



root@s22-foggy: ~



joe@yavin: ~



joe@yavin: ~



root@s22-foggy: ~



```
root@s22-foggy:~# apt install software-properties-common
```



root@s22-foggy: ~



joe@yavin: ~



joe@yavin: ~



root@s22-foggy: ~



```
root@s22-foggy:~# wget https://github.com/FOGProject/fogproject/archive/1.5.9.tar.gz
```



root@s22-foggy: ~



joe@yavin: ~



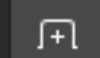
joe@yavin: ~



root@s22-foggy: ~



```
root@s22-foggy:~# ls
1.5.9.tar.gz  snap
root@s22-foggy:~#
```



root@s22-foggy: ~



joe@yavin: ~



joe@yavin: ~



root@s22-foggy: ~



```
root@s22-foggy:~# tar -xvzf 1.5.9.tar.gz
```



```
root@s22-foggy:~# cd fogproject-1.5.9/  
root@s22-foggy:~/fogproject-1.5.9# ./bin/installfog.sh
```

```

| ,#          ...##.....##:::##          ..::
| ##         .::###, ,##.    ##.::#.:######:..
|...##:~::~###:~::~#..  .#...#.#...#:~::~
|...:#####:~::~    ##.....##:~::~#    #
|  # .         ...##:, ;##;::~#:    ##..
| .# .         .:;#####;::~:##:~::~;#:.
|  #           ..:;###..

```

```

+-----+
|      Free Computer Imaging Solution      |
+-----+

```

```

| Credits: http://fogproject.org/Credits |
| http://fogproject.org/Credits |
| Released under GPL Version 3           |
+-----+

```

Version: 1.5.9 Installer/Updater

What version of Linux would you like to run the installation for?

- 1) Redhat Based Linux (Redhat, CentOS, Mageia)
- 2) Debian Based Linux (Debian, Ubuntu, Kubuntu, Edubuntu)
- 3) Arch Linux

Choice: [2] 2



- 1) Redhat Based Linux (Redhat, CentOS, Mageia)
- 2) Debian Based Linux (Debian, Ubuntu, Kubuntu, Edubuntu)
- 3) Arch Linux

Choice: [2] 2

Starting Debian based Installation

FOG Server installation modes:

\* Normal Server: (Choice N)

This is the typical installation type and will install all FOG components for you on this machine. Pick this option if you are unsure what to pick.

\* Storage Node: (Choice S)

This install mode will only install the software required to make this server act as a node in a storage group

More information:

<http://www.fogproject.org/wiki/index.php?title=InstallationModes>

What type of installation would you like to do? [N/s (Normal/Storage)] N



## Starting Debian based Installation

### FOG Server installation modes:

#### \* Normal Server: (Choice N)

This is the typical installation type and will install all FOG components for you on this machine. Pick this option if you are unsure what to pick.

#### \* Storage Node: (Choice S)

This install mode will only install the software required to make this server act as a node in a storage group

### More information:

<http://www.fogproject.org/wiki/index.php?title=InstallationModes>

What type of installation would you like to do? [N/s (Normal/Storage)] N

We found the following interfaces on your system:

\* ens4 - 144.38.199.35/28

Would you like to change the default network interface from ens4?

If you are not sure, select No. [y/N]

Would you like to setup a router address for the DHCP server? [Y/n] Y





**\* Normal Server: (Choice N)**

This is the typical installation type and will install all FOG components for you on this machine. Pick this option if you are unsure what to pick.

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If you are not sure, select No. [y/N]

Would you like to setup a router address for the DHCP server? [Y/n] Y

What is the IP address to be used for the router on the DHCP server? [144.38.199.33]

Would you like DHCP to handle DNS? [Y/n] Y

What DNS address should DHCP allow? [127.0.0.53] 144.38.192.2



**\* Storage Node: (Choice S)**

This install mode will only install the software required to make this server act as a node in a storage group

**More information:**

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What DNS address should DHCP allow? [127.0.0.53] 144.38.192.2

Would you like to use the FOG server for DHCP service? [y/N] N

This version of FOG has internationalization support, would you like to install the additional language packs? [y/N] N



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This version of FOG has internationalization support, would

you like to install the additional language packs? [y/N] N

Using encrypted connections is state of the art on the web and we encourage you to enable this for your FOG server. But using HTTPS has some implications within FOG, PXE and fog-client and you want to read <https://wiki.fogproject.org/HTTPS> before you decide!

Would you like to enable secure HTTPS on your FOG server? [y/N] N



Would you like to change the default network interface from ens4?  
If you are not sure, select No. [y/N]

Would you like to setup a router address for the DHCP server? [Y/n] Y  
What is the IP address to be used for the router on  
the DHCP server? [144.38.199.33]

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Using encrypted connections is state of the art on the web and we  
encourage you to enable this for your FOG server. But using HTTPS  
has some implications within FOG, PXE and fog-client and you want  
to read <https://wiki.fogproject.org/HTTPS> before you decide!  
Would you like to enable secure HTTPS on your FOG server? [y/N] N

Which hostname would you like to use? Currently is: s22-foggy  
Note: This hostname will be in the certificate we generate for your  
FOG webserver. The hostname will only be used for this but won't be  
set as a local hostname on your server!  
Would you like to change it? If you are not sure, select No. [y/N] N



# <https://wiki.fogproject.org/wiki/index.php> #

#####

- \* Here are the settings FOG will use:
- \* Base Linux: Debian
- \* Detected Linux Distribution: Ubuntu
- \* Interface: ens4
- \* Server IP Address: 144.38.199.35
- \* Server Subnet Mask: 255.255.255.240
- \* Server Hostname: s22-foggy
- \* Installation Type: Normal Server
- \* Internationalization: 0
- \* Image Storage Location: /images
- \* Using FOG DHCP: No
- \* DHCP will NOT be setup but you must setup your  
| current DHCP server to use FOG for PXE services.
  
- \* On a Linux DHCP server you must set: next-server and filename
  
- \* On a Windows DHCP server you must set options 066 and 067
  
- \* Option 066/next-server is the IP of the FOG Server: (e.g. 144.38.199.35)
- \* Option 067/filename is the bootfile: (e.g. undionly.kpxe)
  
- \* Are you sure you wish to continue (Y/N) Y



```
root@s22-dhcp:/etc/dhcp# echo "While that is installing, i will add those options to my dhcp server"
```

```
While that is installing, i will add those options to my dhcp server
```

```
root@s22-dhcp:/etc/dhcp#
```



ftpd-hpa unzip vsftpd wget xinetd zlib1g

```
* Installing package: apache2.....OK
* Skipping package: bc.....(Already Installed)
* Installing package: build-essential.....OK
* Skipping package: cpp.....(Already Installed)
* Skipping package: curl.....(Already Installed)
* Skipping package: g++.....(Already Installed)
* Skipping package: gawk.....(Already Installed)
* Skipping package: gcc.....(Already Installed)
* Installing package: genisoimage.....OK
* Skipping package: git.....(Already Installed)
* Skipping package: gzip.....(Already Installed)
* Installing package: htmldoc.....OK
* Installing package: isolinux.....OK
* Installing package: lftp.....OK
* Installing package: libapache2-mod-php7.4.....OK
* Skipping package: libc6.....(Already Installed)
* Skipping package: libcurl4.....(Already Installed)
* Installing package: liblzma-dev.....OK
* Installing package: m4.....OK
* Installing package: mariadb-client.....OK
* Installing package: mariadb-server.....OK
* Installing package: net-tools.....OK
* Installing package: nfs-kernel-server.....
```



```
* Stopping web service.....OK
* Setting up Apache and PHP files.....OK
* Testing and removing symbolic links if found.....OK
* Backing up old data.....OK
* Copying new files to web folder.....OK
* Creating config file.....OK
* Creating redirection index file.....OK
* Downloading kernel, init and fog-client binaries.....Done
* Copying binaries to destination paths.....OK
* Enabling apache and fpm services on boot.....OK
* Creating SSL CA.....OK
* Creating SSL Private Key.....OK
* Creating SSL Certificate.....OK
* Creating auth pub key and cert.....OK
* Resetting SSL Permissions.....OK
* Setting up Apache virtual host (no SSL).....OK
* Starting and checking status of web services.....OK
* Changing permissions on apache log files.....OK
* Backing up database.....Done
```

```
* You still need to install/update your database schema.
* This can be done by opening a web browser and going to:
```

```
http://144.38.199.35/fog/management
```

```
* Press [Enter] key when database is updated/installed.█
```





144.38.199.35/fog/management/?node=schema



gmail | dixie | Mail - Joe Francom - O... | news | cit-proxmox | myproxmox | security | uci

Other Bookmarks

## FOG Project

Install / Update Successful!

Click [here](#) to login



```
* Stopping web service.....OK
* Setting up Apache and PHP files.....OK
* Testing and removing symbolic links if found.....OK
* Backing up old data.....OK
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```

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```

```
http://144.38.199.35/fog/management
```

```
* Press [Enter] key when database is updated/installed.█
```



- \* Linking FOG Logs to Linux Logs.....OK
- \* Linking FOG Service config /etc.....OK
- \* Ensuring node username and passwords match.....Done

**\* Setup complete**

You can now login to the FOG Management Portal using the information listed below. The login information is only if this is the first install.

This can be done by opening a web browser and going to:

<http://144.38.199.35/fog/management>

**Default User Information**

Username: fog

Password: password

**\* Changed configurations:**

The FOG installer changed configuration files and created the following backup files from your original files:


\* /etc/vsftpd.conf <=> /etc/vsftpd.conf.1643217518

\* /etc/exports <=> /etc/exports.1643217518

# FOG Project

Install / Update Successful!  
Click [here](#) to login

FOG Project



## FOG Project

---

**Username**

**Password**

**Language**

English ▼

---

Estimated FOG Sites:	<b>4013</b>
Latest Version:	<b>1.5.9</b>
Latest Development Version:	<b>1.5.9.119</b>

### Dashboard

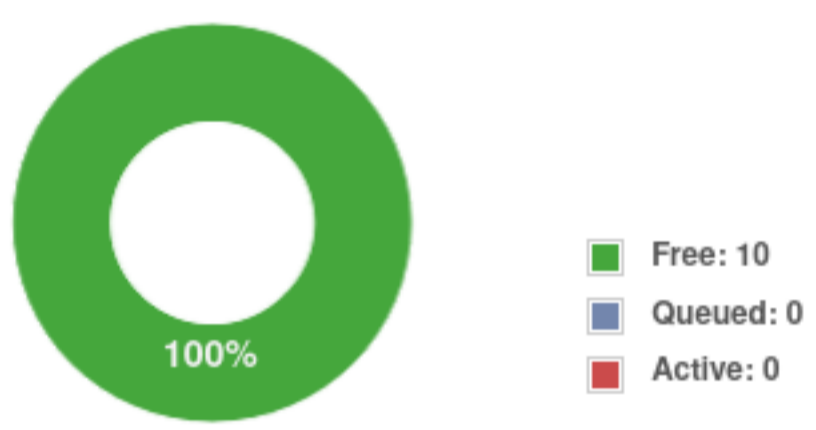
#### System Overview

Server information at a glance.

Username	fog
Web Server	144.38.199.35
Load Average	0.68, 0.90, 0.76
System Uptime	Up: 0 days 0 hrs 22 mins

#### Storage Group Activity

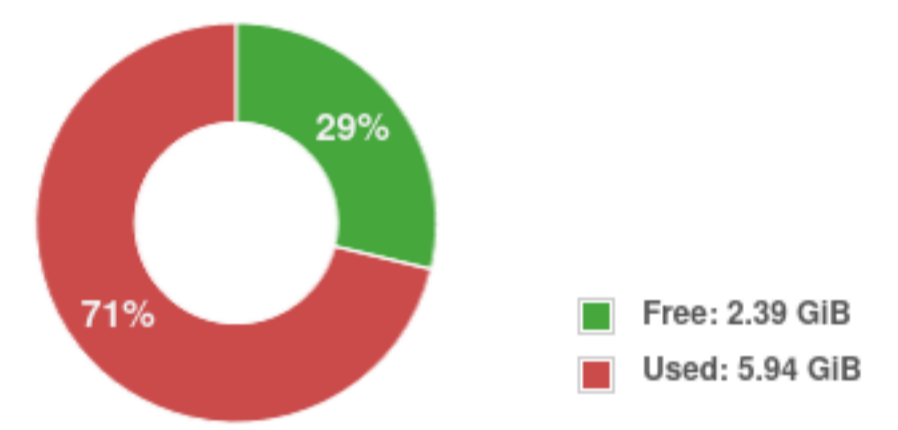
Selected groups's current activity



default v

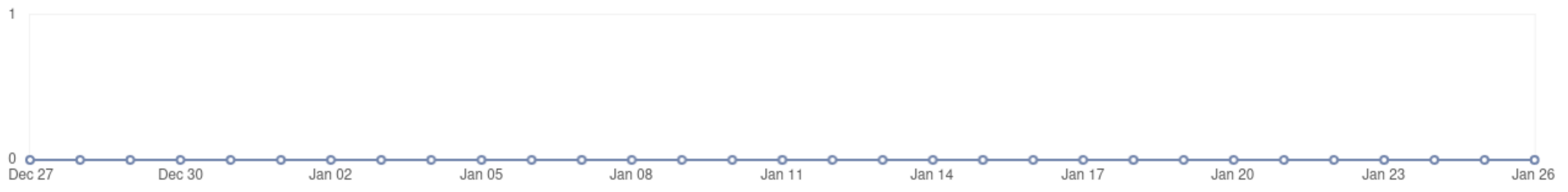
#### Storage Node Disk Usage

Selected node's disk usage



DefaultMember \* () v

#### Imaging Over the last 30 days



#### Bandwidth

Bandwidth - Transmit

Transmit Receive

Time - 2 Minutes

2 Minutes 10 Minutes 30 Minutes 1 Hour



```
root@s22-foggy:~/fogproject-1.5.9# echo "Don't forget to restart the dhcp service"
```

```
Don't forget to restart the dhcp service
```

```
root@s22-foggy:~/fogproject-1.5.9# echo "Test netboot"
```

```
Test netboot
```

```
root@s22-foggy:~/fogproject-1.5.9# █
```



```
root@s22-dhcp:/etc/dhcp# service isc-dhcp-server restart
root@s22-dhcp:/etc/dhcp# echo "make sure your filename directive has quotes around it"
make sure your filename directive has quotes around it
root@s22-dhcp:/etc/dhcp# cat dhcpd.conf | grep filename
#filename "ubuntu/pxelinux.0";
filename "undionly.kpxe";
# filename "vmunix.passacaglia";
root@s22-dhcp:/etc/dhcp#
```



**Host is NOT registered!**

---

Boot from hard disk

Run Memtest86+

Perform Full Host Registration and Inventory

Quick Registration and Inventory

Deploy Image

Join Multicast Session

Client System Information (Compatibility)

 **FOG Project**

Open Source Computer Cloning Solution

**Host is NOT registered!**

---

Boot from hard disk  
Run Memtest86+  
Perform Full Host Registration and Inventory  
**Quick Registration and Inventory**  
Deploy Image  
Join Multicast Session  
Client System Information (Compatibility)

 **FOG Project**

Open Source Computer Cloning Solution

## Host Management

- Main Menu
- [List All Hosts](#)
  - [Create New Host](#)
  - [Export Hosts](#)
  - [Import Hosts](#)

All Hosts

			Host	Imaged	Task	Assigned Image
?	<input type="checkbox"/>	!	<input type="text" value="Search..."/> 52540008007a 52:54:00:08:00:7a	<input type="text" value="Search..."/> No Data	<input type="text" value="Search..."/> 	<input type="text" value="Search..."/>

Group Associations

Create new group

or

Add to group No items found

Make changes? Update

Delete Selected

Delete selected hosts Delete



```
root@s22-foggy:~# echo "It registered that host for me!"  
It registered that host for me!  
root@s22-foggy:~#
```

### Host Management Edit: 52540008007a

- Info
  - General**
  - Basic Tasks
  - Active Directory
  - Printers
  - Snapins
  - Service Settings
  - Power Management
  - Inventory
  - Virus History
  - Login History
  - Image History
  - Snapin History
- Membership Delete

#### Main Menu

- List All Hosts
- Create New Host
- Export Hosts
- Import Hosts

#### Host general

<b>Host Name</b>	samplehost	
<b>Primary MAC</b>	<input type="button" value="Load MAC Vendors"/> <input type="text" value="52:54:00:08:00:7a"/> <input type="button" value="+"/>	<input type="checkbox"/> I.M.C. <input type="checkbox"/> I.M.I.
<b>Host description</b>	Created by FOG Reg on January 26, 2022, 5:37 pm	
<b>Host Product Key</b>	<input type="text"/>	
<b>Host Image</b>	No items found	
<b>Host Kernel</b>	<input type="text"/>	
<b>Host Kernel Arguments</b>	<input type="text"/>	
<b>Host Init</b>	<input type="text"/>	
<b>Host Primary Disk</b>	<input type="text"/>	
<b>Host Bios Exit Type</b>	- Please Select an option -	

### Host Management Edit: 52540008007a

- Info
- General
- Basic Tasks**
- Active Directory
- Printers
- Snapins
- Service Settings
- Power Management
- Inventory
- Virus History
- Login History
- Image History
- Snapin History

Membership Delete

#### Main Menu

- List All Hosts
- Create New Host
- Export Hosts
- Import Hosts

#### Host Tasks



Deploy

Deploy action will send an image saved on the FOG server to the client computer with all included snapins.



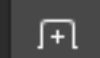
Capture

Capture will pull an image from a client computer that will be saved on the server.



Advanced

View advanced tasks for this host.



root@s22-foggy: ~



joe@yavin: ~



root@s22-dhcp: /etc/dhcp



root@s22-foggy: ~



```
root@s22-foggy:~# echo "Create an image before you capture one"  
Create an image before you capture one  
root@s22-foggy:~#
```

# Image Management

- Main Menu**
- List All Images
  - Create New Image
  - Export Images
  - Import Images
  - Multicast Image

Search images



### Image Management

#### Main Menu

- List All Images
- Create New Image
- Export Images
- Import Images
- Multicast Image

#### New Image

Image Name	<input type="text" value="basicubuntu"/>
Image Description	<input type="text"/>
Storage Group	<input type="text" value="default - (1)"/>
Operating System	<input type="text" value="Linux - (50)"/>
Image Path	<input type="text" value="/images/ basicubuntu"/>
Image Type <span>i</span>	<input type="text" value="Single Disk - Resizable - (1)"/>
Partition	<input type="text" value="Everything - (1)"/>
Image Enabled	<input checked="" type="checkbox"/>
Replicate?	<input checked="" type="checkbox"/>
Compression	<input type="range" value="6"/>
Image Manager	<input type="text" value="Partclone Zstd"/>

Create Image

### Image Management

#### Main Menu

- List All Images
- Create New Image
- Export Images
- Import Images
- Multicast Image

#### All Images

		<input type="checkbox"/>	Image Name	Storage Group	Image Size: ON CLIENT	Captured
			<input type="text" value="Search..."/>	<input type="text" value="Search..."/>	<input type="text" value="Search..."/>	<input type="text" value="Search..."/>
		<input type="checkbox"/>	basicubuntu - 1 Single Disk - Resizable ZSTD Compressed	default	0.00 iB	Invalid date

Delete Selected

Delete selected images

Delete

```
root@s22-foggy:~# df -h
```

Filesystem	Size	Used	Avail	Use%	Mounted on
udev	2.0G	0	2.0G	0%	/dev
tmpfs	403M	1.2M	402M	1%	/run
/dev/sda3	8.8G	6.0G	2.4G	72%	/
tmpfs	2.0G	0	2.0G	0%	/dev/shm
tmpfs	5.0M	0	5.0M	0%	/run/lock
tmpfs	2.0G	0	2.0G	0%	/sys/fs/cgroup
/dev/loop0	55M	55M	0	100%	/snap/core18/1880
/dev/loop1	30M	30M	0	100%	/snap/snapd/8542
/dev/loop2	72M	72M	0	100%	/snap/lxd/16099
/dev/loop3	44M	44M	0	100%	/snap/snapd/14549
/dev/loop4	56M	56M	0	100%	/snap/core18/2284
/dev/loop5	62M	62M	0	100%	/snap/core20/1270
/dev/loop6	68M	68M	0	100%	/snap/lxd/21835
tmpfs	403M	0	403M	0%	/run/user/0

```
root@s22-foggy:~# echo "Not sure if we have enough space, but we shall see"
```

```
Not sure if we have enough space, but we shall see
```

```
root@s22-foggy:~# █
```