How to Launch an EBS Optimized EC2 Instance with a Provisioned IOPS Volume

This demonstrates how to launch an EBS-Optimized EC2 Linux Instance using the provisioned IOPS volume.

A standard EC2 EBS (Elastic Block Store) volume will generally provide about 100 IOPS on an average. However, in comparison AWS has offered a new type of volume called Provisioned IOPS, which provides for a performance of up to 2000 IOPS.

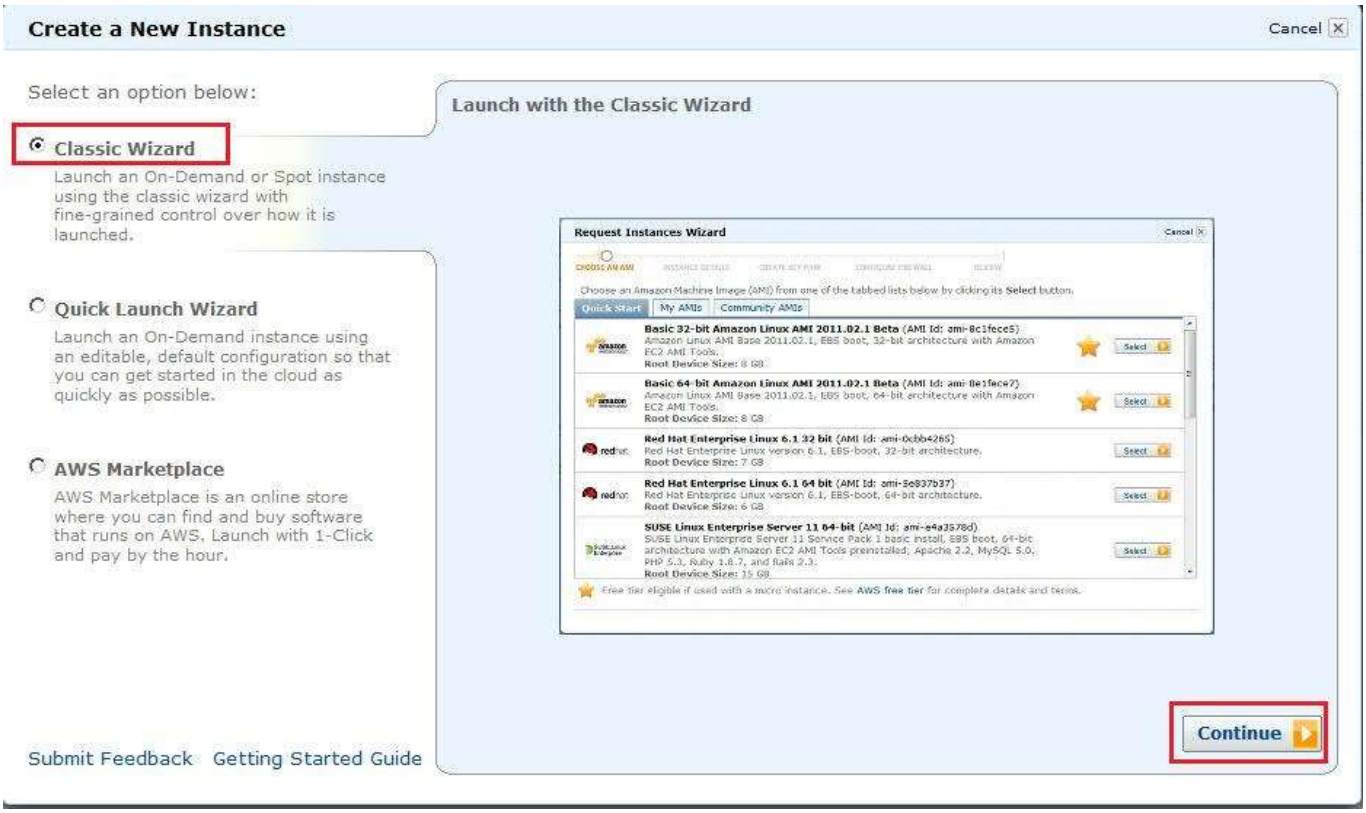
An EBS-Optimized instance is provisioned with dedicated throughput to EBS. Use the EBS optimized instance for maximum performance and full utilization of the IOPS provisioned on an EBS volume.

Login to your AWS console.

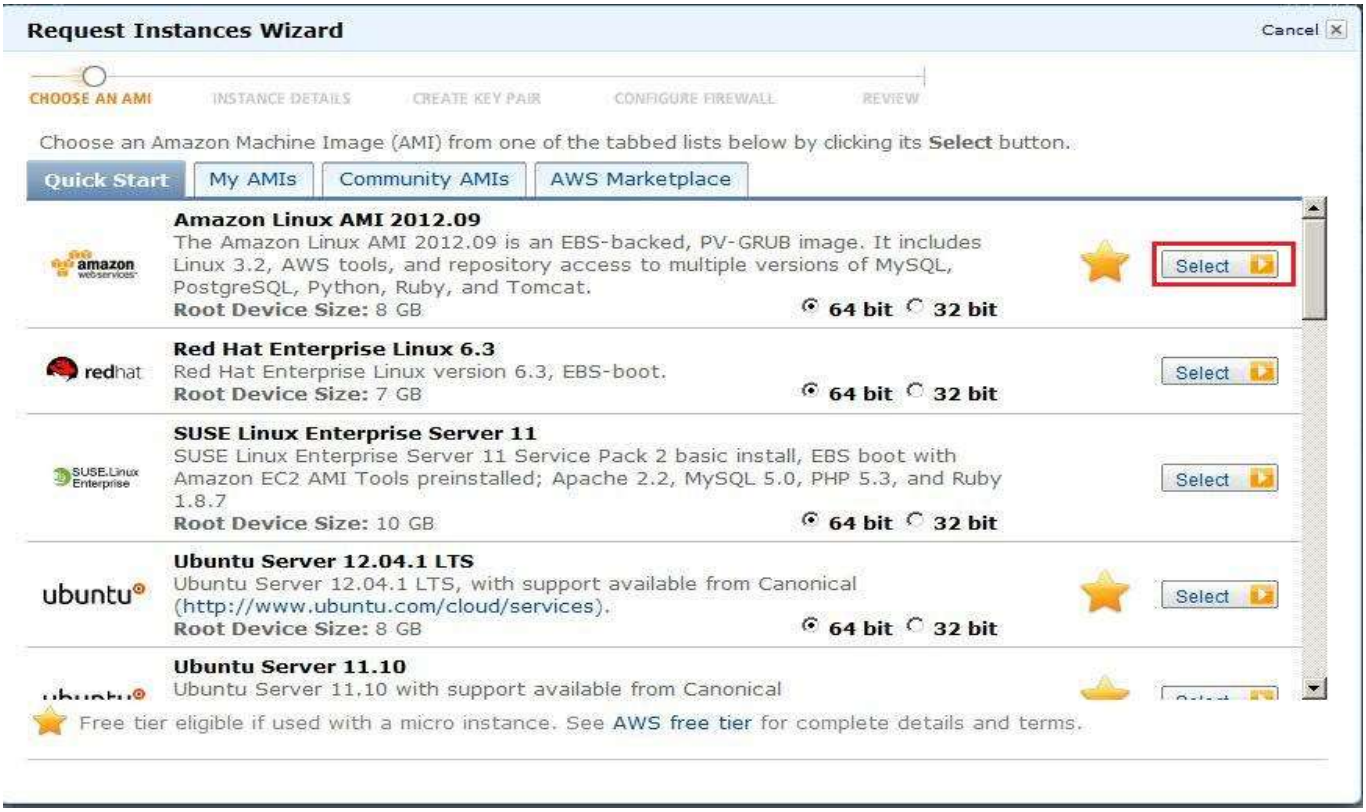
1. Select the EC2 Service. It launches the EC2 dashboard. Go to the Instances section and click on “Launch Instance” to launch an EC2 instance.

2. The Launch wizard has multiple options, such as “Classic Wizard”, “Quick Launch” and “AWS Marketplace”. Quick Launch contains pre-configured steps, whereby it will skip some steps and launch with the default configurations. AWS Marketplace is used to launch the instance from the AWS online store.

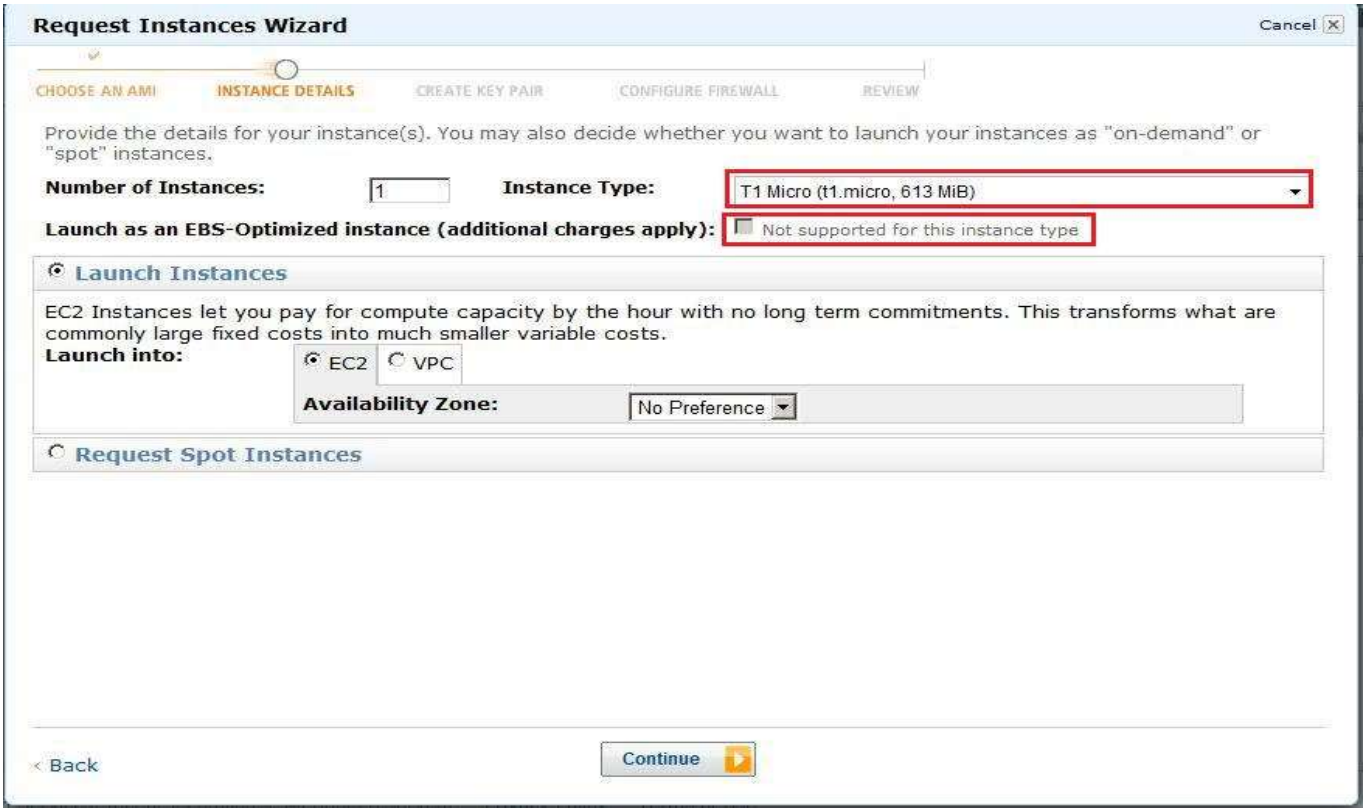
Select “Classic Wizard” and click on “Continue”.



3. Select the AMI (Amazon Machine Image). The AWS Launch screen provides multiple options to select AMI. The user can select the AMIs provided by AWS (Standard OS). Select “My AMIs” to launch the instance from the user’s existing AMIs or select community AMIs to launch the instance from various providers (may or may not be authorized by AWS).

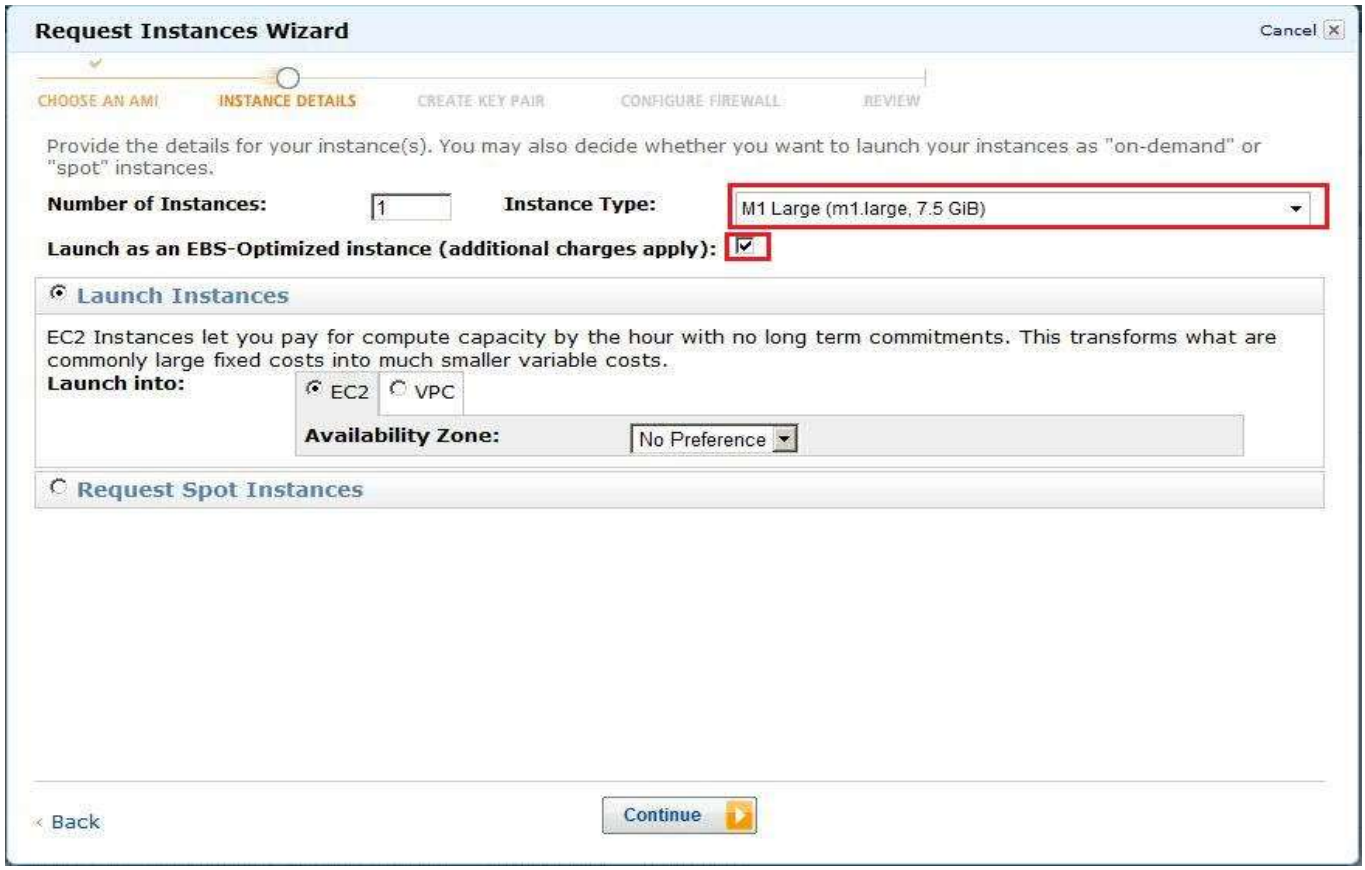


4. Provide the instance details, such as the Instance Type, Availability Zone and Number of Instances. The availability zone depends on the current region. If the user is launching an EBS Optimized Instance, select the checkbox. The checkbox will be enabled only for the selected instance types.

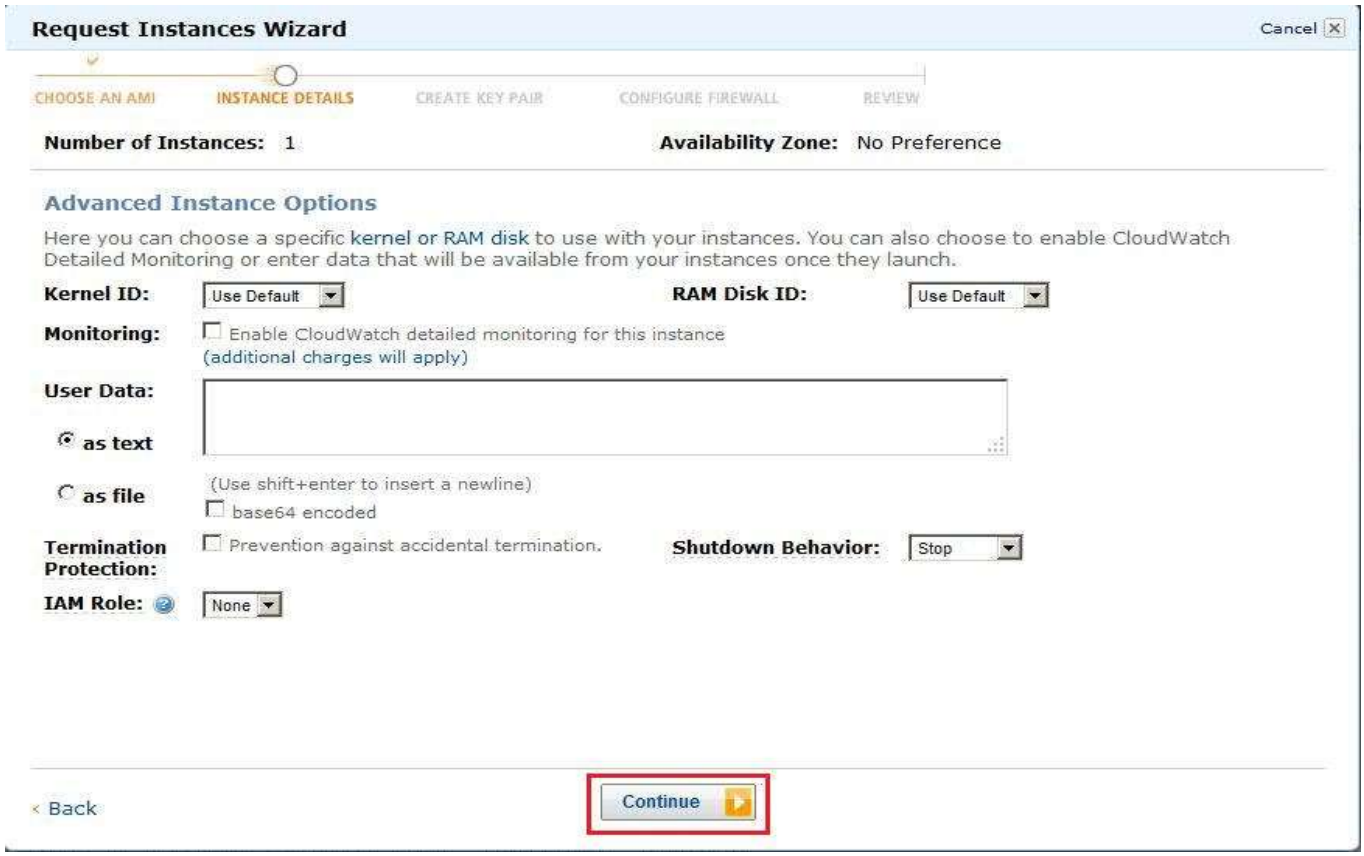


5. Select the Large instance type and the checkbox will be enabled. Select the checkbox to launch an instance as an EBS Optimized Instance.

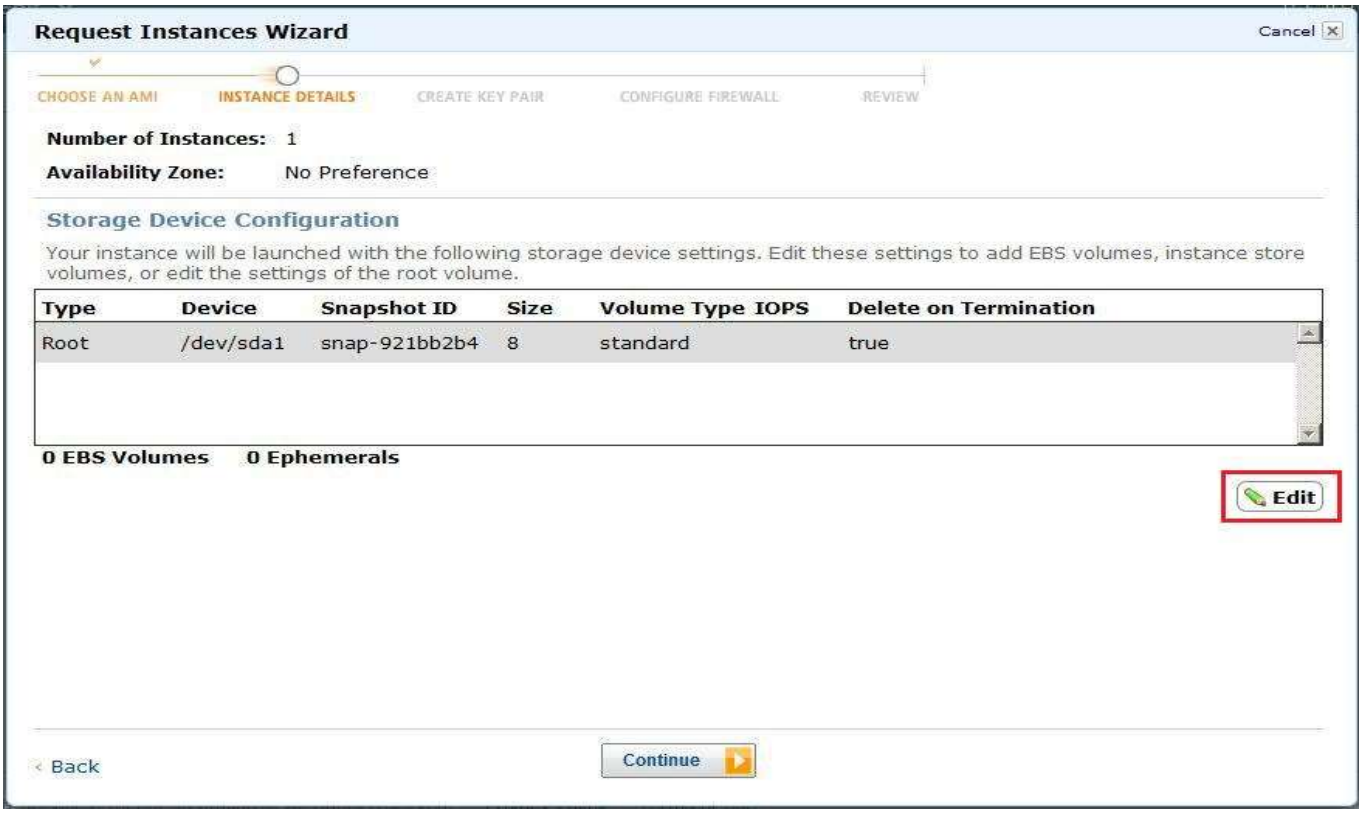
Click on “Continue”.



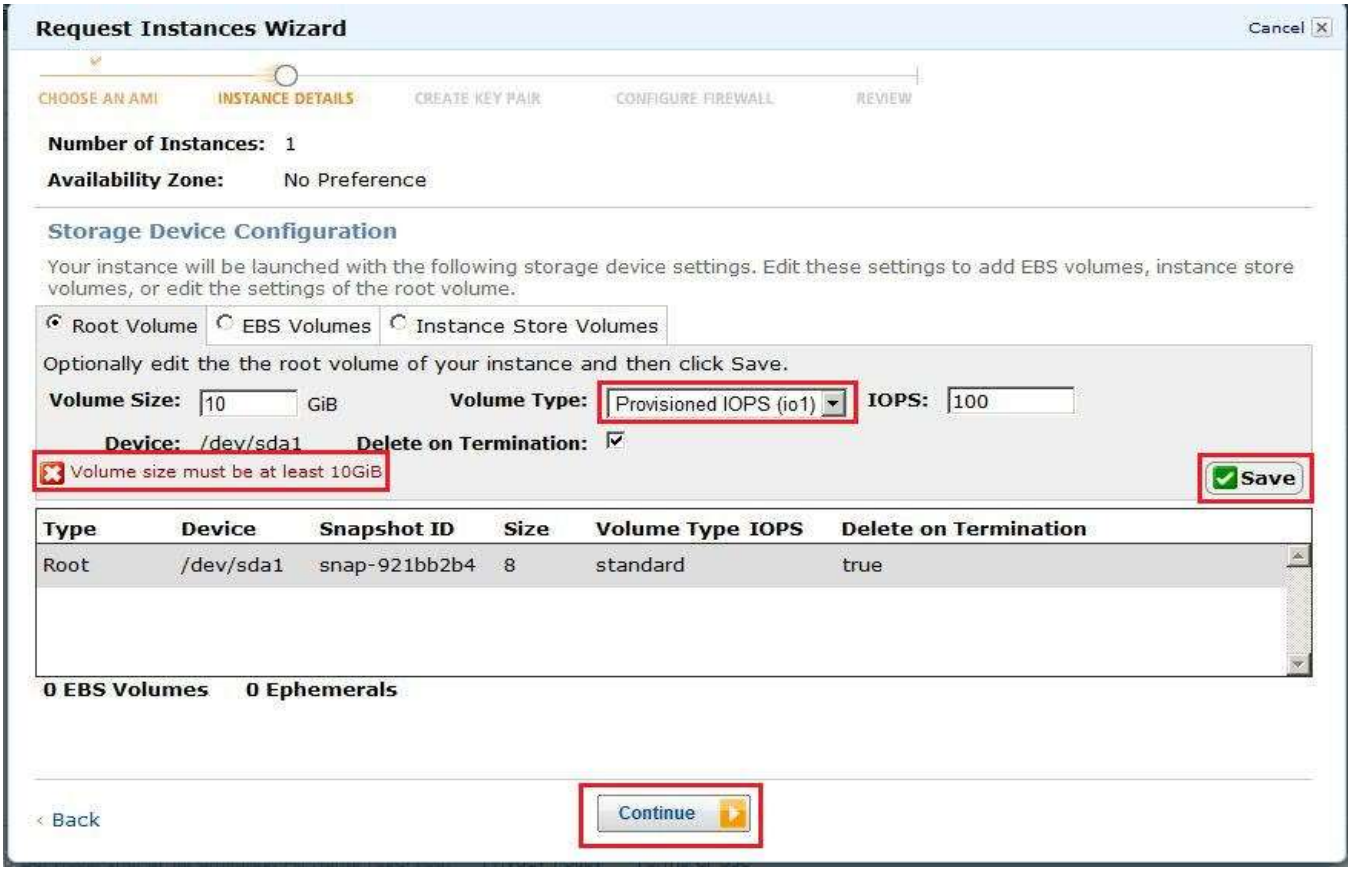
6. Provide the Kernel ID and RAM Disk ID.



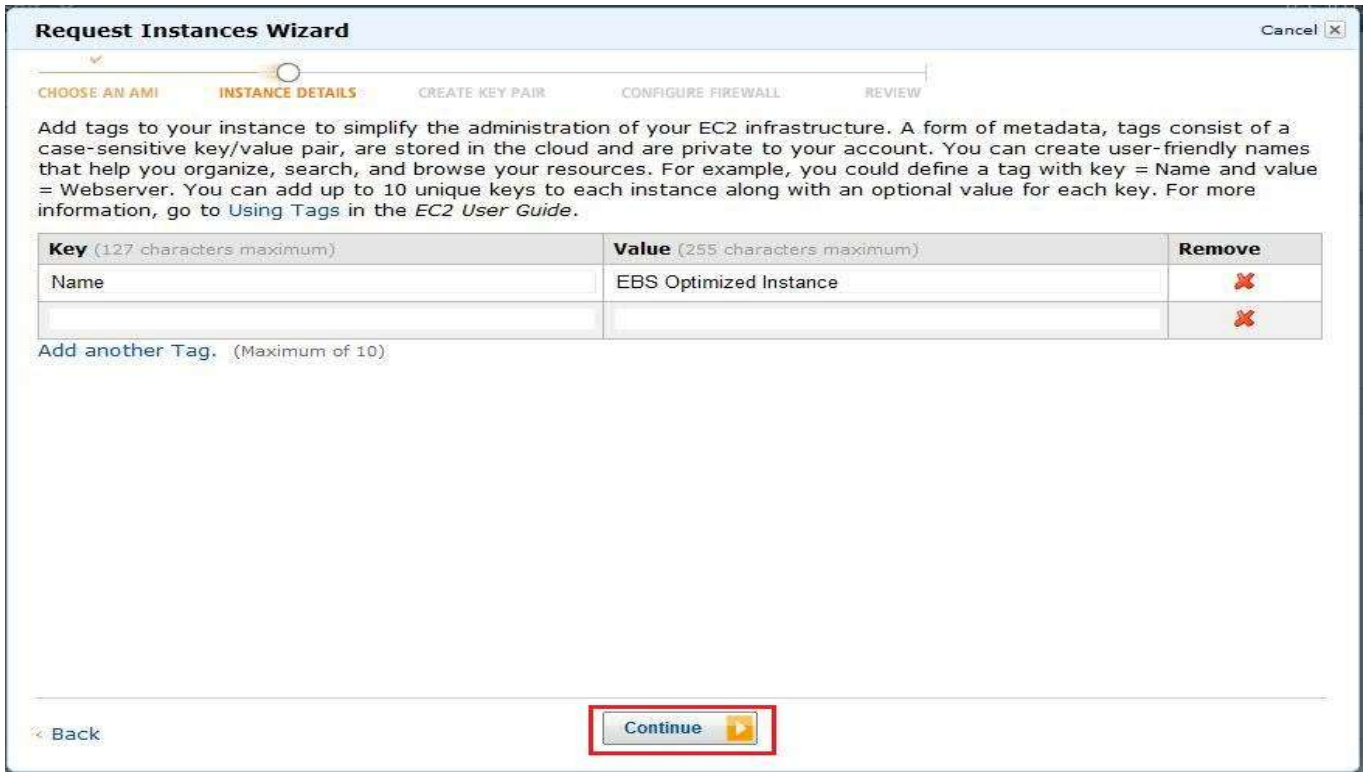
7. Provide the storage related information. In order to launch an EBS optimized instance with a Provisioned IOPS EBS volume, click on “Edit” to modify the volume type and size.



8. Select the volume type as “Provisioned IOPS” and provide the IOPS from 100-2000. The IOPS optimized EBS volume size should be a minimum of 10 GB for a Linux Instance. Provide the Root Volume Size (more than 10 GB). If the user wants the root volume to be deleted on instance termination, select “Delete On termination”. Save all the changes made and Click on “Continue”.



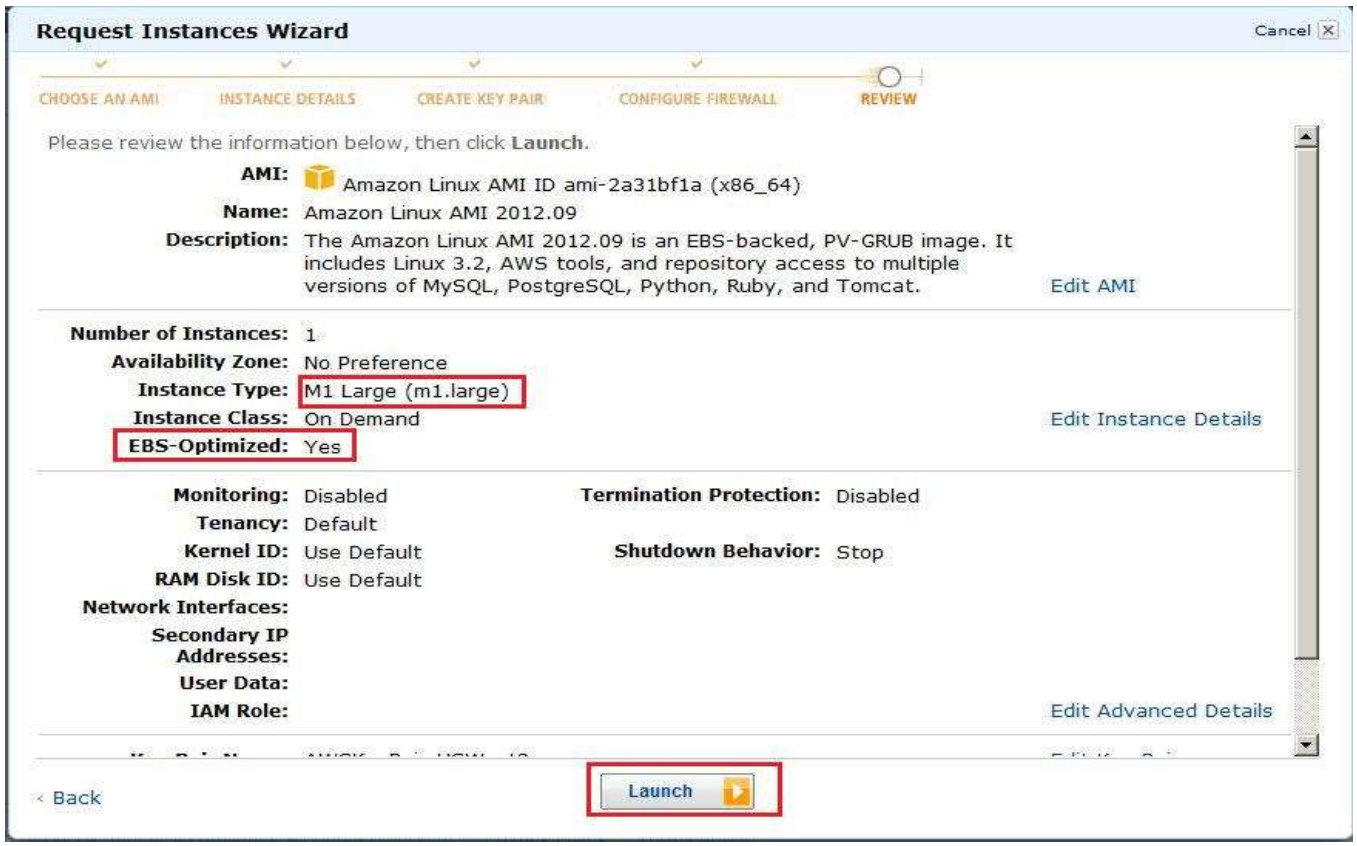
9. Provide the tags for the AWS instance. Tagging is very useful when the user wants to track the cost of a particular instance / service. Click on “Continue”.



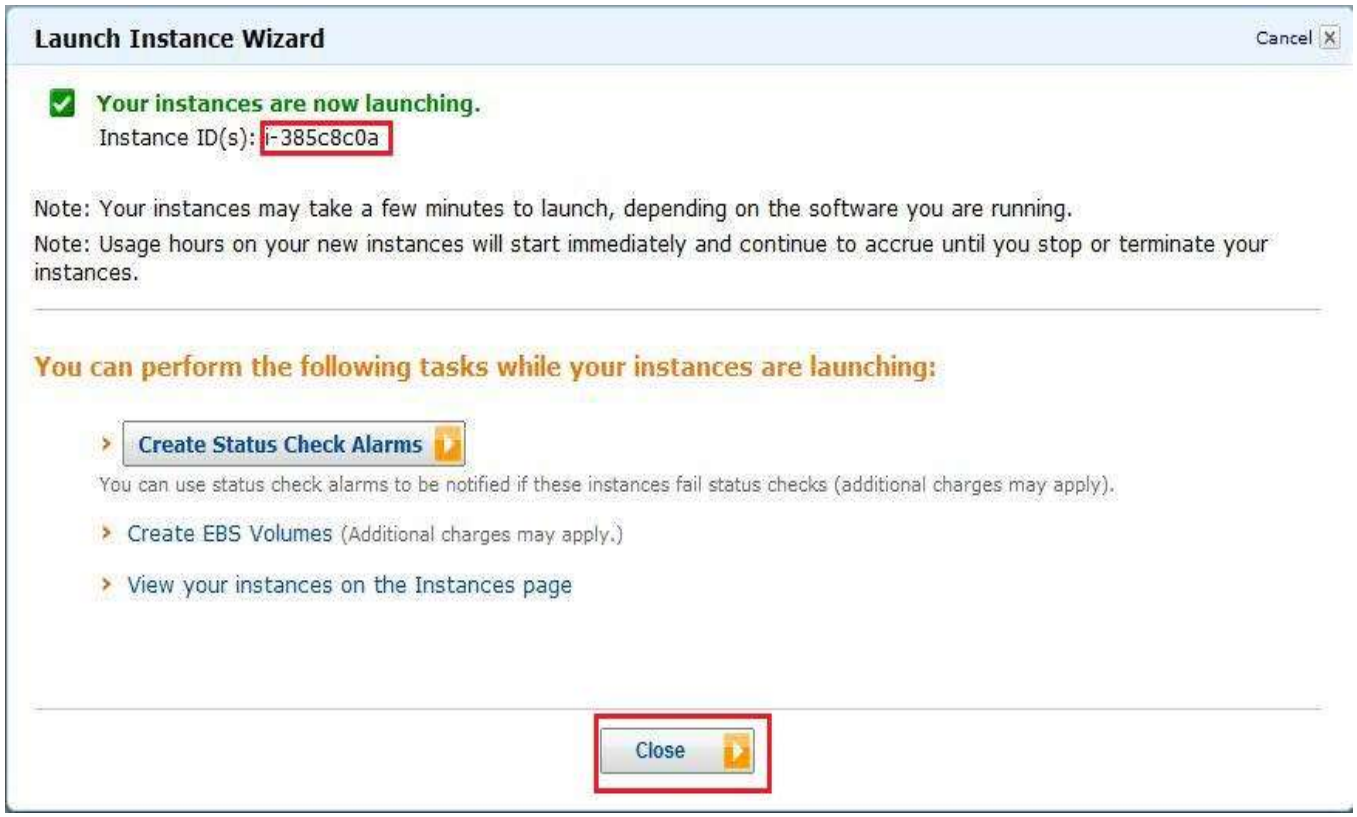
10. For the security of the instance, select the existing key-pair or create a new key-pair. Continue once the key pair has been created / selected.

11. Select the security group. The security group provides the virtual firewall for the instance. Click on “Continue”.

12. Review all the details and click on “Launch”.



13. AWS will launch the instance and provide the user with the ID of the instance.



14. Go to the AWS EC2 console and it will display the new instance. The instance will be first in a pending state until it boots completely. It is advisable to connect to the instance once the status checks are in “2/2 Checks”.

15. Go to Volumes from the EBS Dashboard. It will list the newly created IOPS Volume.