PEN-3299 Lab Addendum

This is the addendum to the PEN-3299 lab, Building Your Own On-prem Cloud with Node.js and Java. This addendum extends the lab by adding an additional exercise to demonstrate administrative scaling for Node.js applications.

In this exercise you will perform the following tasks:

1. Initial setup
2. Administrative scale-out
3. Administrative scale-in

Setup

Setup is simple. Just one command sets up the exercise. Just issue the following commands:

1. cd ~/PEN-3299
2. ./setup.sh
3. restart controller
    a. cd ~/IBM/wlp/bin
    b. ./server stop controller1
    c. ./server start controller1

The setup.sh command does the following for you:

1. Updates your WebSphere Liberty with some updates that didn't make it onto the original lab image in time. Yes, there are deadlines ☺
2. Updates the Collective Controller to mark the cluster named strongLoopCluster as enabled scaling. In the finished product this will be automatic. For the purposes of this exercise using the February 2016 Liberty Beta, we have to simulate it.
3. Creates a scaling policy for strongLoopCluster and adds it to controller1's configuration.
4. Enables the Config Tool for controller1 by enabling remote access for controller1.

Important: ensure member1 and member2 are not running by issuing commands:

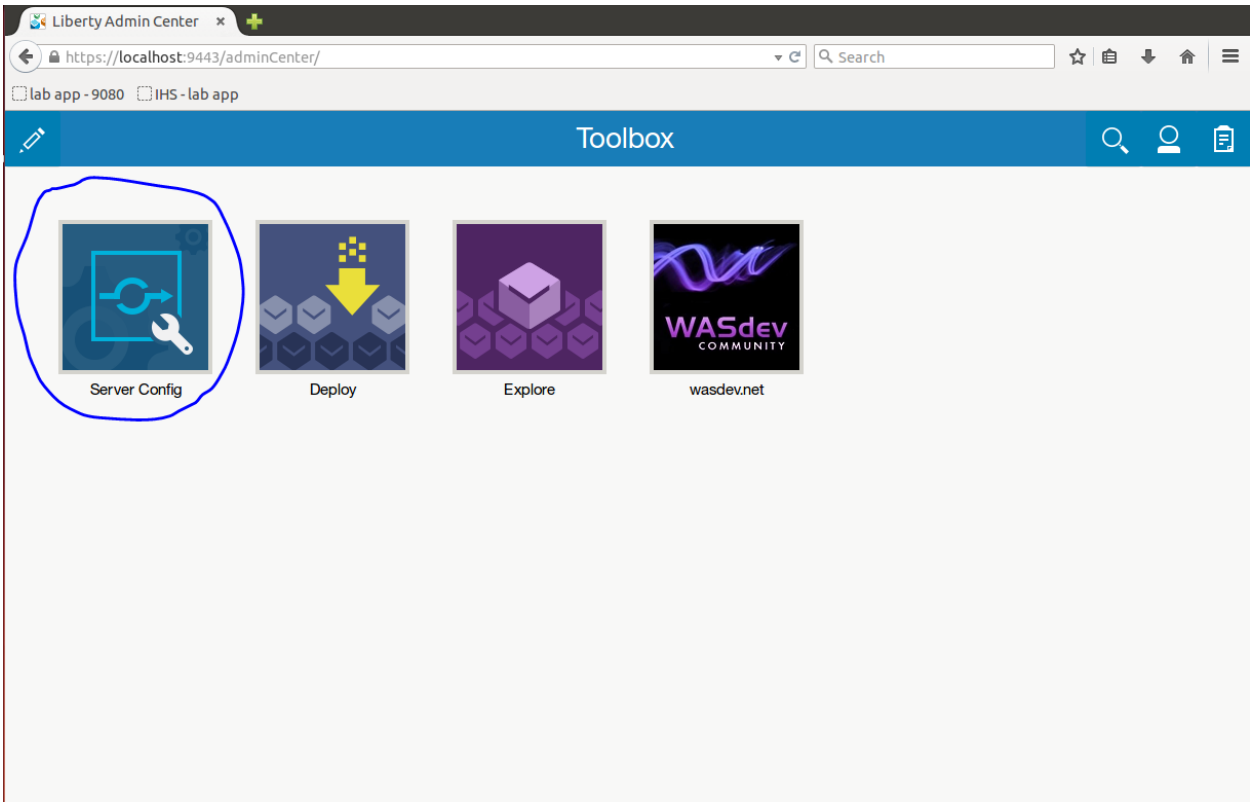
1. **wlpn-server stop member1**
2. **wlpn-server stop memer2**

Administrative Scale-out

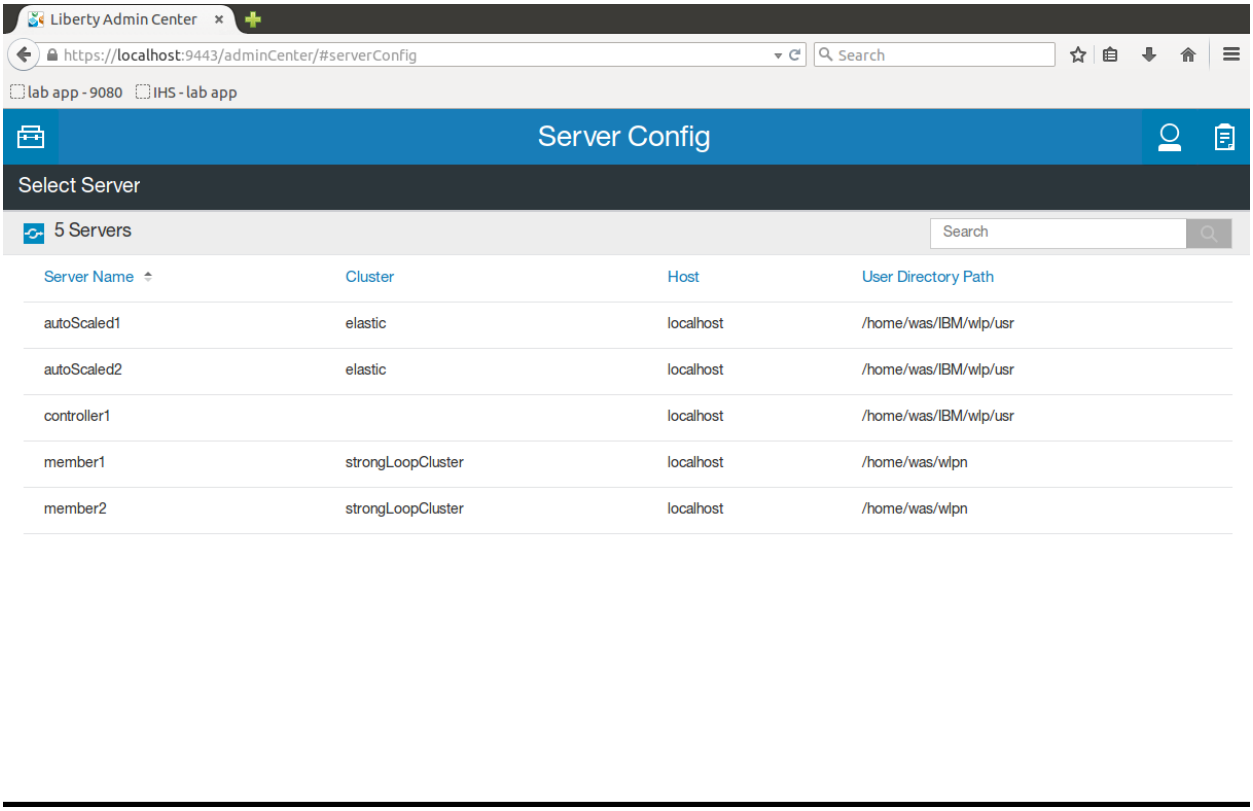
For this task, you will update the scaling policy for strongLoopCluster to designate 2 instances are required. Do this by setting min and max both to 2 – e.g.

Do this in the Admin Center Config Tool. Open a new tab in your browser and start a new Admin Center session – e.g. http://localhost:9080/adminCenter

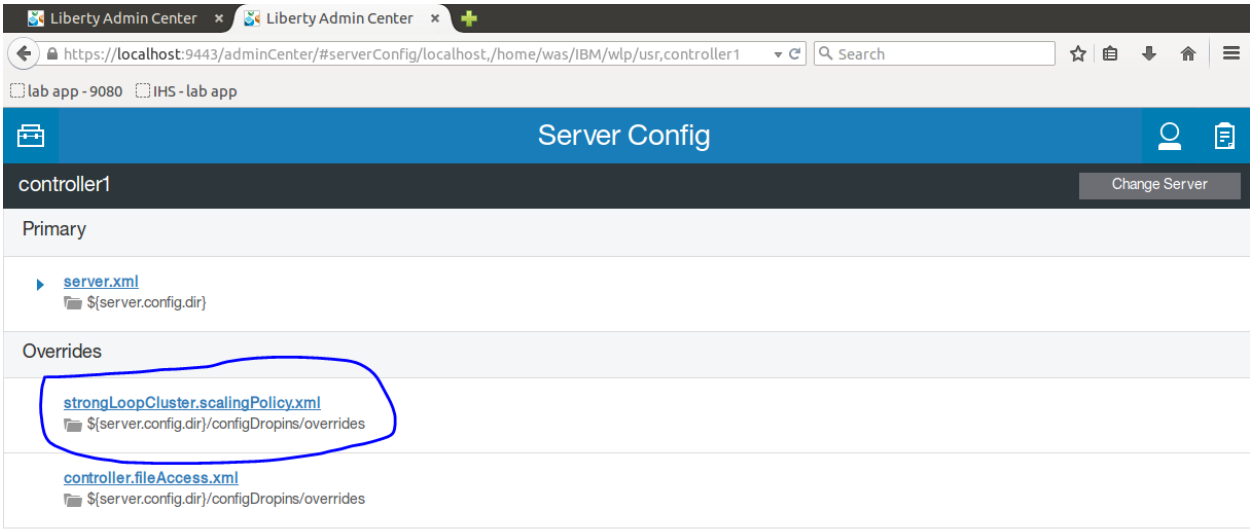
Select the Server Config tool:



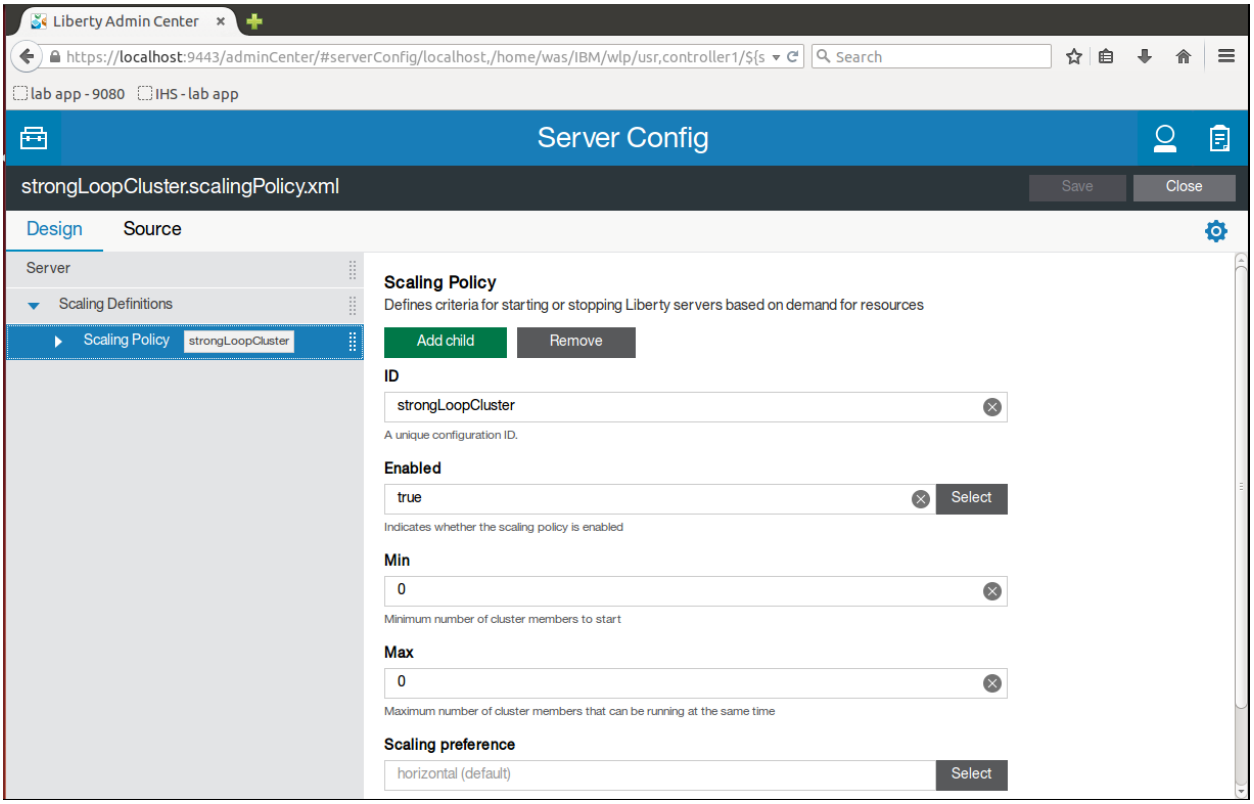
Select controller1:



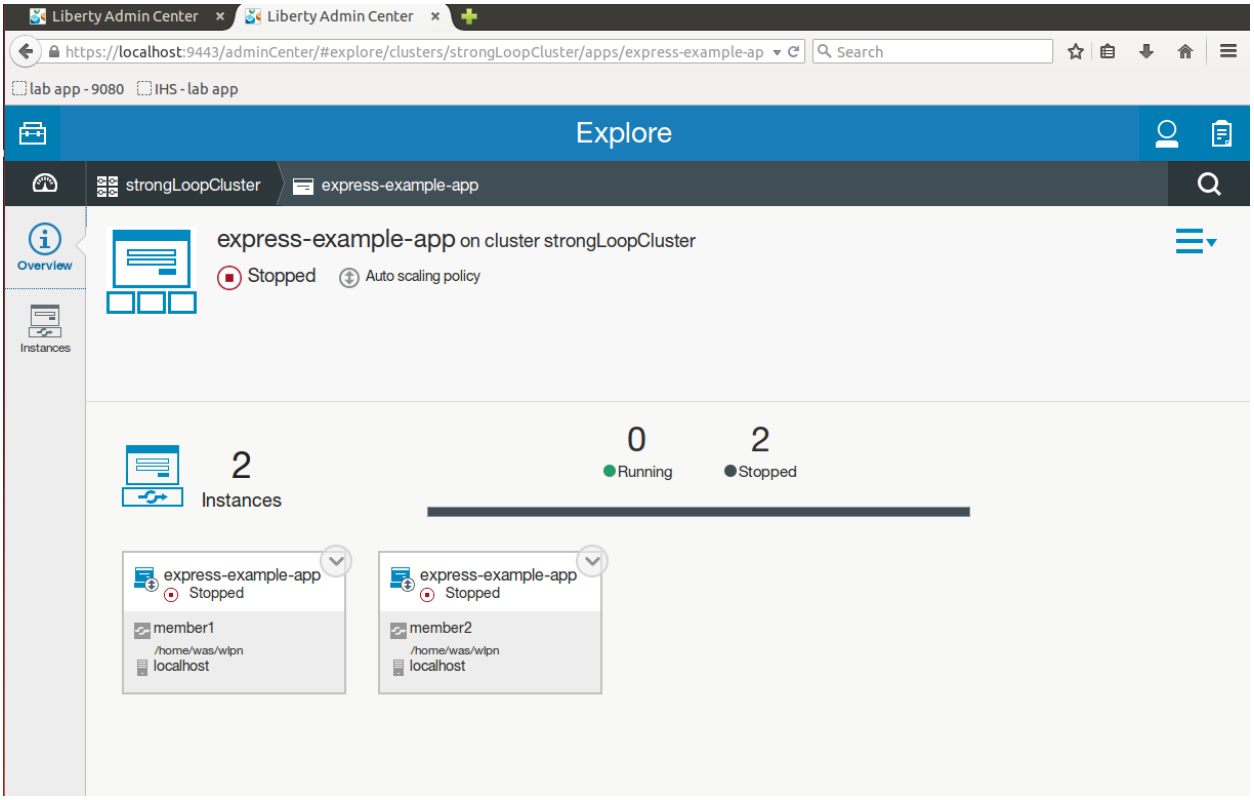
Select strongLoopCluster.scalingPolicy.xml:



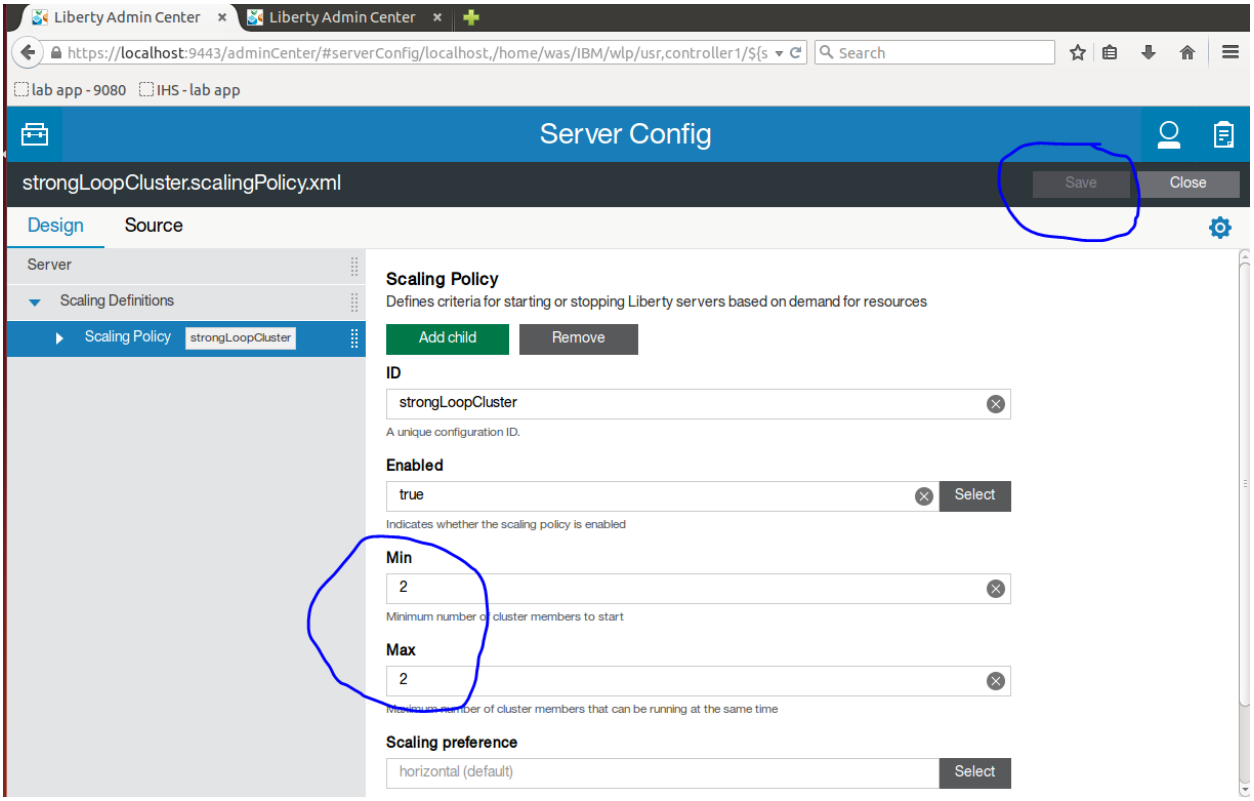
Use navigation bar on left to expand policy definition:



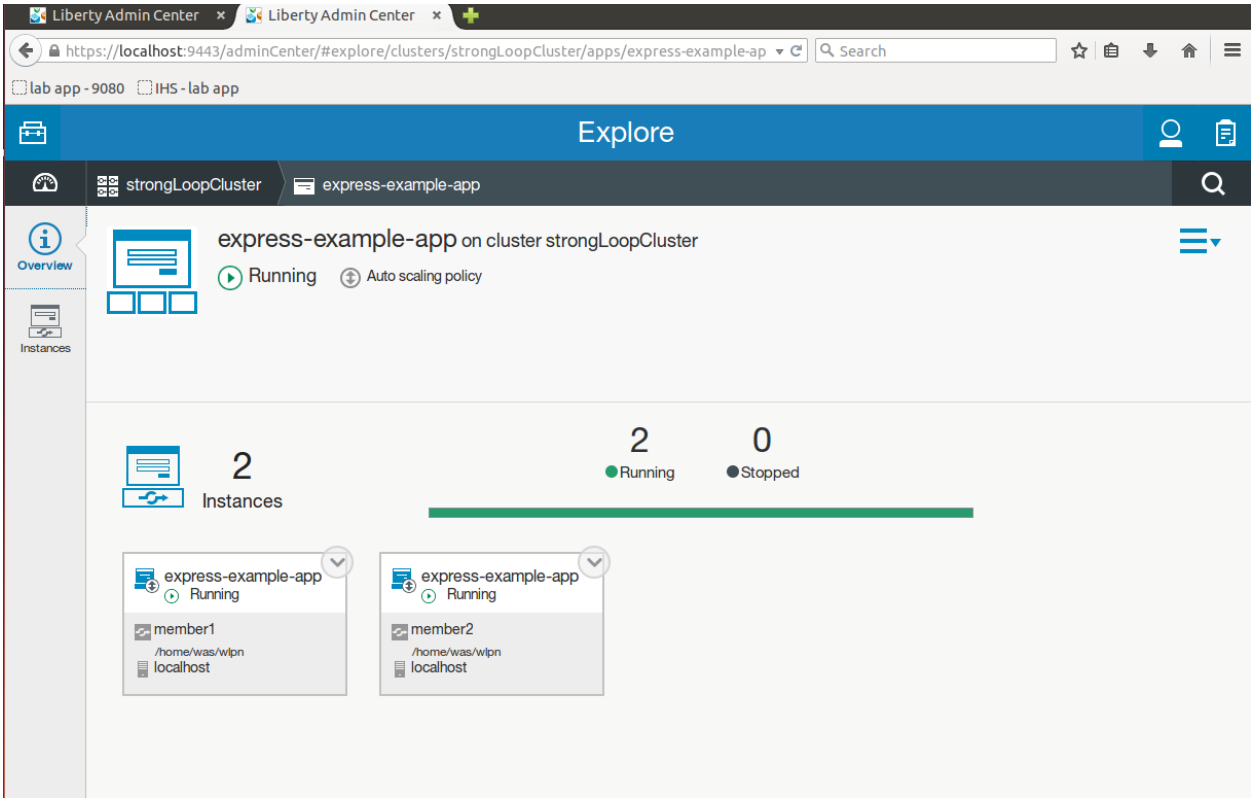
Note in Admin Center Explorer tool that strongLoopCluster members are not running.



Go back to Admin Center Config Tool, set min and max to 2 and save:



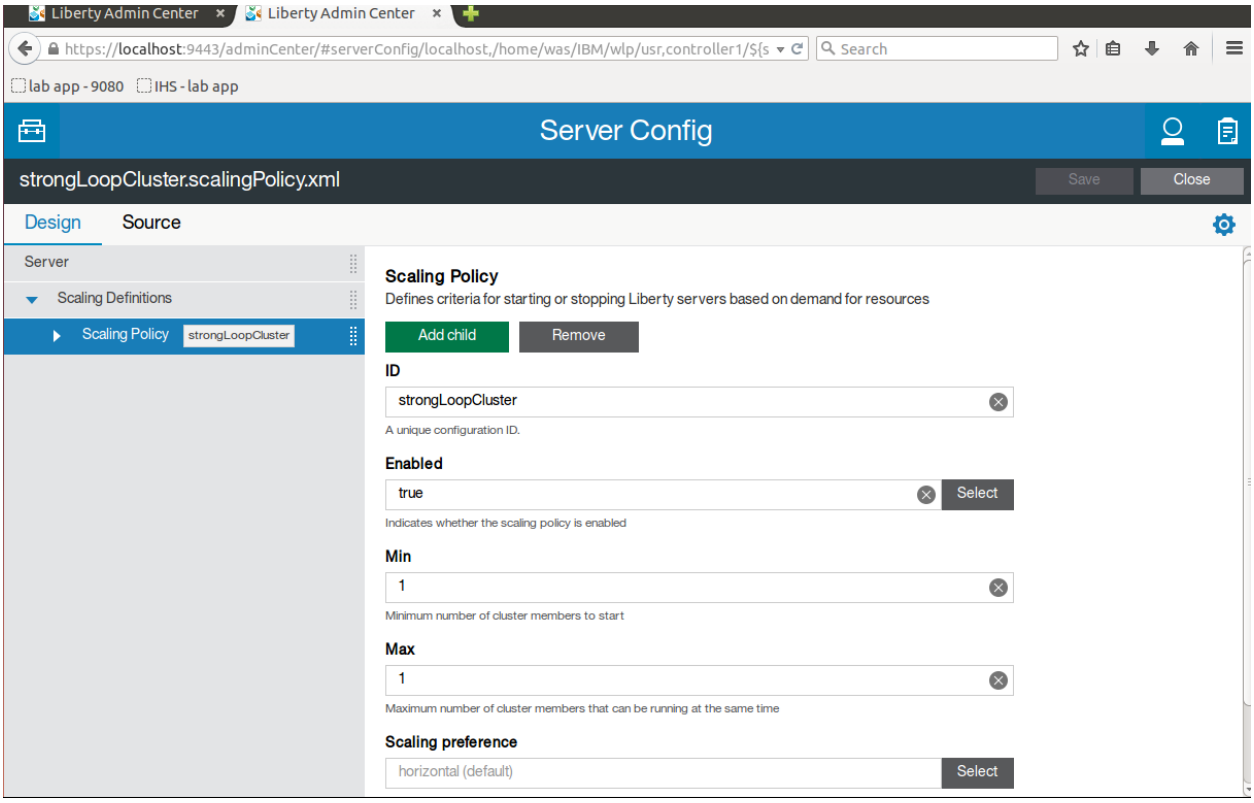
Go back to Admin Center Explorer Tool and note that strongLoopCluster members have now started.



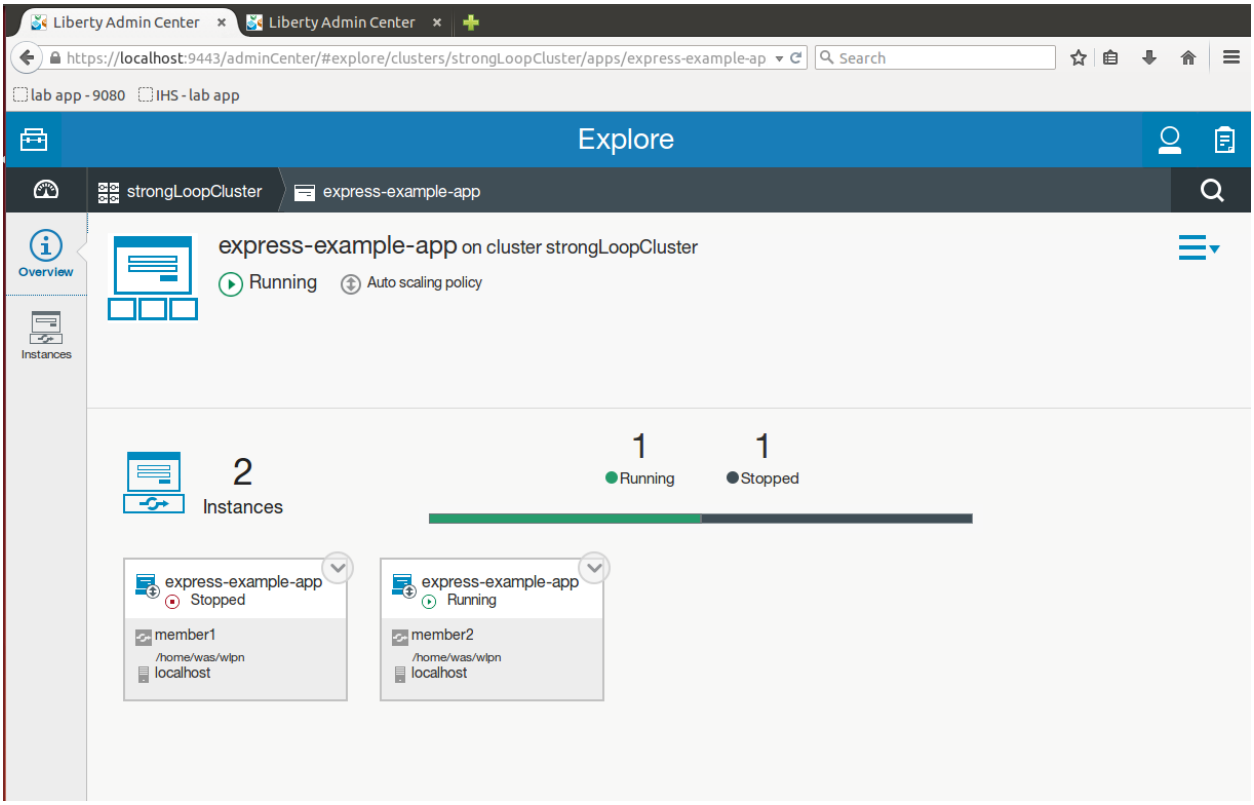
Administrative Scale-In

For this task, you will update the scaling policy for strongLoopCluster to designate 1 instances is required instead of2. Do this by setting min and max both to 1 – e.g.

Go back to Admin Center Config Tool, set policy min and max back to one, and save.



Go back to Admin Center Explorer Tool and note that only one strongLoopCluster member is now running



Note: if member does not appear STOPPED immediately, it will take approximately 90 seconds to timeout and be marked STOPPED. This is a known issue with the beta.

End.