

## Prerequisites

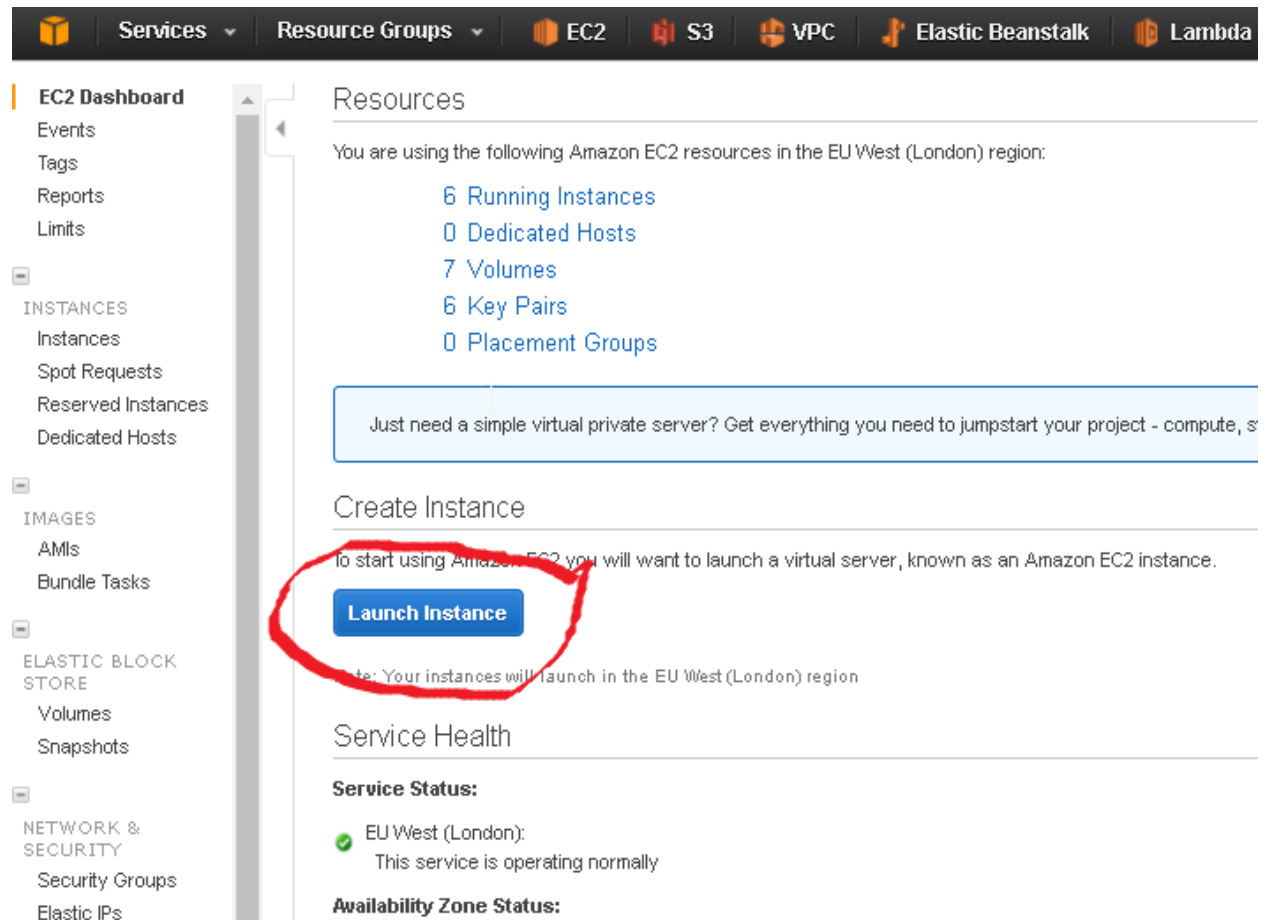
- Visual Studio 2015 or Higher
- Enable IIS Locally  
Powershell >>  
Import-Module ServerManager  
install-windowsfeature web-server, web-webserver -IncludeAllSubFeature  
install-windowsfeature web-mgmt-tools
- Web Deploy 3.6 ([download](#))
- Aws CLI (Not Mandatory)
- Nuget ([download](#)) to path C:\temp
- AWS Access Keys (Not Mandatory)
- Git Cli ([download](#))
- Aws [Login](#) (Use AD Cred)
- Seige Windows ([Download](#))

## Lets Build & Package

- Clone [Source Code](#) to C:\src
- CMD(Administrator) >> `cd C:\src\sample-web-api`
- Restore packages `C:\temp\nuget.exe restore sample-web-api.sln`
- Build & Package the solution (Select MsBuild Path)  
`"C:\Program Files (x86)\MSBuild\14.0\Bin\MSBuild.exe" sample-web-api.sln /verbosity:minimal /p:outputPath="%cd%/build" /p:DeployOnBuild=True,DeployIISAppPath="Default Web Site/"`

## Lets Deploy To AWS EC2 Instance

Click on Launch EC2 Instance



The screenshot shows the AWS Management Console interface for the EC2 service. The top navigation bar includes icons for Services, Resource Groups, EC2, S3, VPC, Elastic Beanstalk, and Lambda. The left sidebar contains a navigation menu with categories: EC2 Dashboard, INSTANCES, IMAGES, ELASTIC BLOCK STORE, and NETWORK & SECURITY. The main content area is titled 'Resources' and displays a summary of EC2 resources in the EU West (London) region: 6 Running Instances, 0 Dedicated Hosts, 7 Volumes, 6 Key Pairs, and 0 Placement Groups. Below this, a blue box contains a promotional message: 'Just need a simple virtual private server? Get everything you need to jumpstart your project - compute, s...'. The 'Create Instance' section follows, with a red circle highlighting the 'Launch Instance' button. Below the button, a note states: 'Note: Your instances will launch in the EU West (London) region'. The 'Service Health' section at the bottom shows the 'Service Status' for 'EU West (London)' as 'This service is operating normally' with a green checkmark. The 'Availability Zone Status' section is also visible.

**EC2 Dashboard**

- Events
- Tags
- Reports
- Limits

**INSTANCES**

- Instances
- Spot Requests
- Reserved Instances
- Dedicated Hosts

**IMAGES**

- AMIs
- Bundle Tasks

**ELASTIC BLOCK STORE**

- Volumes
- Snapshots

**NETWORK & SECURITY**

- Security Groups
- Elastic IPs

**Resources**

You are using the following Amazon EC2 resources in the EU West (London) region:

- 6 Running Instances
- 0 Dedicated Hosts
- 7 Volumes
- 6 Key Pairs
- 0 Placement Groups

Just need a simple virtual private server? Get everything you need to jumpstart your project - compute, s...

**Create Instance**

To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.

**Launch Instance**

Note: Your instances will launch in the EU West (London) region









**Service Health**

**Service Status:**

- EU West (London): This service is operating normally

**Availability Zone Status:**

## Choose AMI

|   |  |
|---|--|
|    | <b>Microsoft Windows Server 2016 with SQL Server Express</b> - ami-b9e5f4dd  |
| Windows   | Microsoft Windows 2016 Datacenter edition, Microsoft SQL Server 2016 Express. [English]<br>Root device type: ebs    Virtualization type: hvm                                       |
|    | <b>Microsoft Windows Server 2016 with SQL Server Web</b> - ami-71e5f415  |
| Windows   | Microsoft Windows 2016 Datacenter edition, Microsoft SQL Server 2016 Web. [English]<br>Root device type: ebs    Virtualization type: hvm   |
|    | <b>Microsoft Windows Server 2016 with SQL Server Standard</b> - ami-b2e4f5d6   |
| Windows   | Microsoft Windows 2016 Datacenter edition, Microsoft SQL Server 2016 Standard. [English]<br>Root device type: ebs    Virtualization type: hvm                                      |
|    | <b>Microsoft Windows Server 2012 R2 Base</b> - ami-fc8e9f98  |
| Windows<br>Free tier eligible   | Microsoft Windows 2012 R2 Standard edition with 64-bit architecture. [English]<br>Root device type: ebs    Virtualization type: hvm  |
|    | <b>Microsoft Windows Server 2012 R2 with SQL Server Express</b> - ami-3cb3a258   |
| Windows   | Microsoft Windows Server 2012 R2 Standard edition, 64-bit architecture, Microsoft SQL Server 2016 Express edition. [English]<br>Root device type: ebs    Virtualization type: hvm  |
|    | <b>Microsoft Windows Server 2012 R2 with SQL Server Web</b> - ami-efb0a18b   |
| Windows   | Microsoft Windows Server 2012 R2 Standard edition, 64-bit architecture, Microsoft SQL Server 2016 Web edition. [English]<br>Root device type: ebs    Virtualization type: hvm      |
|  | <b>Microsoft Windows Server 2012 R2 with SQL Server Standard</b> - ami-e88e9f8c  |
| Windows   | Microsoft Windows Server 2012 R2 Standard edition, 64-bit architecture, Microsoft SQL Server 2016 Standard edition. [English]<br>Root device type: ebs    Virtualization type: hvm |
|  | <b>Microsoft Windows Server 2012 R2 with SQL Server Express</b> - ami-a6b2a3c2   |

## Choose an Instance Type

1. Choose AMI    2. Choose Instance Type    3. Configure Instance    4. Add Storage    5. Add Tags    6. Configure Security Group    7. Review

### Step 2: Choose an Instance Type

Filter by: All instance types Current generation [Show/Hide Columns](#)

Currently selected: t2.small (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 2 GiB memory, EBS only)

|                                     | Family          | Type                           | vCPUs ⓘ | Memory (GiB) |
|-------------------------------------|-----------------|--------------------------------|---------|--------------|
| <input type="checkbox"/>            | General purpose | t2.nano                        | 1       | 0.5          |
| <input type="checkbox"/>            | General purpose | t2.micro<br>Free tier eligible | 1       | 1            |
| <input checked="" type="checkbox"/> | General purpose | t2.small                       | 1       | 2            |
| <input type="checkbox"/>            | General purpose | t2.medium                      | 2       | 4            |

## Configure Instance Details

### Step 3: Configure Instance Details

**No default VPC found.** Select another VPC, or [create a new default VPC](#).

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of lower prices, or launch on-demand instances.

|  |  |  |
|--|--|--|
| <b>Number of instances</b> ⓘ           | <input type="text" value="1"/>   | <a href="#">Launch into Auto Scaling Group</a> ⓘ |
| <b>Purchasing option</b> ⓘ             | <input type="checkbox"/> Request Spot instances  |  |
| <b>Network</b> ⓘ                       | <input type="text" value="vpc-4f5fd326   vpc.eu-west-2"/> <a href="#">Create new VPC</a><br>No default VPC found. <a href="#">Create a new default VPC</a> . |  |
| <b>Subnet</b> ⓘ                        | <input type="text" value="subnet-348f3d4f   private.eu-west-2-az1   eu-west-2-"/> <a href="#">Create new subnet</a><br>4084 IP Addresses available           |  |
| <b>Auto-assign Public IP</b> ⓘ         | <input type="text" value="Use subnet setting (Disable)"/>  |  |
| <b>IAM role</b> ⓘ                      | <input type="text" value="ec2InstanceRole"/> <a href="#">Create new IAM role</a>   |  |
| <b>Shutdown behavior</b> ⓘ             | <input type="text" value="Stop"/>  |  |
| <b>Enable termination protection</b> ⓘ | <input type="checkbox"/> Protect against accidental termination  |  |
| <b>Monitoring</b> ⓘ                    | <input type="checkbox"/> Enable CloudWatch detailed monitoring<br><a href="#">Additional charges apply.</a>  |  |
| <b>Tenancy</b> ⓘ                       | <input type="text" value="Shared - Run a shared hardware instance"/><br><a href="#">Additional charges will apply for dedicated tenancy.</a>                 |  |

Click on Advanced Details and add below powershell to the userdata select As text option

▼ Advanced Details

|  |   |
|--|---|
| <b>User data</b> ⓘ   | <input checked="" type="radio"/> As text <input type="radio"/> As file <input type="checkbox"/> Input is already base64 encoded |
| <pre>&lt;powershell&gt; Set-ExecutionPolicy Unrestricted -Force New-Item -ItemType directory -Path 'C:\temp'  # Install IIS and Web Management Tools</pre> |   |

```
<powershell>

Set-ExecutionPolicy Unrestricted -Force

New-Item -ItemType directory -Path 'C:\temp'


# Install IIS and Web Management Tools.

Import-Module ServerManager

install-windowsfeature web-server, web-webserver -IncludeAllSubFeature

install-windowsfeature web-mgmt-tools


# Download And Install WebDeploymentAgent

$url = "https://download.microsoft.com/download/0/1/D/01DC28EA-638C-4A22-A57B-4CEF97755C6C/WebDeploy_amd64_en-US.msi"

$output = "C:\temp\webdeploy_3.6.msi"

$start_time = Get-Date


$wc = New-Object System.Net.WebClient

$wc.DownloadFile($url, $output)


Write-Output "Time taken: $((Get-Date).Subtract($start_time).Seconds) second(s)"


msiexec /I $output ADDLOCAL=all /passive /norestart LicenseAccepted="0" /!*
C:\temp\msDeployInstall.log

Start-Sleep -s 60


#Add To Domain

$svc_account = "directory.zuto.cloud\svc_domain_join"

$svc_pwd_secure = ConvertTo-SecureString "C5trNsulgQV0" -AsPlainText -Force

$creds = New-Object -typename System.Management.Automation.PSCredential -argumentlist
($svc_account,$svc_pwd_secure)

Add-Computer -DomainName directory.zuto.cloud -Credential $creds -Restart
```

## Add Storage

### Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

| Volume Type <small>(i)</small> | Device <small>(i)</small> | Snapshot <small>(i)</small> | Size (GiB) <small>(i)</small> | Volume Type <small>(i)</small> | IOPS <small>(i)</small> | Throughput (MB/s) <small>(i)</small> | Delete on Termination <small>(i)</small> | Encrypted <small>(i)</small> |
|--------------------------------|---------------------------|-----------------------------|-------------------------------|--------------------------------|-------------------------|--------------------------------------|--|------------------------------|
| Root                           | /dev/sda1                 | snap-00380db11d6eb730d      | 30                            | General Purpose SSD (GP2)      | 100 / 3000              | N/A                                  | <input checked="" type="checkbox"/>      | Not Encrypted                |

Add New Volume

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

## Add Tags

### Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.

A copy of a tag can be applied to volumes, instances or both.

Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

| Key <small>(127 characters maximum)</small>                   | Value <small>(255 characters maximum)</small> |
|---|---|
| Name  | your-surname-application-name                 |
| Application   | application-name                              |
| Owner   | developer-name                                |
| Environment   | dev   |
| <p>Add another tag <small>(Up to 50 tags maximum)</small></p> |   |

## Review Instance Launch

Security Groups : HTTP, rdp\_inbound, ms\_deploy are setup upfront manually

### Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can select an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☐ Create a new security group

☒ Select an **existing** security group

| Security Group ID                               | Name   |
|---|--|
| <input type="checkbox"/> sg-4250052b            | allow_udp_dns_and_ssh  |
| <input type="checkbox"/> sg-0f142166            | awseb-e-nsehtmtpt3-stack-AWSEBLoadBalancerSecurityGroup-EMD2E6OF8YST |
| <input type="checkbox"/> sg-5a2a1f33            | awseb-e-nsehtmtpt3-stack-AWSEBSecurityGroup-1C05C6W1V8K8S            |
| <input type="checkbox"/> sg-fd165594            | default  |
| <input checked="" type="checkbox"/> sg-391e2b50 | HTTP   |
| <input type="checkbox"/> sg-976257fe            | launch-wizard-10   |
| <input type="checkbox"/> sg-0bcc9262            | launch-wizard-7  |
| <input type="checkbox"/> sg-06e3ca6f            | launch-wizard-8  |
| <input checked="" type="checkbox"/> sg-8d192ce4 | ms_deploy  |
| <input type="checkbox"/> sg-1c371575            | quick-create-1   |
| <input type="checkbox"/> sg-f9faab90            | rancher-security-group   |
| <input type="checkbox"/> sg-55a3f23c            | RancherOS - HVM-v1-0-3-AutogenByAWSMP-                               |
| <input checked="" type="checkbox"/> sg-e4ce9e8d | rdp_inbound  |
| <input type="checkbox"/> sg-d2f0a0bb            | ssh_inbound  |

[Cancel](#)

[Previous](#)

[Review and Launch](#)

[Next: Configure Security Group](#)

### Select a key pair

Select an existing key pair or create a new key pair

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. [Learn more about removing existing key pairs from a public AMI.](#)

Proceed without a key pair

☒ I acknowledge that I will not be able to connect to this instance unless I already know the password built into this AMI.

Cancel

Launch Instances

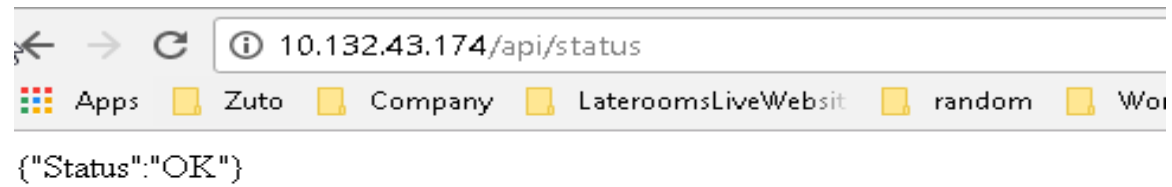
Wait for 10 mins

## Deploy To Ec2

### Via Command Line

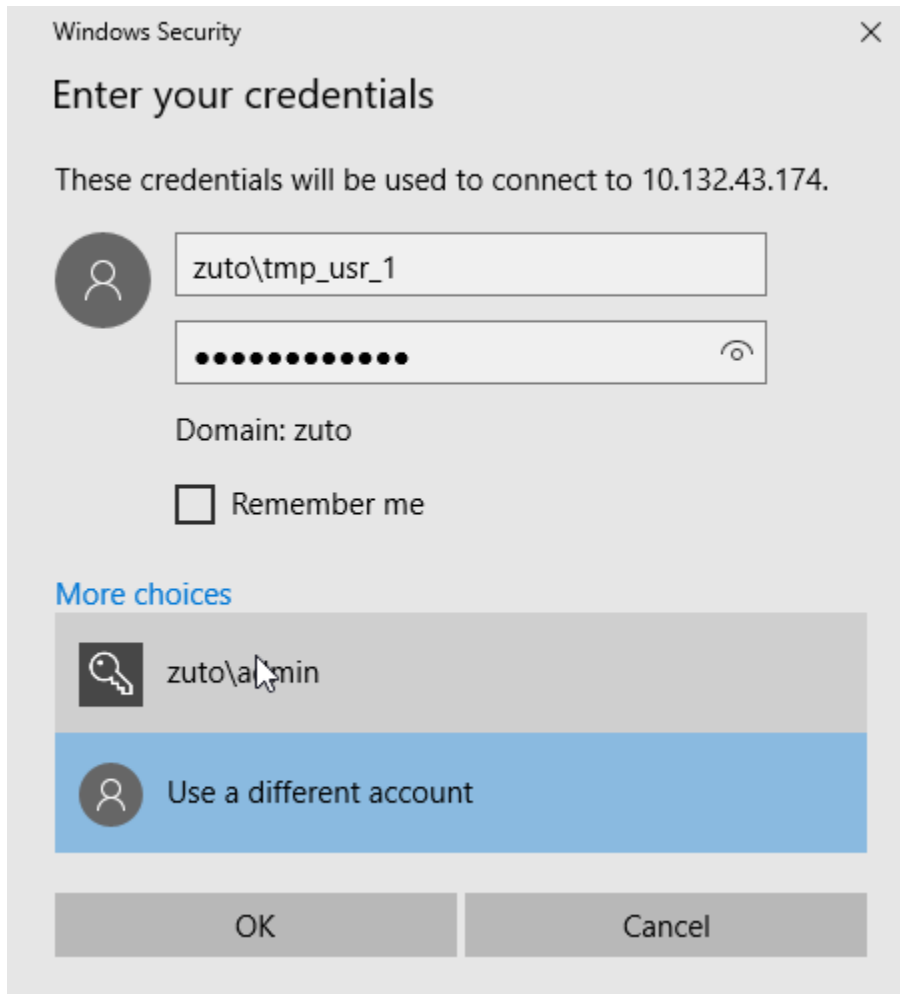
```
"C:\Program Files (x86)\IIS\Microsoft Web Deploy V3/msdeploy" -verb:sync -  
source:package="%cd%/build/_PublishedWebsites/sample-web-api_Package/sample-web-api.zip" -  
dest:auto,computerName=https://10.132.xx.xxx:8172/MsDeploy.axd,userName="zuto\deploy",password="9k4KRUFOTwr",authType=Basic -debug -verbose -allowUntrusted
```



**Verify App Status**

## Trouble Shooting


### RDP Access





Windows Security

### Enter your credentials

These credentials will be used to connect to 10.132.43.174.


 zuto\tmp\_usr\_1


 

Domain: zuto

☐ Remember me

[More choices](#)

 zuto\admin

 Use a different account

OK Cancel

**Username :** zuto\tmp\_usr\_1

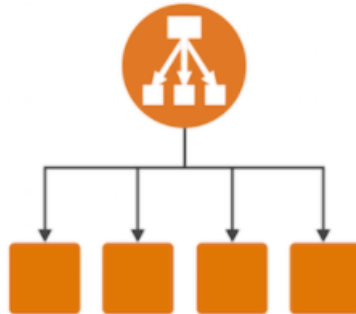
**Password:** p1CpBV7rNCus

# ELB

## Create ELB

re.

• Classic Load Balancer



A Classic Load Balancer makes routing decisions at either the transport layer (TCP/SSL) or the application layer (HTTP/HTTPS), and supports either EC2-Classic or a VPC.

## Step 1: Define Load Balancer

### Basic Configuration

This wizard will walk you through setting up a new load balancer. Begin by giving your new load balancer a unique name so that you can identify it you might create. You will also need to configure ports and protocols for your load balancer. Traffic from your clients can be routed from any load balancer to your EC2 instances. By default, we've configured your load balancer with a standard web server on port 80.

**Load Balancer name:**

**Create LB Inside:**

**Create an internal load balancer:** ☒ [\(what's this?\)](#)

**Enable advanced VPC configuration:** ☒

#### Listener Configuration:

| Load Balancer Protocol | Load Balancer Port | Instance Protocol | Instance Port |
|------------------------|--------------------|-------------------|---------------|
| HTTP                   | 80                 | HTTP              | 80            |

Add

## Select Subnets

You will need to select a Subnet for each Availability Zone where you wish traffic to be routed by your load balancer. If you have instances in only one Availability Zone, please select at least two Subnets in different Availability Zones to provide higher availability for your load balancer.

VPC vpc-4f5fd326 (10.132.0.0/16) | vpc.eu-west-2

### Available subnets

| Actions | Availability Zone | Subnet ID       | Subnet CIDR     | Name                 |
|---------|-------------------|-----------------|-----------------|----------------------|
|         | eu-west-2a        | subnet-0f8d3f74 | 10.132.48.0/21  | data.eu-west-2.az1   |
|         | eu-west-2a        | subnet-4172c03a | 10.132.0.0/20   | public.eu-west-2.az1 |
|         | eu-west-2b        | subnet-15cf0468 | 10.132.64.0/20  | public.eu-west-2.az2 |
|         | eu-west-2b        | subnet-1acf0467 | 10.132.112.0/21 | data.eu-west-2.az2   |

### Selected subnets

| Actions | Availability Zone | Subnet ID       | Subnet CIDR    | Name                  |
|---------|-------------------|-----------------|----------------|-----------------------|
|         | eu-west-2a        | subnet-348f3d4f | 10.132.32.0/20 | private.eu-west-2.az1 |
|         | eu-west-2b        | subnet-f2ce05bf | 10.132.96.0/20 | private.eu-west-2.az2 |

## Select Subnets

You will need to select a Subnet for each Availability Zone where you wish traffic to be routed by your load balancer. If you have instances in only one Availability Zone, please select at least two Subnets in different Availability Zones to provide higher availability for your load balancer.

VPC vpc-4f5fd326 (10.132.0.0/16) | vpc.eu-west-2

### Available subnets

| Actions | Availability Zone | Subnet ID       | Subnet CIDR     | Name                 |
|---------|-------------------|-----------------|-----------------|----------------------|
|         | eu-west-2a        | subnet-0f8d3f74 | 10.132.48.0/21  | data.eu-west-2.az1   |
|         | eu-west-2a        | subnet-4172c03a | 10.132.0.0/20   | public.eu-west-2.az1 |
|         | eu-west-2b        | subnet-15cf0468 | 10.132.64.0/20  | public.eu-west-2.az2 |
|         | eu-west-2b        | subnet-1acf0467 | 10.132.112.0/21 | data.eu-west-2.az2   |

### Selected subnets

| Actions | Availability Zone | Subnet ID       | Subnet CIDR    | Name                  |
|---------|-------------------|-----------------|----------------|-----------------------|
|         | eu-west-2a        | subnet-348f3d4f | 10.132.32.0/20 | private.eu-west-2.az1 |
|         | eu-west-2b        | subnet-f2ce05bf | 10.132.96.0/20 | private.eu-west-2.az2 |

## Step 2: Assign Security Groups

You have selected the option of having your Elastic Load Balancer inside of a VPC, which allows you to assign security groups to your load balancer. Please select the s

Assign a security group: ☐ Create a new security group  
☒ Select an existing security group

| Security                            | Name   | Description                                     |
|-------------------------------------|--|---|
| <input type="checkbox"/>            | sg-4250052b allow_udp_dns_and_ssh  | Allow UDP DNS traffic                           |
| <input type="checkbox"/>            | sg-0f142166 awseb-e-nsehmtp3-stack-AWSEBLoadBalancerSecurityGroup-EMD2E6OF8YST | Load Balancer Security Group                    |
| <input type="checkbox"/>            | sg-5a2a1f33 awseb-e-nsehmtp3-stack-AWSEBSecurityGroup-1C05C6W1V8K8S            | VPC Security Group                              |
| <input type="checkbox"/>            | sg-fd165594 default  | default VPC security group                      |
| <input checked="" type="checkbox"/> | sg-391e2b50 HTTP   | Ports Need To be open to access the web service |
| <input type="checkbox"/>            | sg-0760774c  |   |

## Step 4: Configure Health Check

Your load balancer will automatically perform health checks on your EC2 instance:

|                      |  |
|----------------------|--|
| <b>Ping Protocol</b> | <input type="text" value="HTTP"/>        |
| <b>Ping Port</b>     | <input type="text" value="80"/>          |
| <b>Ping Path</b>     | <input type="text" value="/api/status"/> |

### Advanced Details

|                            |                                 |         |
|----------------------------|---------------------------------|---------|
| <b>Response Timeout</b>    | <input type="text" value="5"/>  | seconds |
| <b>Interval</b>            | <input type="text" value="10"/> | seconds |
| <b>Unhealthy threshold</b> | <input type="text" value="2"/>  |         |
| <b>Healthy threshold</b>   | <input type="text" value="3"/>  |         |

## Step 5: Add EC2 Instances

The table below lists all your running EC2 Instances. Check the boxes in the Select column to add those instances to this load balancer.

VPC vpc-4f5fd326 (10.132.0.0/16) | vpc.eu-west-2

| <input type="checkbox"/>            | Instance       | Name                       | State   | Security groups        |
|-------------------------------------|----------------|----------------------------|---------|------------------------|
| <input type="checkbox"/>            | i-0458231...   | RancherOS                  | stopped | rancher-security-group |
| <input type="checkbox"/>            | i-035ac3ab...  | KarlWorkshop Test-env      | running | awseb-e-nsehtmtpt3-sta |
| <input checked="" type="checkbox"/> | i-0081a6d...   | sri-test-pvt               | running | ms_deploy, rdp_inbound |
| <input type="checkbox"/>            | i-09345f65...  | tableau-wdc-host           | running | launch-wizard-7        |
| <input type="checkbox"/>            | i-0c3f9daf8... | dns-recursor.eu-west-2.az1 | running | allow_udp_dns_and_ssh  |
| <input type="checkbox"/>            | i-019d0ece...  | dns-recursor.eu-west-2.az2 | running | allow_udp_dns_and_ssh  |
| <input type="checkbox"/>            | i-0c77a6ad...  | Test-Server                | running | launch-wizard-8        |

### Availability Zone Distribution

1 instance in eu-west-2a

- ☒ Enable Cross-Zone Load Balancing
- ☒ Enable Connection Draining  seconds

## Step 6: Add Tags

Apply tags to your resources to help organize and identify them.

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver. [Learn more](#) about tagging your Amazon EC2 resources.

| Key                                       | Value  |
|---|--|
| <input type="text" value="Name"/>         | <input type="text" value="ssunkari-elb-sample-web-api"/> |
| <input type="text" value="Owner"/>        | <input type="text" value="ssunkari"/>                    |
| <input type="button" value="Create Tag"/> |  |

## Verify

|                                     |                             |                                 |              |                        |         |                                |
|-------------------------------------|-----------------------------|---------------------------------|--------------|------------------------|---------|--------------------------------|
| <input type="checkbox"/>            | tableau-wdo-lb              | tableau-wdo-lb-584528388....    | vpc-4f5fd326 | eu-west-2a             | classic | August 15, 2017 at 11:46:11... |
| <input type="checkbox"/>            | awseb-e-n-AWSEBLoa-1HN...   | internal-awseb-e-n-AWSEBL...    | vpc-4f5fd326 | eu-west-2a, eu-west-2b | classic | August 21, 2017 at 3:13:43 ... |
| <input checked="" type="checkbox"/> | ssunkari-elb-sample-web-api | internal-ssunkari-elb-sample... | vpc-4f5fd326 | eu-west-2a, eu-west-2b | classic | August 22, 2017 at 10:27:2...  |

Load balancer: **ssunkari-elb-sample-web-api**

Description **Instances** Health Check Listeners Monitoring Tags

Connection Draining: Enabled, 300 seconds [\(Edit\)](#)

[Edit Instances](#)

| Instance ID         | Name         | Availability Zone | Status      | Actions                                   |
|---------------------|--------------|-------------------|-------------|---|
| i-0081a6d6a09465789 | sri-test-pvt | eu-west-2a        | InService ⓘ | <a href="#">Remove from Load Balancer</a> |

## Hit the ELB DNS Address

← → ↻ ⓘ internal-ssunkari-elb-sample-web-api-2000354942.eu-west-2.elb.amazonaws.com/api/status

Apps Zuto Company LateroomsLiveWebsite random Work LateroomsTestWebsite \*

```
{"Status": "OK"}
```

# AMI



## Create AMI

|                                     |            |                       |                                  |          |    |
|-------------------------------------|------------|-----------------------|----------------------------------|----------|----|
| <input checked="" type="checkbox"/> | sri-test-p | Connect               | i-0081a6d6a69465789              | t2.micro | eu |
| <input type="checkbox"/>            | dns-recu   | Get Windows Password  | i-019d0ece5131d4...              | t2.small | eu |
| <input type="checkbox"/>            | KarlWor    | Launch More Like This | i-035ac3ab74caeaefd              | t2.small | eu |
| <input type="checkbox"/>            | tableau-   | Instance State        | i-09345f6564539b4...             | t2.small | eu |
| <input type="checkbox"/>            | dns-recu   | Instance Settings     | i-0e2f04a69447a85f...            | t2.small | eu |
| <input type="checkbox"/>            | Test-Ser   | Image                 | Create Image                     |          | eu |
| <input type="checkbox"/>            | Rancher    | Networking            | Bundle Instance (instance store) |          | eu |
| <input type="checkbox"/>            |            | CloudWatch Monitoring | i-0402b17108012...               | t2.small | eu |

Create Image

Instance ID

i-0081a6d6a69465789

Image name

ssunkari-sample-web-api-ami

Image description

Sample Web App AMI required for Launch Configurat

No reboot

☐

Instance Volumes

| Volume Type | Device    | Snapshot               | Size (GiB) | Volume Type               | IOPS       | Throughput (MB/s) | Delete on Termination               | Encrypted     |
|-------------|-----------|------------------------|------------|---------------------------|------------|-------------------|-------------------------------------|---------------|
| Root        | /dev/sda1 | snap-0352d2af96dc20c0d | 30         | General Purpose SSD (GP2) | 100 / 3000 | N/A               | <input checked="" type="checkbox"/> | Not Encrypted |

Add New Volume

Total size of EBS Volumes: 30 GiB

When you create an EBS image, an EBS snapshot will also be created for each of the above volumes.

Cancel

Create Image

# ASG

## Create Auto Scaling Group

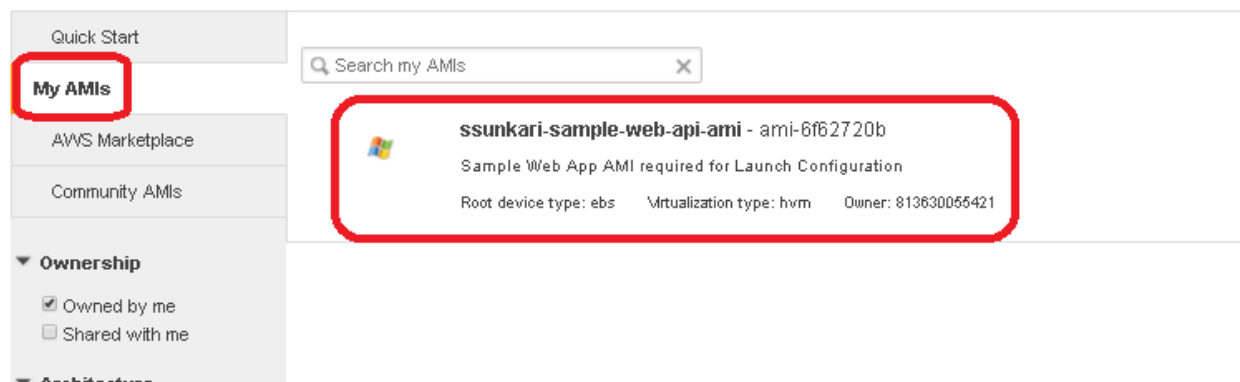
To create an Auto Scaling group, you will first need to choose a template that your Auto S a launch configuration or create a new one, and then apply it to your group.

Later, if you want to use a different template, you can create another launch configuration you can update the software that your group uses when it launches new instances.

- ☒ Create a new launch configuration
- ☐ Create an Auto Scaling group from an existing launch configuration

## Create Launch Configuration

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You



## Create Launch Configuration

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance types Current generation [Show/Hide Columns](#)

**Currently selected:** t2.micro (Variable ECU's, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

|                                     | Family          | Type  | vCPUs |
|-------------------------------------|-----------------|---|-------|
| <input type="checkbox"/>            | General purpose | t2.nano                                     | 1     |
| <input checked="" type="checkbox"/> | General purpose | t2.micro<br><span>Free tier eligible</span> | 1     |

## Create Launch Configuration

|                            |  |
|----------------------------|--|
| <b>Name</b> ⓘ              | ssunkari-sample-web-api-lc   |
| <b>Purchasing option</b> ⓘ | <input type="checkbox"/> Request Spot Instances  |
| <b>IAM role</b> ⓘ          | ec2InstanceRole ▼  |
| <b>Monitoring</b> ⓘ        | <input type="checkbox"/> Enable CloudWatch detailed monitoring<br><a href="#">Learn more</a> |

### ▼ Advanced Details

|                          |   |
|--------------------------|---|
| <b>Kernel ID</b> ⓘ       | Use default ▼   |
| <b>RAM Disk ID</b> ⓘ     | Use default ▼   |
| <b>User data</b> ⓘ       | <input checked="" type="radio"/> As text <input type="radio"/> As file <input type="checkbox"/> Input is already base64 encoded<br><div>(Optional)</div>  |
| <b>IP Address Type</b> ⓘ | <input type="radio"/> Only assign a public IP address to instances launched in the default VPC and subnet. (default)<br><input type="radio"/> Assign a public IP address to every instance.<br><input checked="" type="radio"/> Do not assign a public IP address to any instances.<br>Note: this option only affects instances launched into an Amazon VPC |

## Create Launch Configuration

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes.  
<https://docs.aws.amazon.com/console/ec2/launchinstance/storage> about storage options in Amazon EC2.

| Volume Type ⓘ  | Device ⓘ  | Snapshot ⓘ | Size (GiB) ⓘ | Volume Type ⓘ           | IOPS ⓘ     | Throughput ⓘ | Delete on Termination ⓘ             | Encrypted ⓘ              |
|----------------|-----------|------------|--------------|-------------------------|------------|--------------|-------------------------------------|--------------------------|
| Root           | /dev/sda1 |            | 30           | General Purpose (SSD) ▼ | 100 / 3000 | N/A          | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Add New Volume |           |            |              |                         |            |              |                                     |                          |

## Add HTTP,rdp\_inbound,ms\_deploy Security Groups

### Create Launch Configuration

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

**Assign a security group:** ☒ Create a **new** security group

☐ Select an **existing** security group

**Security group name:**

**Description:**

**VPC:**  [Create new VPC](#)

| Type | Protocol | Port Range | Source       |
|------|----------|------------|--------------|
| HTTP | TCP      | 80         | Custom IP sg |

[Add Rule](#)

**No default VPC found**  
Select another VPC, or [contact AWS Support](#)

**Warning**  
You will not be able to connect to this instance unless you don't have port(s) 3389 open.

sg-4250052b - allow\_udp\_dns\_and\_ssh

sg-49c2f620 - awseb-e-fwcisfb8yf-stack-AWSEBLoadBalancerSecurityGroup-1I9HPGWTAV5QW

sg-48c2f621 - awseb-e-fwcisfb8yf-stack-AWSEBSecurityGroup-1DCZ8U08YB0NC

sg-0f142166 - awseb-e-nsehtnmtpt3-stack-AWSEBLoadBalancerSecurityGroup-EMD2E6OF8YST

sg-5a2a1f33 - awseb-e-nsehtnmtpt3-stack-AWSEBSecurityGroup-1C05C6W1V8K8S

sg-cac3f7a3 - awseb-e-qnpes5c53v7-stack-AWSEBLoadBalancerSecurityGroup-3MA5E4K62SKE

sg-02cdf96b - awseb-e-qnpes5c53v7-stack-AWSEBSecurityGroup-1D8E61BKVLKD3

sg-fd165594 - default

sg-391e2b50 - HTTP

### Select an existing key pair or create a new key pair

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. [Learn more about removing existing key pairs from a public AMI.](#)

☒ I acknowledge that I will not be able to connect to this instance unless I already know the password built into this AMI.

[Cancel](#)

[Create launch configuration](#)

## Ignore the VPC Warnings

### Create Auto Scaling Group

[Cancel and Exit](#)


#### No default VPC found


Select another VPC, or [contact AWS Support](#) if you want to create a new default VPC.

[Don't show me this again](#)


**Launch Configuration** ⓘ ssunkari-sample-web-api-launch-config


**Group name** ⓘ ssunkari-sample-web-api-asg

**Group size** ⓘ Start with  instances

**Network** ⓘ vpc-4f5fd326 (10.132.0.0/16) | vpc.eu-west-2  [Create new VPC](#)

**Subnet** ⓘ

subnet-348f3d4f(10.132.32.0/20) | private.eu-west-2.az1 | eu-west-2a 

subnet-f2ce05bf(10.132.96.0/20) | private.eu-west-2.az2 | eu-west-2b 

[Create new subnet](#)

No instances in this Auto Scaling group will be assigned a public IP address. ⓘ

#### ▼ Advanced Details

**Load Balancing** ⓘ ☒ Receive traffic from one or more load balancers [Learn about Elastic Load Balancing](#)

**Classic Load Balancers** ⓘ ssunkari-elb-sample-web-api 

**Target Groups** ⓘ

**Health Check Type** ⓘ ☒ ELB ☐ EC2

**Health Check Grace Period** ⓘ  seconds

**Monitoring** ⓘ Amazon EC2 Detailed Monitoring metrics, which are provided at 1 minute frequency, are not enabled for the launch configuration sample-web-api. Instances launched from it will use Basic Monitoring metrics, provided at 5 minute frequency. [Learn more](#)

**Instance Protection** ⓘ

## Add Scaling Policy

### Create Auto Scaling Group

You can optionally add scaling policies if you want to adjust the size (number of instances) of your group automatically: of instances or a percentage of the existing group size, or you can set the group to an exact size. When the alarm trig

- ☐ Keep this group at its initial size
- ☒ Use scaling policies to adjust the capacity of this group

Scale between  and  instances. These will be the minimum and maximum size of your group.

#### Scale Group Size

**Name:**

**Metric type:**

**Target value:**

**Instances need:**  seconds to warm up after scaling

**Disable scale-in:** ☐

[Scale the Auto Scaling group using step or simple scaling policies](#) ⓘ

## Tag New Instances

### Create Auto Scaling Group

A tag consists of a case sensitive key-value pair that you can use to identify your group. For example, you could define a tag with Key = Environment and Value = Production. You can optionally choose to apply these tags to instances in the group when they launch. [Learn more](#).

| Key   | Value  | Tag New Instances ⓘ                 |   |
|---|--|-------------------------------------|---|
| <input type="text" value="Name"/>                   | <input type="text" value="ssunkari-sample-web-api"/> | <input checked="" type="checkbox"/> | ✕ |
| <input type="text" value="Application"/>            | <input type="text" value="sample-web-api"/>          | <input checked="" type="checkbox"/> | ✕ |
| <input type="text" value="Owner"/>                  | <input type="text" value="Ssunkari"/>                | <input checked="" type="checkbox"/> | ✕ |
| <input type="text" value="Environment"/>            | <input type="text" value="dev"/>                     | <input checked="" type="checkbox"/> | ✕ |
| <input type="button" value="Add tag"/> 46 remaining |  |                                     |   |

## Verify ASG

[Create Auto Scaling group](#)
[Actions](#)

Filter: 
1 to 3 of 3 Auto Scaling Groups

| <input type="checkbox"/>            | Name  | Launch Configuration      | Instances |
|-------------------------------------|---|---------------------------|-----------|
| <input checked="" type="checkbox"/> | ssunkari-sample-web-api-asg                                 | ssunkari-sample-web-a...  | 1         |
| <input type="checkbox"/>            | awseb-e-fwcisfb8yf-stack-AWSEBAutoScalingGroup-OBZ49E0B56B0 | awseb-e-fwcisfb8yf-sta... | 1         |
| <input type="checkbox"/>            | awseb-e-nsehmtp3-stack-AWSEBAutoScalingGroup-194GM2GPP432U  | awseb-e-nsehmtp3-st...    | 1         |

**Auto Scaling Group: ssunkari-sample-web-api-asg**

[Details](#)
[Activity History](#)
[Scaling Policies](#)
[Instances](#)
[Monitoring](#)
[Notifications](#)
[Tags](#)
[Schedule](#)

[Actions](#)

Filter: [Any Health Status](#) [Any Lifecycle State](#)

1 to 1 of 1 Instances

| <input type="checkbox"/> | Instance ID         | Lifecycle | Launch Configuration Name             | Availability Zone | Health State |
|--------------------------|---------------------|-----------|---------------------------------------|-------------------|--------------|
| <input type="checkbox"/> | i-0f43a617d08074b27 | InService | ssunkari-sample-web-api-launch-config | eu-west-2b        | Healthy      |

## Verify ELB Should have

[Create Load Balancer](#)
[Actions](#)

Filter: 
1

| <input type="checkbox"/>            | Name                             | DNS name                         | State | VPC ID       | Avail |
|-------------------------------------|----------------------------------|----------------------------------|-------|--------------|-------|
| <input type="checkbox"/>            | tableau-wd0-lb                   | tableau-wd0-lb-584528388....     |       | vp0-4f5fd326 | eu-wk |
| <input type="checkbox"/>            | awseb-e-n-AWSEBLoa-1HNP6RMWDMHRL | internal-awseb-e-n-AWSEBL...     |       | vp0-4f5fd326 | eu-wk |
| <input checked="" type="checkbox"/> | ssunkari-elb-sample-web-api      | internal-ssunkari-elb-sample-... |       | vp0-4f5fd326 | eu-wk |
| <input type="checkbox"/>            | awseb-e-f-AWSEBLoa-1ELRJ6SCFKN4F | internal-awseb-e-f-AWSEBL...     |       | vp0-4f5fd326 | eu-wk |
| <input type="checkbox"/>            | awseb-e-m-AWSEBLoa-JBH0GLHICFP0  | internal-awseb-e-m-AWSEB...      |       | vp0-4f5fd326 | eu-wk |

**Load balancer: ssunkari-elb-sample-web-api**

[Description](#)
[Instances](#)
[Health Check](#)
[Listeners](#)
[Monitoring](#)
[Tags](#)

**Connection Draining:** Enabled, 300 seconds ([Edit](#))

[Edit Instances](#)

| Instance ID         | Name                        | Availability Zone | Status      | Actions                                   |
|---------------------|-----------------------------|-------------------|-------------|---|
| i-0081a6d6a69465789 | sri-test-pvt                | eu-west-2a        | InService ⓘ | <a href="#">Remove from Load Balancer</a> |
| i-0f43a617d08074b27 | ssunkari-sample-web-api-asg | eu-west-2b        | InService ⓘ | <a href="#">Remove from Load Balancer</a> |



## Load Testing

- Extract siege-windows-3.0.5.zip to C:\siege-windows
- cd siege-windows
- siege -c50 -t300s http://elb-dns /api/text`