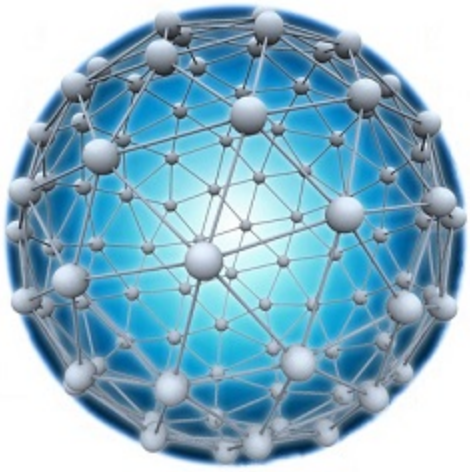
Moab

Quick Start Guide 9.1.3

April 2021



Adaptive COMPUTING

On-Demand Data Center™

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Chapter 1: Moab Installation

This chapter provides information about installing Moab.

In this chapter:

1.1 Moab Prerequisites

We will be using the Moab Automated Installer for the Moab install process. In this case, the Automated Installer is used in an environment where the Moab server has internet access, as there are packages required from the internet that are installed as part of the installation process. There is an Offline Automated Installer option available, but we recommend using a Moab server, which has internet access. If you follow the Offline option, you need to download the required packages from a server that has internet access, making sure the server that has internet access is running the same OS as where Moab is being installed. Then the downloaded packages will have to be built into a tarball and copied to the server where Moab is being installed on the Offline server. There are also specific steps that then need to be followed when following this option. Completing the steps below will ensure that you are ready to install Moab, avoiding missing known configuration steps using the Moab Automated Installer.

Note: All steps must be run as `root`.

1. If the server where Moab will be installed has been provisioned with the minimum required updates (RPMs), run **sudo yum update -y**.
2. Install the SSH key by running **ssh-keygen -t rsa** (using the default setting is okay for this install).
3. Copy and give the correct authority to `rsa.pub` by running **cp ~/.ssh/id_rsa.pub ~/.ssh/authorized_keys**, followed by **chmod 600 ~/.ssh/authorized_key**s.
4. Copy `id_rsa` from your home directory to the `root` directory by running **cp id_rsa /root/.ssh/id_rsa**.
5. Check that the commands **hostname** and **hostname -f** provide the same exact hostname. On the first screen of the Automated Installer, the FQDN (hostname) is required.
6. Ping your Host Name and add the displayed IP address to your `etc hosts` file as `<ip_address> <hostname>`.

1.2 Moab Installation Steps

In this chapter, the installation of Moab is based on the Red Hat 7 OS. When running the Automated Installer, you must be logged in to the Moab server as `root` before starting the shell, or it will not complete successfully. In the following steps, replace x.x.x with the current Moab release (e.g., 1.0.0).

1. Log in and copy the Moab installation file **moab-hpc-suite-x.x.x.tar.gz** (provided by Adaptive Computing) to the user account.
2. Extract the file using the command **tar xfz moab-hpc-suite-x.x.x.tar.gz**.
3. Change directory to the untarred directory using the command **cd moab-hpc-suite-x.x.x**.
4. Change directory to the installer directory using the command **cd automated-installer**.
5. Launch the Automated Installer using the command **./automated-installer.sh webui**.

After the Automated Installer has loaded the files and packages, a message shows that the user interface is available and provides the host and the port information for the user interface, for example:

```
################################################################################
################################################################################
####
#### The Moab Automated Installer user interface is now available at:
####
#### http://127.0.0.1:7443
####
#### Leave this shell running until you are instructed to exit this process.
#### Ctrl-C will signal this process to terminate.
####
################################################################################
################################################################################
```

Notes:

- The Automated Installer must be active on the deployment host. If you terminate the Automated Installer process before you have completed user interface tasks, you will have to relaunch the Automated Installer process. You can then reaccess the user

interface and finish the installation. The Automated Installer interface is available at http://127.0.0.1:7443 if you use this interface on the Moab server itself. This procedure requires a web browser that can access the same network where the Automated Installer deployment server runs.

- Follow the Automated Installer interface screens and complete each section, making sure you record your username and password for later reference. Depending on your system, the installation may take upwards of 1 hour to complete.
- The user interface has tooltips to aid you in the installation process. Hover over a field name to view information about the field.
- For additional information about the Automated Installer, see the following documents for your operating system:
  - Red Hat 6-based systems (see the link below)
  - Red Hat 7-based systems (see the link below)
  - SUSE 12-based systems (see the link below)

  Moab HPC Suite Installation and Configuration Guide (Adaptive Computing Support Portal / Product Documentation / Moab HPC Suite)

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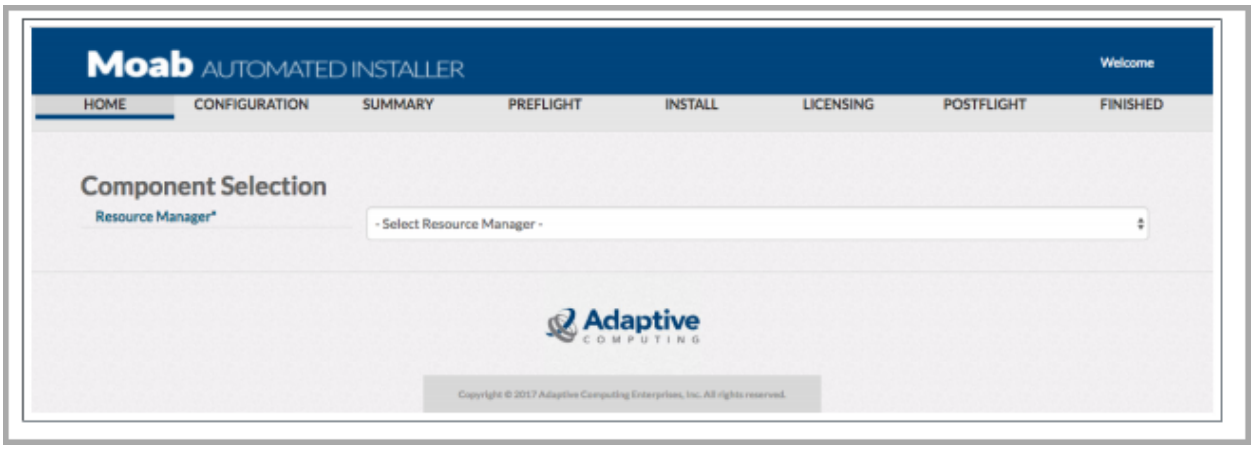
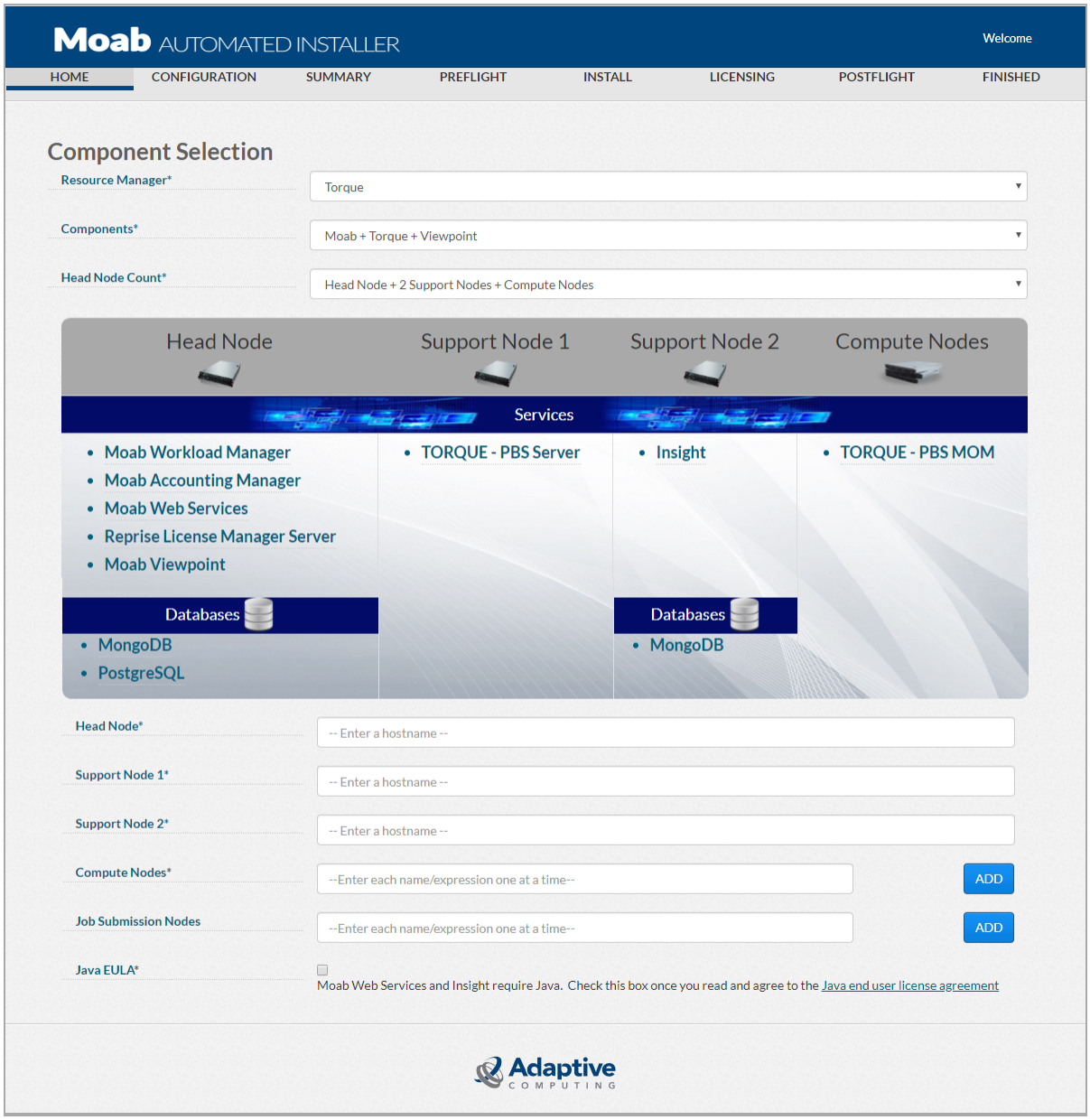
6. Using a web browser, navigate to the user interface (this is the host and port information obtained when you launched the Automated Installer).

HOME

The home page displays the **Component Selection**:



7. From the **Resource Manager** drop-down, select the resource manager that you want to use:



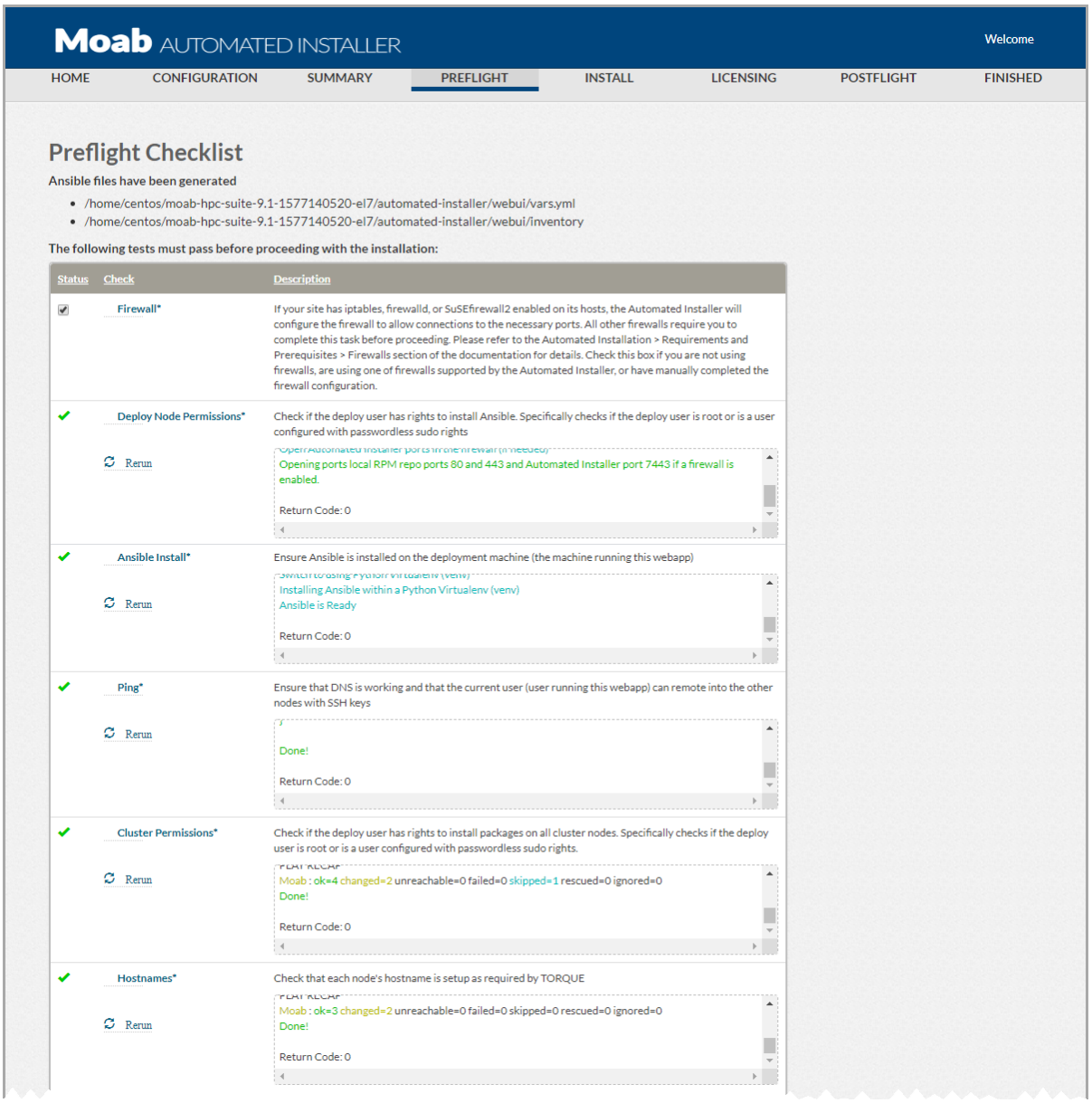
   A. From the **Components** drop-down, select the Moab HPC component bundle to install.

   B. From the **Head Node Count** drop-down, select the number of head nodes to use.

   C. In the **Head Node** field, enter the Fully Qualified Domain Name (FQDN), and then in the other fields, enter the names for the different nodes in your configuration.

PREFLIGHT

On the **Preflight Checklist** screen, each step checks the configuration for any failures. If any failure occurs, you can investigate it and correct it, then just click **Rerun** to restart the process.



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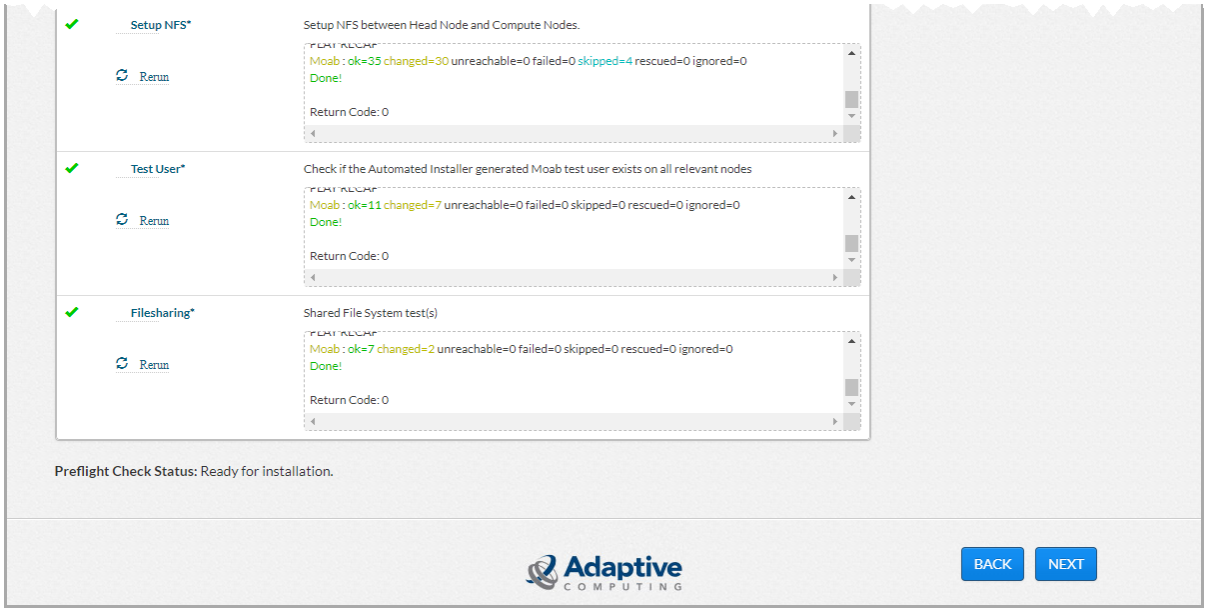
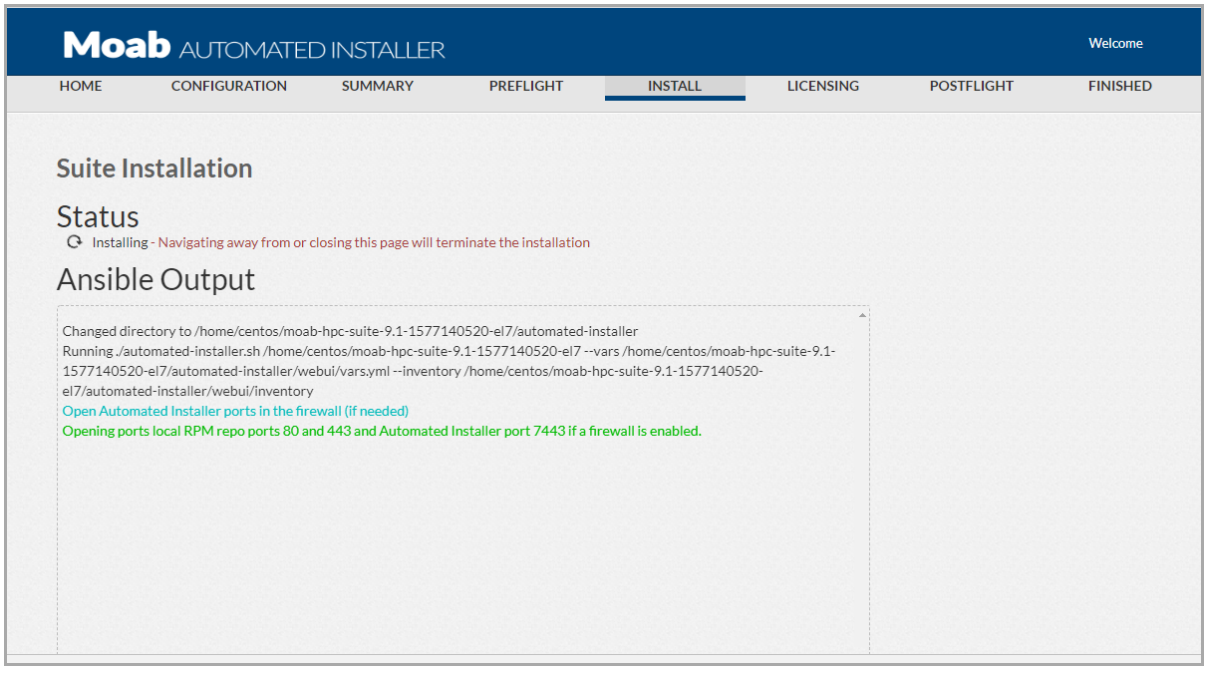


INSTALL

The **Suite Installation** screen shows that the installation has started:



LICENSING

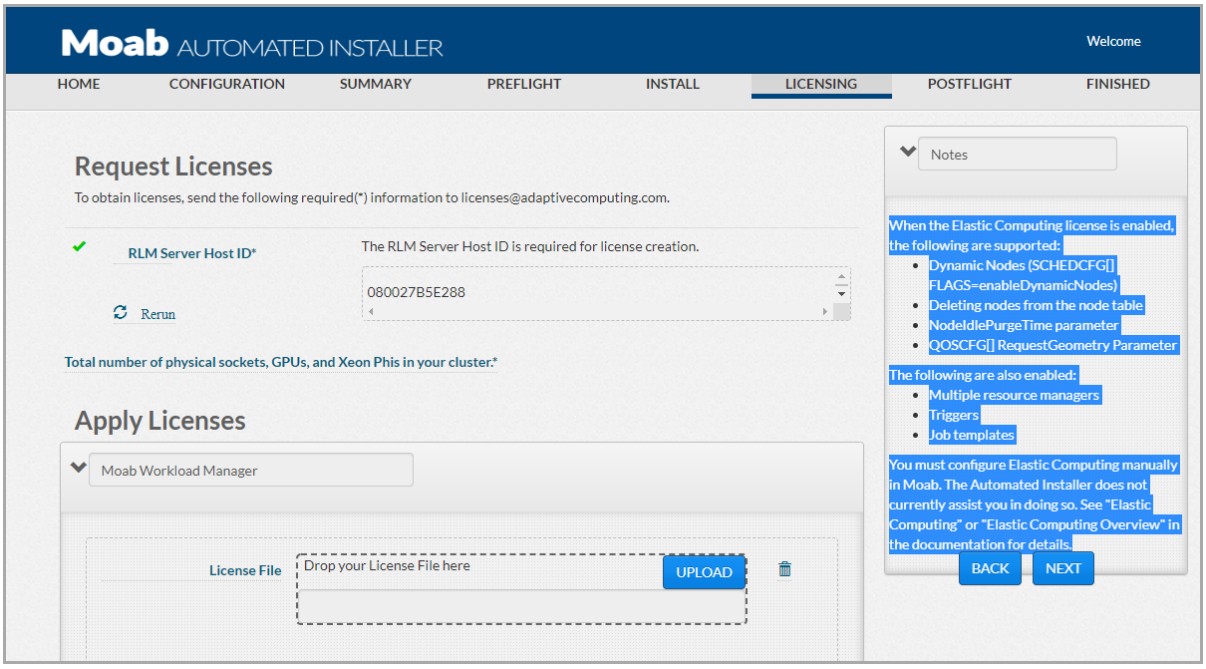
8. Request the following two license keys from Adaptive Computing:

   - **Moab License**: First, get the RLM server's host ID, which is your Mac address of the server where Moab/Viewpoint are installed. You can use either of these commands to get the MAC address:
     - **ifconfig -a** - The MAC address is in the active `eth0` display under `ether` (this is the default first Ethernet adapter).
     - **cat /sys/class/net/*/address** - This displays the MAC address, which looks similar to 06:84:f4:8f:7f:18 00:00:00:00:00:00.
   - **Viewpoint License**: This license key is needed for accessing Viewpoint.

   Send the MAC address to licenses@adaptivecomputing.com requesting a Moab license and a Viewpoint license.

   When requesting the above licenses, make sure to mention which product areas they are required for. If you are an existing Moab customer, the license generated will be based on what you have purchased in the past. If it is an evaluation license, we suggest asking for the full suite of Moab products including Viewpoint, and make sure the elastic license is also included (generally, this is included). If the elastic license is not included, it can be added later by updating the `moab.lic` in the `/opt/moab/etc` directory on the Moab server, after which you need to restart Moab using the following command as root **systemctl restart moab**. You can view the status of Moab using the command **systemctl status moab**, which should show as `active`.

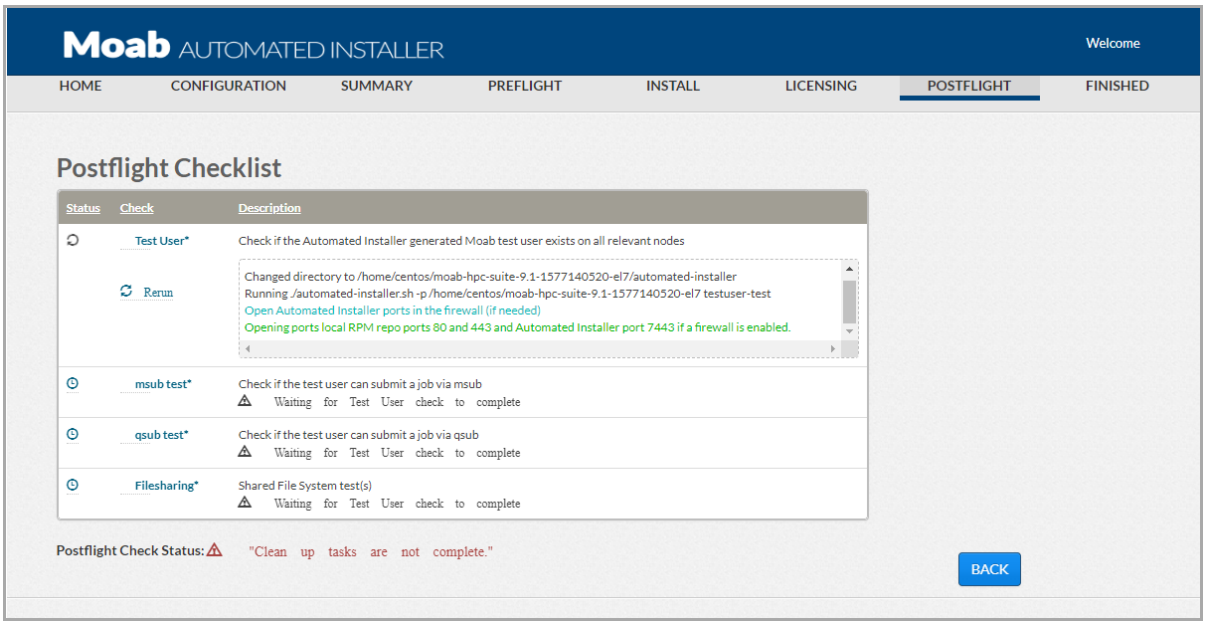
A. After receiving the Moab license key, upload the file using the **BROWSE** button for every section, then select the **UPLOAD** button:



The right side of the screen shows information as to what will be available when the Elastic Computing license has been applied.

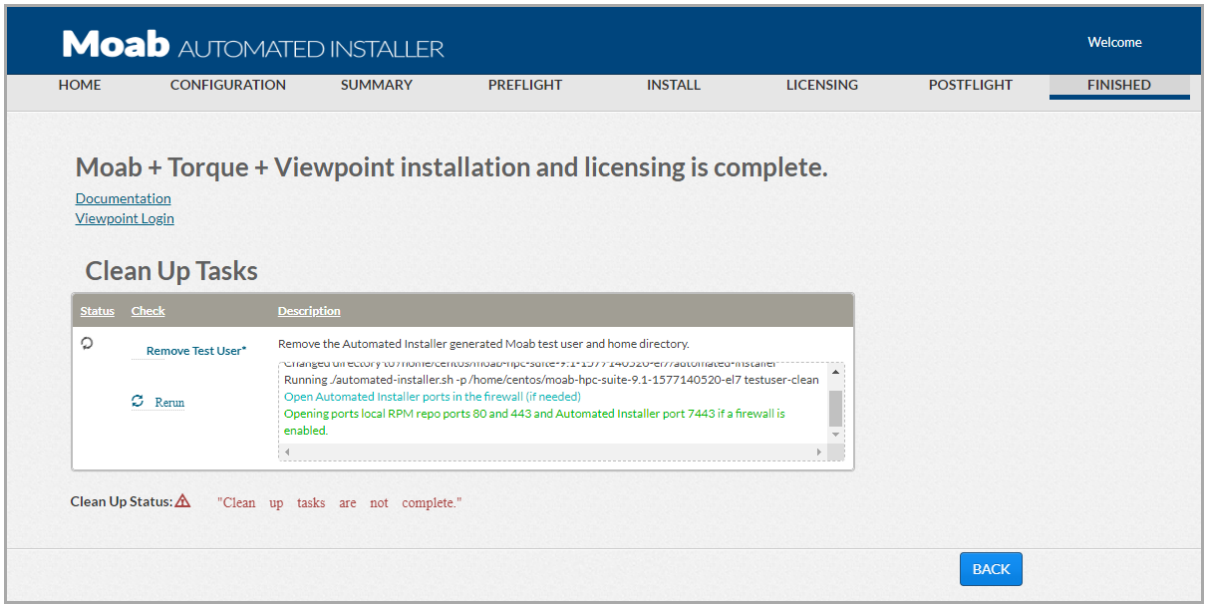
POSTFLIGHT

On the **Postflight Checklist** screen, some final checks are run:



FINISHED

On the **Clean Up Tasks** screen, some clean up tasks run and then the Automated Installer process will be complete:



You can now exit the shell. Moab is now installed, as well as Viewpoint.