

BlueData EPIC Lite Installation Guide

VERSION 2.0

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Welcome! This guide walks you through installing EPIC Lite by BlueData Software, Inc. The information in this guide is designed to get you up and running as quickly as possible. Please refer to the appropriate section for instructions for your specific platform:

- **VirtualBox (Macintosh):** See *"Logging In to EPIC Lite" on page 8.*
- **Amazon Web Services:** See *"Logging In to EPIC Lite" on page 8.*
- **Single physical server - Redhat Enterprise Linux or CentOS:**
See *"RHEL/CentOS" on page 10.*

Please refer to the [About EPIC Guide](#) for detailed information about EPIC, including:

- Key features and benefits
- Hadoop and application support
- Definitions
- Architecture
- Storage
- Users
- System requirements

1.1 - VirtualBox (Macintosh)

This section describes installing EPIC Lite on a Macintosh computer using Oracle VirtualBox.

1.1.1 - System Requirements

EPIC Lite requires a Macintosh computer that meets the following hardware and configuration requirements:

- **Server:**
 - **CPU:** 8 cores
 - **RAM:** 16GB (32GB recommended), with at least 10GB of free RAM. Free RAM is not equal to the total amount of installed RAM. Refer to the *EPIC Lite Tips & Tricks* manual for information. This document may be downloaded from https://s3.amazonaws.com/bluedata-documentation/2.0_GA/BlueData+EPIC+Lite+Tips+and+Tricks.pdf.
 - **Storage:** 120GB of free space (300GB recommended)
- **Operating System:** Mac OS X.
- **Applications:**
 - Oracle VirtualBox (available from <https://www.virtualbox.org/wiki/Downloads>).
 - HashiCorp Vagrant (available from <https://www.vagrantup.com/>)

1.1.2 - Installation

To perform the first phase of EPIC Lite installation on a Macintosh computer using VirtualBox:

1. Create a directory on the Macintosh computer where you will be installing EPIC Lite.
2. Visit <http://getbluedata.com> to download the appropriate .bin file for this installation to the directory you created in Step 1. This bin file includes a single Hadoop distribution.
3. Open a command line prompt and navigate to the directory containing the epiclite.sh script.
4. Make the .sh file executable by executing the command:

`chmod +x <script>`
where <script> is the full name of the downloaded script.
5. Run `./<script>`.

The script downloads the EPIC Lite binary files and then performs the installation. When this process completes, your web browser will launch and display the EPIC **Login** screen.

6. Refer to the *EPIC Lite Tips & Tricks* manual for additional information. This document may be downloaded from https://s3.amazonaws.com/bluedata-documentation/2.0_GA/BlueData+EPIC+Lite+Tips+and+Tricks.pdf.

Proceed to *"Logging In to EPIC Lite" on page 8.*

1.2 - Amazon Web Services

This section describes the first phase of installing EPIC Lite on an Amazon EC2 virtual machine. To perform the installation:

1. Log in to your Amazon Web Services account.

The **Amazon Web Services** page appears.

2. Click the **EC2** link.

The **EC2 Dashboard** page appears.

3. In the left-hand menu, expand the **NETWORK & SECURITY** section and then select **Key Pairs**.

The **Key Pairs** page appears.

4. Create a custom key pair and then download the resulting .pem file to your local computer. This file will be needed in order to connect to the instance you will be launching via SSH.

5. In the **NETWORK & SECURITY** section, select **Security Groups**.

The **Security Groups** screen appears.

6. Create a security group that opens Ports 22, 80, and 20000-22000.

7. In the left-hand menu, expand the **IMAGES** section and then select **AMIs**.

The **AMIs** page appears.

8. Locate the BlueData EPIC Lite AMI file in the Amazon AWS Marketplace and then click the **Launch** button.

The **Choose an Instance Type** screen appears.

9. Select an instance type that includes at least the following minimum specifications:

- 32GB RAM
- 4 vCPU cores

10. In the bottom navigation, click **6. Configure Security Group**.

The **Step 6: Configure Security Group** screen appears.

11. Check the **Select an existing security group** checkbox and then select the security group you created in Step 6.

12. Click **Review and Launch**.

The **Step 7: Review Instance Launch** page appears.

13. Review your selected options and then click **Launch**.

The **Select an existing keypair...** popup appears.

14. Select **Choose an existing keypair** using the top pull-down menu and then select the key pair that you created in Step 4 using the lower pull-down menu.

15. Verify the acknowledgment by checking the **I acknowledge...** checkbox, and then click the **Launch Instances** button.

The **Launch Status** page appears.

16. Click the **View Instances** button.

The **Instances** page appears.

17. Locate the instance you just created by finding the appropriate entry in the **Name** column.

Your instance will be ready when all three of the following conditions have been met:

- The **Instance State** column for this instance indicates **running**.
- The **Status Checks** column for this instance indicates that **2/2 checks passed**.
- At least ten (10) minutes have elapsed since you launched the instance.

18. Note the IP address of the instance that appears in the **Public IP** column, and then proceed to *"Logging In to EPIC Lite" on page 8* for information on accessing EPIC Lite.

1.3 - RHEL/CentOS

This section describes the first phase of installing EPIC Lite on a machine running either RedHat Enterprise Linux 6.6/6.7 or CentOS 6.6/6.7.

1.3.1 - System Requirements

EPIC Lite requires a single physical or virtual host that meets the following hardware and configuration requirements:

- **Server:**
 - **CPU cores:** 4 (8 recommended)
 - **RAM:** 32GB (64GB recommended)
 - **Storage:** 100GB of free space (300GB recommended)
 - **NIC:** At least one Ethernet card
- **Operating System:**
 - Red Hat Enterprise Linux 6.6 (minimum) or 6.7 (recommended)
 - CentOS 6.6 (minimum) or 6.7 (recommended).
- **Access:** Root access via console and SSH. The root user must be allowed sudo permissions for all hosts, and all executables.
- **IP address:** The IP address of the physical server must not change after installing EPIC Lite.



CAUTION: EPIC LITE PERFORMS NUMEROUS CONFIGURATION CHANGES TO THE HOST DURING INSTALLATION THAT ARE REQUIRED IN ORDER FOR THE PLATFORM TO FUNCTION. THESE CHANGES ARE NOT COMPLETELY REVERSIBLE AND MAY IMPACT ANY OTHER APPLICATIONS AND PROCESSES THAT ARE CURRENTLY RUNNING ON THE HOST. IT IS STRONGLY RECOMMENDED THAT YOU INSTALL EPIC LITE ON A HOST THAT IS NOT BEING USED FOR ANY OTHER PURPOSE IN ORDER TO AVOID POSSIBLE DISRUPTIONS TO YOUR NORMAL BUSINESS PROCESSES.

EPIC Lite will create and use the directory `/bds_sharedfs` in the local file system for system storage. Please refer to the [About EPIC Guide](#) for information on how EPIC uses system storage. The Site Administrator can modify the site storage location to use an available Gluster, HDFS, or NFS network storage location.

1.3.3 - Installation (Phase 1)

The first phase of installing EPIC Lite uses the command line interface, as follows:

1. Install either Red Hat Enterprise Linux or CentOS on the host (see *"System Requirements" on page 5* for minimum and recommended requirements).
2. Perform a yum update.
3. Visit <http://getbluedata.com> to download the appropriate .bin file for this installation. This .bin file includes a single Hadoop distribution.



*Note: EPIC Lite ships with a single Hadoop distribution (CDH 5.2) image only. If desired, you may download and install other Hadoop/Spark distributions once the software is installed. To do this, login to EPIC as the Site Administrator and navigate to the **Images** tab in the **App Store** screen. See the [User/Admin Guide](#) for instructions.*

4. Make the .bin file executable by executing the command:

```
chmod u+x <script>
```

Where <script> is the full name of the downloaded script.
5. Run the executable binary from the Linux console as the root user by typing:

```
./<script> --floating-ip <address/range>
```

Where:

- <script> is the full name of the downloaded script.
- <address/range> is the CIDR to use, such as 192.168.25.10/24. This range of addresses allows network access from outside the EPIC platform to the virtual nodes that EPIC will create as part of future clusters.

This IP address range must be routable within your organization. If you do not have an available address range, accept the default value by pressing [ENTER]. In this situation, accessing the virtual nodes require a static route from your desktop client (Mac/Windows) to the virtual nodes. For example:

- **Mac:** `sudo route add 10.3.X.0/24 10.1.X.Y`
 - **Windows:** `route add 10.3.X.Z mask 255.255.255.0 10.1.X.Y`
 - **Linux:** `ip route add 10.3.X.Z/24 via 10.1.X.Y`
6. The End User License Agreement (EULA) appears. Press [SPACE] to scroll down screen by screen. After you have read the EULA, accept the licensing terms to continue the installation.
 7. The installer verifies that the host meets the requirements listed in *"System Requirements" on page 5* and either displays a warning or fails with an error if not.

If a warning appears, you may either:

- Press [1] to acknowledge the warning and continue installation, or
- Press [2] to exit the installer.

In an error message appears, you must take appropriate action to fix the reported problem before rerunning the installer.



Note: You may be able to run EPIC Lite on a host that does not meet the specified minimum requirements, but this is not recommended.

8. The installer will now install EPIC Lite on the host. A series of messages will appear on your screen during this process.

When the basic installation is complete, the message **Please visit <http://<Host-IP>/> to configure the server** will appear, where **<Host-IP>** is the hostname or IP address of the host.

This completes the command-line portion of the installation process on Linux or CentOS. Please see [“Installation \(Phase 2\)” on page 7](#) for information on completing the installation.

1.3.4 - Installation (Phase 2)

The second phase of installing EPIC EPIC Lite on a RHEL/CentOS host uses the web browser interface, as follows:

1. Open a Web browser and point it to the hostname or IP address of the host specified during the initial setup.

The **Single Node Evaluation - Setup** screen appears.

Single Node Evaluation Version - Setup

Floating IP Addr/CIDR

 /

✓ Submit

Figure 1.1: Single Node Evaluation Version - Setup screen

2. The floating IP address and range that you entered in Step 5 of the command line installation appears in the **Floating IP Addr** and **CIDR** fields. This range of addresses allows network access from outside the EPIC platform to the virtual nodes that EPIC will create as part of future clusters. You may modify these values if needed.

A series of messages will appear as installation completes. If desired, you may click the **Details** button to open a popup window with detailed installation progress information. These routes may become invalid and may need to be reset if you restart the network subsystem of the physical host.

3. Proceed to [“Logging In to EPIC Lite” on page 8](#).

1.4 - Logging In to EPIC Lite

- The EPIC **Login** screen should automatically appear when the installation process completes. If not, point your Web browser to `http://<Host-IP>/login`, where `<Host-IP>` is the hostname or IP address of the host.

The **Login** screen appears.

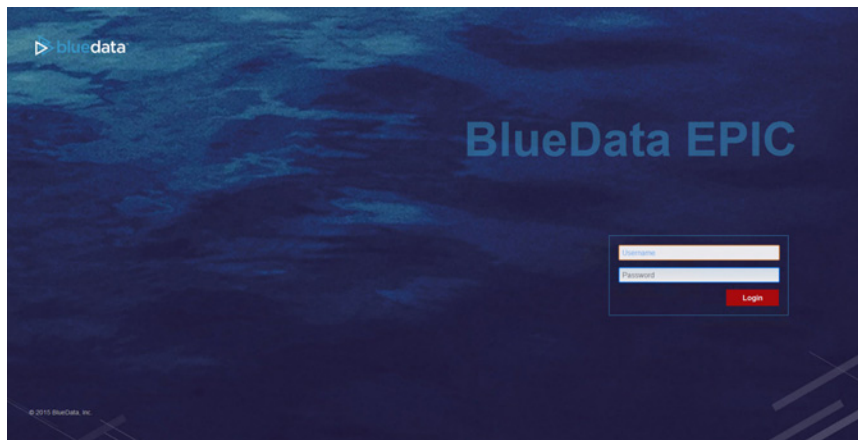
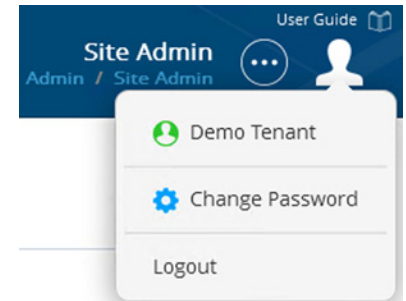


Figure 1.2: EPIC Login screen

- Login to EPIC Lite with the user name `admin`. For physical server and virtual-box installs, the password will be `admin123`. For installs on Amazon Web Services, the password will be the instance ID of the Amazon EC2 instance. After logging in, please change your password by clicking the blue **User** button at right side of the **Toolbar** and then selecting **Change Password**.



Please refer to the [User/Administrator Guide](#) for information on using the EPIC evaluation version.



Note: The EPIC Lite interface is identical to the full version, except that you cannot run this evaluation version on more than one host. The ability to use multiple hosts is available in the full version of EPIC.

1.4.1 - Downloading Additional Hadoop/Spark Distributions or ISV Partner Applications

EPIC Lite ships with a single Hadoop distribution (CDH 5.2) image only. You can download and install other Hadoop/Spark distributions as well as BI/Search application images such as Hunk and AtScale. To do this:

1. Login to EPIC Lite as the Site Administrator.
2. In the **Main Menu** on the left of the screen, click **App Store** to open the **App Store** screen.
3. On the **App Store** screen, click the **Images** tab. ISV partner applications are available under **Add-On Images**.
4. Download your desired image by clicking the blue **Install** button that corresponds to the image you want to download.

Please see the [User/Admin Guide](#) for more information about configuring EPIC Lite.

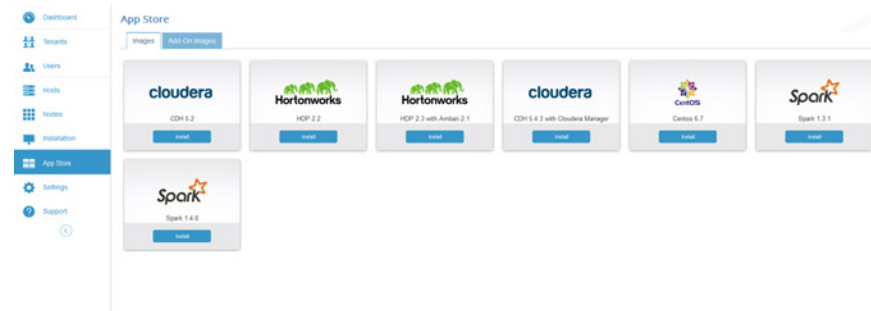


Figure 1.3: App Store screen with Images tab selected



Figure 1.4: App Store screen with Add-On Images tab selected



Note: The selection of available images is always evolving; the options you see on your screen may vary from those shown in Figures 1-3 and 1-4.

1.5 - Uninstalling EPIC Lite

This section describes how to uninstall EPIC Lite.

1.5.1 - RHEL/CentOS

To uninstall EPIC Lite software from your host, run the following command:

```
<bin> --installer -e
```

(where <bin> is the complete name of the EPIC .bin file.

Please refer to the caution in *"Before Installing" on page 5*.

1.5.2 - Amazon Web Services

To uninstall EPIC Lite, simply terminate the Amazon Web Services instance that you created during installation.

1.5.3 - VirtualBox (Macintosh)

Run the cleanup.sh script that is located in the directory you created during installation (see *"Installation" on page 2*).



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