

# Alma Linux 8

Version:	1.0.0
Created by:	cloudimg

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## 1.) Overview

This document is provided as a user guide for the Alma Linux 8 product offering on the AWS Marketplace. Please reach out to [support@cloudimg.co.uk](mailto:support@cloudimg.co.uk) if any issues are encountered following this user guide for the chosen product offering.

## 2.) Access & Security

Please update the security group of the target instance to allow the below ports and protocols for access and connectivity.



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Protocol	Type	Port	Description
SSH	TCP	22	SSH connectivity

### 3.) System Requirements

The minimum system requirements for the chosen product offering can be found below

Minimum CPU	Minimum RAM	Required Disk Space
1	1 GB	20 GB

### 4.) Connecting to the Instance

Once launched in the Amazon EC2 Service, please connect to the instance via an SSH client using the **ec2-user** with the key pair associated at launch. Once connected as the **ec2-user** user, you will be able to sudo to the **root** user by issuing the below command.

Switch to the root user.

```
sudo su -
```

**NOTE: Please allow the EC2 Instance to reach 2/2 successful status checks to ensure you will be able to connect successfully with the ec2-key pair assigned at launch. Upon attempting to SSH too early you may receive errors such as below, this is expected with an early SSH connection. Allow the EC2 instance to reach 2/2 status checks and you will be able to successfully connect with the ec2-key pair assigned at launch as the ec2-user.**

Name	Instance ID	Instance state	Instance type	Status check
cloudimg-example-instance	i-039990b0d91026962	Running	t3a.xlarge	2/2 checks passed

**Example errors you may receive with an early SSH connection.**

```
Permission denied (publickey,gssapi-keyex,gssapi-with-mic).
ec2-user@your-instance-ip's password:
```



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## 5.) On Startup

An OS package update script has been configured to run on boot to ensure the image is fully up to date at first use. You can disable this feature by removing the script from `/stage/scripts/` and deleting the entry in crontab for the root user.

Disable the OS update script from running on reboot

```
rm -f /stage/scripts/initial_boot_update.sh

crontab -e

#DELETE THE BELOW LINE. SAVE AND EXIT THE FILE.
@reboot /stage/scripts/initial_boot_update.sh
```

## 6.) Filesystem Configuration

Please see below for a screenshot of the server disk configuration and specific mount point mappings for software locations.

```
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        451M   0  451M   0% /dev
tmpfs           469M   0  469M   0% /dev/shm
tmpfs           469M  6.3M  463M   2% /run
tmpfs           469M   0  469M   0% /sys/fs/cgroup
/dev/nvme0n1p2  38G   2.6G   33G   8% /
/dev/nvme0n1p1  2.0G  143M  1.7G   8% /boot
tmpfs           94M   0   94M   0% /run/user/1002
```

Mount Point	Description
/boot	Operating System Kernel files

## 7.) Server Components

Please see below for a list of installed server components and their respective installation paths. The below versions are subject to change on initial boot based on the `initial_boot_update.sh` script finding new versions of the software in the systems package repositories.



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Component	Version	Software Home
AWS CLI	2.7.7	/usr/local/aws-cli
AWS CloudWatch Agent	1.247352.0b251908	/opt/aws/amazon-cloudwatch-agent
AWS Systems Manager Agent	3.1.1476.0	/usr/bin/amazon-ssm-agent
Cloud-Init	22.1-1	/etc/cloud

## 8.) Scripts and Log Files

The below table provides a breakdown of any scripts & log files created to enhance the useability of the chosen offering.

Script/Log	Path	Description
Initial_boot_update.sh	/stage/scripts	Update the Operating System with the latest updates available.
Initial_boot_update.log	/stage/scripts	Provides output for initial_boot_update.sh

## 9.) Using System Components

Instructions can be found below for using each component of the server build mentioned in section 7 of this user guide document.

### AWS CLI

Using AWS CLI – as any OS user.

```
aws --help
```

### AWS CloudWatch Agent

On first use run the below command as the **root** user to configure the AWS CloudWatch Agent for your needs.

```
/opt/aws/amazon-cloudwatch-agent/bin/amazon-cloudwatch-agent-config-wizard
```



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Once configured, you will be able to start the AWS CloudWatch Agent via the below command as the **root** user

```
/opt/aws/amazon-cloudwatch-agent/bin/amazon-cloudwatch-agent-ctl -a fetch-config -m ec2 -s -c file:/opt/aws/amazon-cloudwatch-agent/bin/config.json
```

Check status of the AWS CloudWatch Agent

```
/opt/aws/amazon-cloudwatch-agent/bin/amazon-cloudwatch-agent-ctl -m ec2 -a status
```

**EXAMPLE EXPECTED OUTPUT (This may differ based on your configured setup)**

```
{
  "status": "running",
  "starttime": "2022-06-05T12:10:13+0000",
  "configstatus": "configured",
  "cwoc_status": "stopped",
  "cwoc_starttime": "",
  "cwoc_configstatus": "not configured",
  "version": "1.247350.0b251814"
}
```

## AWS Systems Manager

Check the status of the AWS Systems Manager Agent as the **root** user.

```
systemctl status amazon-ssm-agent
```

## Cloud-Init

Edit the `/etc/cloud/cloud.cfg` file to reflect your desired configuration. A link to the cloud-init official documentation can be found below for referencing best practise for your use case.



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<https://cloudinit.readthedocs.io/en/latest/topics/datasources/ec2.html>

```
vi /etc/cloud/cloud.cfg
```



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