



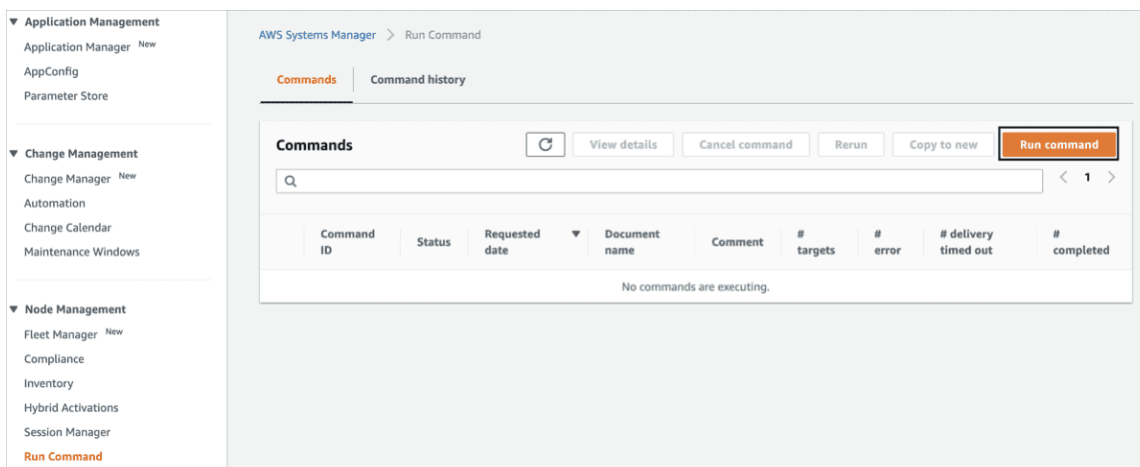
Deploy Cloudwatch Agent on an EC2

This is a guide to Install and configure Cloudwatch agent on EC2. It covers 2 cases

- If you would like to add standard monitoring (Memory, Disk)
- If you would like to send application logs to cloudwatch along with standard monitoring

To deploy CloudWatch Agent on an EC2 instance, follow these steps:

1. Install CW agent on EC2.
 - a. Navigate to the **AWS Systems Manager** console.
 - b. On the left menu, select **Node Management** > **Run Command**. Then click **Run command**.



- c. In the Command document search bar, choose **Document prefix name**, then **Equals**, and then specify the name of the document as **AWS-ConfigureAWSPackage**.

Run a command

Command document

Select the type of command that you want to run.

< 1 >
⚙️

Document name prefix: Equals: AmazonCloudWatch-ManagedAgent ✕
Clear filters

Name	Owner	Platform types
AmazonCloudWatch-ManagedAgent	Amazon	Windows, Linux

Description

Send commands to Amazon CloudWatch Agent

Document version

Choose the document version you want to run.

8 (Default) ▼

Then specify the following command parameters:

- **Action:** Install
- **Installation Type:** Uninstall and Reinstall
- **Name:** AmazonCloudWatchAgent
- **Version:** Latest
- **Additional Arguments:** No additional arguments needed

Command parameters

Action

(Required) Specify whether or not to install or uninstall the package.

Install ▼

Installation Type

(Optional) Specify the type of installation. Uninstall and reinstall: The application is taken offline until the reinstallation process completes. In-place update: The application is available while new or updated files are added to the installation.

Uninstall and reinstall ▼

Name

(Required) The package to install/uninstall.

AmazonCloudWatchAgent

Version

(Optional) The version of the package to install or uninstall. If you don't specify a version, the system installs the latest published version by default. The system will only attempt to uninstall the version that is currently installed. If no version of the package is installed, the system returns an error.

latest

Additional Arguments

(Optional) The additional parameters to provide to your install, uninstall, or update scripts.

```


```

Specify command parameters

Under the **Targets** section, specify the method for selecting the instances in which you want to install the CloudWatch agent. There are three methods:

- **Instance Tags:** If the instances you're using are tagged, you can specify one or more instance tag key–value pairs to identify the instances on which the tasks will run.
- **Manually:** Manually select the instances on which the tasks will run.
- **Resource Group:** If the instances are gathered under, you can specify the resource group on which the tasks will run.

Targets

Targets
Choose a method for selecting targets.

☐ Specify instance tags
Specify one or more tag key-value pairs to select instances that share those tags.

☒ Choose instances manually
Manually select the instances you want to register as targets.

☐ Choose a resource group
Choose a resource group that includes the resources you want to target.

i-0012fe8f2fe453563 X i-0052f2859623929ea X

Instances

Q < 1 > ⚙

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Availability zone	Ping status	Last ping time
<input checked="" type="checkbox"/>	EC2-02	i-0012fe8f2fe453563	running	eu-central-1c	Online	8/17/2021 at 12:05:1
<input checked="" type="checkbox"/>	EC2-01	i-0052f2859623929ea	running	eu-central-1a	Online	8/17/2021 at 12:05:3

Uncheck **Enable an S3 bucket** under **Output options**.

Finally, click **Run**.

Once you click **Run**, you are redirected to a new page where you can monitor the status of the running tasks.

AWS Systems Manager > Run Command > Command ID: bffc12a3-c5da-43f4-8325-139ccb7ed60b

Command ID: bffc12a3-c5da-43f4-8325-139ccb7ed60b

Command status

Overall status 🔄 In Progress	Detailed status 🔄 In Progress	# targets 2	# completed 0	# error 0	# delivery timed out 0
---	--	----------------	------------------	--------------	---------------------------

Targets and outputs

View output

	Instance ID	Instance name	Status	Detailed Status	Start time	Finish time
<input type="radio"/>	i-0052f2859623929ea		🔄 In Progress	🔄 In Progress		
<input type="radio"/>	i-0012fe8f2fe453563		🔄 In Progress	🔄 In Progress		

2. Configure Cloudwatch Agent

▼ If you would like to add standard monitoring (Memory, Disk)

- Navigate to Run Command the same way we did earlier.
- In the Command document search bar, choose **Document prefix name**, then **Equals**, and then specify the name of the document **AmazonCloudWatch-ManagedAgent**.

Run a command

Command document

Select the type of command that you want to run.

< 1 > ⚙️

Document name prefix: Equals: AmazonCloudWatch-ManagedAgent

Name	Owner	Platform types
<input checked="" type="radio"/> AmazonCloudWatch-ManagedAgent	Amazon	Windows, Linux

Description
Send commands to Amazon CloudWatch Agent

Document version
Choose the document version you want to run.

8 (Default)

Search for the CloudWatch-Managed Agent command document

Then specify the following command parameters:

- Action: configure
- Mode: ec2
- Optional Configuration Source: ssm
- Optional Configuration Location: **AmazonCloudWatch-cw-agent-config**
- Optional Open Telemetry Collector Configuration Source: default

The rest of the sections are the same as in the command document we ran earlier.

Command parameters

Action

The action CloudWatch Agent should take.

configure

Mode

Controls platform-specific default behavior such as whether to include EC2 Metadata in metrics.

ec2

Optional Configuration Source

Only for 'configure' related actions. Use 'ssm' to apply a ssm parameter as config. Use 'default' to apply default config for amazon-cloudwatch-agent. Use 'all' with 'configure (remove)' to clean all configs for amazon-cloudwatch-agent.

ssm

Optional Configuration Location

Only for 'configure' related actions. Only needed when Optional Configuration Source is set to 'ssm'. The value should be a ssm parameter name.

CW-ConfigFile-Linux

Optional Open Telemetry Collector Configuration Source

Only for 'configure' related actions. Use 'ssm' to apply a ssm parameter as config. Use 'default' to apply default config for amazon-cloudwatch-agent. Use 'all' with 'configure (remove)' to clean all configs for amazon-cloudwatch-agent. It does not support MacOS instance.

default

Optional Open Telemetry Collector Configuration Location

Only for 'configure' related actions. Only needed when Optional Configuration Source is set to 'ssm'. The value should be a ssm parameter name. It does not support MacOS instance.

Optional Restart

Only for 'configure' related actions. If 'yes', restarts the agent to use the new configuration. Otherwise the new config will only apply on the next agent restart.

yes

Finally, you can click **Run** and wait until it configures the CloudWatch agent on the instances you specified.

▼ If you would like to send application logs to cloudwatch along with standard monitoring

- SSH into the instance.
- Create a file(if not exist) `/opt/aws/amazon-cloudwatch-agent/etc/amazon-cloudwatch-agent.json` using below template
-

```
{
  "agent": {
    "metrics_collection_interval": 60,
    "run_as_user": "root"
```

```

    },
    "logs": {
        "logs_collected": {
            "files": {
                "collect_list": [
                    {
                        "file_path":
                        "log_group_na
                        "log_stream_n
                        "retention_in
                    }
                ]
            }
        }
    },
    "metrics":{
        "append_dimensions":{
            "InstanceId":"${aws:InstanceId}",
            "InstanceType":"${aws:InstanceType}"
        },
        "metrics_collected":{
            "mem":{
                "measurement":[
                    "mem_used_percent"
                ],
                "metrics_collection_interval":60,
                "resources":[
                    "*"
                ]
            },
            "disk":{
                "measurement":[
                    "used_percent"
                ],
                "metrics_collection_interval":60,
                "resources":[
                    "/"
                ]
            }
        }
    }
}

```

```
}  
}
```

Make changes to below parameters as required:

—> **file_path**: path of log files

—> **log_group_name**: name of existing/new cloudwatch log group

—> **log_stream_name**: name of log stream

—> **retention_in_days**: retention of logs

More details about the fields can be found [here](#)

- Run below command to start Cloudwatch agent with the config file

```
sudo /opt/aws/amazon-cloudwatch-agent/bin/amazon-cloudwatch-a
```

- Verify that the agent is running by checking the status:

```
sudo systemctl status amazon-cloudwatch-agent.service
```

The output should show that the agent is active and running.

You can now monitor your EC2 instance using CloudWatch metrics and logs.

Troubleshooting-

- Restart the CloudWatch Agent by running the following command:

```
sudo systemctl restart amazon-cloudwatch-agent.service
```

- Check Cloudwatch agent log at `/opt/aws/amazon-cloudwatch-agent/logs/amazon-cloudwatch-agent.log`
- <https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/troubleshooting-CloudWatch-Agent.html>