

Install ShakeCast V3 using Amazon Web Services (AWS)

[ShakeCast](#) V3 is shipped primarily as a pre-packaged system image targeting selected Linux operating systems. Among tested distributions, CentOS (open-source equivalent of the RedHat Enterprise Linux) is the default operating system (OS) made available. With the ready-to-use ShakeCast V3 system image, prospective users can evaluate the software without excessive IT commitment in order to determine the use case that will satisfy their needs for post-earthquake response.

Amazon Web Services (AWS) offers a one-year, free-tier elastic compute cloud product (EC2) which is suitable for the ShakeCast program, also freely available. We custom build a private ShakeCast system image using Amazon EC2 to streamline the delivery. Users can launch their own ShakeCast system as a “micro” instance on Amazon EC2 without incurring charges during the evaluation period of up to one year.

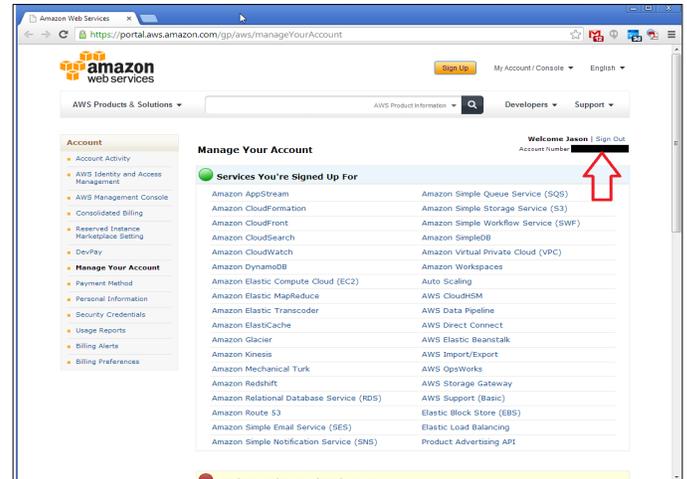
The instructions below describe the steps to install a ShakeCast V3 system on AWS using Amazon EC2.

Signup for an Amazon Web Services (AWS) account

1 You must have an AWS account to check out the ShakeCast system image. Signup for an Amazon Web Services (AWS) account by going to their web site at <http://aws.amazon.com>



2 Once you have your AWS account set up, send a request to shakecast-help@usgs.gov to access the ShakeCast private system image (AMI). Make sure to include the AWS account number in the email request for us to share the ShakeCast AMI with your AWS account. You will be using this account to launch your own instance of the ShakeCast system.

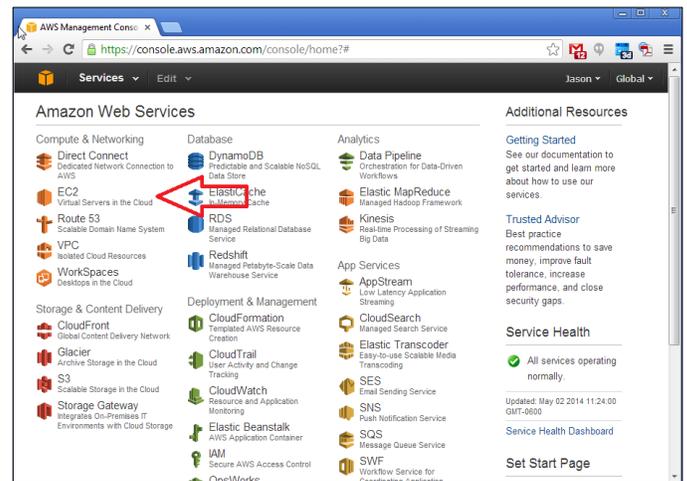


Access to ShakeCast AMI

The ShakeCast AMI should appear under the EC2 Dashboard as soon as you receive confirmation email from the ShakeCast team.

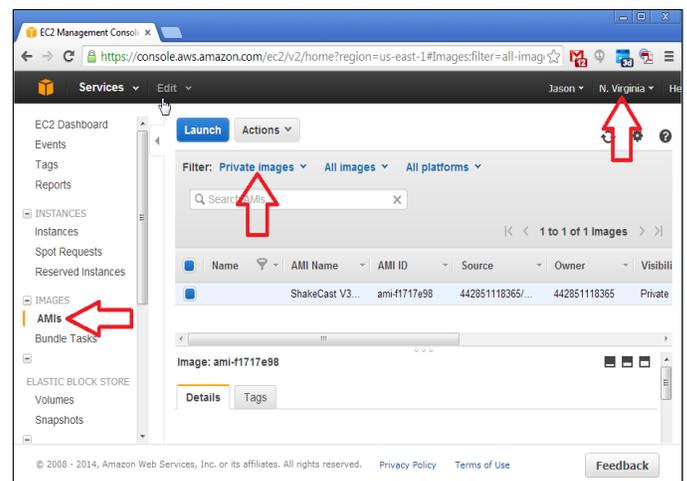
To verify access to the ShakeCast AMI,

3 Select **EC2 Dashboard** from AWS Service Console.



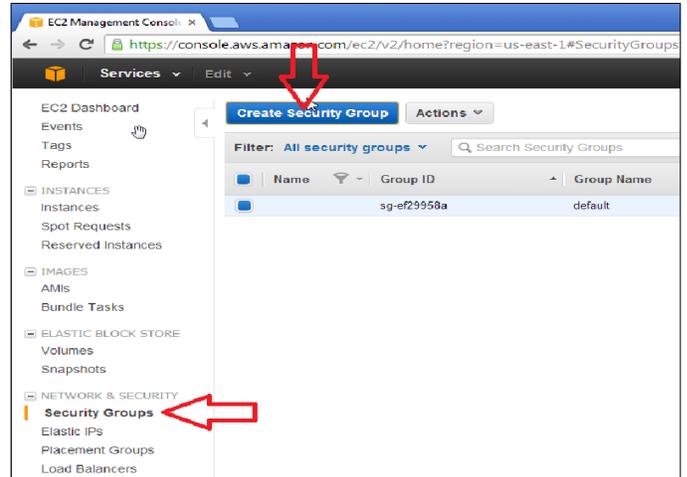
4 Select **AMIs** under the Images tab and use the filter **Private Images**. Contact ShakeCast team if the ShakeCast AMI is not shown in the image list.

(Note: Make sure the Region in the top right is set to N. Virginia in order to see the private image)

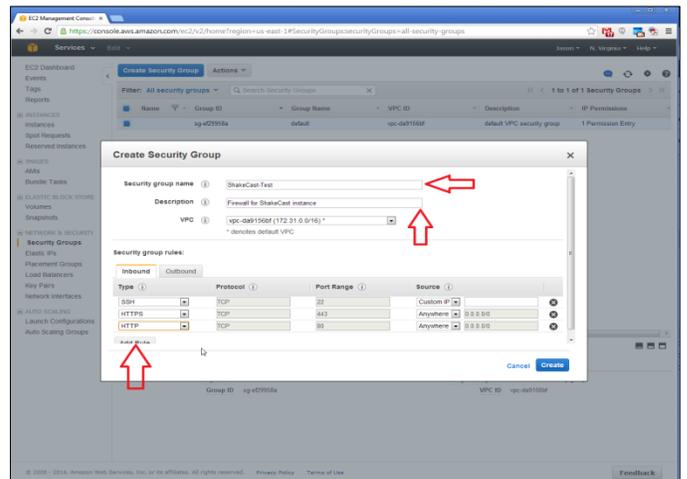


Create ShakeCast Security Group

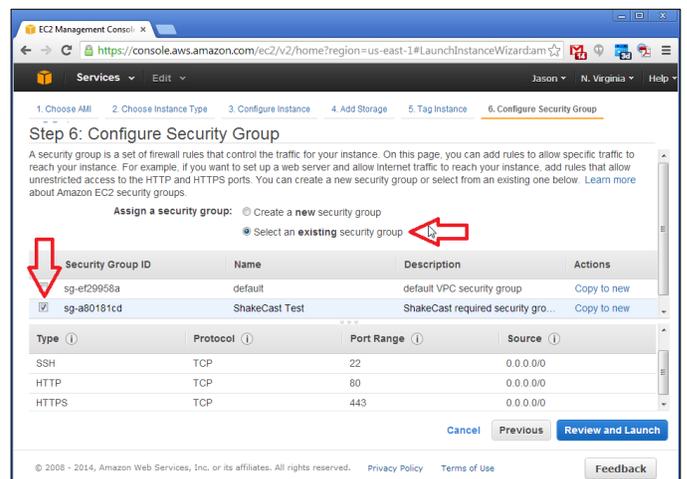
We begin the ShakeCast installation process by creating a custom security policy permitting only ShakeCast-specific traffic over the Internet, SSH, HTTP, and HTTPS. Select **Security Groups** link under Network Security left-hand navigation list. Click the **Create Security Group** button to create the ShakeCast Security Group.



5 This step should be evaluated by an IT Administrator **before using for a production system**. For development purposes, allowing SSH, HTTP, and HTTPS will suffice. For development purposes create a custom security policy permitting only ShakeCast-specific traffic over the Internet, SSH, HTTP, and HTTPS. Click on the [Learn more](#) option on this page to understand how Security Groups work. Select **Create a new security group**.



6 Select the newly created ShakeCast Security Group. Click the **Inbound** tab to add security rules. This will allow customization of the security groups

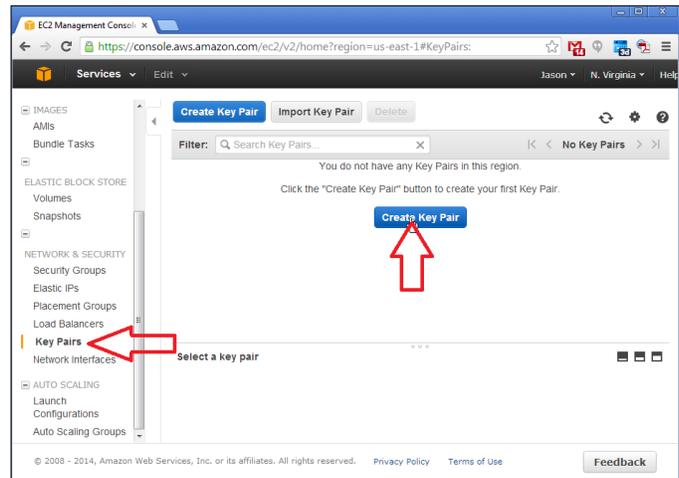


Create SSH Key Pairs

SSH key pairs are used to remotely log into the ShakeCast system to gain system-level access in order to perform tasks not available from the web user interface. Tasks include both ShakeCast and system related work and access to the system is likely required at some point during the operation. Since the ShakeCast system image does not include a graphical user interface for system level access, operations can only be performed from the command line and are reserved primarily for IT administrators and expert ShakeCast users.

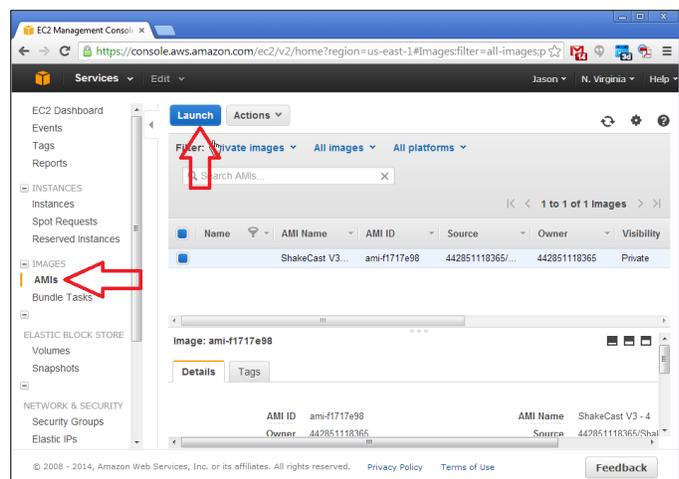
7 Select **Key Pairs** link under Network Security left-hand navigation list. Click the **Create Key Pair** button to create an SSH key pair for accessing the ShakeCast system from the command line.

Download and save the private key for later use. The created key pair will be displayed in the key pair list window.



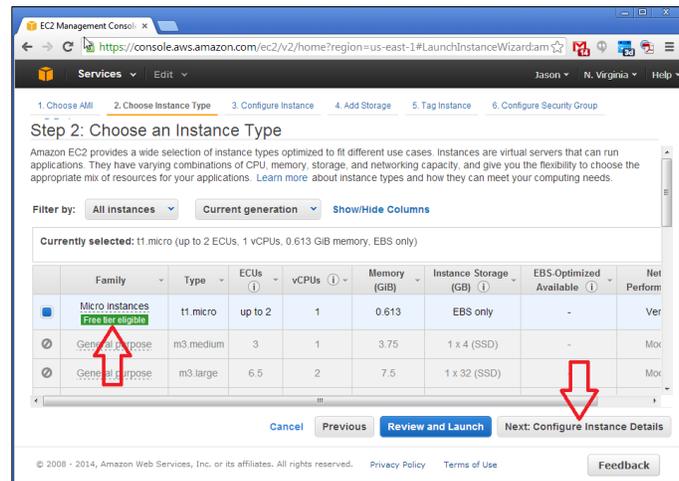
Launch your own ShakeCast instance

8 Select the ShakeCast AMI from the AMI image window and click the **Launch** button to launch a new ShakeCast instance.



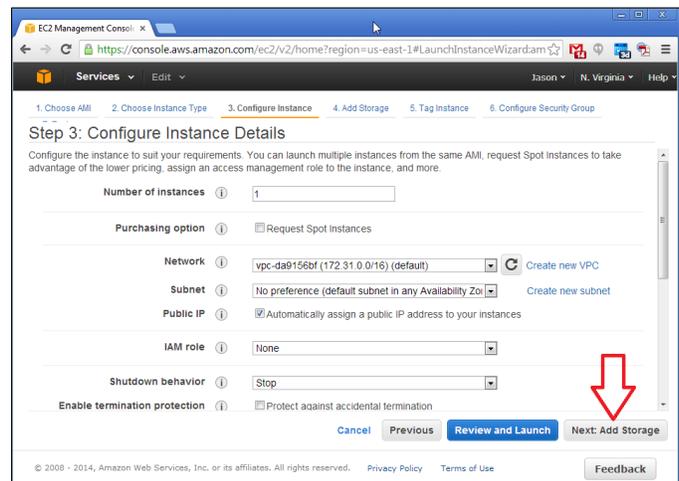
- 9 Select **T1 Micro** as the Instance Type. Click the **Continue** button.

Fill in instance details and tags for user-related information if applicable.

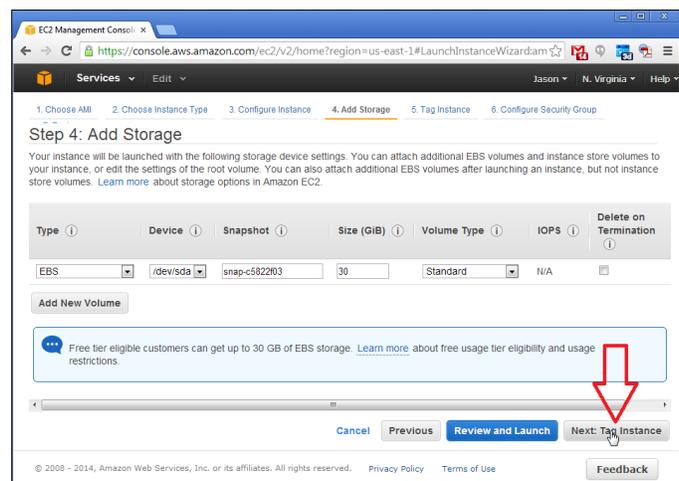


- 10 Select **T1 Micro** as the Instance Type. Click the **Continue** button.

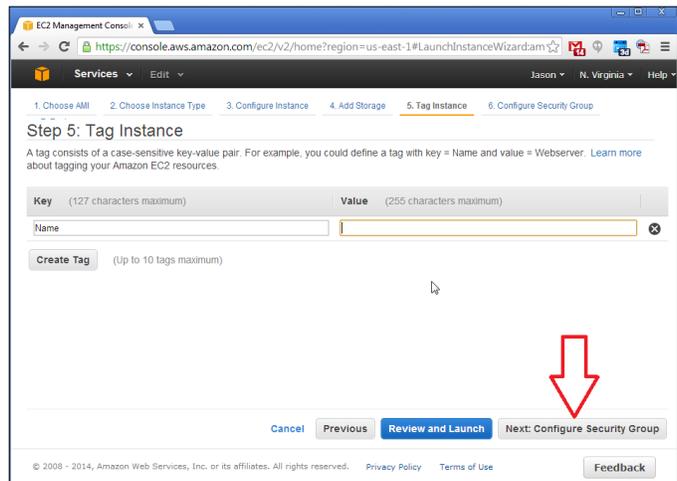
Fill in instance details and tags for user-related information if applicable.



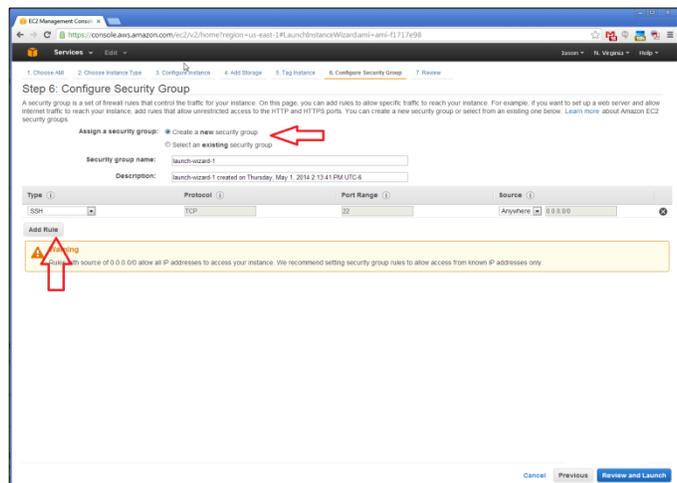
- 11 The free tier eligible customers will get a maximum amount of **30GB** of storage. Select **Next: Tag Instance**.



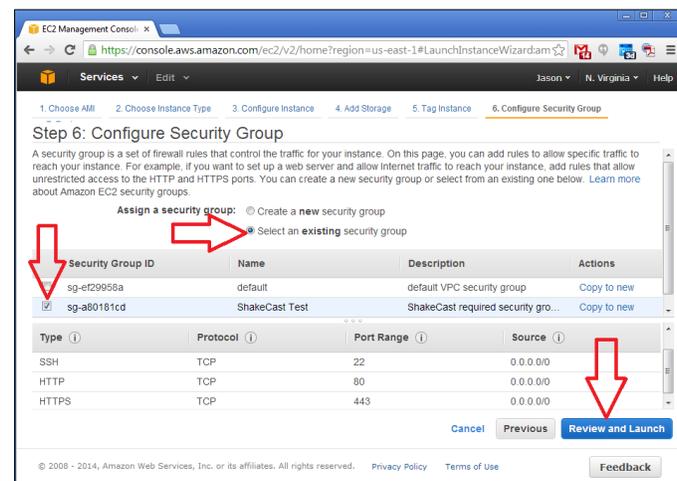
12 Fill in instance details and tags for user-related information if applicable. Select **Next: Configure Security Group**.



13 This step should be evaluated by an IT Administrator **before using for a production system**. For development purposes, allowing SSH, HTTP, and HTTPS will suffice. For development purposes create a custom security policy permitting only ShakeCast-specific traffic over the Internet, SSH, HTTP, and HTTPS. Click on the [Learn more](#) option on this page to understand how Security Groups work. Select **Create a new security group**.

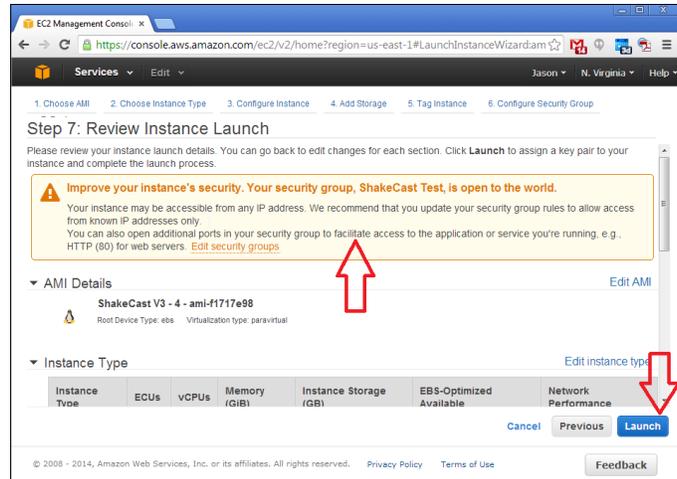


14 Select the security group policy we created earlier as the firewall setup for your ShakeCast instance.

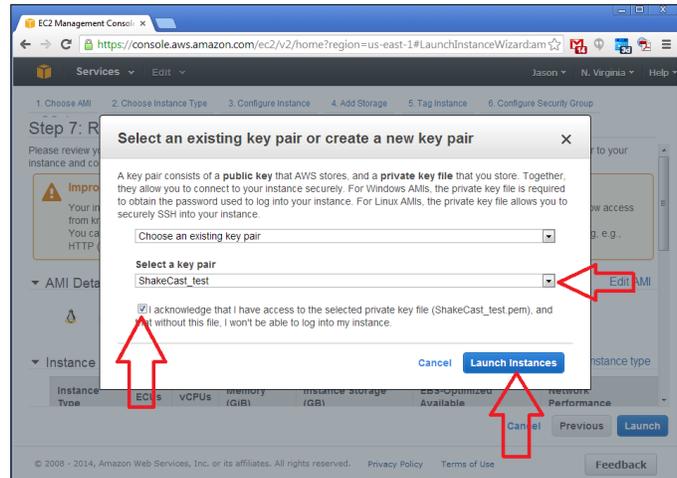


15 Review the setup of your instance. Click the **Launch** button to launch your ShakeCast instance.

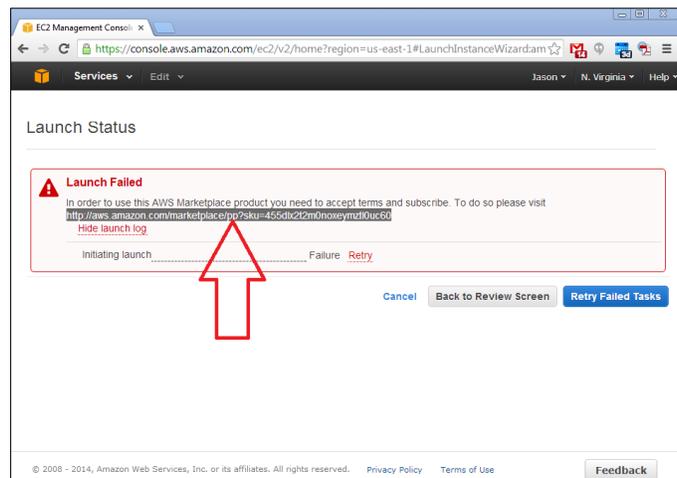
To abort the launch at any step during setup, select the **Cancel** checkbox. Repeat Step 8-14 to launch another new instance.



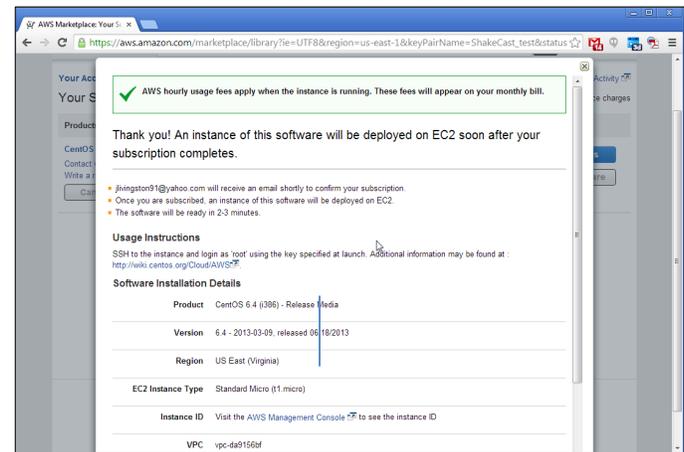
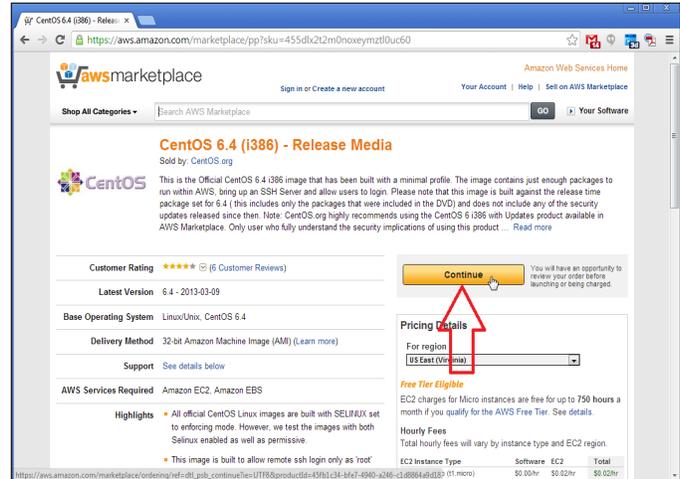
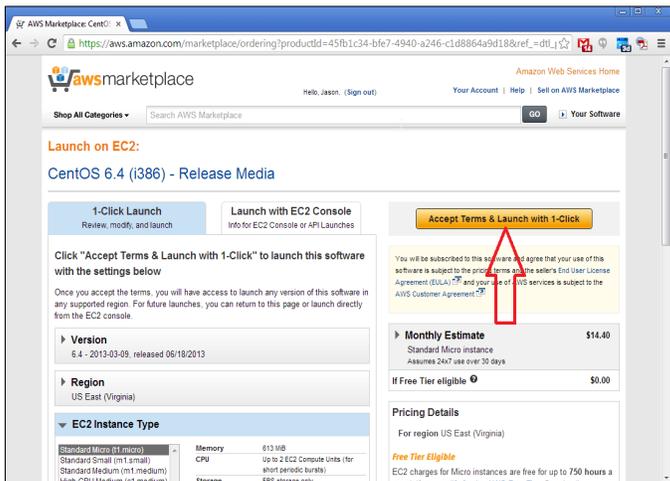
16 Select the key pair we created earlier for accessing your ShakeCast instance. Select the checkbox for acknowledgement for access to the private key file.



17 If the launch fails it is due to not accepting the terms. Copy and paste the URL in a browser.



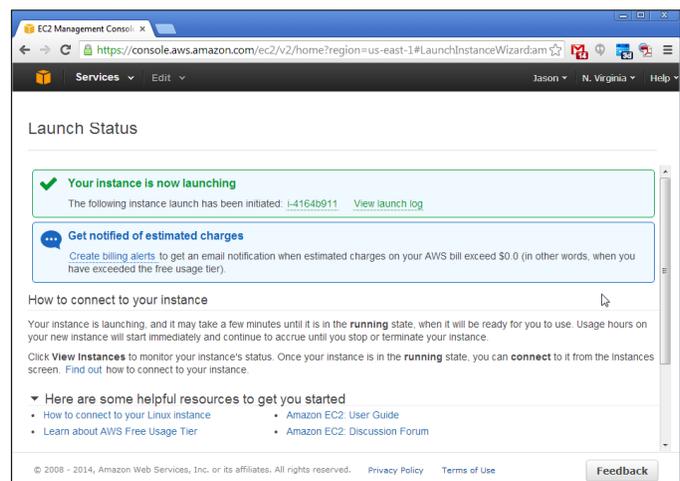
18 Select **Continue**. Next, select **Accept Terms & Launch with 1-Click**. Close the screen with the green checkbox. You are now subscribed to the CentOS product.



19 Congratulations! You just successfully launched your first ShakeCast instance.

For details on Amazon EC2, refer to AWS documentation at

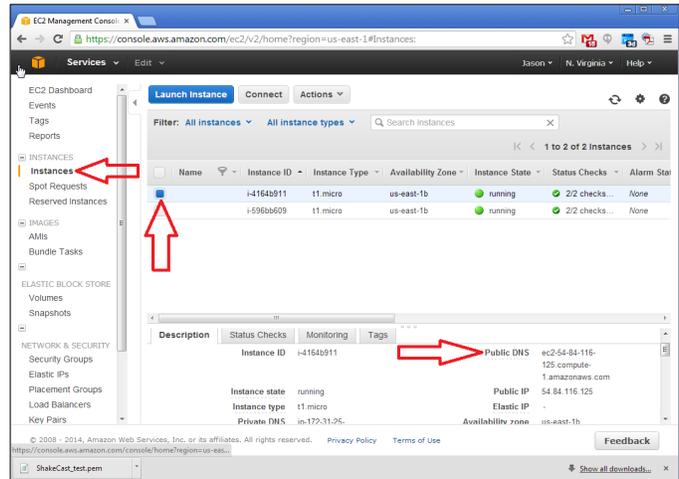
<https://aws.amazon.com/documentation/>



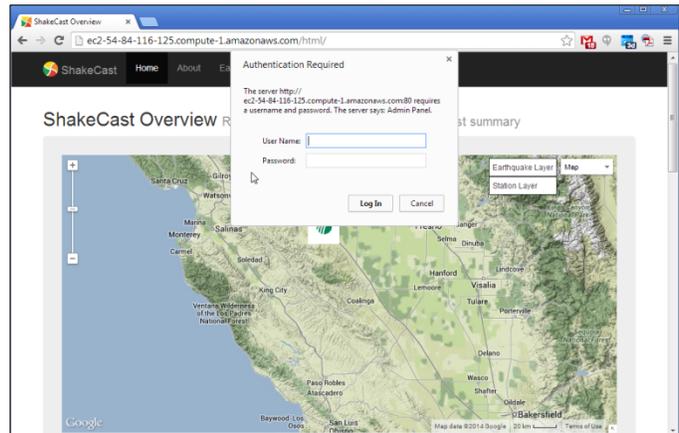
Access the ShakeCast Web Interface

- 20 Select the ShakeCast instance from **Instances** window.

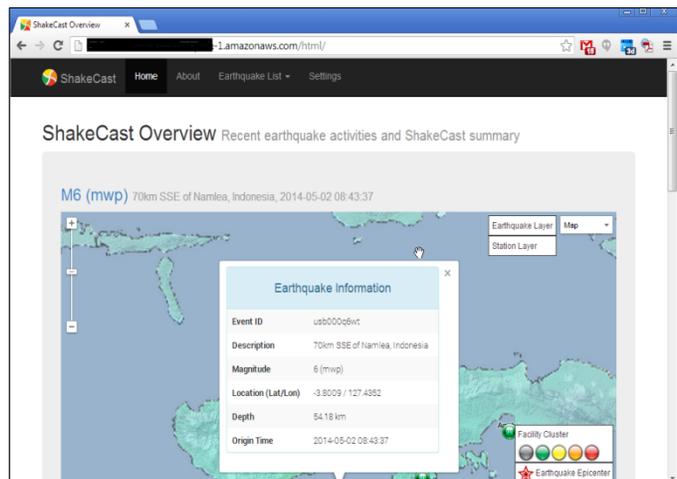
The public domain information of the selected instance will be displayed in the status window beneath the instances window.



- 21 Copy the ShakeCast domain and open the URL using another browser window. Use the default username and password pair of "scadmin" to log into the system.



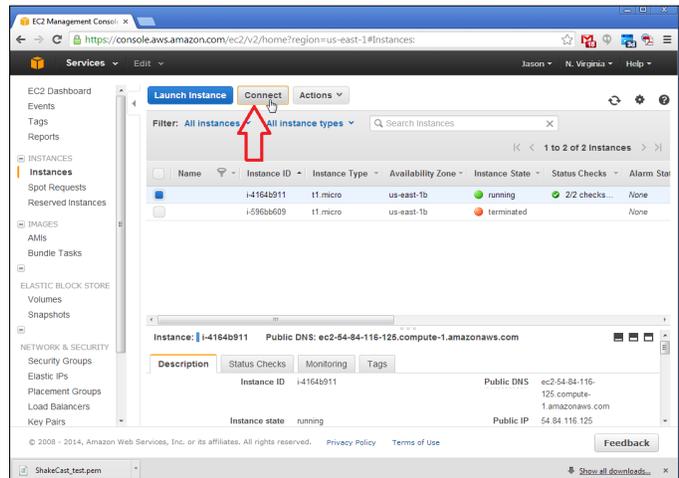
- 22 "scadmin" is the default administrator account for the ShakeCast system and has full access privileges. Append /html to the end of the public dns name for access using the browser.



Access the ShakeCast operating system using key pair

23 Select the ShakeCast instance from **Instances** window. Select **Connect** from the **Actions** pull-down menu.

Follow the instructions to use the SSH client and the pre-configured key pair to access the operating system.



Glossary & Abbreviations

Amazon Elastic Compute Cloud (EC2). Amazon Elastic Compute Cloud (Amazon EC2) is a product of the Amazon Web Services that provides resizable compute capacity in the cloud. It is designed to make web-scale computing easier for developers.

Amazon Machine Image (AMI). An Amazon Machine Image (AMI) is a special type of pre-configured operating system and virtual application software which is used to create a virtual machine within the Amazon Elastic Compute Cloud (EC2). It serves as the basic unit of deployment for services delivered using EC2.

System Image. In computing, a system image is a copy of the entire state of a computer system stored in some non-volatile form such as a file. A system is said to be capable of using system images if it can be shut down and later restored to exactly the same state.