Adding a new IP address to AWS Security Group

Overview:

This document shows how to add another inbound IP address for your RDS AWS instance. When you first create your RDS instance, a security group is automatically created for you that aligns with the IP address of the source from which you launched the instance. This is fine as long as you don't change the IP address you connect from when accessing the instance. However; if you attempt to connect from another IP address, for example your work desktop, or your home router reboots due to a power failure then you won't be able to connect will receive an error similar to:

I/O Error: The network adaptor could not establish the connection.

Understanding why this happens:

Although this can be frustrating, the fix is easy. Also, AWS is actually protecting you when they block unauthorized IP's from connecting. By default, all other machines are blocked. The only way you can access the AWS instance is to add to the incoming IP address to the list of IP's address for the RDS port.

Typically, the number of machines accessing the AWS instance should be quite small. It should never be wide open as hackers have a field day attempting to connect from machines all over the world. I typically have a connection to my home desktop and from my work desktop.

If your router reboots, there is a good chance you have a new IP address assigned and you can't connect. If for any reason your IP address changes, you will need to add the new address to the AWS security group.

The following steps show exactly how to do this.

Fixing the problem:

1. Determine your IP address

You can use "whatismyip.com" to determine your current public IPv4 address. Figure 1 shows the results of navigating to this URL. Note, you need the public IP address setting. Note, the IP address you are determining is the IP address of the machine you will be using to connect to the AWS RDS instance. This is referred to by AWS (and others) as the Inbound IP.

Figure 1 Determine your Inbound IP

In this example, the Public IPv4 address was 100.16.62.151

Note, this is informational only as the last step automatically assigns your current inbound IP.

2. Login into AWS classroom and view the RDS settings

After you know your Incoming IP address, login to our AWS classroom and navigate to the RDS instance you set-up for this class.

Figure 2 show the RDS dashboard, and then selecting the instance started.

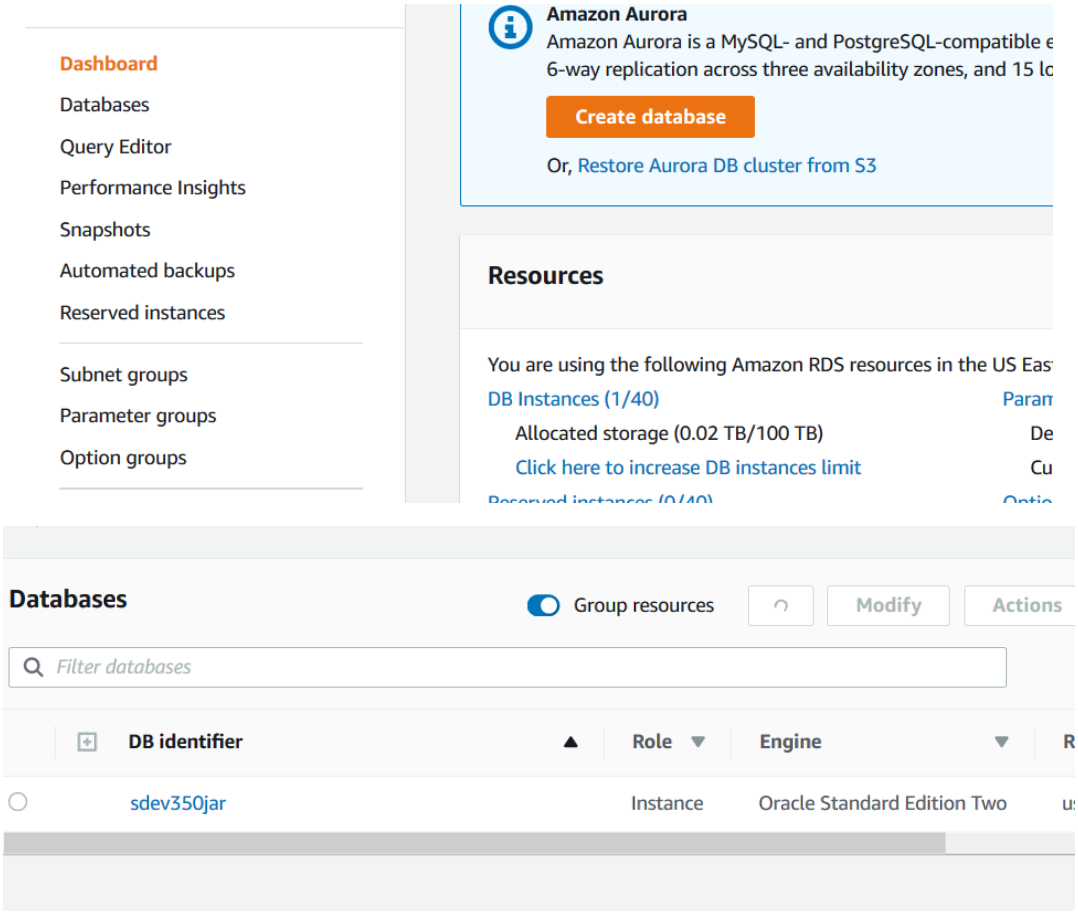

Figure 2 RDS Dash board and RDS Instance

Click on the DB identifier and scroll down to reveal additional security group details as shown in Figure 3.

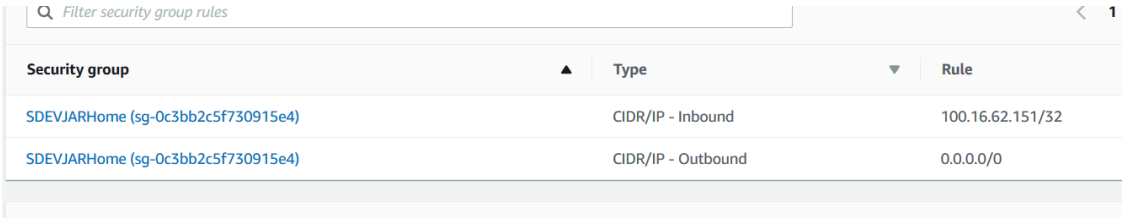

Figure 3 RDS Security Settings

The inbound settings are the current values. Only machines with the IP's inbound rules listed will be able to connect to the AWS RDS instance.

Compare your IP address determined in step 1. If it isn't present, go to step 3 to add the new inbound rule.

3. Add a new Inbound rule

To add a new inbound rule, click on the security group link, and then click the Inbound tab and click edit as shown in figure 4.

Figure 4 Editing Inbound IP

Click on Add Rule, and then select Oracle-RDS type and myIP to auto-populate your current IP. See figure 5. Click Save to continue.

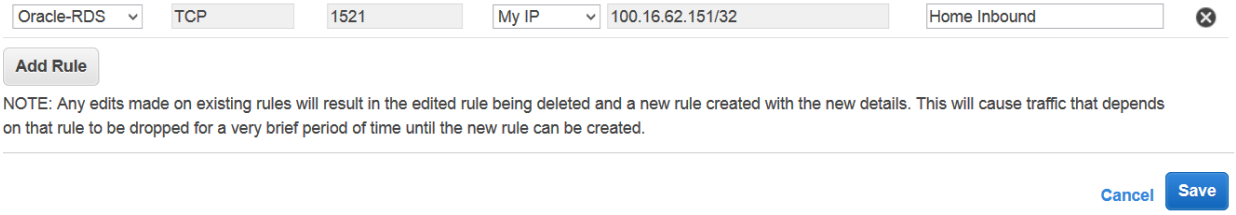

Figure 5 Add a Rule

4. Test your connection.

Go back to your SQL developer and make sure you can connect. As shown in figure 6, selecting test from the Oracle Connections Properties will now show a successful connection.

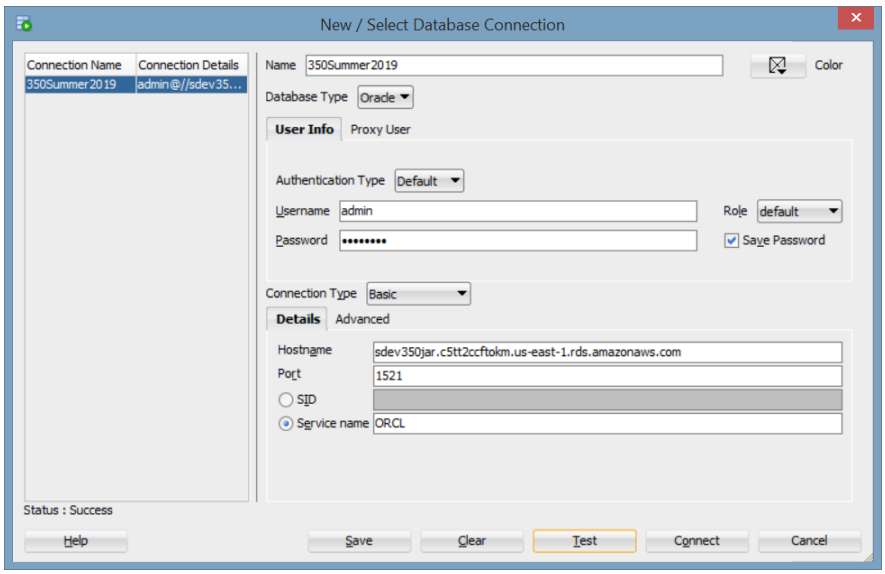

Figure 6 Testing your connection.