Install

Language

Amharic	Français	Македонски	Tamil
Arabic	Gaeilge	Malayalam	తెలుగు
Asturianu	Galego	Marathi	Thai
Беларуская	Gujarati	Burmese	Tagalog
Български	עברית	Nepali	Türkçe
Bengali	Hindi	Nederlands	Uyghur
Tibetan	Hrvatski	Norsk bokmål	Українська
Bosanski	Magyar	Norsk nynorsk	Tiếng Việt
Català	Bahasa Indonesia	Punjabi (Gurmukhi)	中文(简体)
Čeština	Íslenska	Polski	中文(繁體)
Dansk	Italiano	Português do Brasil	
Deutsch	日本語	Português	
Dzongkha	ქართული	Română	
Ελληνικά	Қазақ	Русский	
English	Khmer	Sámegillii	
Esperanto	ಕನ್ನಡ	ಜ಼ೂಲೂ	
Español	한국어	Slovenčina	
Eesti	Kurdî	Slovenščina	
Euskara	Lao	Shqip	
فارسی	Lietuviškai	Српски	
Suomi	Latviski	Svenska	

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ubuntu

Install Ubuntu Server
Multiple server install with MAAS
Check disc for defects
Test memory
Boot from first hard disk
Rescue a broken system

```
┤ [!!] Select a language ├

Choose the language to be used for the installation process. The selected language will
also be the default language for the installed system.

Language:

                    C                      - No localization        ↑
                    Albanian               - Shqip
                    Arabic                 - عربي
                    Asturian               - Asturianu
                    Basque                 - Euskara
                    Belarusian             - Беларуская
                    Bosnian                - Bosanski
                    Bulgarian              - Български
                    Catalan                - Català
                    Chinese (Simplified)   - 中文(简体)
                    Chinese (Traditional)  - 中文(繁體)
                    Croatian               - Hrvatski
                    Czech                  - Čeština
                    Danish                 - Dansk
                    Dutch                  - Nederlands
                    English                - English
                    Esperanto              - Esperanto
                    Estonian               - Eesti
                    Finnish                - Suomi
                    French                 - Français
                    Galician               - Galego
                    German                 - Deutsch
                    Greek                  - Ελληνικά               ↓

        <Go Back>
```

```
┤ [!!] Select your location ├

The selected location will be used to set your time zone and also for example to help
select the system locale. Normally this should be the country where you live.

This is a shortlist of locations based on the language you selected. Choose "other" if
your location is not listed.

Country, territory or area:

                              Antigua and Barbuda
                              Australia
                              Botswana
                              Canada
                              Hong Kong
                              India
                              Ireland
                              New Zealand
                              Nigeria
                              Philippines
                              Singapore
                              South Africa
                              United Kingdom
                              United States
                              Zambia
                              Zimbabwe
                              other

        <Go Back>
```

```
┤ [!] Configure the keyboard ├

You can try to have your keyboard layout detected by pressing a series of keys. If you do
not want to do this, you will be able to select your keyboard layout from a list.

Detect keyboard layout?

        <Go Back>                                          <Yes>        <No>
```

```
┤ [!] Configure the keyboard ├

  The layout of keyboards varies per country, with some countries having multiple common
  layouts. Please select the country of origin for the keyboard of this computer.

  Country of origin for the keyboard:

                    Armenian                                    ↑
                    Azerbaijani
                    Bambara
                    Bangla
                    Belarusian
                    Belgian
                    Bosnian
                    Braille                                     ■
                    Bulgarian
                    Burmese
                    Chinese
                    Croatian
                    Czech
                    Danish
                    Dhivehi
                    Dutch
                    Dzongkha
                    English (Cameroon)
                    English (Ghana)
                    English (Nigeria)
                    English (South Africa)
                    English (UK)
                    English (US)                                ↓

        <Go Back>
```

```
┤ [!] Configure the keyboard ├

    Please select the layout matching the keyboard for this machine.

    Keyboard layout:

      English (US)
      English (US) - Cherokee
      English (US) - English (Colemak)
      English (US) - English (Dvorak alternative international no dead keys)
      English (US) - English (Dvorak)
      English (US) - English (Dvorak, international with dead keys)
      English (US) - English (Macintosh)
      English (US) - English (US, alternative international)
      English (US) - English (US, international with dead keys)
      English (US) - English (US, with euro on 5)
      English (US) - English (Workman)
      English (US) - English (Workman, international with dead keys)
      English (US) - English (classic Dvorak)
      English (US) - English (international AltGr dead keys)
      English (US) - English (left handed Dvorak)
      English (US) - English (programmer Dvorak)
      English (US) - English (right handed Dvorak)
      English (US) - English (the divide/multiply keys toggle the layout)
      English (US) - Russian (US, phonetic)
      English (US) - Serbo-Croatian (US)

          <Go Back>
```

```
┤ [!] Configure the network ├

Please enter the hostname for this system.

The hostname is a single word that identifies your system to the network. If you don't
know what your hostname should be, consult your network administrator. If you are setting
up your own home network, you can make something up here.

Hostname:

ubuntu

        <Go Back>                                                        <Continue>
```

```
┤ [!!] Set up users and passwords ├

A user account will be created for you to use instead of the root account for
non-administrative activities.

Please enter the real name of this user. This information will be used for instance as
default origin for emails sent by this user as well as any program which displays or uses
the user's real name. Your full name is a reasonable choice.

Full name for the new user:

testuser

        <Go Back>                                                        <Continue>
```

```
                        ┤ [!!] Set up users and passwords ├

  Select a username for the new account. Your first name is a reasonable choice. The
  username should start with a lower-case letter, which can be followed by any combination
  of numbers and more lower-case letters.

  Username for your account:

  testuser_____

        <Go Back>                                                         <Continue>
```

```
                        ┤ [!!] Set up users and passwords ├

  A good password will contain a mixture of letters, numbers and punctuation and should be
  changed at regular intervals.

  Choose a password for the new user:

  ********_____

      <Go Back>                                                           <Continue>
```

```
┤ [!!] Set up users and passwords ├

Please enter the same user password again to verify you have typed it correctly.

Re-enter password to verify:

********_____

    <Go Back>                                                      <Continue>
```

```
┤ [!] Set up users and passwords ├

You may configure your home directory for encryption, such that any files stored there
remain private even if your computer is stolen.

The system will seamlessly mount your encrypted home directory each time you login and
automatically unmount when you log out of all active sessions.

Encrypt your home directory?

    <Go Back>                                                 <Yes>      <No>
```

```
                        ┤ [!] Configure the clock ├

  Based on your present physical location, your time zone is Asia/Tokyo.

  If this is not correct, you may select from a full list of time zones instead.

  Is this time zone correct?

        <Go Back>                                    <Yes>      <No>
```

```
                        ┤ [!!] Partition disks ├

  The installer can guide you through partitioning a disk (using different standard
  schemes) or, if you prefer, you can do it manually. With guided partitioning you will
  still have a chance later to review and customise the results.

  If you choose guided partitioning for an entire disk, you will next be asked which disk
  should be used.

  Partitioning method:

                  Guided - use entire disk
                  Guided - use entire disk and set up LVM
                  Guided - use entire disk and set up encrypted LVM
                  Manual

        <Go Back>
```

```
                      ┤ [!!] Partition disks ├

  Note that all data on the disk you select will be erased, but not before you have
  confirmed that you really want to make the changes.

  Select disk to partition:

                    SCSI3 (0,0,0) (sda) - 8.6 GB ATA VBOX HARDDISK


       <Go Back>
```

```
                      ┤ [!!] Partition disks ├

  Before the Logical Volume Manager can be configured, the current partitioning scheme has
  to be written to disk. These changes cannot be undone.

  After the Logical Volume Manager is configured, no additional changes to the partitioning
  scheme of disks containing physical volumes are allowed during the installation. Please
  decide if you are satisfied with the current partitioning scheme before continuing.

  The partition tables of the following devices are changed:
     SCSI3 (0,0,0) (sda)

  Write the changes to disks and configure LVM?

     <Yes>                                                                        <No>
```

```
                          ┤ [!] Partition disks ├

You may use the whole volume group for guided partitioning, or part of it. If you use
only part of it, or if you add more disks later, then you will be able to grow logical
volumes later using the LVM tools, so using a smaller part of the volume group at
installation time may offer more flexibility.

The minimum size of the selected partitioning recipe is 3.0 GB (or 36%); please note that
the packages you choose to install may require more space than this. The maximum
available size is 8.3 GB.

Hint: "max" can be used as a shortcut to specify the maximum size, or enter a percentage
(e.g. "20%") to use that percentage of the maximum size.

Amount of volume group to use for guided partitioning:

8.3 GB_____

       <Go Back>                                                        <Continue>



<Tab> moves; <Space> selects; <Enter> activates buttons
```

```
                          ┤ [!!] Partition disks ├

  If you continue, the changes listed below will be written to the disks. Otherwise, you
  will be able to make further changes manually.

  The partition tables of the following devices are changed:
      LVM VG ubuntu-vg, LV root
      LVM VG ubuntu-vg, LV swap_1
      SCSI3 (0,0,0) (sda)

  The following partitions are going to be formatted:
      LVM VG ubuntu-vg, LV root as ext4
      LVM VG ubuntu-vg, LV swap_1 as swap
      partition #1 of SCSI3 (0,0,0) (sda) as ext2

  Write the changes to disks?

    <Yes>                                                                  <No>



<Tab> moves; <Space> selects; <Enter> activates buttons
```

┤ [!] Configure the package manager ├

If you need to use a HTTP proxy to access the outside world, enter the proxy information here. Otherwise, leave this blank.

The proxy information should be given in the standard form of "http://[[user][:pass]@]host[:port]/".

HTTP proxy information (blank for none):

_____

    <Go Back>   <Continue>

┤ [!] Configuring tasksel ├

Applying updates on a frequent basis is an important part of keeping your system secure.

By default, updates need to be applied manually using package management tools. Alternatively, you can choose to have this system automatically download and install security updates, or you can choose to manage this system over the web as part of a group of systems using Canonical's Landscape service.

How do you want to manage upgrades on this system?

            No automatic updates
            Install security updates automatically
            Manage system with Landscape

```
┤ [!] Software selection ├

At the moment, only the core of the system is installed. To tune the system to your
needs, you can choose to install one or more of the following predefined collections of
software.

Choose software to install:

                    [*] OpenSSH server
                    [ ] DNS server
                    [ ] LAMP server
                    [ ] Mail server
                    [ ] PostgreSQL database
                    [ ] Print server
                    [*] Samba file server
                    [ ] Tomcat Java server
                    [ ] Virtual Machine host
                    [ ] Manual package selection

                          <Continue>
```

```
┤ [!] Install the GRUB boot loader on a hard disk ├

It seems that this new installation is the only operating system on this computer. If so,
it should be safe to install the GRUB boot loader to the master boot record of your first
hard drive.

Warning: If the installer failed to detect another operating system that is present on
your computer, modifying the master boot record will make that operating system
temporarily unbootable, though GRUB can be manually configured later to boot it.

Install the GRUB boot loader to the master boot record?

        <Go Back>                                        <Yes>      <No>
```
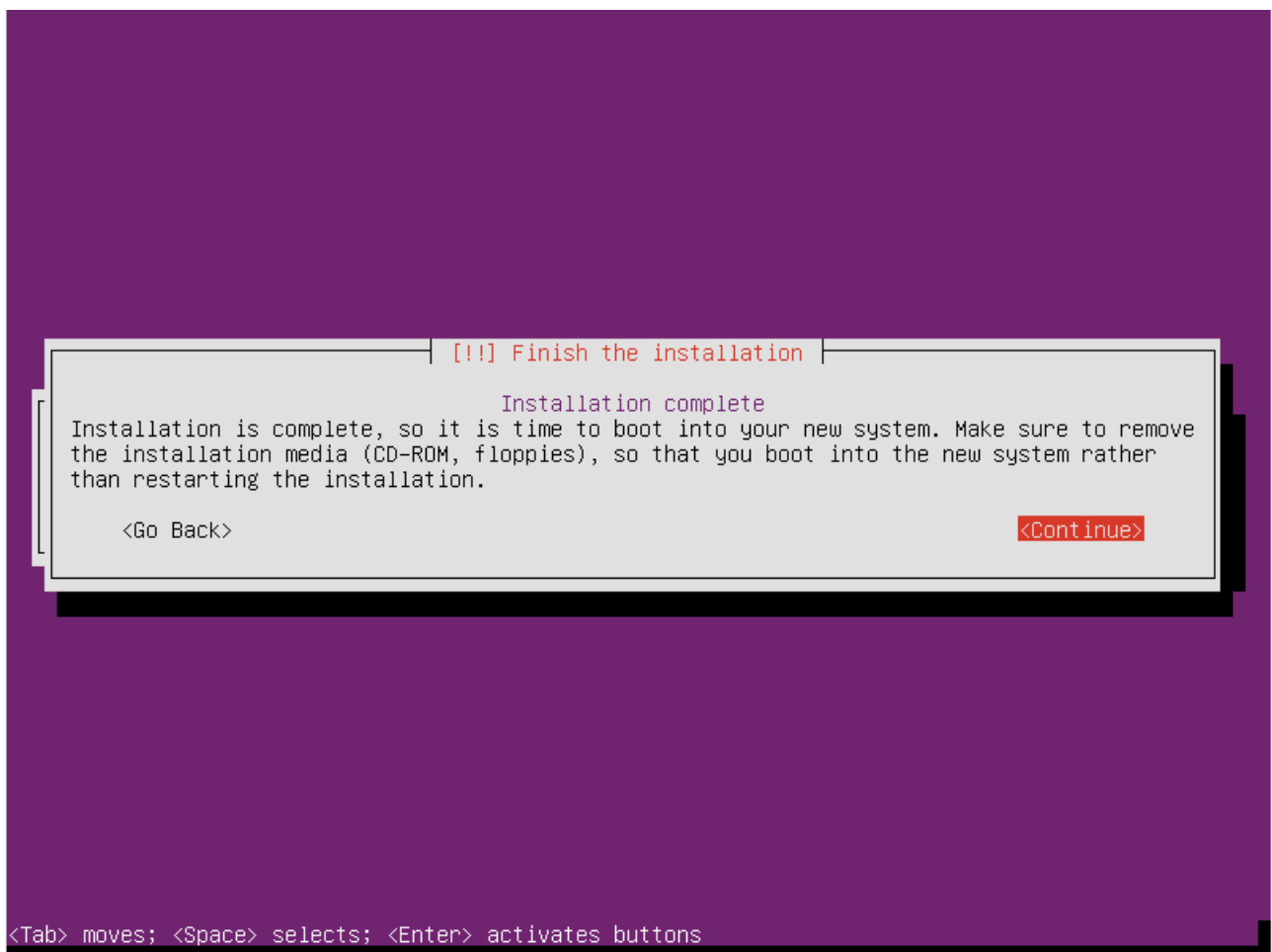
```
[!!] Finish the installation
Installation complete
Installation is complete, so it is time to boot into your new system. Make sure to remove
the installation media (CD-ROM, floppies), so that you boot into the new system rather
than restarting the installation.

    <Go Back>                                                    <Continue>
```

```
<Tab> moves; <Space> selects; <Enter> activates buttons
```

enable root login (All Nodes)

権限の有効化

```
1.   # setting password for root ( All Nodes )
2.   sudo passwd root
3.
4.   # login as root
5.   su - root
```

enable root ssh login (All Nodes)

```
1.   sudo vim /etc/ssh/sshd_config
```

```
1.   # PermitRootLogin without-password
2.   PermitRootLogin yes
```

```
# Package generated configuration file
# See the sshd_config(5) manpage for details

# What ports, IPs and protocols we listen for
Port 22
# Use these options to restrict which interfaces/protocols sshd will bind to
#ListenAddress ::
#ListenAddress 0.0.0.0
Protocol 2
# HostKeys for protocol version 2
HostKey /etc/ssh/ssh_host_rsa_key
HostKey /etc/ssh/ssh_host_dsa_key
HostKey /etc/ssh/ssh_host_ecdsa_key
HostKey /etc/ssh/ssh_host_ed25519_key
#Privilege Separation is turned on for security
UsePrivilegeSeparation yes

# Lifetime and size of ephemeral version 1 server key
KeyRegenerationInterval 3600
ServerKeyBits 1024

# Logging
SyslogFacility AUTH
LogLevel INFO

# Authentication:
LoginGraceTime 120
# PermitRootLogin without-password
PermitRootLogin yes
                                                              1,1          Top
```

ssh passwordless login (All Nodes)

パスワードなしでのsshログインが必要となります

```
1.  # ssh localhost
2.  # ll ~/.ssh
3.  # rm ./id_rsa*
4.  ssh-keygen -t rsa
```

```
root@hadoop-master:~# ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/root/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /root/.ssh/id_rsa.
Your public key has been saved in /root/.ssh/id_rsa.pub.
The key fingerprint is:
9d:d5:93:32:16:fd:4b:90:44:f1:0b:ed:ce:1b:00:06 root@hadoop-master
The key's randomart image is:
+--[ RSA 2048]----+
|         E   +=o |
|          .  =+. |
|           o=.=+ |
|          ..+.oooo|
|        S o  ..o. |
|              +.  |
|              +   |
|               o  |
|               .  |
+-----------------+
root@hadoop-master:~#
```

print rsa key to authorized (All Nodes)

```
1.   cd ~
2.   cat .ssh/id_rsa.pub >> .ssh/authorized_keys
```

test (All Nodes)

```
1.   # ssh localhost-name
2.   ssh localhost
```

sent to remote node (Master Node)

```
1.   scp ~/.ssh/authorized_keys root@remote-node:/root/.ssh/authorized_keys
2.   scp ~/.ssh/authorized_keys hadoop@remote-node:/home/hadoop/.ssh/authorized_k
     eys
```

JDK (All Nodes)

append ppa

```
1.   add-apt-repository ppa:webupd8team/java
2.   apt-get update
```

```
root@hadoop-master:~# sudo add-apt-repository ppa:webupd8team/java
 Oracle Java (JDK) Installer (automatically downloads and installs Oracle JDK7 / JDK8 / JDK9). There are no act
ual Java files in this PPA.

More info (and Ubuntu installation instructions):
- for Oracle Java 7: http://www.webupd8.org/2012/01/install-oracle-java-jdk-7-in-ubuntu-via.html
- for Oracle Java 8: http://www.webupd8.org/2012/09/install-oracle-java-8-in-ubuntu-via-ppa.html

Debian installation instructions:
- Oracle Java 7: http://www.webupd8.org/2012/06/how-to-install-oracle-java-7-in-debian.html
- Oracle Java 8: http://www.webupd8.org/2014/03/how-to-install-oracle-java-8-in-debian.html

Oracle Java 9 (for both Ubuntu and Debian): http://www.webupd8.org/2015/02/install-oracle-java-9-in-ubuntu-linu
x.html

For JDK9, the PPA uses standard builds from: https://jdk9.java.net/download/ (and not the Jigsaw builds!).

Important!!! For now, you should continue to use Java 8 because Oracle Java 9 is available as an early access r
elease! You should only use Oracle Java 9 if you explicitly need it, because it may contain bugs and it might n
ot include the latest security patches! Also, some Java options were removed in JDK9, so you may encounter issu
es with various Java apps. More information and installation instructions (Ubuntu / Linux Mint / Debian): http:
//www.webupd8.org/2015/02/install-oracle-java-9-in-ubuntu-linux.html
 More info: https://launchpad.net/~webupd8team/+archive/ubuntu/java
Press [ENTER] to continue or ctrl-c to cancel adding it
```

install jdk8 (All Nodes)

```
1.    apt-get install oracle-java8-installer
```

test (All Nodes)

```
1.  java -version
2.  javac -version
```

```
root@hadoop-master:~# java -version
java version "1.8.0_121"
Java(TM) SE Runtime Environment (build 1.8.0_121-b13)
Java HotSpot(TM) 64-Bit Server VM (build 25.121-b13, mixed mode)
root@hadoop-master:~# javac -version
javac 1.8.0_121
root@hadoop-master:~#
```