LaneHawk™
Visual Scanner for Preventing BOB Loss

Guide, LaneHawk Ubuntu 10.04 LTS 32-bit Server Install

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Contents

This document provides step-by-step instruction for the complete build of a LaneHawk Server on Ubuntu Linux 10.04 (32-bit) LTS. This guide is organized as follows:

1 – Hardware Requirements

LaneHawk server hardware guidelines are as follows:

IBM xSeries-class server (e.g., x3200 or x3650) with following basic specifications:

Pentium 4, 3 GHz CPU (most are now dual core)

4 GB RAM (3 GB optional)

2 MB L2 cache (per core)

2 10/100 Ethernet cards (one for internal network (iLCUs); one for POS network)

80 GB hard drive

DVD player (for SW/Disk refresh)

Tower-based or rack-mounted

Driver availability and specific hardware configurations vary widely – confirm with your hardware vendor that the server you buy will run the version of Ubuntu you will be installing.

2 – Install Ubuntu

2.1 - Getting Ubuntu

To install Ubuntu, you will need an Ubuntu installation disc.

An .iso disk image may be downloaded from http://releases.ubuntu.com/

Alternatively, you may torrent the image from http://www.ubuntu.com/getubuntu/downloadmirrors#bt

We recommend the Desktop version of 10.04 LTS (Lucid Lynx), though it is expected that a few older ones will work as well. Because we support a distribution agnostic LaneHawk installer (Java installer) since LaneHawk 2.6, you can get LaneHawk up and running in Ubuntu with little effort.

2.2 – Installing Ubuntu

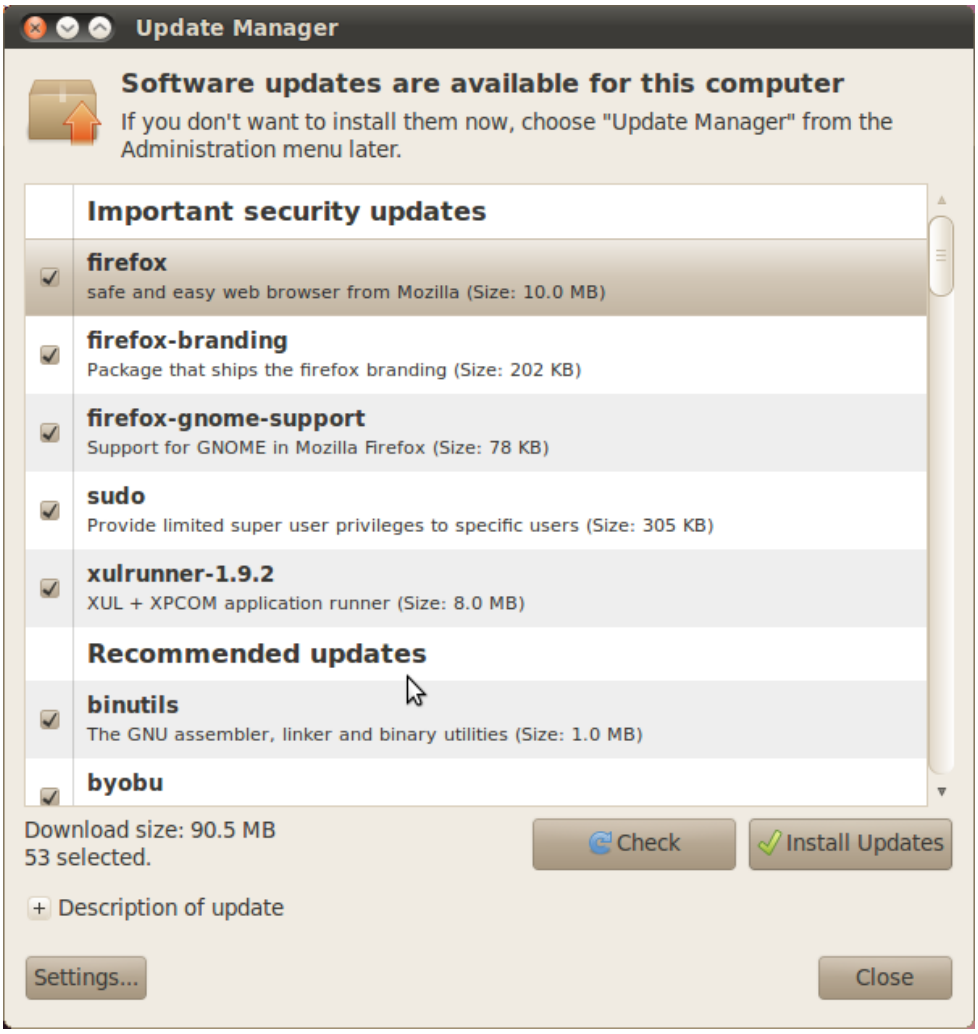
1. Insert the Ubuntu media.
2. Set system BIOS to boot from the media.
3. Click “Install Ubuntu 10.04 LTS”.
4. Click Forward, choosing your timezone and keymap settings until step 4 (Partitioning).
5. Select “Specify Partitions Manually (Advanced)”. If a partition table already exists, click “New Partition Table”. To create a new partition, click on “Free Space”, then “Add”.
    A. Create a primary partition using 25% of total disk size, using ext4 filesystem, mounted at ‘/’ (no quotes). (sda1)
    B. Create a logical partition using 10% of total disk size, using ext4 filesystem, mounted at ‘/tmp’. (sda5)
    C. Create a logical partition using 100% of installed RAM size, as swap area. (sda6)
    D. Create a logical partition using all remaining space, using ext4 filesystem, mounted at ‘/opt’. (sda7)

6. Enter User Info, using a login/password and hostname. Remember to write down the login name, password and hostname. You will need these later.
7. Click “Install”.
8. Click “Restart Now”.

2.3 – Getting Additional software

2.3.1 INSTALL UBUNTU UPDATES (REQUIRES INTERNET CONNECTION)

1. Click System->Administration->Update Manager.



2. Click “Check” button. This retrieves the list of updates for your system. Enter your password if prompted.

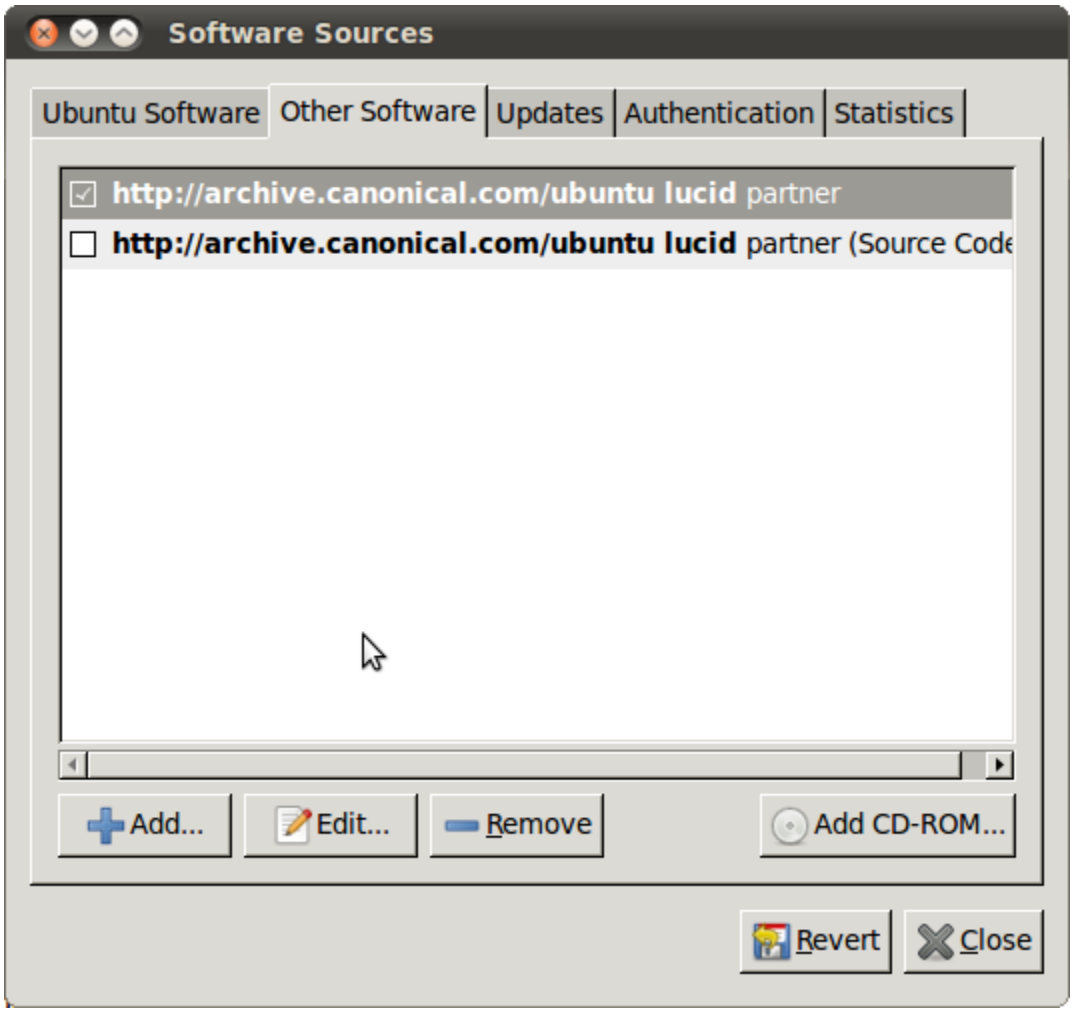
3. Click “Install Updates”. This will take ½ to 1 hour, depending on the system specs.

4. Reboot when told.

2.3.2 INSTALL ADDITIONAL PACKAGES (REQUIRES INTERNET CONNECTION)

It is best to install the following packages before LaneHawk. Only java is strictly required, but xdelta is needed for modelset updates and slp highly recommended. First, the partner repositories need to be enabled:

1. Click System->Administration->Software Sources.



2. Click the 'Other Software' Tab.
3. Check the line for lucid partner, as shown above. Click "Close" then a window will popup showing the Reload button. Click "Reload".
4. Close.
5. Open a terminal (Applications->Accessories->Terminal) and enter the following:

   sudo apt-get install slpd slptool xdelta sun-java6-bin openssh-server dhcp3-server python-all rsync

   NOTE: sudo command requires your user password!

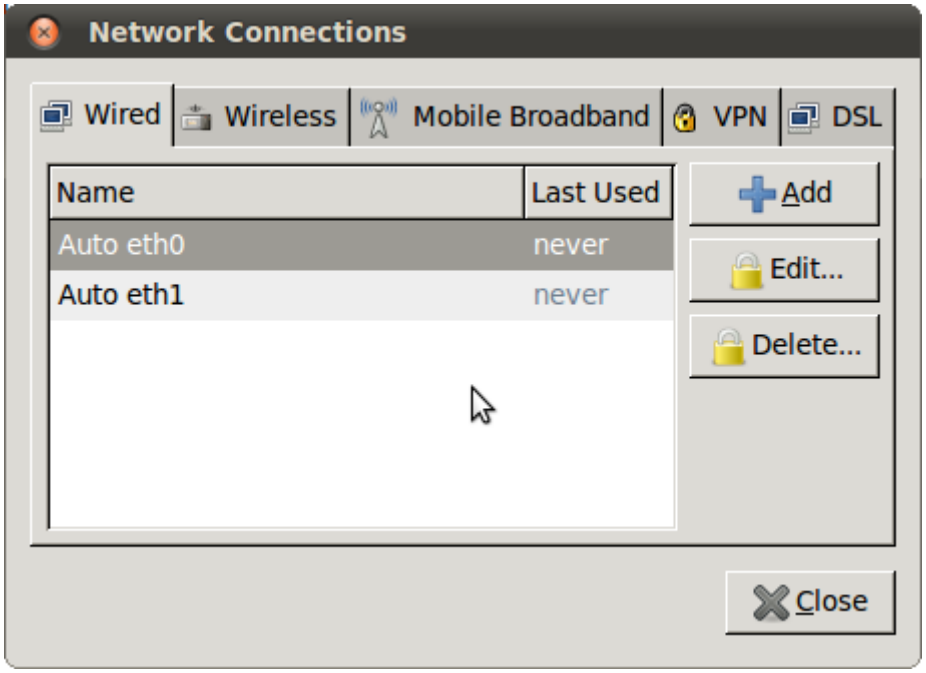
6. Enter Y to continue. For java setup, you must accept the agreement. Click Tab to highlight the Ok button and press Enter. Click Tab a second time to highlight Yes and press Enter.

3 – Networking

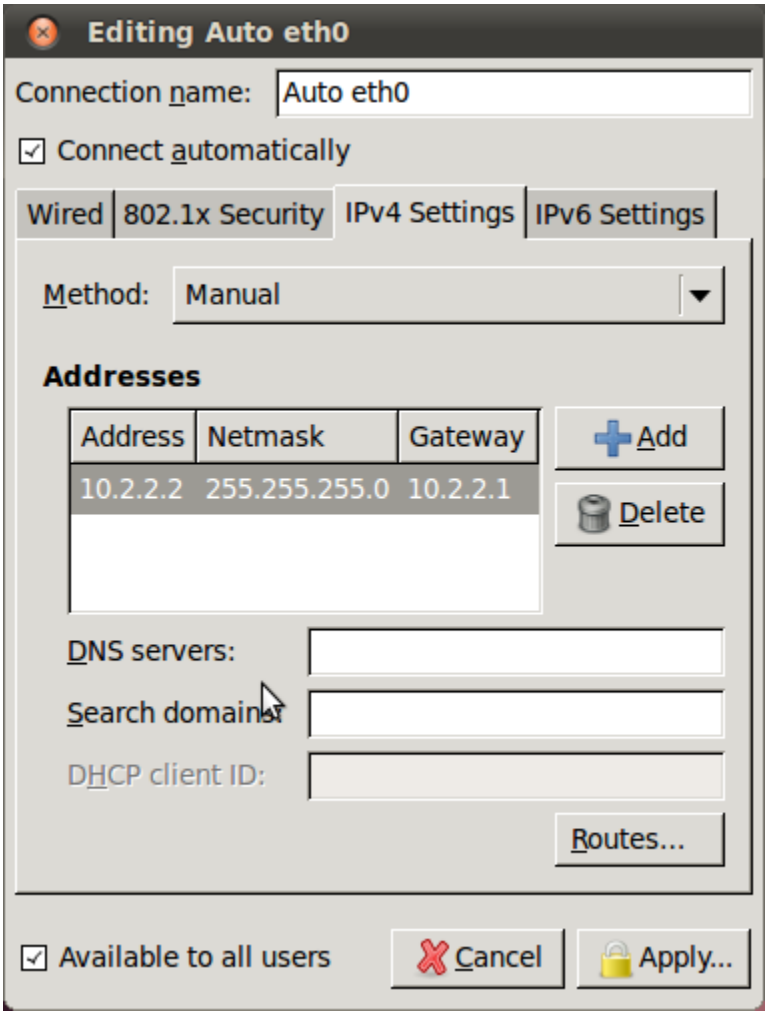
3.1 - Setting Static IP address(es)

To set a static IP address for a network interface:

1. Go to System->Preferences->Network Connections.



2. Select the interface you would like to change, and click ‘Edit’.
3. Click the IPv4 Settings tab, and select ‘Manual’ from the drop-down box.



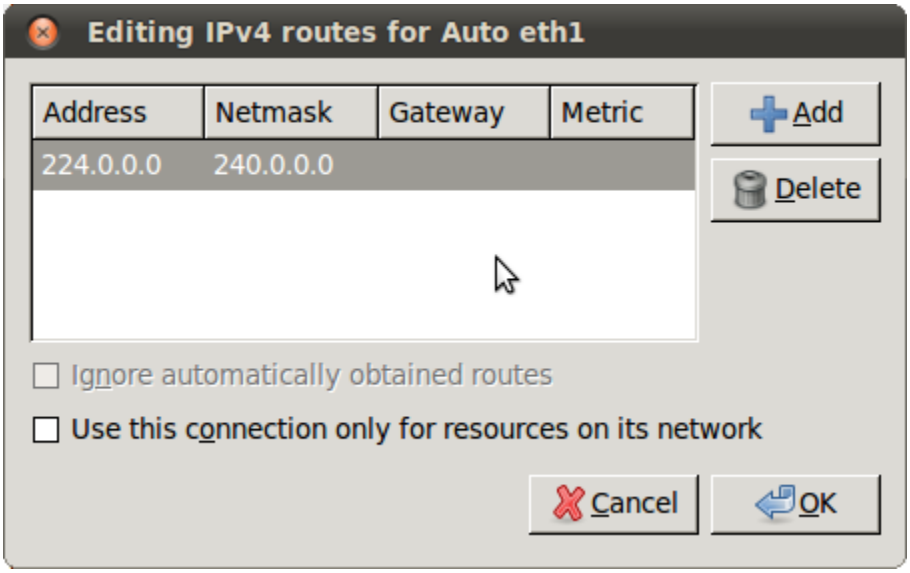
4. Set the appropriate IP Address, Subnet Mask, and Gateway Address for your network.
5. Click Apply. Enter your password if prompted.
6. If you are using a private network for the cameras and have a dual-NIC machine, repeat this process for the other NIC as well.
7. To reload the network settings, open a terminal and type: “sudo restart network-manager”.

Any new network settings MUST be reloaded to take effect. A reload happens when restarting the network-manager, as above, or rebooting the machine.

3.2 – Adding Broadcast route

If you have a dual or multi-NIC server, you will need to add a persistent route line. Edit the camera interface (usually a 192.168.x.x address) and click the IPv4 tab.

1. Click ‘Routes’.



2. Click ‘Add’, then enter the address 224.0.0.0 and netmask 240.0.0.0 as shown above.
3. Click ‘OK’.

3.3 - Setting DHCP server (optional)

If a DHCP server does not exist on the iLCU camera network, you may configure one in Linux. To configure a DHCP server, open a terminal and type the following:

```
sudo gedit /etc/dhcp3/dhcpd.conf
```

Disable the following options by adding a ‘#’ to comment them out:

```
option domain-name “example.org”;
option domain-name-servers ns1.example.org, ns2.example.org;
```

They should look like:

```
#option domain-name “example.org”;
#option domain-name-servers ns1.example.org, ns2.example.org;
```

Insert the following into the file:

```
Subnet 192.168.1.0 netmask 255.255.255.0 {
   Range 192.168.1.200 192.168.1.250;
}
```

substituting your subnet, netmask and IP range. Save the file.

```
sudo /etc/init.d/dhcp3-server restart
```

You can confirm that the DHCP server is running by typing:

```
sudo /etc/init.d/dhcp3-server status
```

3.4 – Setting Root Password

The LaneHawk server is configured to allow secure remote login using SSH. If you'd like to be able to log in remotely as root (superuser), you must set a root password. To do this, open a terminal.

Type: `sudo su`

If necessary, enter your password.

Once your prompt has changed to root@hostname, type: `passwd`

<enter the new root password>

<re-enter the new root password>

Type: `exit`

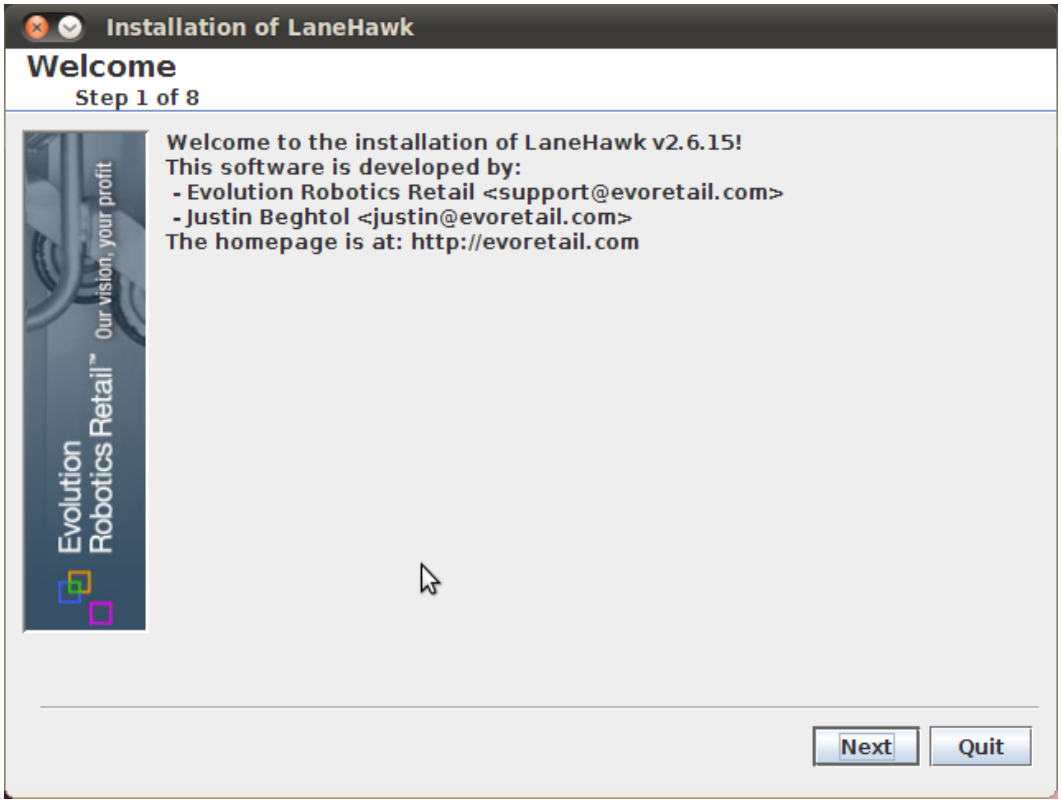
Keep a record of this password you create for root. If you do not set a root password, you will still be able to remotely login as the normal user you created during Installation.

4 - Installing LaneHawk

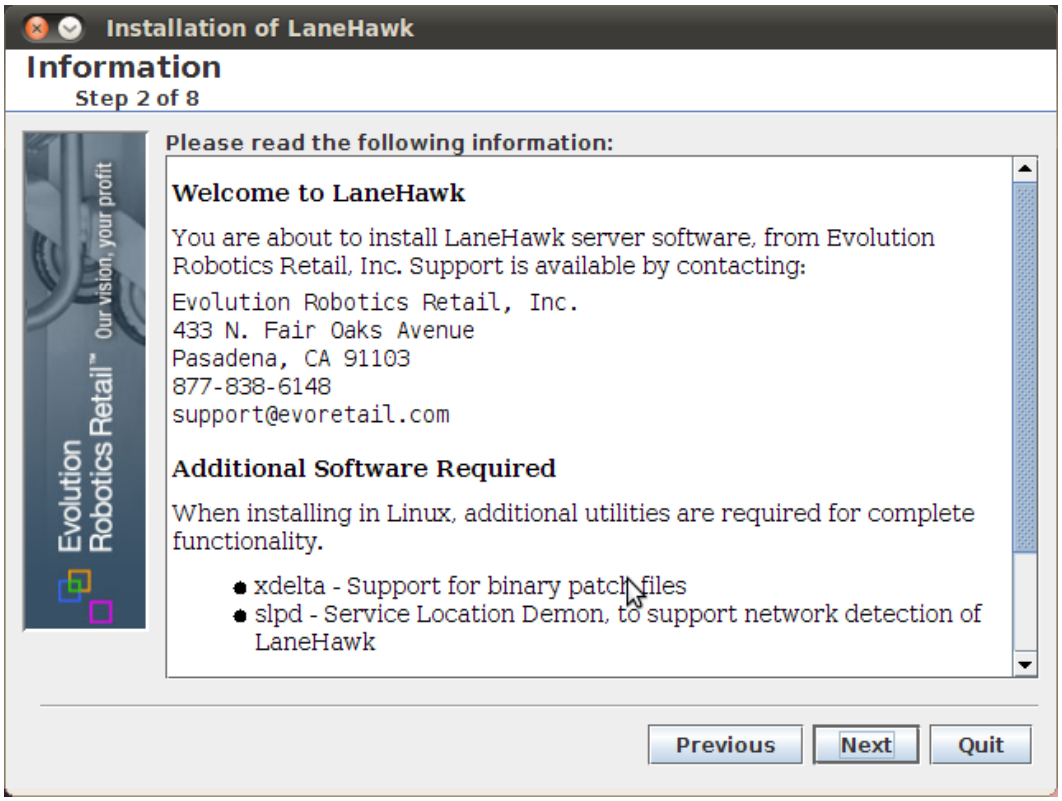
Insert the install media provided. Drag the LaneHawk Linux Java installer to the desktop.

Open a terminal and type: `cd Desktop`

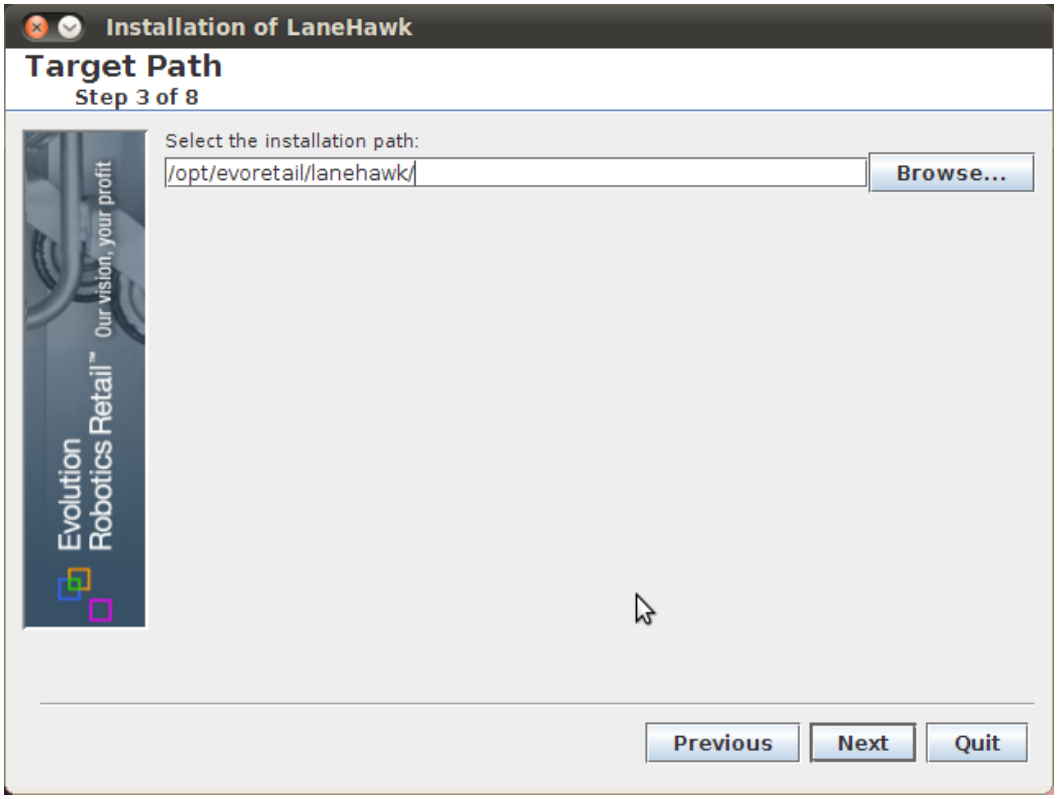
```
sudo java -jar <install_file>
```



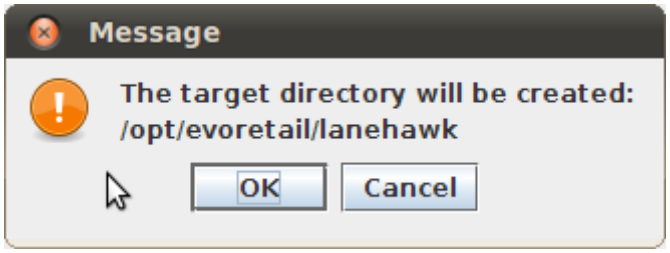
Click 'Next'.



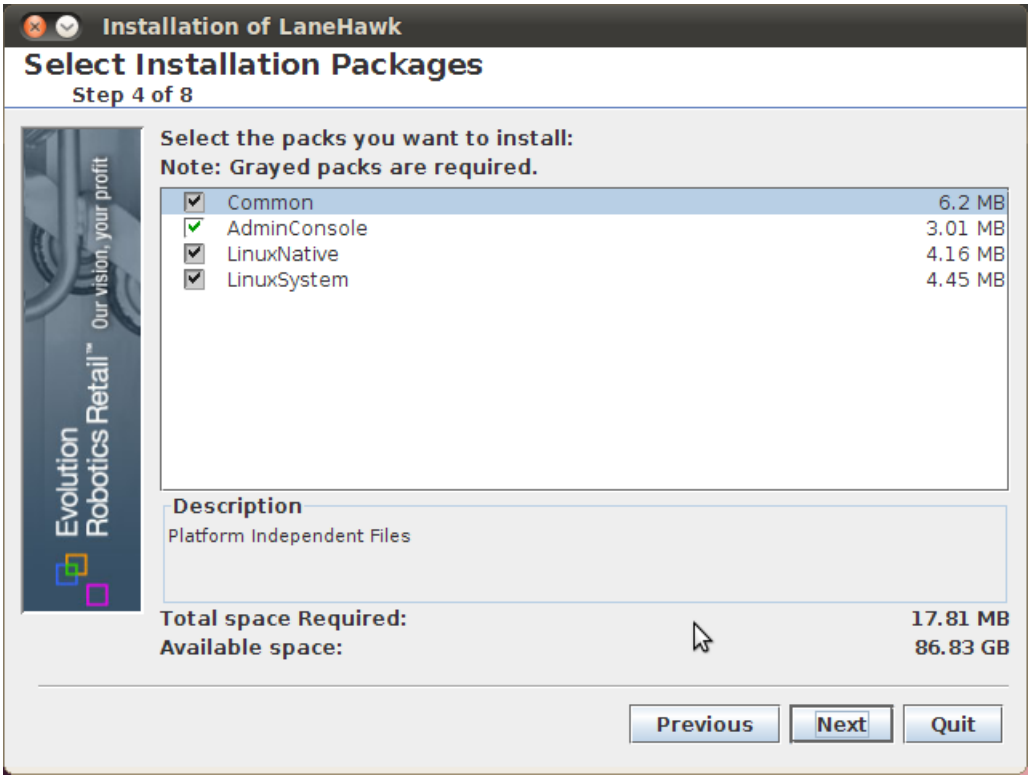
Click 'Next'.



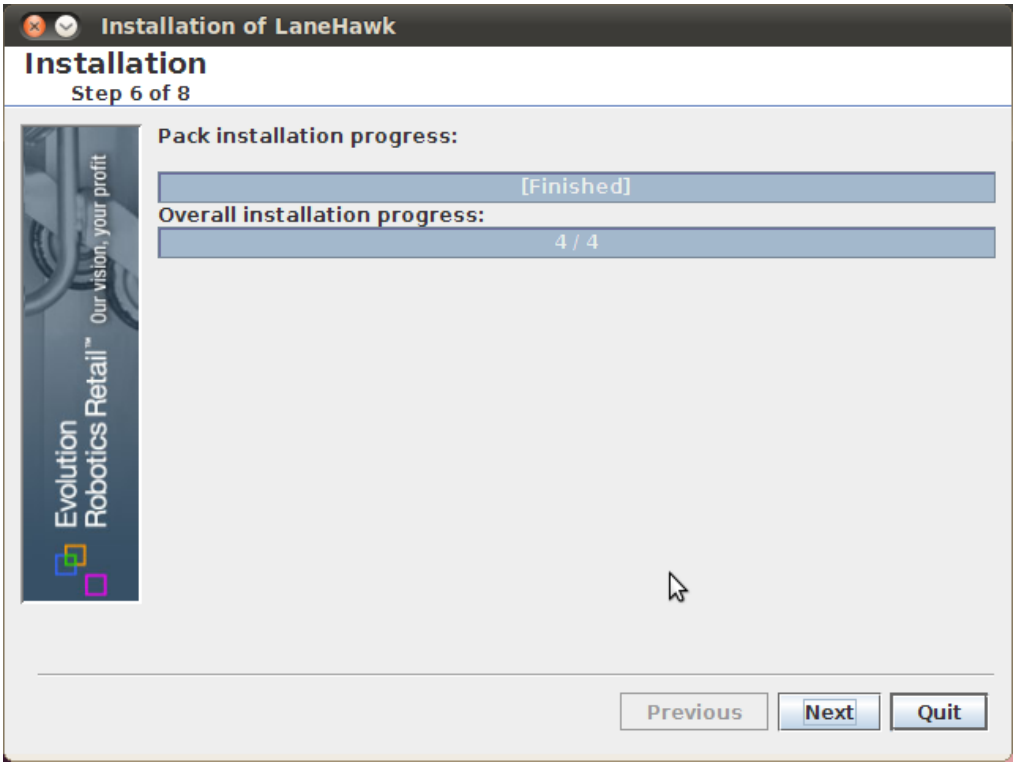
Click 'Next'.



Click ‘OK’.



Click ‘Next’.



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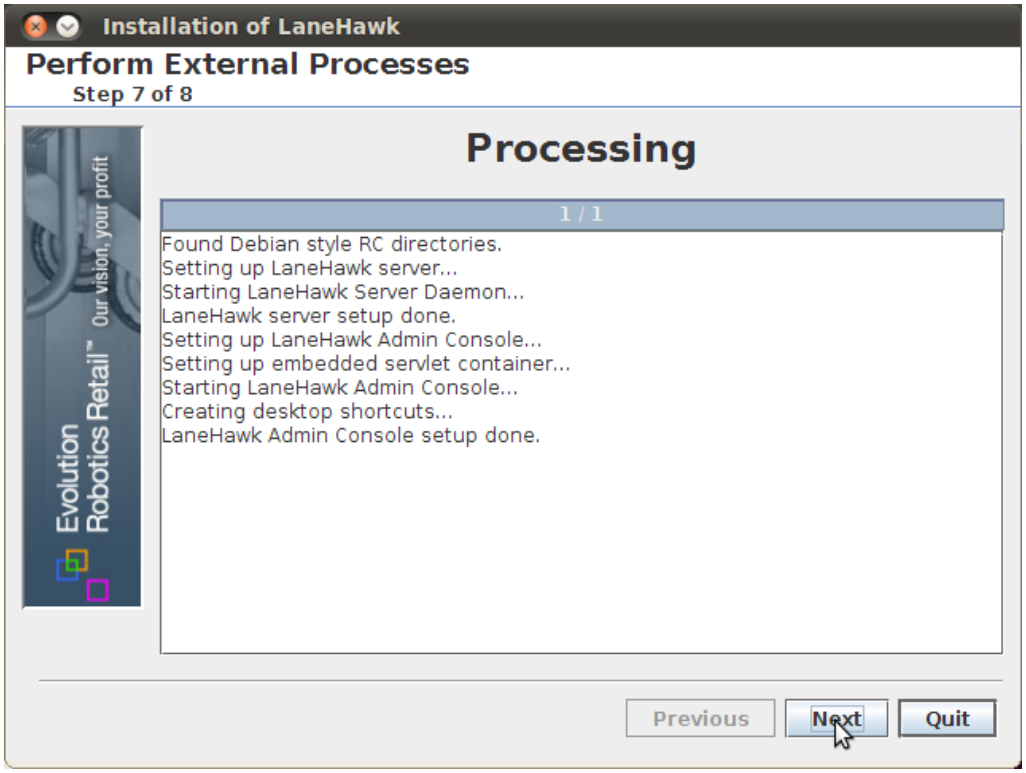
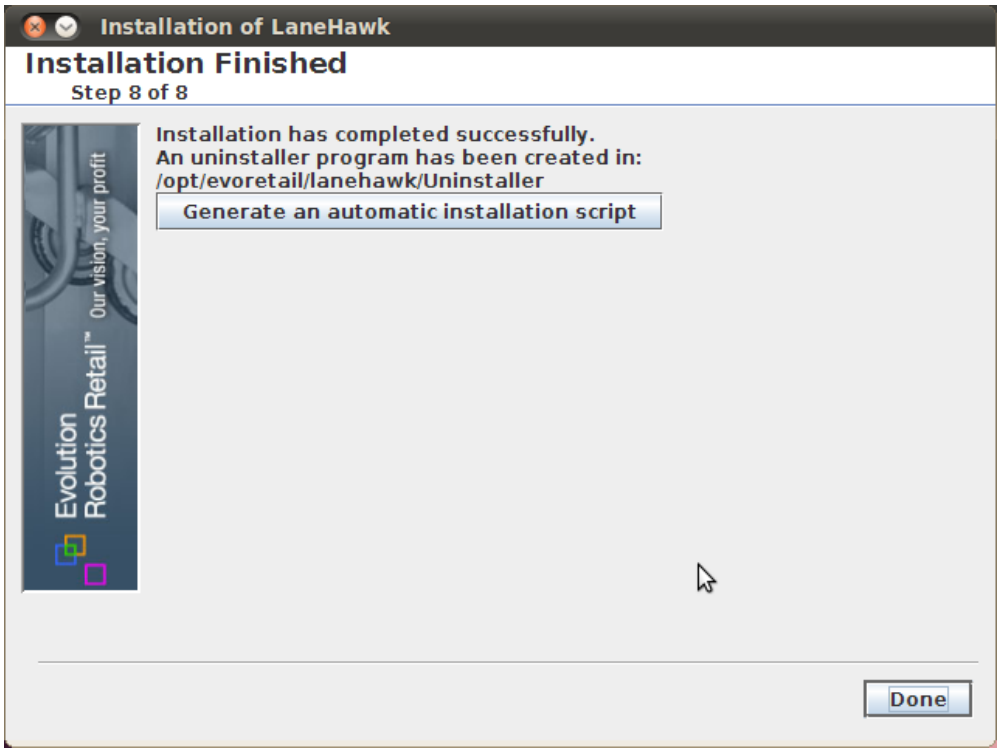


Click 'Next'.



Click 'Done'.

Note: LaneHawk files will be found in /opt/evoretail/lanehawk.

Congratulations! You've finished building a LaneHawk Server using Ubuntu Linux.

5 - Next Steps

For Server Configuration/Testing, refer to the "CS00045-65, Guide, LaneHawk Quick-Start".

For Admin Info/Troubleshooting, refer to the "CS00044-33, Guide, LaneHawk Support + Store Admin Console Basics".