~-.  /
~~   /`-
~~   /`-
~/m/`-
```

```
Last login: Wed Sep 27 19:06:21 2023 from 152.58.148.202
[ec2-user@ip-10-0-1-131 ~]$ sudo su
[root@ip-10-0-1-131 ec2-user]# cd
[root@ip-10-0-1-131 ~]# top
top - 20:12:00 up 7 min,  1 user,  load average: 0.00, 0.07, 0.06
Tasks: 112 total,   1 running, 111 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.0 us,  0.0 sy,  0.0 ni,100.0 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
MiB Mem :   949.4 total,    559.6 free,   166.4 used,   223.4 buff/cache
MiB Swap:      0.0 total,      0.0 free,      0.0 used.   642.9 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1417	root	20	0	0	0	0	I	0.3	0.0	0:00.01	kworker/0:6-events
1	root	20	0	170692	16352	10000	S	0.0	1.7	0:00.94	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_gp
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_par_gp
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	slob_flushwq
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	netns
8	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/0:0H-events_highpri
10	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	mm_percpu_wq
11	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_kthread
12	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_rude_kthread



1 26°C Haze ENG 01:42 AM
28-09-2023

root@ip-10-0-1-131:~

```
36 root      0 -20      0      0      0 I    0.0    0.0  0:00.00 edac-poller
37 root     -51  0      0      0      0 S    0.0    0.0  0:00.00 watchdogd
38 root      0 -20      0      0      0 I    0.0    0.0  0:00.01 kworker/0:1H-kblockd
73 root     20  0      0      0      0 S    0.0    0.0  0:00.00 kswapd0
75 root      0 -20      0      0      0 I    0.0    0.0  0:00.00 xfsalloc
77 root      0 -20      0      0      0 I    0.0    0.0  0:00.00 xfs_mru_cache
80 root      0 -20      0      0      0 I    0.0    0.0  0:00.00 kthrotl0
95 root     20  0      0      0      0 S    0.0    0.0  0:00.00 xenbus
96 root     20  0      0      0      0 S    0.0    0.0  0:00.00 xenwatch
133 root     0 -20      0      0      0 I    0.0    0.0  0:00.00 nvme-wq
```

```
[root@ip-10-0-1-131 ~]# yes > /dev/null &
```

```
[1] 2864
```

```
[root@ip-10-0-1-131 ~]# top
```

```
top - 20:12:33 up 7 min, 1 user, load average: 0.15, 0.09, 0.06
Tasks: 112 total, 2 running, 110 sleeping, 0 stopped, 0 zombie
%Cpu(s): 61.3 us, 38.7 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 949.4 total, 559.3 free, 166.6 used, 223.5 buff/cache
MiB Swap: 0.0 total, 0.0 free, 0.0 used. 642.7 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
2864	root	20	0	221356	1020	928	R	99.7	0.1	0:06.60	yes
1	root	20	0	170692	16352	10000	S	0.0	1.7	0:00.96	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_gp
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_par_gp
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	slub_flushwq
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	netns
8	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/0:0H-events_highpri
10	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	mm_percpu_wq
11	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_kthread
12	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_rude_kthread
13	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_trace_kthread
14	root	20	0	0	0	0	S	0.0	0.0	0:00.05	ksoftirqd/0
15	root	20	0	0	0	0	I	0.0	0.0	0:00.05	rcu_preempt
16	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
17	root	20	0	0	0	0	I	0.0	0.0	0:00.00	kworker/0:1-cgroup_destroy
18	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/0
20	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
21	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	inet_frag_wq
22	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kauditd
23	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
24	root	20	0	0	0	0	S	0.0	0.0	0:00.00	oom_reaper
26	root	20	0	0	0	0	I	0.0	0.0	0:00.02	kworker/u30:2-flush-202:0
27	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	writeback
28	root	20	0	0	0	0	S	0.0	0.0	0:00.01	kcompactd0
29	root	39	19	0	0	0	S	0.0	0.0	0:00.00	khugepaged
30	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kintegrityd
31	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kblockd
32	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	b1kcg_punt_bio



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01:42 AM
28-09-2023

ALARM: "SCALE-OUT-ABOVE80% x +

mail.google.com/mail/u/0/#all/6MfcgGtxSjzKNztNcNktrHZJThjnWS

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26°C Haze ENG 01:44 AM 28-09-2023

ALARM: "SCALE-OUT-ABOVE80%-ALARM" in US East (Ohio)

SNS-ASG <no-reply@sns.amazonaws.com> to me 1:44 AM (0 minutes ago)

You are receiving this email because your Amazon CloudWatch Alarm "SCALE-OUT-ABOVE80%-ALARM" in the US East (Ohio) region has entered the ALARM state, because "Threshold Crossed: 1 out of the last 1 datapoints [99.59016393442624 (27/09/23 20:13:00)] was greater than or equal to the threshold (80.0) (minimum 1 datapoint for OK -> ALARM transition)." at "Wednesday 27 September, 2023 20:14:25 UTC".

View this alarm in the AWS Management Console:
<https://us-east-2.console.aws.amazon.com/cloudwatch/deeplink.js?region=us-east-2#alarmsV2:alarm/SCALE-OUT-ABOVE80%25-ALARM>

Alarm Details:

- Name: SCALE-OUT-ABOVE80%-ALARM
- Description:
- State Change: OK -> ALARM
- Reason for State Change: Threshold Crossed: 1 out of the last 1 datapoints [99.59016393442624 (27/09/23 20:13:00)] was greater than or equal to the threshold (80.0) (minimum 1 datapoint for OK -> ALARM transition).
- Timestamp: Wednesday 27 September, 2023 20:14:25 UTC
- AWS Account: 841429465794
- Alarm Arn: arn:aws:cloudwatch:us-east-2:841429465794:alarm:SCALE-OUT-ABOVE80%-ALARM

Threshold:

Screenshot of the AWS CloudWatch Alarms page showing two alarms: SCALE-OUT-ABOVE80%-ALARM (In alarm) and SCALE-IN-BELOW20%-ALARM (OK).

The CloudWatch sidebar shows:

- Favorites and recents
- Dashboards
- Alarms (1 In alarm, 0 others)
- All alarms
- Logs
- Metrics
- X-Ray traces
- Events
- Application monitoring
- Insights
- Settings
- Getting Started
- What's new

The main content area displays the following table:

Name	State	Last state update	Conditions	Actions
SCALE-OUT-ABOVE80%-ALARM	In alarm	2023-09-27 20:14:25	CPUUtilization >= 80 for 1 datapoints within 1 minute	Actions enabled
SCALE-IN-BELOW20%-ALARM	OK	2023-09-27 20:07:57	CPUUtilization <= 20 for 1 datapoints within 1 minute	Actions enabled

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Console Subnets VPC Console Auto Scaling Connect to Auto Scaling Instances Alarms Dashboard 18.227.237 18.218.76 + - X

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Instances (1/4) Info Find instance by attribute or tag (case-sensitive)

C Connect Instance state Actions Launch instances

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IP
From-ASG	i-038d9f5ffd077e8d1	Running	t2.micro	2/2 checks passed	No alarms	us-east-2a	-	3.146.94
WEB-SERVER-1	i-0dcc8f11e9f602141	Terminated	t2.micro	-	No alarms	us-east-2a	-	-
From-ASG	i-0b7038586c9e95c75	Running	t2.micro	2/2 checks passed	No alarms	us-east-2a	-	18.225.1
From-ASG	i-0a1f0981fa55d8c8c	Running	t2.micro	2/2 checks passed	No alarms	us-east-2b	-	18.218.7

Instance: i-0b7038586c9e95c75 (From-ASG)

Details Security Networking Storage Status checks Monitoring Tags

Instance summary Info

Instance ID	Public IPv4 address	Private IPv4 addresses
i-0b7038586c9e95c75 (From-ASG)	18.225.161.145 [open address]	10.0.1.176
IPv6 address	Instance state	Public IPv4 DNS
-	Running	-
Hostname type	Private IP DNS name (IPv4 only)	Elastic IP addresses
IP name: ip-10-0-1-176.us-east-2.compute.internal	ip-10-0-1-176.us-east-2.compute.internal	-
Answer private resource DNS name	Instance type	AWS Compute Optimizer finding
-	t2.micro	Opt-in to AWS Compute Optimizer for recommendations.
Auto-assigned IP address	VPC ID	Learn more
18.225.161.145 [Public IP]	vpc-02be2cc76d3afa360 (Test-vpc)	

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26°C Haze ENG 01:48 AM 28-09-2023

root@ip-10-0-1-131:~

```
29 root    39 19      0      0      0 S    0.0    0.0    0:00.00 khugepaged
30 root    0 -20      0      0      0 I    0.0    0.0    0:00.00 kintegrityd
31 root    0 -20      0      0      0 I    0.0    0.0    0:00.00 kblockd
32 root    0 -20      0      0      0 I    0.0    0.0    0:00.00 blkcg_punt_bio
33 root    20 0       0      0      0 S    0.0    0.0    0:00.00 xen-balloon
34 root    0 -20      0      0      0 I    0.0    0.0    0:00.00 tpm_dev_wq
35 root    0 -20      0      0      0 I    0.0    0.0    0:00.00 md
36 root    0 -20      0      0      0 I    0.0    0.0    0:00.00 edac-poller
37 root   -51 0       0      0      0 S    0.0    0.0    0:00.00 watchdog
38 root    0 -20      0      0      0 I    0.0    0.0    0:00.01 kworker/0:1H-kblockd
73 root    20 0       0      0      0 S    0.0    0.0    0:00.00 kswapd0
75 root    0 -20      0      0      0 I    0.0    0.0    0:00.00 xfsalloc
77 root    0 -20      0      0      0 I    0.0    0.0    0:00.00 xfs_mru_cache
80 root    0 -20      0      0      0 I    0.0    0.0    0:00.00 kthrotl0
95 root    20 0       0      0      0 S    0.0    0.0    0:00.00 xenbus
96 root    20 0       0      0      0 S    0.0    0.0    0:00.00 xenwatch
133 root   0 -20      0      0      0 I    0.0    0.0    0:00.00 nvme-wq
135 root   0 -20      0      0      0 I    0.0    0.0    0:00.00 nvme-reset-wq
```

[root@ip-10-0-1-131 ~]# killall yes

[root@ip-10-0-1-131 ~]# top

```
top - 20:18:41 up 13 min, 1 user, load average: 0.92, 0.73, 0.38
Tasks: 110 total, 1 running, 109 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.0 us, 0.0 sy, 0.0 ni, 100.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 949.4 total, 558.2 free, 167.3 used, 223.8 buff/cache
MiB Swap: 0.0 total, 0.0 free, 0.0 used. 641.9 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
3147	root	20	0	232960	3268	2692	R	0.3	0.3	0:00.01	top
1	root	20	0	170692	16352	10000	S	0.0	1.7	0:00.99	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_gp
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_par_gp
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	slob_flushwq
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	netns
8	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/0:0H-events_highpri
10	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	mm_percpu_wq
11	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_kthread
12	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_rude_kthread
13	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_trace_kthread
14	root	20	0	0	0	0	S	0.0	0.0	0:00.06	ksoftirqd/0
15	root	20	0	0	0	0	I	0.0	0.0	0:00.05	rcu_preempt
16	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
18	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/0
20	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
21	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	inet_frag_wq
22	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kaudit0
23	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
24	root	20	0	0	0	0	S	0.0	0.0	0:00.00	oom_reaper
26	root	20	0	0	0	0	I	0.0	0.0	0:00.03	kworker/u30:2-events_unbound



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26°C Haze



01:48 AM
28-09-2023

ALARM: "SCALE-IN-BELOW20% - X + mail.google.com/mail/u/0/#all/

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Labels +

ALARM: "SCALE-IN-BELOW20%-ALARM" in US East (Ohio) External Inbox

SNS-ASG <no-reply@sns.amazonaws.com> 1:18 AM (34 minutes ago)

You are receiving this email because your Amazon CloudWatch Alarm "SCALE-IN-BELOW20%-ALARM" in the US East (Ohio) region has entered the ALARM state, because "Threshold Crossed: 1 out of the last 1 datapoints [0.422413793103448 (27/09/23 19:47:00)] was less than or equal to the threshold (20.0) (minimum 1 datapoint for OK -> ALARM transition)." at "Wednesday 27 September, 2023 19:48:28 UTC".

View this alarm in the AWS Management Console:
<https://us-east-2.console.aws.amazon.com/cloudwatch/deeplink.js?region=us-east-2#alarmsV2:alarm/SCALE-IN-BELOW20%25-ALARM>

Alarm Details:

- Name: SCALE-IN-BELOW20%-ALARM
- Description:
- State Change: INSUFFICIENT_DATA -> ALARM
- Reason for State Change: Threshold Crossed: 1 out of the last 1 datapoints [0.422413793103448 (27/09/23 19:47:00)] was less than or equal to the threshold (20.0) (minimum 1 datapoint for OK -> ALARM transition).
- Timestamp: Wednesday 27 September, 2023 19:48:28 UTC
- AWS Account: 841429465794
- Alarm Arn: arn:aws:cloudwatch:us-east-2:841429465794:alarm:SCALE-IN-BELOW20%-ALARM

Threshold:

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Instances (4) Info

Find instance by attribute or tag (case-sensitive)

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
From-ASG	i-038d9f5ffd077e8d1	Shutting-down	t2.micro	-	No alarms	us-east-2a	-
WEB-SERVER-1	i-0dcc8f11e9f602141	Terminated	t2.micro	-	No alarms	us-east-2a	-
From-ASG	i-0b7038586c9e95c75	Shutting-down	t2.micro	-	No alarms	us-east-2a	-
From-ASG	i-0a1f0981fa55d8c8c	Shutting-down	t2.micro	-	No alarms	us-east-2b	-

Select an instance

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Record high 01:53 AM 28-09-2023