

# DVS Technologies Aws & Devops

## 1. Working with cloud watch

Make sure that you are launching atleast two servers under EC2 service to observe the cloudwatch functionality.

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances:  Launch into Auto Scaling Group ⓘ

You may want to consider launching these instances into an Auto Scaling Group to help you maintain application availability and for easy scaling in the future. [Learn how Auto Scaling can help your application stay healthy and cost effective.](#)

Purchasing option ⓘ ☐ Request Spot instances

Network ⓘ vpc-fae81987 | DONT\_DELETE (default) Create new VPC

Subnet ⓘ No preference (default subnet in any Availability Zone) Create new subnet

Auto-assign Public IP ⓘ Use subnet setting (Enable)

Placement group ⓘ ☐ Add instance to placement group

Capacity Reservation ⓘ Open

IAM role ⓘ None Create new IAM role

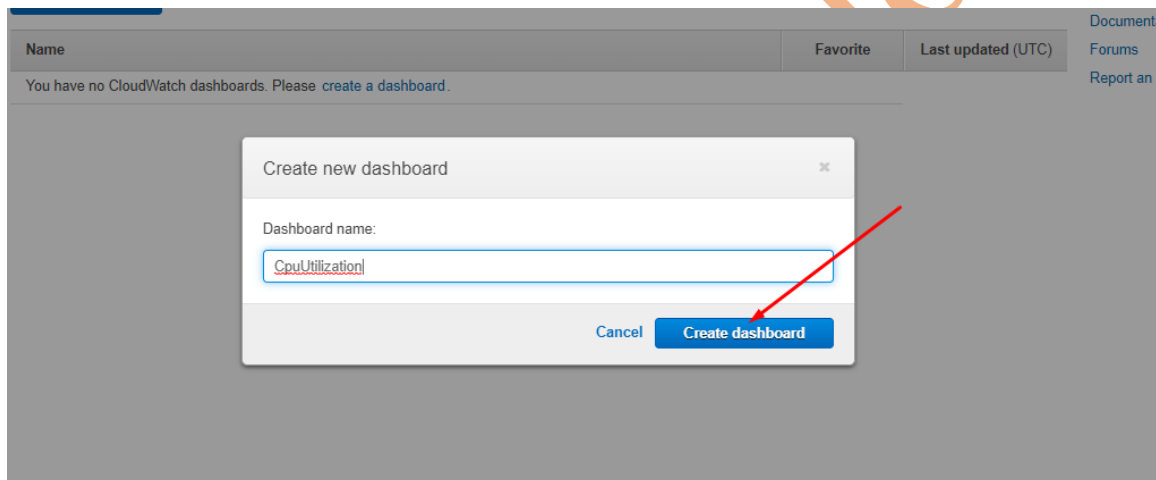
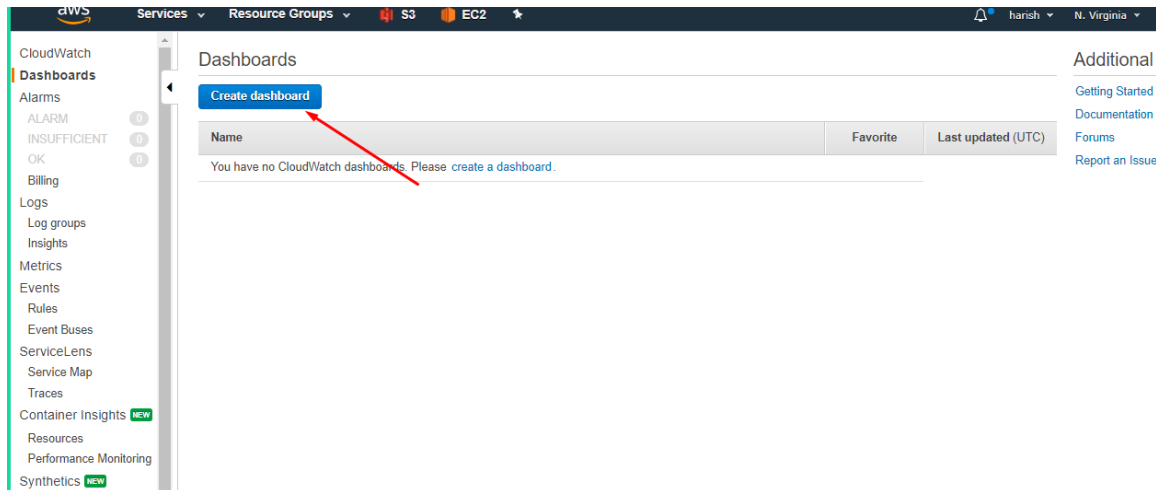
Shutdown behavior ⓘ Stop

Stop - Hibernate behavior ⓘ ☐ Enable hibernation as an additional stop behavior

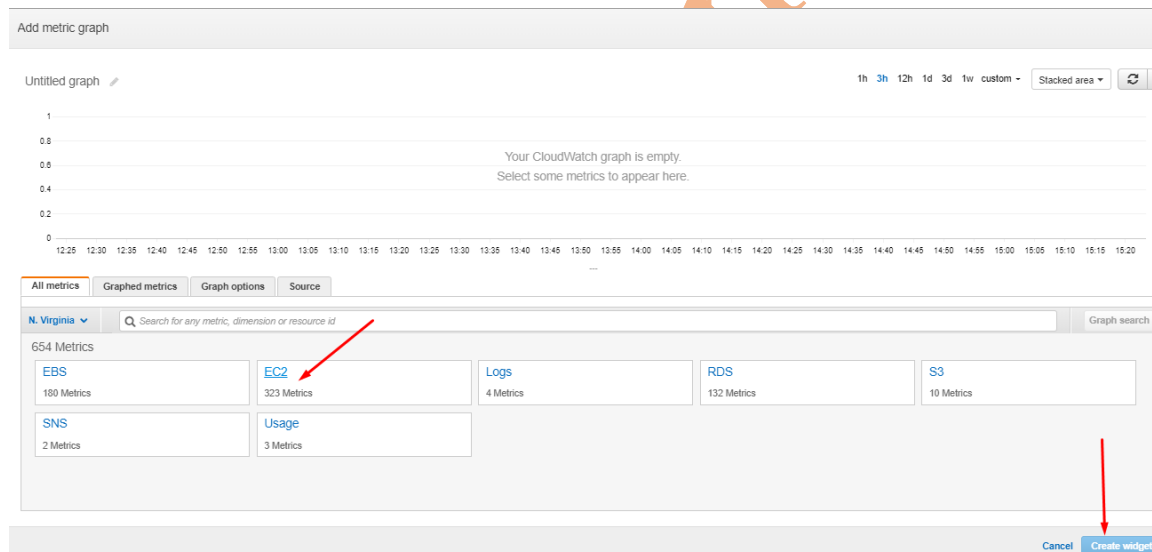
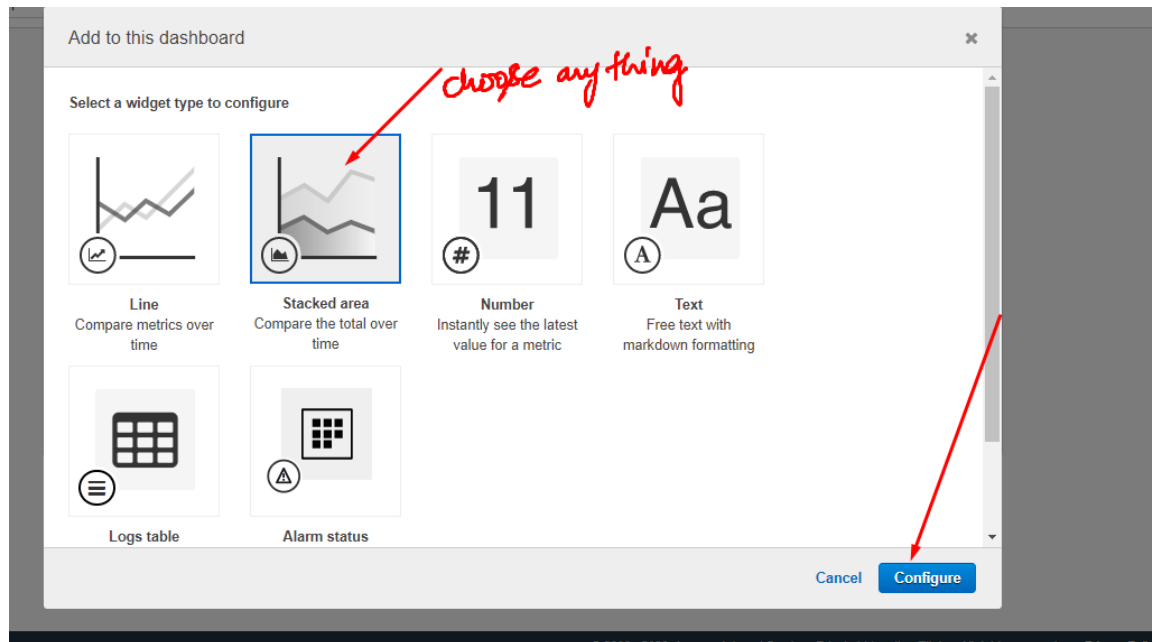
Cancel Previous **Review and Launch** Next: Actions

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP
appserver1	i-036b2aa61a4165d...	t2.micro	us-east-1e	running	Initializing	None	ec2-3-90-80-191.comp...	3.90.80
appserver2	i-0e348c7ab23f78021	t2.micro	us-east-1e	running	Initializing	None	ec2-54-237-47-60.com...	54.237.47.60
wordpressapp	i-0bf54ec09fb4745fa	t2.micro	us-east-1a	running	2/2 checks ...	None		3.84.14

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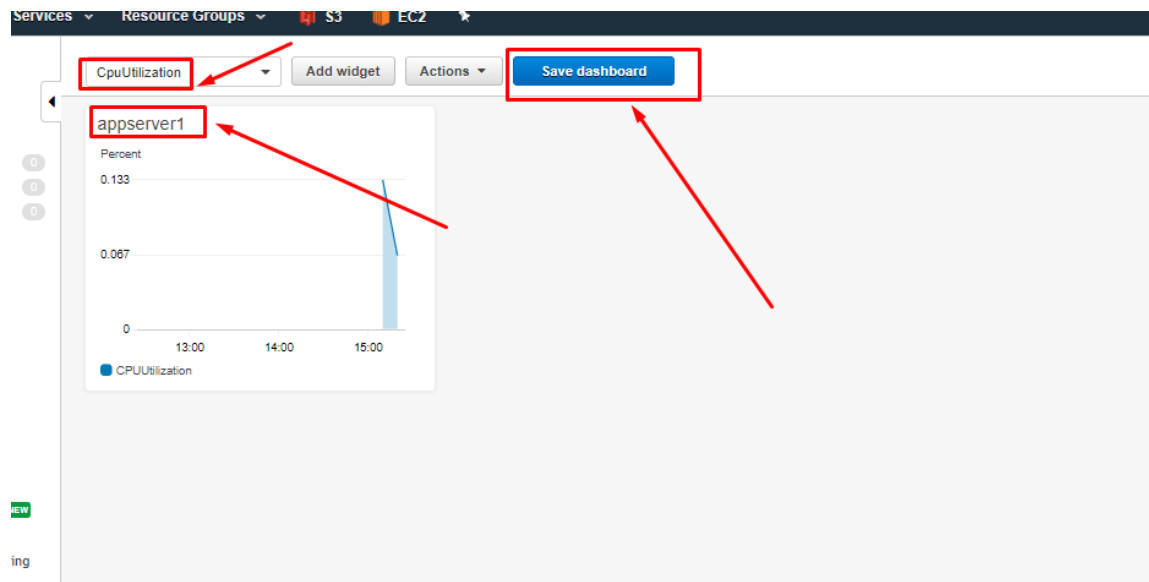
The screenshot illustrates the steps to create a CloudWatch widget:

- Step 1:** In the "All metrics" view, select "Per-Instance Metrics" from the left-hand menu.
- Step 2:** In the "Add metric graph" dialog, select "CPUUtilization" as the metric.
- Step 3:** In the "Graphed metrics (1)" section, select the instance "appserver1" from the list.
- Step 4:** Click the "Create widget" button at the bottom right of the dialog.

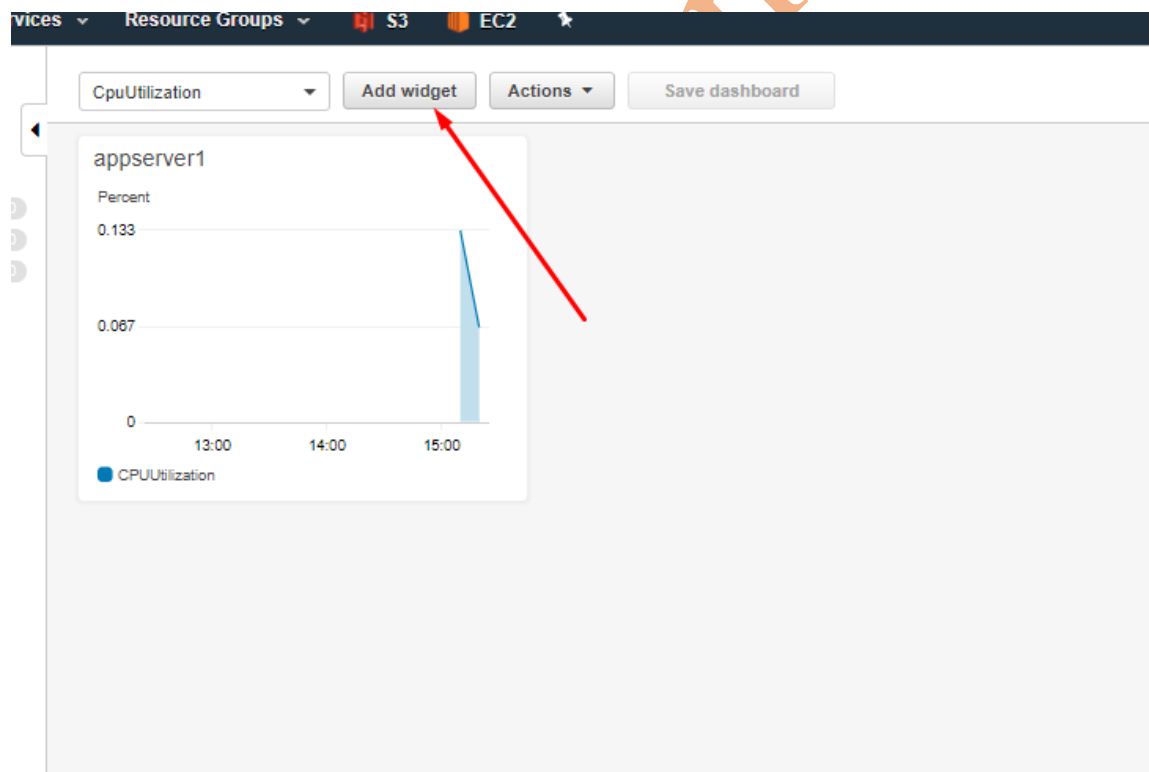
The "Graphed metrics (1)" section displays a table with the following data:

Instance Name (19)	Instance ID	Metric Name
<input checked="" type="checkbox"/> appserver1	i-036b2aa61a4165d34	CPUUtilization
<input type="checkbox"/> appserver2	i-0e348c7ab237f8021	CPUUtilization
<input type="checkbox"/> wordpressapp	i-0bf54ec09b4745fa	CPUUtilization
<input type="checkbox"/> No name specified	i-08de5df58ec4dab09	CPUUtilization
<input type="checkbox"/> No name specified	i-06d706ae815d0948b	CPUUtilization
<input type="checkbox"/> No name specified	i-0b9ab03dfc129a5ae	CPUUtilization

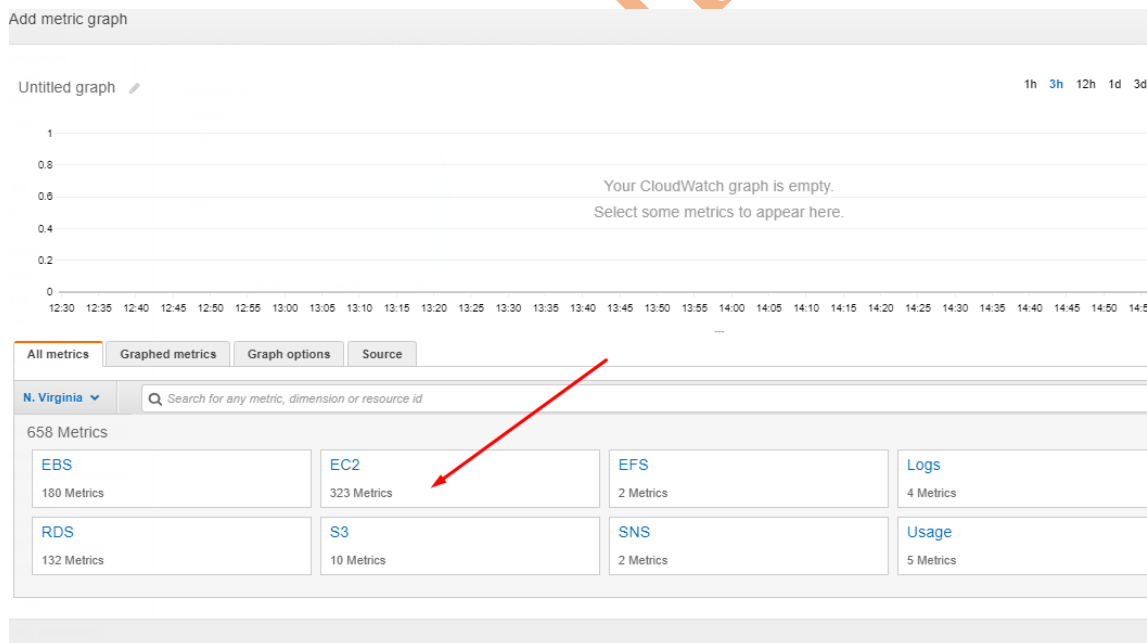
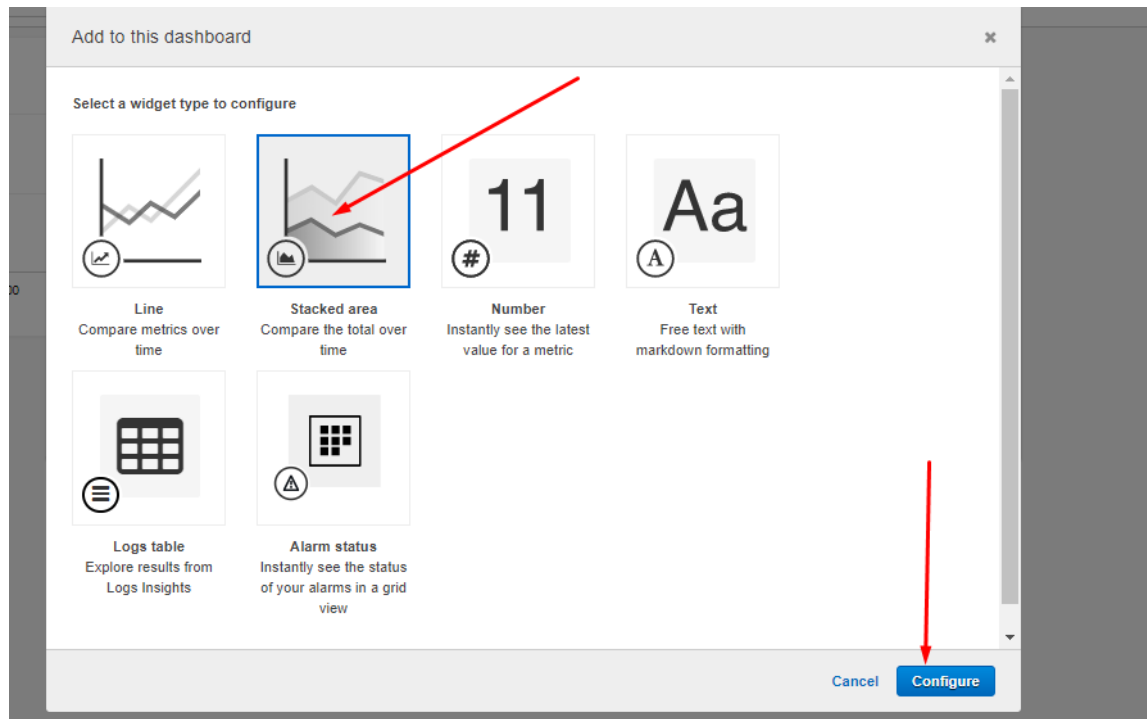
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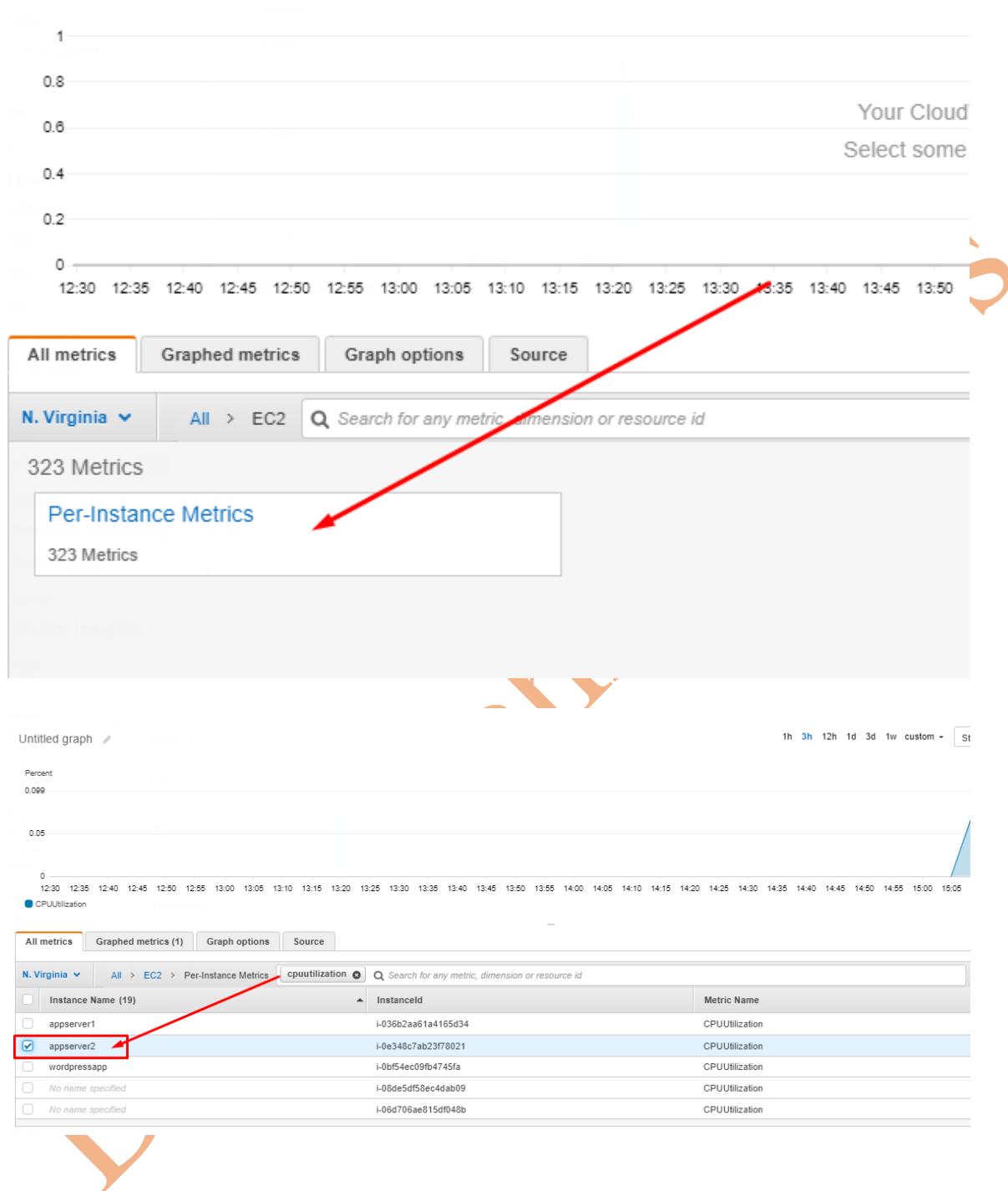
**Adding one more server to the CPU Utilization dashboard:**



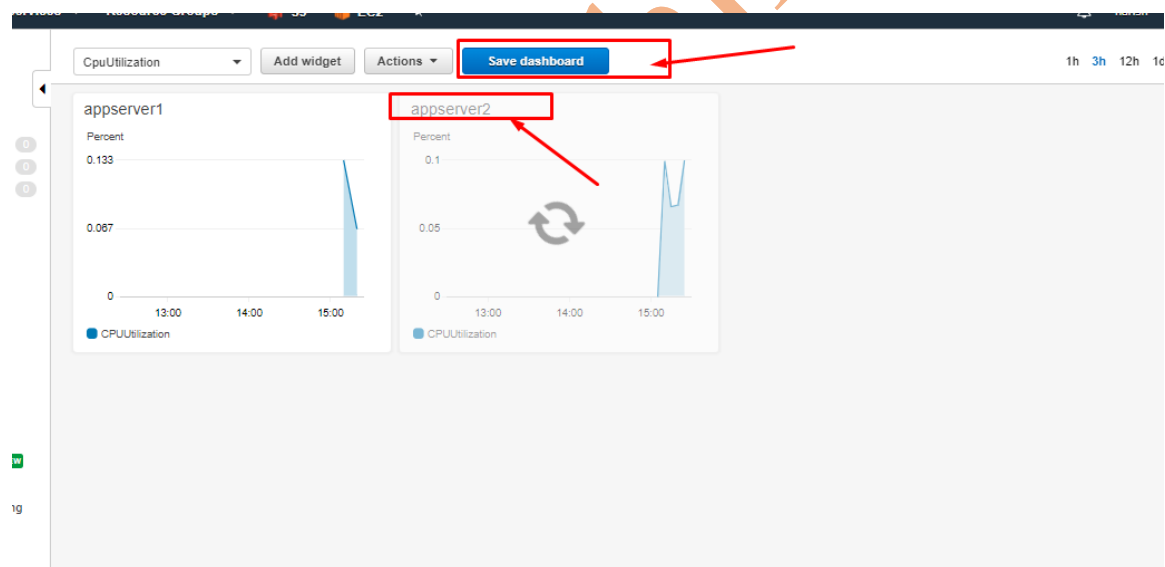
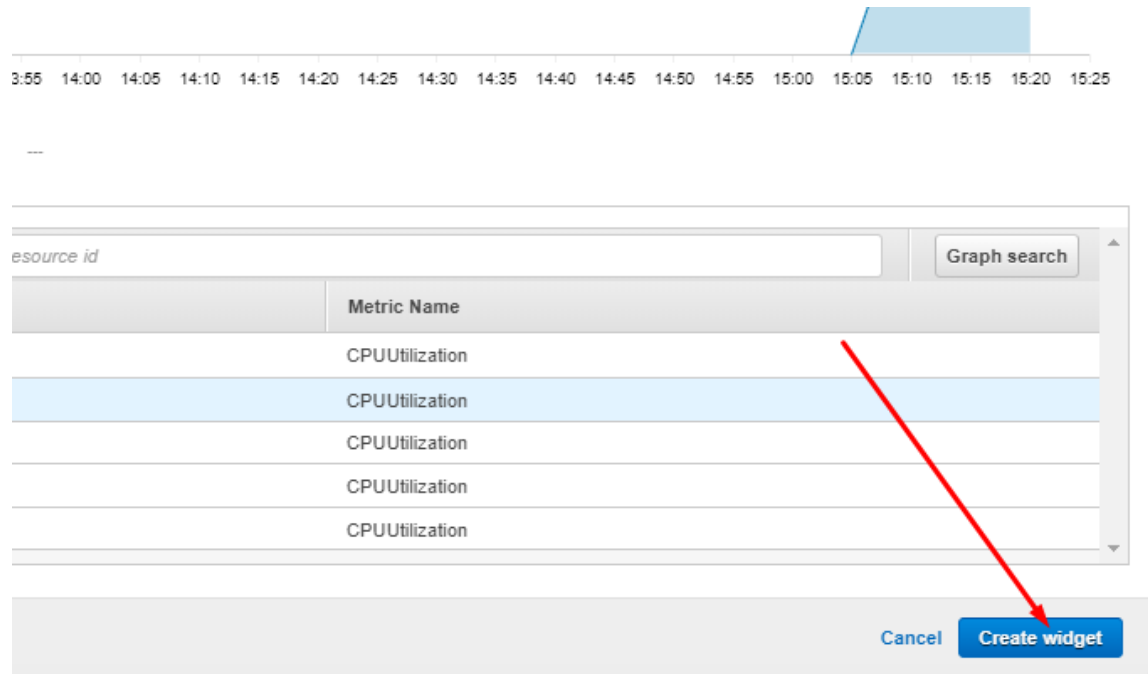
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## 2. Configuring alert

The screenshot shows the AWS Management Console with a list of EC2 instances. The instance 'appserver2' is selected. Below the list, the details for 'appserver2' (Instance ID: i-0e348c7ab23f78021) are displayed. The 'Public DNS (IPv4)' is 'ec2-54-237-47-60.compute-1.amazonaws.com' and the 'IPv4 Public IP' is '54.237.47.60', which is highlighted with a red box. A red arrow points from the instance name in the table to the instance details, and another red arrow points from the public IP in the details to the terminal command below.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public
appserver1	i-036b2aa61a4165d...	t2.micro	us-east-1e	running	2/2 checks ...	None	ec2-3-9
appserver2	i-0e348c7ab23f78021	t2.micro	us-east-1e	running	2/2 checks ...	None	ec2-54-
wordpressapp	i-0bf54ec09fb4745fa	t2.micro	us-east-1a	running	2/2 checks ...	None	

Instance: i-0e348c7ab23f78021 (appserver2) Public DNS: ec2-54-237-47-60.compute-1.amazonaws.com

Instance ID: i-0e348c7ab23f78021

Instance state: running

Instance type: t2.micro

Finding: Opt-in to AWS Compute Optimizer for recommendations. [Learn more](#)

Private DNS: ip-172-31-60-120.ec2.internal

Private IPs: 172.31.60.120

Public DNS (IPv4): ec2-54-237-47-60.compute-1.amazonaws.com

IPv4 Public IP: 54.237.47.60

IPv6 IPs: -

Elastic IPs: -

Availability zone: us-east-1e

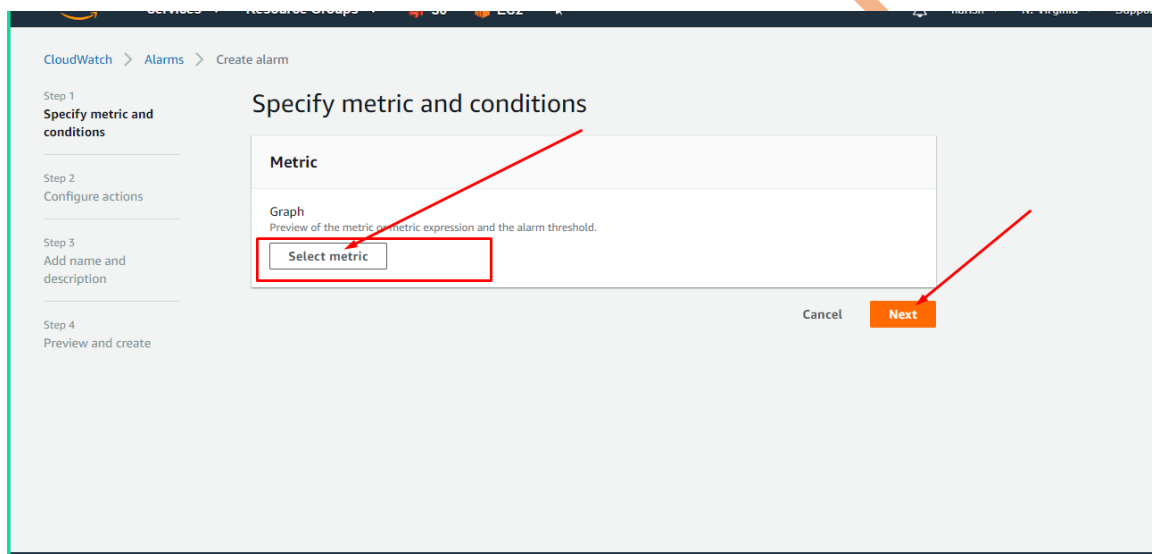
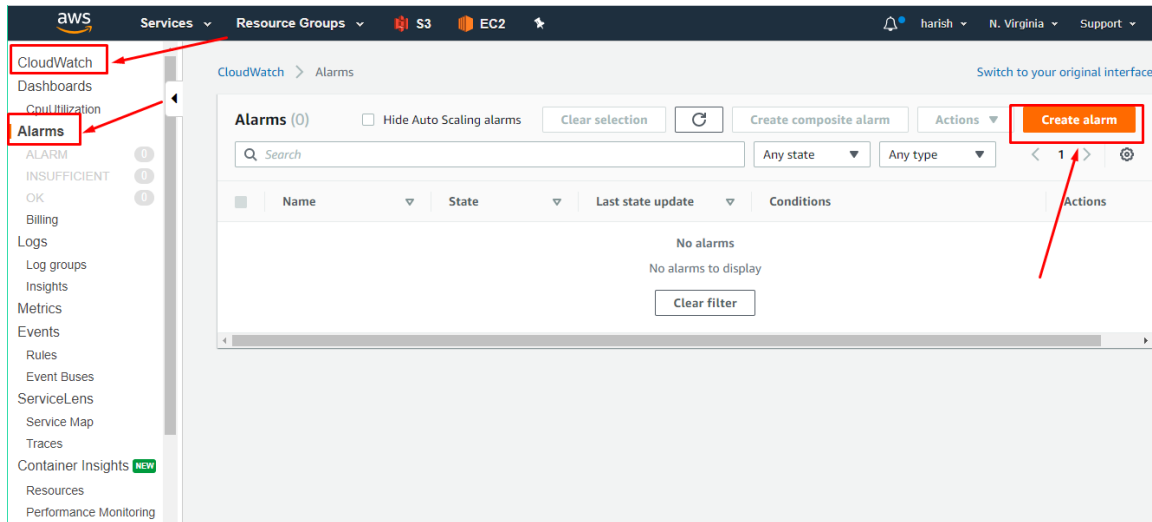
Security groups: [opentoworld](#), [view inbound rules](#), [view outbound rules](#)

Scheduled events: No scheduled events

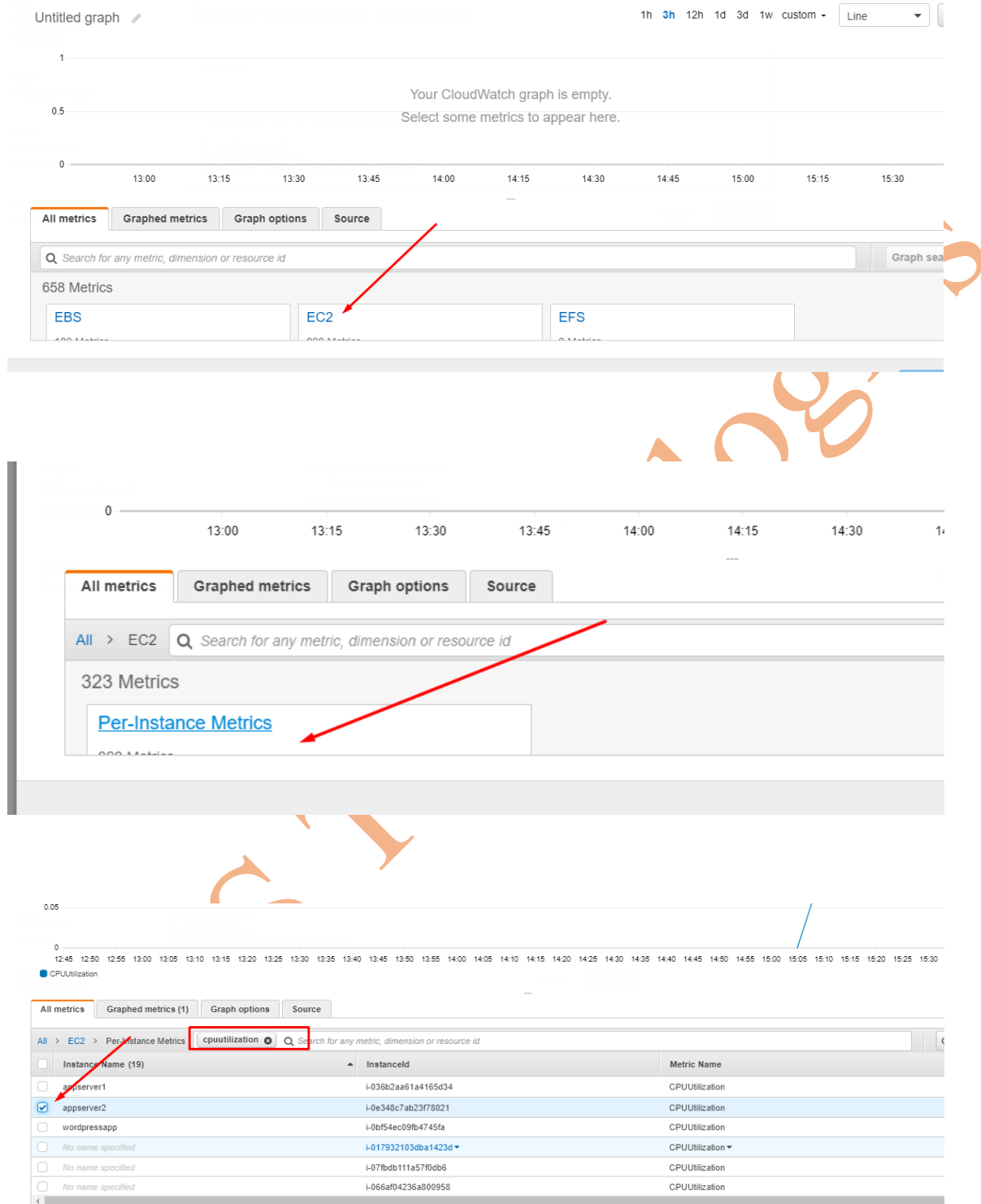
```
ec2-user@ip-172-31-60-120:~$ ssh ec2-user@54.237.47.60
```

Configure Alert:

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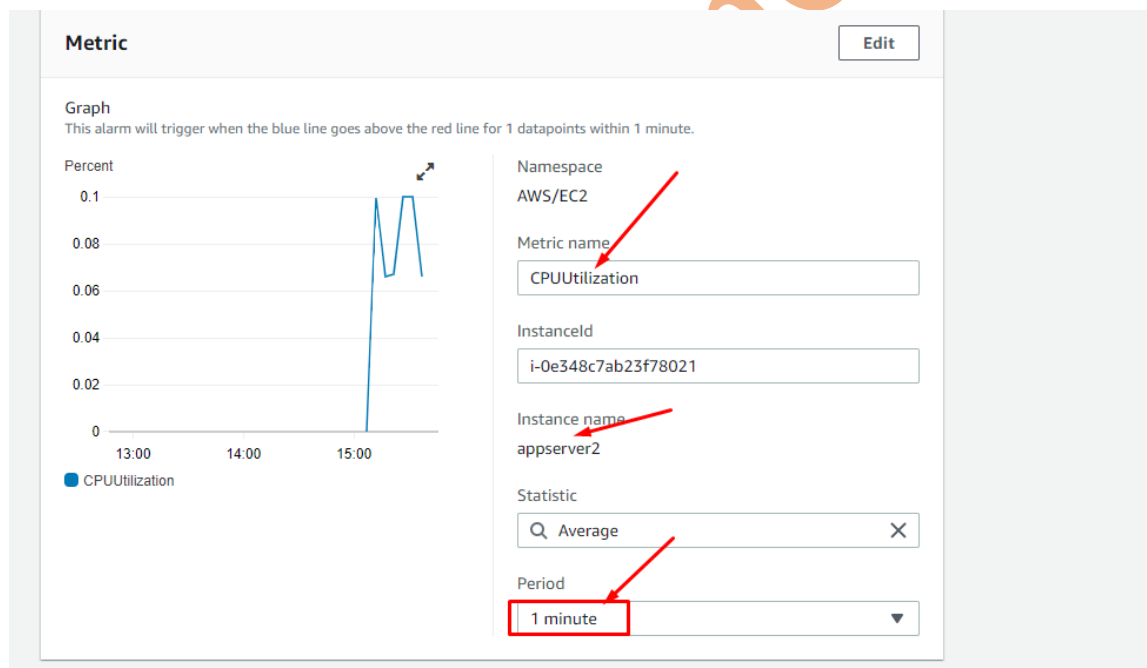


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Metric Name
CPUUtilization
CPUUtilization
CPUUtilization
CPUUtilization
CPUUtilization
CPUUtilization



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**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.

30

Must be a number

► Additional configuration

Cancel Next

**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

Select an 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

Send a notification to...

CpuUtilization

Only email lists for this account are available.

Email (endpoints)

shahan.aix@gmail.com - View in SNS Console

Add notification

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Cancel Previous **Next**

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### Add name and description

**Name and description**  
**Alarm name**  
Define a unique name.  
appserver1CpuUtilization  
**Alarm description - optional**  
Define a description for this alarm.  
appserver1CpuUtilization  
Up to 1024 characters (24/1024)

Cancel Previous **Next**

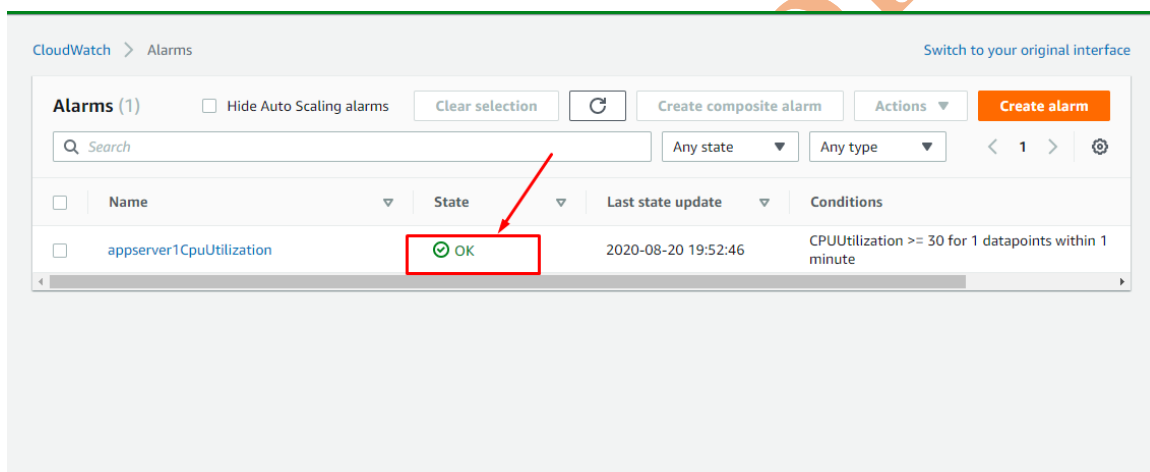
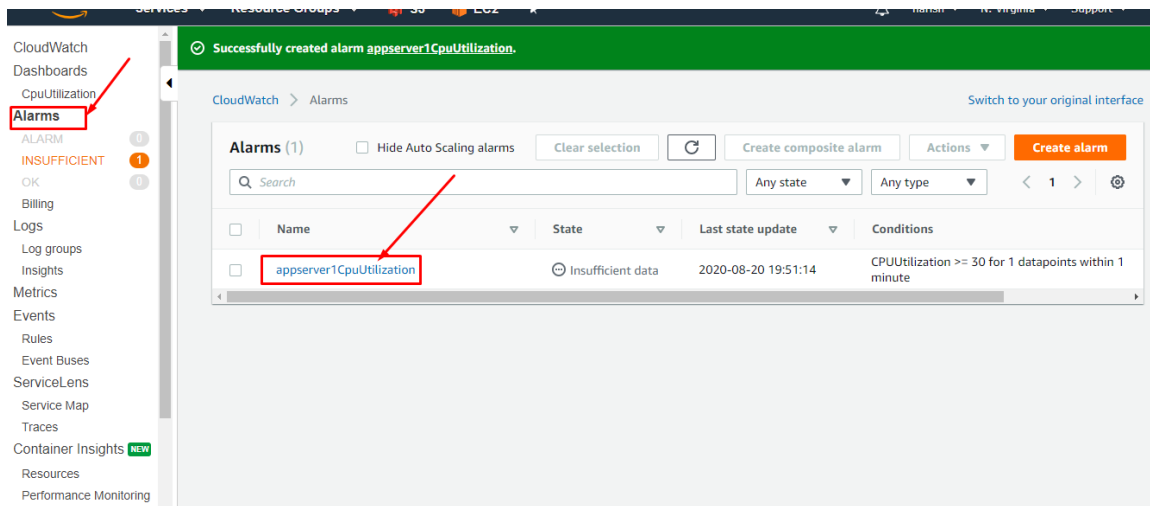
when in alarm, send a notification to CpuUtilization

### Step 3: Add name and description

**Name and description**  
Name  
appserver1CpuUtilization  
Description  
appserver1CpuUtilization

Cancel Previous **Create alarm**

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### 3. Testing the end-to-end alerting

Execute the below on the EC2 server

```
sudo amazon-linux-extras install epel -y  
sudo yum install stress -y
```

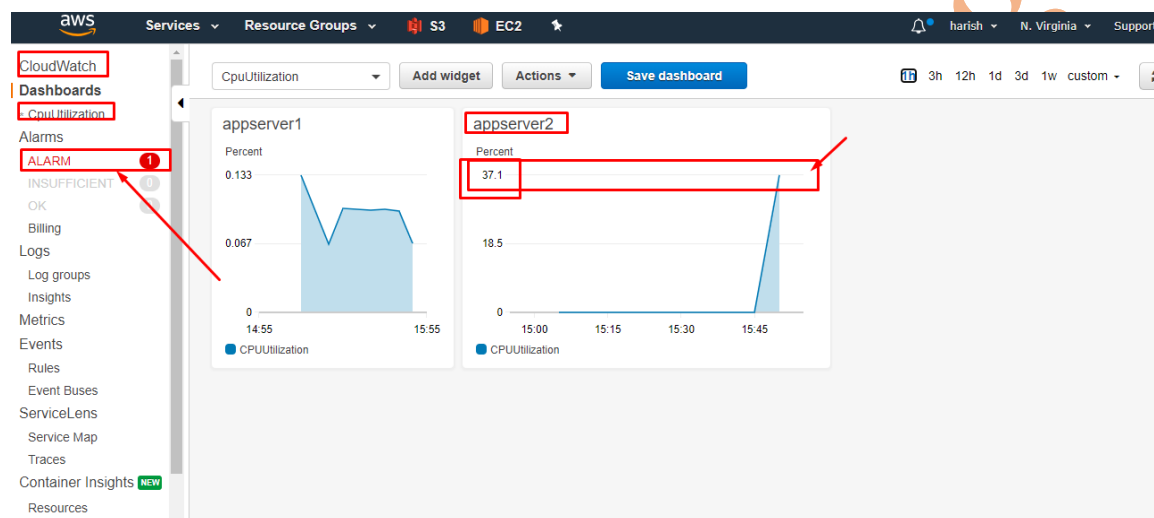
```
sudo stress --cpu 8 -v --timeout 30000
```

External verification from server end:

```
ps -eo pid,ppid,cmd,%mem,%cpu --sort=-%mem | head
```

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```
[root@ip-172-31-60-120 ~]# sudo stress --cpu 8 -v --timeout 30000
stress: info: [3740] dispatching hogs: 8 cpu, 0 io, 0 vm, 0 hdd
stress: debug: [3740] using backoff sleep of 24000us
stress: debug: [3740] setting timeout to 30000s
stress: debug: [3740] --> hogcpu worker 8 [3741] forked
stress: debug: [3740] using backoff sleep of 21000us
stress: debug: [3740] setting timeout to 30000s
stress: debug: [3740] --> hogcpu worker 7 [3742] forked
stress: debug: [3740] using backoff sleep of 18000us
stress: debug: [3740] setting timeout to 30000s
stress: debug: [3740] --> hogcpu worker 6 [3743] forked
```



1-50 of 12,882

Primary	Social 2 new	Promotions
Aditya Jalan, Nikita @ LinkedIn...		
<input type="checkbox"/> <input type="star"/> <input type="flag"/> CpuUtilization	ALARM: "appserver1CpuUtilization" in US East (N. Virginia) - You are receiving this email because...	7:57 PM
<input type="checkbox"/> <input type="star"/> <input type="flag"/> Emirates NBD Person.	10% off your favorite electronics! - Grab your favourite gadgets with a 10% discounts! CIF: xxx9...	7:53 PM
<input type="checkbox"/> <input type="star"/> <input type="flag"/> VOX Cinemas	Show them you mean business, shahan - Peninsula: The fight for survival begins shahan shaik ...	6:33 PM
<input type="checkbox"/> <input type="star"/> <input type="flag"/> HDFC Bank	Shahan, make your celebrations grand! - With exclusive offer on Loan on Credit C...	
<input type="checkbox"/> <input type="star"/> <input type="flag"/> ADCB	Enjoy 15% off at Noon.com Back to School sale - If you are unable to see the message below, cl...	4:43 PM
<input type="checkbox"/> <input type="star"/> <input type="flag"/> ICICI Bank	Bank with us, Shop with us. - Make instant payment using Net Banking to get an assured rewar...	4:14 PM
<input type="checkbox"/> <input type="star"/> <input type="flag"/> Latest   Update 2	SC seeks details of spectrum users of insolvent firms - SC seeks details of spectrum users of i...	3:37 PM
<input type="checkbox"/> <input type="star"/> <input type="flag"/> Subhendu from Skill.	An Amazon AWS powered Hackathon for you! Game? - Compete, Claim Certificates and Win...	3:31 PM
<input type="checkbox"/> <input type="star"/> <input type="flag"/> Autointelli Systems.	Job   Immediate Opportunity - Python, Ansible, powershell and Orchestration - The sender of t...	3:18 PM
<input type="checkbox"/> <input type="star"/> <input type="flag"/> Emirates NBD Person.	Earn up to 5 Plus Points for every AED 200 spend - Get rewarded for all your retail spends CIF: x...	2:49 PM
<input type="checkbox"/> <input type="star"/> <input type="flag"/> CWJobs	shahan,you're matching with senior roles - Look at these exciting opportunities CWJ...	2:24 PM
<input type="checkbox"/> <input type="star"/> <input type="flag"/> Century Real Estate.	Codename Winds of Change - Near ready premium development with 80 percent open spaces - F	2:11 PM



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